JAIPUR ENGINEERING COLLEGE
AND RESEARCH CENTRE

ANNUAL REPORT

JECRC

2020-21

Jaipur Engineering College and Research Centre

Shri Ram Ki Nangal, Via Sitapura RIICO, Opp. EPIP Gate,
Tonk Road, Jaipur-302 022
Ph. No.0141-2770232, 2770120
Fax No.0141-2770803

NBA/NAAC

1. **Electronics and Communication Engineering NBA Accredited** year 2021 to 2022 (i.e. 30.06.2022)

2. **Mechanical Engineering - NBA Accredited** year 2021 to 2022 (i.e. 30.06.2022)

Point 50

PRINCIPAL
Jaipur Engineering College &
Research Centre
Tonk Road, Jaipur-302022

QIV

Session 2021-2022 (RTU)

राष्ट्रीय प्रत्यायन बोर्ड

चौथा तल, ईस्ट टावर, एन. बी. सी. सी. प्लेस, भीष्म पितामह मार्ग, प्रगति विहार, लोधी रोड, नई दिल्ली -110003

NATIONAL BOARD OF ACCREDITATION

4th Floor, East Tower, NBCC Place, Bhisham Pitamah Marg, Pragati Vihar, Lodhi Road, New Delhi 110003

Dated: 29-06-2021

F.No.32-7/2010-NBA

To
The Principal
Jaipur Engineering College and Research Centre
Shri Ram Ki Nangal Sitpura Riico Epip Gate,
Jaipur- 302022, Rajasthan

Subject: Grant of accreditation of one year in case of UG Engineering programs in Tier II offered by Jaipur Engineering College and Research Centre, Shri Ram Ki Nangal Sitpura Riico Epip Gate, Jaipur- 302022, Rajasthan on the basis of Compliance Report.

Sir,

This is regarding Compliance Reports submitted **Jaipur Engineering College and Research Centre, Shri Ram Ki Nangal Sitpura Riico Epip Gate, Jaipur- 302022, Rajasthan** for the UG Engineering programs which were accredited by NBA in Tier-II for academic years 2018-19 to 2020-21 and whose validity of accreditation is expiring on 30.06.2021.

2. The National Board of Accreditation (NBA) has decided that in all cases of UG Engineering programs which were accredited in Tier I/Tier II for a period of 3 years i.e. up to 30-06-2021 and for which the concerned Institutions have submitted Compliance Reports, but the visit of Expert Team for data verification of the programs are pending because of the current pandemic situation due to Corona virus, the programs will be considered for accreditation of one year i.e. up to 30-06-2022 after data verification of the programs internally on the basis of the submitted Compliance Reports. The data submitted by **Jaipur Engineering College and Research Centre, Shri Ram Ki Nangal Sitpura Riico Epip Gate, Jaipur- 302022, Rajasthan** in the Compliance Reports has been examined and verified in NBA. Based on the same, the Competent Authority in NBA has approved the following accreditation status to the programs as given in the Table below:

Sl. No.	Name of the Program(s) (UG)	Basis of Evaluation	Accreditation Status	Period of validity	Remarks
(1)	(2)	(3)	(4)	(5)	(6)
1.	Electronics & Communication Engineering	Tier-II	Accredited	Academic Year 2021-2022 i.e. up to 30-06-2022	Accreditation status granted is valid for the period indicated in Col.5 or till the program has the approval of the competent authority, whichever is earlier.
2.	Mechanical Engineering		Accredited		

3. It may be noted that only students who graduate during the validity period of accreditation, will be deemed to have graduated with an NBA accredited degree.

4. The accreditation status awarded to the programs as indicated in the above table does not imply that the accreditation has been granted to **Jaipur Engineering College and Research Centre, Shri Ram Ki Nangal Sitpura Riico Epip Gate, Jaipur- 302022, Rajasthan as a whole. As such the Institution should nowhere along with its name including on its letter head etc. write that it is accredited by NBA because it is program accreditation and not Institution accreditation. If such an instance comes to NBA's notice, this will be viewed seriously.** Complete name of the program(s) accredited, level of program(s) and the period of validity of accreditation, as well as the Academic Year from which the accreditation is effective should be mentioned unambiguously whenever and wherever it is required to indicate the status of accreditation by NBA.

Contd/-

(2)

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Qualified Principal

Point 20

QIV

Session 2021-2022 (RTU)

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OFFICE OF THE DEAN ACADEMIC AFFAIRS
RAJASTHAN TECHNICAL UNIVERSITY
AKELGARH, RAWATBHATA ROAD, KOTA-324010
Ph-0744-2473015, website : www.rtu.ac.in, email : dean.academic@rtu.ac.in

QUALITY INDEX VALUE FORMET APPLICABLE FROM ACADEMIC SESSION 2020-21

NAME OF COLLEGE		Jaipur Engineering College & Research Centre, Jaipur (35/B.Tech.)		
S.N.	Parameter(s)	Quality Index estimation	Max. QIV	
			Obtained	Max. QIV
1	NBA/NAAC *	25 x No. of Courses	50	100
2	Qualified Principal	YES/NO	40	40
3	Student Faculty Ratio	100 x (Actual Number Qualified Faculty/Required Faculty as per AICTE norms)	100	100
4	Professor	40 x (Actual Number Qualified /Required Professor as per AICTE norms)	40	40
5	Associate Professor	40 x (Actual Number Qualified Asso. Prof. /Required Associate Professor as per AICTE norms)	38	40
6	Number of Enrolled Students as per the Duration of Course / Program	50 x (Actual Number/Approved Intake for the duration of the Course/Program, as per AICTE)	50	50
7	Number of Computers	25 x (Actual Number/Required Number as per AICTE)	25	25
8	Internet Facilities in Mbps	25 x (Actual Internet Speed in/ Required speed as per AICTE)	25	25
9	Other Facilities	3 x Number of Facilities Available	30	30
10	Pay Scale Implementation	YES/NO	15	30
11	Endowment Fund Deposited	YES/NO	20	20
12	Percentage of Student Passed Out	Percentage	81	100
13	Percentage of Student Obtained First Division/Honors	Percentage/2	41	50
14	National/International Conferences/ Workshops/FDPs/STTPs Organized	Number(s) x 20	80	80
15	National/International Conferences/ Workshops/FDPs/STTPs Attended	Number(s) x 03	60	60
16	(vv) Paper published in SCI/SCIE/ Scopus Indexed Journal	Number(s) x 15	45	45
	(b) Paper published in UGC listed Journal /Any Journal having ISSN NO.	Number(s) x 5	35	35
	(c) Paper published in Conference/Proceedings	Number(s) x 3	30	30
17	Percentage of Students Placed	$\frac{\text{Nos .of Students placed}}{\text{Enrolled students}} \times 60$	37	60
18	Placement Above Annual Package of 3 laces	$\frac{\text{Students placed with package >3 Laces}}{\text{Nos .of students placed}} \times 30$	22	30
19	Infrastructure/Set up for Swayam Prabha Channel in the Institute	YES/NO	10	10
		Total	874	1000

*** Distribution of QIV Score**

NBA	No of Courses	1	2	3	4 or Above
	QIV Score	25	50	75	100

NAAC (EXISTING)	Grade	A++	A+	A	B++	B+	B	C	D
	QIV Score	100	90	80	70	60	50	40	0
NAAC (OLD)	Grade	A		B		C		D	
	QIV Score	100		80		40		0	

Sing. Principal

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Quality Index Value (QIV) for academic session 2020-21
Engineering Institutes in Category A

S.N	Name of Institutes	QIV
1	Swami Keshwanand Institute of Technology, Management & Gramothan, Jaipur	935
2	Poornima College of Engineering, Jaipur	890
3	Poornima Institute of Engineering & Technology, Jaipur	875
4	Jaipur Engineering College & Research Centre, Jaipur	874
5	Arya Institute of Engineering & Technology, Jaipur	808
6	Arya College of Engineering & Information Technology, Jaipur	769
7	Geetanjali Institute of Technical Studies, Udaipur	671
8	Arya Institute of Engineering Technology & Management, Jaipur	670
9	Aravali Institute Of Technical Studies, Udaipur	667
10	Anand International College of Engineering, Jaipur	663
11	Global Institute of Technology, Jaipur	648
12	Kautilya Institute of Technology & Engineering, Jaipur	643
13	Rajasthan College of Engineering for Women, Jaipur	641
14	Arya College of Engineering & Research Centre, Jaipur	638
15	M. L. V. Textile & Engineering College, Bhilwara	635
	S. S. College of Engineering, Udaipur	635
16	Techno India NJR Institute of Technology, Udaipur	630
17	Shankara Institute of Technology, Jaipur	614
18	Vivekanand Institute of Technology, Jaipur	612
19	Rajasthan Institute of Engineering & Technology, Jaipur	607

Sh. Diwakar Joshi
(Dy. Registrar)

Jaipur Engineering College & Research Centre JAIPUR

31/10/2020
Prof. D. K. Palwalia
(Dean Academic Affairs)

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Faculty Student Ratio

Sanctioned Strength	:	990 X 4
	=	3960
As per AICTE	:	1 : 20
Faculty Required	:	198
Actual Faculty	:	213
Calculation	:	$100 * \left(\frac{213}{198}\right)$
		$100 * 1.075$
		107.57
		Points 100

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QIV

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Professor

Professor required as per AICTE

Professor Required	:	$\frac{198}{9}$
	=	22
Available	:	15
Calculation	:	$30 * \left(\frac{15}{22}\right)$
	=	20.45
	=	21
		Points 21

QIV

PRINCIPAL
Jaipur Engineering College & Research Centre
Tonk Road, Jaipur-302022

Session 2021-2022 (RTU)

Jaipur Engineering College and Research Centre, Jaipur

List of Professor

S. No	Faculty Name	PAN	Gender	Designation	Department	Date of Joining	Highest Degree
1	Dr. Vinay Kumar Chandna	ADYPC0545P	Male	PROFESSOR	EE	8/7/2015	Ph.D
2	Dr. Sanjay Gour	ANYPG8860F	Male	PROFESSOR	CSE	4/9/2017	Ph.D
3	Dr. Santosh Kumar Singh	BOUPS5721K	Male	PROFESSOR	ECE	2/1/2017	Ph.D
4	Dr. Sandeep Vyas	AFXPV5199R	Male	PROFESSOR	ECE	19/7/2017	Ph.D
5	Dr. Shruti Kalra	ANQPK5955P	Female	PROFESSOR	ECE	19/8/2003	Ph.D
6	Dr. Smita Agrawal	ADOPA8110C	Female	PROFESSOR	IT	16/11/2019	Ph.D
7	Dr. Mahendra Pratap Singh	AOPPS5028F	Male	PROFESSOR	ME	19/8/2016	Ph.D
8	Dr. Fauzia Siddiqui	BHAPS1199C	Female	PROFESSOR	ME	1/8/2018	Ph.D
9	Dr. Ashok Singh Shekhawat	ASSPS8571J	Male	PROFESSOR	MATHEMATICS	10/8/2018	Ph.D
10	Dr. Umesh Kumar Pareek	AGHPP4837F	Male	PROFESSOR	MATHEMATICS	26/7/2003	Ph.D
11	Dr. Ram Kishan Mangal	ALZPM8190P	Male	PROFESSOR	PHYSICS	31/7/2013	Ph.D
	Dr. Sudhir Kumar Dixit	AFGPD6201H	Male	PROFESSOR	PHYSICS	10/11/2000	Ph.D
13	Dr. Seema Joshi	ALUPJ3984B	Female	PROFESSOR	CHEMISTRY	16/1/2008	Ph.D
14	Dr. Anita Jain	AIHPJ0122H	Female	PROFESSOR	E & H	1/4/2004	Ph.D
15	Dr. Rajesh Kumar Sharma	BDBPS1973B	Male	PROFESSOR	E & H	28/11/2006	Ph.D

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Associate Professor

Professor required as per AICTE

Professor Required : $\frac{198}{9}*2$

= 44

Available : 30

Calculation : $20 * \left(\frac{30}{44}\right)$

= 13.64

Points 14

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QIV

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Jaipur Engineering College and Research Centre, Jaipur

List of Associate Professor

S. No	Faculty Name	PAN	Gender	Designation	Department	Date of Joining	Highest Degree
1	Dr. Mithlesh Arya	ALHPA0428L	Female	Associate Professor	AI & DS	9/12/2020	Ph.D
2	Dr. Choudhary Nilam	ALTPN0639E	Female	Associate Professor	CSE	1/9/2017	Ph.D
3	Dr. Vijeta Kumawat	ARPPK9267P	Female	Associate Professor	CSE	2/4/2018	Ph.D
4	Dr. Manish Kalra	AOUPK3037K	Male	Associate Professor	CSE	31/3/2021	Ph.D
5	Dr. Jaiverdhan	BDYPJ1696M	Male	Associate Professor	ECE	8/1/2020	Ph.D
6	Dr. Girraj Sharma	CUGPS6564P	Male	Associate Professor	ECE	13/12/2019	Ph.D
7	Dr. Ajay Yadav	AIDPY2449L	Male	Associate Professor	ECE	25/3/2021	Ph.D
8	Dr. Shyam Sundar Manaktala	AGYPM8906B	Male	Associate Professor	ECE	25/11/2004	Ph.D
9	Dr. Parul Tyagi	AEUPT9930N	Female	Associate Professor	ECE	14/2/2009	Ph.D
10	Dr. Vinita Mathur	AKHPM3052H	Female	Associate Professor	ECE	2/2/2011	Ph.D
11	Dr. Ashish Kumar	COPPK1574Q	Male	Associate Professor	ECE	18/12/2019	Ph.D
12	Dr. Manish Shrivastava	ARUPS7035A	Male	Associate Professor	ME	24/7/2014	Ph.D
13	Dr. Bhuvnesh Bhardwaj	AONPB5285K	Male	Associate Professor	ME	9/7/2015	Ph.D
14	Dr. Manmohan Mohan Siddh	BNPPS2864D	Male	Associate Professor	ME	2/1/2017	Ph.D
15	Dr. Rishi Pareek	AYAPP6684K	Male	Associate Professor	ME	6/8/2018	Ph.D
16	Dr. Manoj Gupta	ARCPG5114G	Male	Associate Professor	ME	1/4/2021	Ph.D
17	Dr. Sunil Kumar Srivastava	BPSPS0006J	Male	Associate Professor	MATHEMATICS	5/1/2016	Ph.D
18	Dr. Tripati Gupta	AHPPG4947A	Female	Associate Professor	MATHEMATICS	2/1/2017	Ph.D
19	Dr. Vishal Saxena	BJQPS6740B	Male	Associate Professor	MATHEMATICS	9/9/2017	Ph.D
20	Dr. Kashish Parwani	AWKPP3733F	Female	Associate Professor	MATHEMATICS	10/8/2018	Ph.D
21	Dr. Ruchi Mathur	AOPPM9479L	Female	Associate Professor	MATHEMATICS	19/7/2004	Ph.D
22	Dr. Sarita Poonia	BFEPP2131M	Female	Associate Professor	MATHEMATICS	29/8/2010	Ph.D
23	Dr. Rajkumar	ANAPR4957L	Male	Associate Professor	PHYSICS	16/2/2019	Ph.D
24	Dr. Rekha Mithal	BCEPM3790G	Female	Associate Professor	CHEMISTRY	16/1/2008	Ph.D
25	Dr. Barkha Shrivastava	BWPPS1303G	Female	Associate Professor	CHEMISTRY	11/9/2006	Ph.D
26	Dr. Kamlesh Maharwal	AMVPM2110J	Female	Associate Professor	E & H	7/7/2003	Ph.D
27	Dr. Prerak Bhardwaj	BDEPB3900J	Male	Associate Professor	EE	13/8/2018	Ph.D
28	Dr. Seema Bansal	AKMPG1385J	Female	Associate Professor	PHYSICS	25/3/2021	Ph.D
29	Dr. Neelu Jain	ANHPJ1340C	Female	Associate Professor	E & H	19/2/2015	Ph.D
30	Dr. Avani Pareek	AUJPP4760F	Female	Associate Professor	CHEMISTRY	8/4/2021	Ph.D

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Endowment Fund

Endowment Fund Deposited - Yes

Points 20

QIV

Session 2021-2022 (RTU)

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HDFC BANK
We understand your world

DEPOSIT CONFIRMATION/RENEWAL ADVICE

Type of Deposit	**Resident**
Deposit Account Number	**50300100292553**
Name and Holding pattern	JAIPUR ENG COLLEGE AND RESEARCH CENTRE(Sole Owner)
Currency	INDIAN RUPEES
Mode of Operation	ANYONE

Current* Principal Amount	Deposit Start Date	Period of Deposit	Rate of Interest(%p.a.)	Deposit Maturity Date	Current* Maturity Amount
724003.00	06 jul 2020	60 months 0 days	5.50	06 Jul 2025	951319.00

Maturity Instructions : **Renew Principal + Interest**
Lien Amount : 500000.00
Nomination : Not Registered

Thank you for banking with us.
This is a system generated Advice, hence does not require any Signature.

IMPORTANT - "As per section 206AAintroduced by finance (No.2) Act, 2009 wef01.4.2010, every person who receives income on which TDS is deductible shall furnish his PAN, failing which TDS shall be deducted at the rate of 20% (as against 10%which is existing TDS rate)in case of domestic deposits and 30.09% in case of NRO deposits". Please further note that in the absence of PAN as per CBDT circular no: 03/11, TDS certificate will not be issued . Form 15G/H and other exemption certificates will be invalid even if submitted and Penal TDS will be applicable.

Terms & Conditions (T&C)

Bank computes interest based on the actual number of days' in a year. In case, the deposit is spread over a leap or a non-leap year, the interest is calculated based on the number of days .i.e. 366 days in a leap year & 365 days in a non-leap year.

Tax Deduction at Source (TDS)

- TDS rate is applicable from time to time as per the IT Act, 1961 and IT rules.The current rates applicable for TDS would be displayed on Bank's website.Today, TDS is recovered when interest payable or reinvested on FD & RD per customer, across all Branch, exceeds Rs 40,000/- (Rs. 50,000/- for senior citizen) in a Financial Year. Further, TDS is recovered at the end of the financial year on Interest accruals if applicable.
- If interest amount is insufficient to recover TDS, the same may get recovered from the principal amount of Fixed Deposit.If customer wishes to have TDS recovered from CASA, same can be availed by filling separate declaration at branch.
- For renewed deposits, the new deposit amount consists of the original deposit amount plus Interest Less TDS, if any, less compounding effect on TDS. For reinvestment deposit, the interest reinvested is post TDS recovery and "hence the maturity amount for reinvestment deposits would vary to the extent of tax and compounding effect on tax for the period subsequent of deduction till maturity.
- As Per Section 139A(5A) of IT Act, every person receiving any sum of income or amount from which tax has been deducted under the provisions of IT Act shall provide his PAN to the person responsible for deducting such tax. In case PAN is not provided as required, the bank shall not be liable for the non availment of the credit of Tax deducted at Source and non-issuance of TDS certificate.
- If your PAN is not updated with the Bank or is incorrect; please visit your nearest branch to submit your PAN details.
- No deductions of Tax shall be made from the taxable interest in the case of an individual resident in India, if such individual furnishes to the Bank, a declaration in writing in the prescribed Format (Form 15G / Form 15H as applicable) to the effect that the tax on his estimated total income for the year in which such interest income is to be included in computing his total income will be Nil. This is subject to PAN availability on Bank records.
- If aggregated value of all outstanding FDs/RDs booked in same customer id during the Financial Year exceeds INR 5Lakhs limit (*) then PAN/Form 60 is mandatory.

In absence of PAN/Form 60: (a) FD/RD will not be renewed on maturity and maturity proceeds will be credited to your linked account or a Demand Draft will be sent to your mailing address as updated in Bank's records. (b) Maturity instructions to convert RD proceeds to FD will not be acted upon and RD proceeds will be credited to your linked account on maturity.

The maximum interest not charged to tax during the financial year where form 15 G/H is submitted is as below:

- Upto 2, 50,000/- for residents of India below the age of 60 years or a person (not being a company or firm).
- Upto 5,00,000/- for senior citizen residents of India between the age of 60-79 years at any time during the FY
- Upto 5,00,000/- for senior citizen residents of India who are 80 years or more at any time during the FY.
- Form 15G/ H to be submitted by customer in triplicate to the bank, for submitting one copy to IT Department, one copy for Bank record and third copy to be returned to customer with Branch seal as an acknowledgment. A fresh Form 15G /H needs to be submitted at the start of every new Financial Year. In case form 15G/H is submitted post interest payout/credit, waiver shall be effective from the day next to the interest payout /credit immediately preceding the date of submission of form 15G/H.
- Form 15G/H needs to be submitted for every fixed Deposits booked with bank for Tax exemption.
- The bank shall not be liable for any consequences arising due to delay or non-submission of Form 15G/H
- To enable us to serve you better kindly submit the Form 15G/H latest by April 1st of the new financial year

Note: The above guidelines are subject to change as per Income Tax regulations /directives of Finance Ministry Govt of India prevalent from time to time.

Automatic Renewal We will be happy to renew your deposit, unless we hear from you to the contrary, for the same period as the original deposit, at the prevailing rate of interest. You can change the deposit instruction within 7 days.

Premature Encashment

- In the event of death of one of the joint account holders, the right to the deposit proceeds does not automatically devolve on the surviving joint deposit account holder, unless there is a survivorship clause.
- **In case of joint fixed deposits with a survivorship clause, the Bank shall be discharged by paying the Fixed Deposit proceeds prematurely to survivor/s, on request, in the event of one or more Joint Depositor.**
- In the case of premature encashment, all signatories to the deposit must sign the encashment instruction
- All premature encashment will be governed by rules of Reserve Bank of India Prevalent at the time of encashment
- In case of mandate submission any of the holders can sign where mode of operation is either or survivor / former or survivor.
- As per IT laws, if aggregate amount of the deposit/(s) held by a person with a branch either in his own name or jointly with any person on the date of repayment together with the interest at payable is equal to or exceeds 20,000/- then the amount will be paid by bank draft drawn in the name of the deposit holder or by crediting the savings / current account of the deposit holder.
- Partial Premature withdrawal and sweep-in facility is not allowed for fixed deposits with amount>=5 cr to <25 cr.
- On sweep in/partial withdrawal of FD>= 25cr, if the amount of deposit falls below 5cr, the entire FD will be withdrawn
- The interest rate applicable for premature closure of deposits (all amounts) will be lower of: The rate of Original /contracted tenure for which the deposit has been booked OR base rate applicable for the tenure for which deposit has been in force with the Bank.
- For deposits <5cr the base rate applicable will be of <2Cr as on date of booking. For 5Cr and &above deposits, the base rate is the rate applicable for 5Cr deposits.
- As per the bank's T&C, penalty on premature closure of deposit/(s) including sweep-in and partial closures has been fixed at the rate of 1%. However premature penalty will not be applicable for FDs booked for a tenor of 714 days and also for deposits >= 25 cr (single fixed deposit booked post sept 2017). There will be "No" penalty on premature withdrawal of all new FD's booked under the new rate slabs i.e. >=5.25 Cr to <5.50 Cr and >=24.75 Cr to <25 Cr w.e.f August 29, 2018.
- In case of death of primary holder of the deposit prior to maturity date, premature termination of the deposit would be allowed as per the terms of contract subject to necessary verifications and submission of proof of death of the depositor. Such premature withdrawals will not attract any penal charge.

Insurance Cover for Deposits All Bank deposits are covered under the insurance scheme offered by Deposit Insurance and Credit Guarantee Corporation of India (DICGC) subject to a maximum limit of Rs. 1lac per customer (conditions apply).

Non Withdrawable Fixed Deposits (Applicable for Resident and non resident)

- The Deposits cannot be closed by the depositor before expiry of the tenure. However, the Bank may allow premature withdrawal
- In the event of premature withdrawal of these deposits under above mentioned exceptional circumstances, the Bank will not pay any interest on the principal amount of the deposit. Any interest credited or paid upto the date of such premature closure will be recovered from the deposit.
- Sweep-in facility is not allowed.
- The minimum tenor for resident deposits is 91 days and 1 Year for NRE deposits.
- The deposit will be booked with maturity instruction as 'Do Not Renew'.
- The Non Withdrawable Deposit is offered for amount 5 crore and above only.
- Only first party FD OD is provided with 90% limit. Third party FD OD is not allowed.

Important Points

- Senior Citizens (60 years and above) who are Resident Indians are eligible for senior citizen rates for deposits upto 5cr.
- Benefit of additional interest rate on deposits on account of being bank's own staff or senior citizens shall not be applicable to NRE and NRO Deposits.
- Please quote the Deposit Account Number in all Communication
- Please record change of maturity instructions with us well in advance to enable us serve you better.

Any changes made online in respect to change in maturity instruction / tenure, details can be viewed online post the changes.

- Please Ignore this advice If you have redeemed or renewed this deposit on or after the maturity date as mentioned herein. In case of
- Renewals you will receive a new Fixed Deposit Confirmation / renewal advice.
- Rate applicable on monthly interest option will be discounted rate over the standard FD Rate.
- In case of more than one deposit linked for Sweep-In, the system will first Sweep-In funds from the last or recently opened deposit,i.e. on LIFO(Last-In-First-Out) basis.
- In case your fixed deposit is booked without nomination details, please visit the Branch to update the same.
- In case of NRO / Resident FD, no interest will be paid if the deposit is prematurely withdrawn before completion of 7 days.
- In case of NRE FD interest will not be paid if the deposit is prematurely withdrawn before completion of 1 year.
- Form 15G/H is not applicable to NRIs
- TDS is not applicable for Interest earned on NRE deposits
- No penalty shall be levied for premature withdrawal of NRE term deposits.
- Fixed Deposits booked with monthly or quarterly interest payout option, TDS recovery will by default happen from linked current / savings account. Please visit nearest branch / contact RM for further clarification.
- When you open a Fixed deposit with the Bank Interest on Term Deposit is calculated as below:
  - o On a Quarterly basis for deposits > 6 months. Simple interest is paid at maturity for deposits <= 6 months.
  - o Cumulative Interest/ re-investment interest is calculated every quarter, and is added to the principal such that Interest is paid on the Interest earned in the previous quarter as well.
  - o In case of monthly deposit scheme, the interest shall be calculated for the quarter and paid monthly at discounted rate over the Standard FD Rate.

If FD is not booked / renewed as per applicable T &, Bank reserves the right to rebook the same with correct details.

Maturity Instructions:

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Signature(s)

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Liquidation Instructions
Liquidation : On Maturity / Premature withdrawal
Credit Account No. : _____
Issue Pay order favouring : _____
Date of Liquidation : _____

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Journal/Technical Magazine Published with ISSN or ISBN Number

Published Journals by JECRC : 04

S. No.	Dept.	Journal with ISBN/ISSN No. by JECRC	Link of Journals by JECRC
1	CSE	Journal Title " Contemporary Issues in Computer Technology" with ISBN No. 978-81-940543-2-0, Published by Department of Computer Science and Engineering at JECRC	https://jecrcfoundation.com/jf-data/qiv/Journal-Title/Contemporary-Issues-in-Computer-Technology-with-ISBN-No-978-81-940543-2-0.pdf
2	ME	Journal Title " Futuristic Trends in Mechanical Engineering" with ISBN No. 978-81-940543-1-5, Published by Department of Mechanical Engineering at JECRC	https://jecrcfoundation.com/jf-data/qiv/Journal-Title/Futuristic-Trends-in-Mechanical-Engineering-with-ISBN-No-978-81-940543-1-5.pdf
3	IT	Journal Title " Information Technology and Security Application" with ISSN No. 0973-2861 Volume XV, SPECIAL ISSUE, June 2021 Published by Department of Information Technology at JECRC	https://jecrcfoundation.com/jf-data/qiv/Journal-Title/Information-Technology-and-Security-Application-with-ISSN-No-0973-2861-Volume-XV-SPECIAL-ISSUE-June-2021.pdf
4	ECE	Journal Title "Advances in Material Science, Communication and Microelectronics" with ISSN No. 1119 (2021) 012001 and doi:10.1088/1757-899X/1119/1/012001 Published by Department of Electronics and Communication Engineering at JECRC by IOP Publishing	https://jecrcfoundation.com/jf-data/qiv/Journal-Title/Advances-in-Material-Science-Communication-and-Microelectronics-with-ISSN-No-1119-(2021)-012001-doi10.10881757-899X11191012001.pdf

Points 20

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QIV

Session 2021-2022 (RTU)

JECRC Mail

Registrar, JECRC <registrar@jecrc.ac.in>

Fwd: Approval of Application-ISBN

1 message

NCITSA NCITSA <ncitsa@jecrc.ac.in>
To: "Registrar, JECRC" <registrar@jecrc.ac.in>

Wed, Jun 30, 2021 at 12:15 PM

---------- Forwarded message ---------
From: <noreply-isbn@nic.in>
Date: Wed, Feb 13, 2019 at 12:19 PM
Subject: Approval of Application-ISBN
To: <ncitsa@jecrc.ac.in>

Dear **Arpit Agrawal,**

Your application for ISBN has been approved by the department. Department has reserved 10 ISBN(s) for your application. Now you may login to the system and submit book details to obtain ISBN for each book detail submitted by you.

Regards
Raja Rammohun Roy National Agency for ISBN

--
Thanks & Regards
Team NCITSA

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Contemporary
Issues in
Computer Technology
2021

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

Dr. V.K. Chandna
Dr. Sanjay Gour
Sweety Singhal
Garima Garg

Contemporary Issues in Computer Technology

2021

Proceedings of 3rd National Conference
on
Contemporary Issues in Computer Technology
NCICT-2021

Chief Editor
Dr. V. K. Chandna

Editor
Dr. Sanjay Gour

Associate Editor
Ms. Sweety Singhal
Ms. Garima Garg

Departmentof ComputerScience and Engineering
Jaipur Engineering College and Research Centre

Jaipur – India

The authors of the papers are alone responsible for technical contents of the papers and reference therein.

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Tonk Road, Sitapra, Opp EPIP, Jaipur , 302022

THE MUSICSPACE

[1]Raunak Sarada, [1]Saurabh Kumar Rai & [2]Uma Maheshwari
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Abstract: **This project mainly deals with the fact that there is no platform available for hiring or booking music bands/artists for various and customers settling with online music which becomes boring and repetitive after some time. This includes activities like searching for a band based on music preference, making band /artist profile, updating profile, registering as a customer or as an artist, etc. This project concerns itself with two kinds of users, which are:**

1. **The music bands/ artists**
2. **Customer**
3. **GENERAL TERMS -- CMS , OPENSOURCE**

Keywords: Django- CMS, Python, Framework

I. INTRODUCTION

MusicSpace is a platform that provides bands and artists a place where they can come together to perform and showcase the talent they have and be exposed to commercial music. The users will first register themselves as a customer who wants to hire a band for any event, or as a band / artist providing their all details which can be used to hire them. All this will be stored in the database. The customer will have the option to rate and review the band's performance after the event as well as if he/she is willing to recommend it . The band will be able to update their profile anytime and promote themselves.
This primarily concerns bands as the number of music bands in India is very less and it will help in their growth as well as the music industry as it will create a competitive environment which will cause a rise in authentic and creative music.

This project mainly deals with the fact that there is no platform available for hiring or booking music bands/artists for various and customers settling with online music which becomes boring and repetitive after some time. This includes activities like searching for a band based on music preference ,making a band /artist profile, updating profile, registering as a customer or as an artist, etc.

To tackle this problem, Tuniverse provides a single platform where bands and artists can come together so that they can be hired by customers for their particular events, resulting in
Opportunities for them to showcase their talents, gather recognition and fame, and to earn money.

II. System Model

One of the most frequently used industry-standard web development frameworks MVC to create scalable and extensible project.MusicSpace is a web application based on Node JS (A JavaScript Framework) and follows the MVC (Model-**View-Controller)** architecture which is an architectural pattern that separates an application into three main logical components: the model, the view, and the controller. Each of these components are built to handle specific development aspects of an application. .

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VOLUME-3

JAIPUR ENGINEERING COLLEGE
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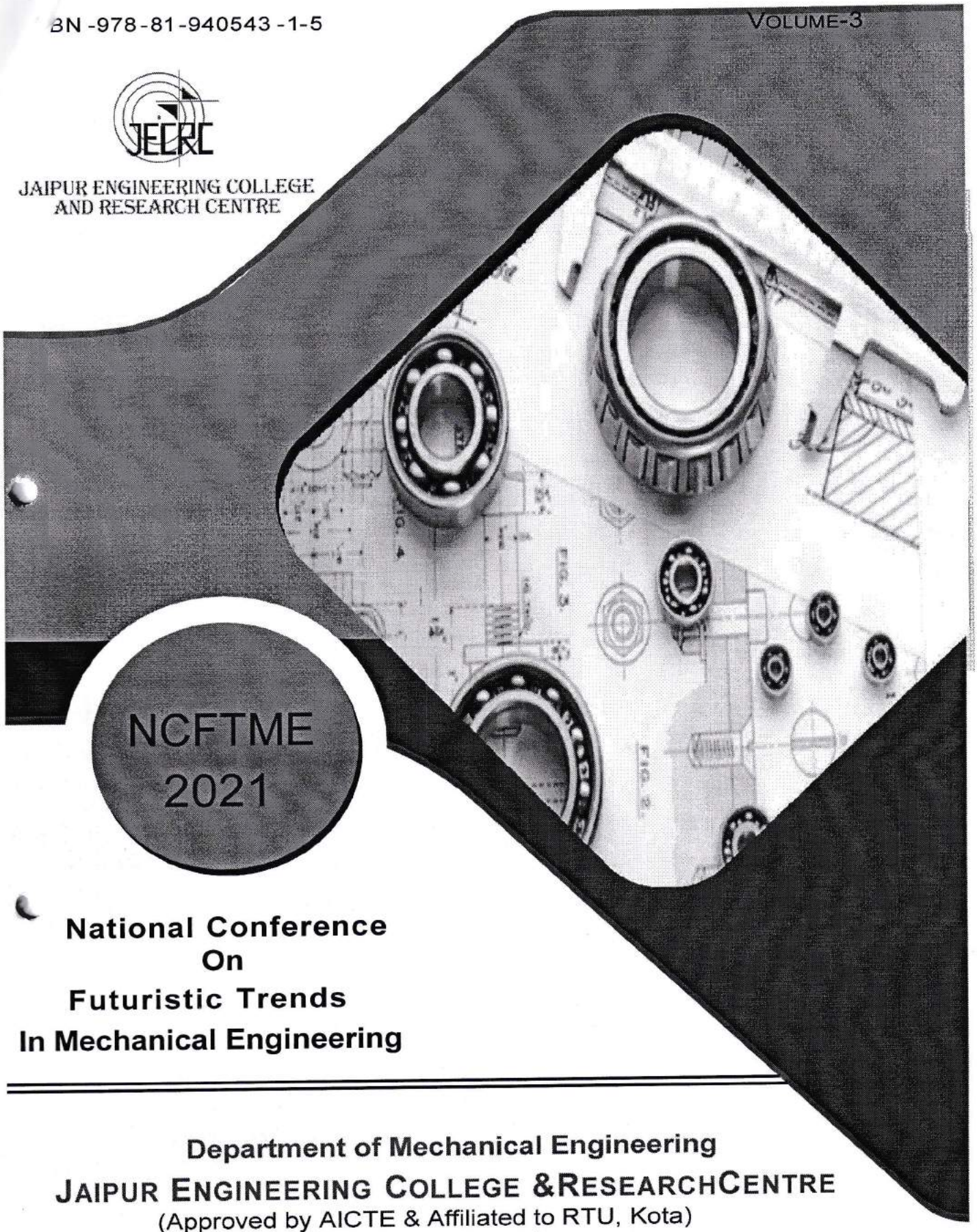

NCFTME 2021

National Conference On Futuristic Trends In Mechanical Engineering

Department of Mechanical Engineering

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Jaipur, Rajasthan- 302022

ISBN No. : 978-81-940543-1-5

NCFTME-1

A REVIEW ON SMALL SCALE WIND TURBINES

Prakhar Tiwari[1], Keshav Gautam[2], Prateek Agarwal[3], Rajpal Singh[4], Hemant Bansal[5]

UG student, Department of Mechanical Engineering, Jaipur Engineering College & Research Center, Jaipur[1,2,3,4]

Assistant Professor, Department of Mechanical Engineering, Jaipur Engineering College & Research Center, Jaipur[5]

ABSTRACT

Today the world is looking forward in the direction of green, reliable and cost efficient renewable energy that releases almost no toxic pollutants like the traditional coal and steam power plants do. Wind energy is one such resource. One of the turbines is small scale wind turbines (SWT) which have a scope in powering small electronic devices in remote places where electricity is scarce. Very few studies have been conducted on the effectiveness and efficiency of SWT comparable to the studies of large scale wind turbines.

SWT operates near ground level where wind speed is not high as compared to for large scale wind turbines and the flow of wind is turbulent flow. SWT have ability to operate in between 10 m/s to 15 m/s wind speeds. These advancements open up many new opportunities for embedding and utilizing wireless and portable devices. Experimental and theoretical aspects are discussed in the paper which contributes to the specifications, efficiency, effectiveness and application of SWT, also incorporating the future aspect and scope of SWT.

KEYWORDS- Small scale wind turbine (SWT), wind energy, HAWT, ROI, literature review

NCFTME-2

ELECTRICALLY HEATED JACKET: A LITERATURE REVIEW

Bhanu Pratap Singh Kuntal[1], Arun Kr Yadav[2], Chitresh Saini[3], Himanshu Sharma[4], Hemant Bansal[5]

UG student, Department of Mechanical Engineering, Jaipur Engineering College & Research Center, Jaipur[1,2,3,4]

Assistant Professor, Department of Mechanical Engineering, Jaipur Engineering College & Research Center, Jaipur[5]

ABSTRACT

In cold weather we need extra clothing to keep ourselves warm. The conventional form of clothing keeps us warm by trapping the heat generated by our body. This method of keeping ourselves warm is called passive heating. The clothes used for passive heating have many layers of clothing. The most important layer of this type of clothing is the insulation layer. It is this layer that traps the heat generated by our body and keeps us warm by not allowing the heat to escape out into the environment. For the jacket to perform this action it is necessary that the insulation material should have very less porosity so that not only the body heat remains inside the jacket but also the outside cold air should not infiltrate the jacket.

JAIPUR ENGINEERING COLLEGE & RESEARCH CENTRE, JAIPUR, INDIA
National Conference on Information Technology & Security Applications
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ISSN 0973-2861

CLOUD CRYPTOGRAPHY

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Abstract:
Cloud computing is an Internet-based processing model that gives a few assets through Cloud Service Providers (CSP) to Cloud Users (CU) on interest premise without purchasing the fundamental foundation and follows a pay-per-use premise. A client will pay the sum as indicated by the measure of the extra room utilized. Cloud computing offers support to the client through a web association. It underpins the virtualization of actual assets to improve productivity and the achievement of numerous errands simultaneously. Thefundamental explanation behind utilizing the cloud is that the client can store and access the put-away information in the cloud from anyplace whenever. The cloud client need not stress over the upkeep of programming, equipment, and storage. The principle explanation behind utilizing the cloud is that the client can store and access the put-away information in the cloud from anyplace whenever. The cloud client need not stress over the support of programming, equipment and extra room. The fundamental preferred position of distributed computing is every one of these administrations are given with ease to the client. Therefore, all clients move their information on the cloud.

The significant issue in distributed computing is security in light of the fact that the data put away in the cloud isn't straightforwardly kept up by the client. Security is by all accounts an interesting worry in the cloud. While sending the information through the web any unapproved client can alter the information or access it. Various kinds of administration models under distributed computing encourage different degrees of security administrations.

We will get the base security in IaaS (Infrastructure as a Service) and most with a SaaS supplier. In this paper, we will center after looking into and understanding cloud security issues by proposing crypto calculations and powerful measures in order to guarantee information security in the cloud. Alongside this, we will explain a touch more about some security parts of cryptography by exhibiting some protection issues of current distributed computing environmental factors.

AR & VR: Challenges and Future Scope

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Abstract:
Nowadays, with the development of highly competitive and low cost hardware, computers are already take their places as a part of our everyday life. High performance mechanism and electronics is now offer great and continuously improving resources ready to reinforce us in the implementation of ordinary tasks. A way to utilize these new resources is given by Augmented Reality (AR).Augmented Reality mixes virtual and actual reality, making available to the user new tools to ensure efficiency in the transfer of knowledge for featured processes and in several environments. It is providing many useful features that is attracting greater attention from the researchers, students and professionals. Several solutions based on Augmented Reality have been proposed by the research community: specially in maintenance functioning Augmented Reality tools have proposed new perspectives and have promised dramatic implementation .VR & AR proved their importance, when planning, education, marketing, tourist sport preservation coming to light. Application of Virtual Reality (VR) system has been proven to be reasonable and effective in proposing the importance and engagement for users to working with the virtual environment (VE). An attempt to specify the issues from presented studies by the researchers within the time of papers between in last 14 years. There is no big changes implemented in this reviewing process but the aim is to connect the user experience and application system through concern and learning from the challenges in the system itself. This paper also contains the future research directions and predicts the development trends and scope of AR and VR system.

International Conference on Advances in Material Science, Communication and Microelectronics (ICAMCM-2021) (February 19-20, 2021)

In Association with

IOP: Materials Science and Engineering (Scopus Indexed)

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OSA Student Chapter-JECRC
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PAPER • OPEN ACCESS

X-Ray Determination of Debye Temperature and Microhardness of Some HCP Elements Re, Os and Tl

To cite this article: Purushotham Endla 2021 *IOP Conf. Ser.: Mater. Sci. Eng.* **1119** 012001

X-Ray Determination of Debye Temperature and Microhardness of Some HCP Elements Re, Os and Tl

Purushotham Endla[1]

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E-mail: [1]psm45456@gmail.com

Abstract. The studies on the microhardness have been calculated the hexagonal close packed metals rhenium (Re), osmium (Os) and thallium (Tl). In this paper, the Vickers's pyramidal indenter and the true hardness values has been evaluated. Debye temperatures of hexagonal close packed (HCP) of these three metals have been calculated by using X- ray diffraction intensities pattern with Philips 3020 powder diffractometer fixed with a proportional counter using filtered CuKα radiation; all the values have been evaluated at room temperature In this present work the calculated Debye temperature values θ_H 338 K, 426 K and 74 for Re, Os and Tl respectively. The calculated Debye temperatures of these hcp metals have been estimated from the hardness H values 135, 400, 27 kg/mm^2 and are compared with those obtained from Debye temperature of specific heats (θ_D), Debye temperature of elastic constants (θ_E) and Debye temperature of X-ray intensity measurements (θ_M).

Keywords: **X-ray diffraction, hardness, Debye temperatures, hcp element**

1. Introduction

The hardness of the metal is an significant crystal property. The resistance obtainable by the lattice and its motion of dislocations. The crystal chemical armed forces in a crystal resist motion of dislocations as in it involves the dislocation of atoms/elements. This resistance is known as the intrinsic hardness of a crystal/solid. This crystal microhardness can be correlated by means the strength of interatomic-binding in the crystals.

The previous researchers Abrahams and Hsu [1], Purushotham and Gopikrishna [2, 3] and Denge [4] reported the thermal properties values of some metals and alloys. Mechanical Properties of pure metals and some alloys [5, 6] developed as potential engineering production [7] and thermal, mechanical properties and their applications [8].

2. Experimental

The samples Re, Os and Tl has been obtained from the commercial basis and available in the form of tiny ingots. A fine filing has been obtained in the form of the ingots through facilitate of a jeweller's file. The filing has been carried out slowly. The filings have passed through a 325-mesh screen. The X-ray Diffraction dimensions have been made with a diffractometer built-in with proportional counter. The X-ray tube was operated at 25 mA and 40 kV and. The XRD patterns of samples have been given in Figure1. The procedure for sample groundwork, have been given in earlier papers [9, 11].

(8)

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Approved Centre of Excellence

No. of Centre of Excellence : 04

S. No	Name of Centre of Excellence	Approved By
1	Robotics Process Automation (RPA)	Automation Anywhere, California Corporation with offices at 633 River Oaks parkway, San Jose, CA 95134, USA.
2	Robotics, AI and IoT	TechieNest Pvt. Limited, Jaipur
3	Livewire (A division of CADD Centre training Services)	CADD Centre, Raja Park, Jaipur
4	Science and Spirituality	Rajyoga Education & Research Foundation (Education Wing), Anand Bhawan, 3rd Floor, Shantivan, Abu Road - 307510. (Rai.)

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QIV

Session 2021-2022 (RTU)

JAIPUR ENGINEERING COLLEGE
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Ref. No. JECRC/2020/1816

30/06/21

To

Prof. D.K. Palwalia,
Dean, Academic Affairs,
Rajasthan Technical University, Kota.

Sub.: Approved Centre of Excellence at JECRC by Automation Anywhere

Dear Sir,

This is with reference to your letter No. RTU/F(17)Acad./2020/1414-15 dated 30/09/2020, regarding grant of approval of Centre of Excellence.

This is to inform you that Jaipur Engineering College and Research Centre, Jaipur has a distinguished Centre of Excellence established by **Automation Anywhere**. Automation Anywhere Inc., is a US based globally leading company in the space of Robotics Process Automation (RPA). The said Center of Excellence aims to train the faculty members and the students in the field of Robotics Process Automation.

Under the aegis of this Center of Excellence at JECRC, Automation Anywhere has provided their RPA Software Suite and has further initially trained more than 10 faculty members of the institute under the Train-the-Trainer Scheme. These faculty members have in turn trained more than 500 students of the Computer Science and Information Technology ecosystem. Students have not only acquired the Essential Level certification from Automation Anywhere but also the Advance Level certification too. These certifications are well accepted by the IT industry and have benefited the certified students during their placement too.

Further, the Centre of Excellence was established in the year 2020 by providing necessary hardware, space and licensed software, as laid down in the MOU.

The list of students who got certified under the program and sample certificate are attached herewith for your kind reference.

We wish to extend the facility to all the affiliated institute of Rajasthan Technical University, Kota by providing necessary skills and a certificate in association with Automation Anywhere at a very nominal cost. We are hopeful that you will consider the said Centre of Excellence established and approved by Automation Anywhere and will give due credit to JECRC in the QIV ranking.

Thank you

Prof. V.K. Chandna
Principal

Cc: Hon'ble Vice Chancellor, RTU, Kota

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AUTOMATION ANYWHERE
Go be great.

Automation Anywhere Academic Alliance Agreement (Non-US)

This Academic Alliance Agreement ("Agreement"), dated as of 20th December 2019 (the "Effective Date"), is entered into by and between Automation Anywhere, Inc., a California corporation with offices at 633 River Oaks Parkway, San Jose, CA 95134 U.S.A. (hereafter referred to as "AAI"), and Jaipur Engineering College & Research Centre a Rajasthan / India affiliated to Rajasthan Technical University located at Shri Ram Ki Nagal, via Sitapura RIICO Tonk Road, Jaipur – 302 022 (hereafter referred to as "University"). University and AAI are hereafter collectively referred to as the "parties".

WHEREAS, AAI is offering the "Automation Anywhere University Talent Development Program", in which enrolled students of certain universities ("Students") may attend a non-unit lab practicum course (the "Course"), taught by a faculty member directly trained and certified by AAI as an AAI trainer ("Faculty Trainer") in a classroom enabled with AAI software as an AAI Center of Excellence, after which those trained students may themselves seek accreditation as AAI trainers through testing with AAI (the "Program");

WHEREAS, University desires to participate in the Program.

THEREFORE, for good and valuable consideration as set forth below, the parties agree as follows:

1. Definitions.

"Center of Excellence" or "CoE" means the setup of the Software on University equipment by AAI and provision of Documentation to enable the Faculty Trainer to instruct the Students in the Course.

"Certification" means accreditation by AAI of any Student or Faculty Trainer in the Software as a result of passing an examination provided by AAI for this purpose.

"Documentation" means (a) the manuals, handbooks, and other written materials related to the Use of the Software, whether in hard copy or soft copy form, that are provided by AAI along with the Software, and (b) the training materials that the Faculty Trainer will use in instructing Students as part of the Course, as such Documentation may be updated by AAI from time to time.

"Software" means AAI's proprietary software in machine-readable, object code form only, related Documentation, and all modifications made thereto by AAI, and any updates or upgrades that AAI provides to University, in order for University to provide the Course under this Agreement.

"Use" means the installation, accessing, displaying, and operation of the AAI Software to automate business processes and tasks.

2. Obligations. The parties agree to each undertake and fully perform during the Term the following obligations for the success of the Program, and, except as explicitly stated in Section 2.2, such obligations will be undertaken at the respective party's sole cost and expense:

2.1 *AAI Obligations.*

AAI Responsibilities:
-Provide AAI train-the-trainer courses for University's faculty (at either University's premises or remotely); and thereafter test such faculty and issue AAI trainer certification to those faculty who have successfully completed such training;
-Provide e-learning access to those Students enrolled in the Course;

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-Provide the Software under the license terms in Section 3 of this Agreement;
-Work with the University to set up the CoE, including installing the Software and providing Documentation;
-Provide the University with the certification test materials needed to test Students on for Student's AAI certification;
-Issue the AAI certification to those students who have successfully completed the certification course.

2.2 *University Obligations.*

University's Responsibilities
-Have faculty members attend AAI train-the-trainer courses, and have those who have successfully completed such course be tested for AAI train-the-trainer certification;
-Train Students using only Faculty Trainers who at the time of the Student training are already AAI certified trainers;
-Provide Students with the opportunity to enrol in the Course, enrol Students in the Course, and conduct and oversee Student's participation in the Course;
-Advise in writing to all enrolled and prospective Students that neither the Student's completion of the Course nor the Student's Certification provides any assurance of any employment by any of the parties to this Agreement;
-Provide the physical space(s) needed for Students to take the Course and to engage in learning and training certification activities;
-As part of providing the physical space(s), obtain and maintain appropriate insurance coverages as mandated by applicable law;
-Provide and maintain the computers and all related equipment necessary for the successful implementation and running of the CoE;
-make the CoE available for Students to use for their Course-related learning activities, and have the use of the CoE be supervised by the Faculty Trainer;
-Support, encourage and drive Students to progress through the Course;
-Provide AAI with written feedback on Student progress, including any impediments to progress, and feedback on the Course itself ("Feedback");
-Take measures to ensure that neither the University, its personnel, its faculty, or other agents charge Students any fees to enrol in and complete the Course;
-For those Students who have completed the Course, offer and proctor a Certification test using AAI-provided Certification testing materials;
-Take measures to ensure that the results of each Student's Certification test are true and accurate, including but not limited to closely proctoring and monitoring student Certification testing so that cheating or other conditions affecting testing accuracy do not occur;
-Reimburse AAI for reasonable costs of travel, accommodations, and incidental expenses, as incurred by AAI representatives while setting up the CoE.

3. Intellectual Property.

3.1 *Limited University License.* Subject to the terms and conditions of this Agreement, AAI grants University a limited, non-exclusive, non-transferable, non-production license to Use the Software during the Term only for University's Use for the express purpose of providing the Course to Students in connection with Program. For clarity, University may not Use the Software for its own internal use.

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3.3 *Warranty Disclaimer.* AAI DISCLAIMS ALL WARRANTIES AS TO ANY MATTER WHATSOEVER, EITHER EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT, AND THE SOFTWARE IS PROVIDED "AS IS". TO THE EXTENT THE LAWS OF UNIVERSITY'S JURISDICTION DO NOT PERMIT SUCH DISCLAIMER WITH RESPECT TO THE SOFTWARE AS LICENSED HEREUNDER, AAI PROVIDES ONLY THE MINIMUM LAWFUL WARRANTY BEYOND THAT WARRANTY EXPRESSLY MADE ABOVE AND DISCLAIMS ALL WARRANTIES TO THE EXTENT PERMITTED BY APPLICABLE LAW.

3.4 *Publicity; Use of Trademarks.*

a. At AAI's discretion, the parties may issue a joint press release in form and substance reasonably acceptable to each party as promptly as practicable following the Effective Date. Further, AAI may include University's name on list of schools participating in the Program in AAI promotional materials including but not limited to AAI's website.

b. This Agreement does not grant either party the right to use the other party's trademarks except as set out under this Section 3.4(b). Subject to the parties' respective trademark policies as either posted on the parties' respective websites or available upon the other party's request (which policies may be amended from time to time in each respective trademark owner's sole discretion), and the terms and conditions of this Agreement, each party hereby grants to the other a non-exclusive, non-transferable, and non-sublicensable license to use its respective trademarks during the Term solely in connection with (a) the joint press release described in Section 8(a) above and (b) the promotion and advertising of the Courses and Program as more fully set forth in Sections 2.1 and 2.2 under this Agreement.

4. Confidentiality

4.1 *Confidential Information.* "Confidential Information" means with respect to AAI information, the Documentation, Software, any results of any testing or analysis of the Software or Documentation by any party and any Feedback regarding the Course, and with respect to any party's information, all information that: (a) is marked as confidential or proprietary; (b) is disclosed verbally and identified as confidential or proprietary at the time of disclosure; or (c) by its nature is normally and reasonably considered confidential.

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4.2 *Non-Disclosure and Restrictions on Use.* As a result of the relationship entered into by the parties under this Agreement, the parties acknowledge that they may from time to time require or gain access to Confidential Information of the other party. The receiving party: (a) shall hold all Confidential Information in confidence; (b) shall use the Confidential Information only for the purposes expressly permitted herein; (c) shall reproduce the Confidential Information only to the extent necessary for such purpose; (d) shall restrict disclosure of the Confidential Information to its employees, consultants, agents and representatives with a valid need to know in connection with this Agreement and who are bound to protect the confidentiality of such Confidential Information (and shall advise such employees, agents and representatives of the obligations assumed herein); and (e) shall not disclose or cause to be disclosed the Confidential Information to any third party without prior written approval of the disclosing party, except as allowed under (d) above.

4.3 *Confidentiality Exceptions.* The foregoing confidentiality restrictions shall not apply to Confidential Information that: (a) is or becomes a part of the public domain through no wrongful act or omission of the receiving party; (b) was in the receiving party's lawful possession prior to the disclosure and had not been obtained by the receiving party either directly or indirectly from the disclosing party; (c) is lawfully disclosed to the receiving party by a third party without restriction on disclosure; (d) is independently developed by the receiving party without reference to or reliance on the Confidential Information; or (e) that the disclosing party agrees in writing is free of such restrictions.

5. Indemnity.

5.1 *Indemnification Obligation.* Each party (the "Indemnifying Party") will defend the other party, and its employees, directors, agents, and representatives (collectively, the "Indemnified Party"), from any actual or threatened third party claim to the extent that it arises from: (a) the Indemnifying Party's breach of its confidentiality obligations in Section 4; (b) any alleged infringement by the Indemnifying Party of any third party intellectual property rights; (c) the negligent acts, omissions, negligence or willful misconduct of the Indemnifying Party in the performance of its obligations pursuant to this Agreement; (d) the failure of the Indemnifying Party to comply with, and any liabilities arising under, any applicable law (each, a "Claim").

5.2 *Indemnification Procedures.* The parties' respective indemnification obligations above are conditioned on: (a) the Indemnified Party giving the Indemnifying Party prompt written notice of any Claim; (b) the Indemnifying Party having full and complete control over the defense and settlement of the Claim; (c) the Indemnified Party providing assistance in connection with the defense and settlement of the Claim as the Indemnifying Party may reasonably request; and (d) the Indemnified Party complying with any settlement or court order made in connection with the Claim. The Indemnifying Party will indemnify the Indemnified Party against: (i) all damages, costs, and attorneys' fees finally awarded against any of them by a court of competent jurisdiction in any Claim under this Section 5; (ii) all out-of-pocket costs (including reasonable attorneys' fees) reasonably incurred by any of them in connection with the defense of the Claim (other than attorneys' fees and costs incurred without the Indemnifying Party's consent after it has accepted defense of such Claim); and (iii) if any Claim arising under this Section is settled by the Indemnifying Party or with its approval, then the Indemnifying Party will pay any amounts to any third party agreed to by the Indemnifying Party in settlement of any such Claims.

5.3 *Indemnification Limitations for Third Party Infringement Claims.* An Indemnifying Party will have no obligation under this Section 5 or otherwise solely to the extent the claim is based on: (i) any combination of the Indemnifying Party's technology, products, or services with technology,

products or services not provided by the Indemnifying Party; (ii) use of Indemnifying Party's technology, products or services for a purpose or in a manner for which the technology, products or services were not designed; (iii) any modification to Indemnifying Party's technology, products or services made without Indemnifying Party's express written approval, (v) any modifications made to the technology, products or services by Indemnifying Party pursuant to the Indemnified Party's specific instructions, or (vii) any intellectual property right owned or licensed by the Indemnified Party.

5.4 THIS SECTION 5 STATES AN INDEMNIFIED PARTY'S SOLE AND EXCLUSIVE REMEDY AND THE INDEMNIFYING PARTY'S ENTIRE LIABILITY FOR ALL THIRD-PARTY CLAIMS.

6. Limitation of Liability

6.1 NETHER PARTY SHALL BE LIABLE FOR: (A) ANY PUNITIVE, SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING ANY COST OF PROCUREMENT OF SUBSTITUTE SOFTWARE, LOSS OF USE, DATA, BUSINESS, OR PROFITS), REGARDLESS OF THE THEORY OF LIABILITY OR WHETHER THE LIABLE PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES; OR (B) AGGREGATE DAMAGES IN EXCESS OF US$ 5000.

6.2 *Limitation of Liability Exclusions.* The limitations of liability set forth in Section 6.1 above do not apply to, and each party accepts liability to the other for: (a) damages related to claims that are the subject of indemnification under this Agreement, (b) claims based on either party's intentional breach of its obligations set forth in Section 4 (Confidentiality), and (c) either party's unauthorized use, distribution, or disclosure of the other party's intellectual property.

7. Term and Termination.

7.1 *Agreement Term.* This Agreement is effective as of the Effective Date for a three (3) year period thereafter ("Term"). For clarity, the license granted to University in Section 3 will terminate immediately upon termination or expiration of the Term. Prior to the expiration of the Term, the parties may amend this Agreement to extend its term.

7.2 *Termination.* Notwithstanding the foregoing, this Agreement may be terminated (a) by AAI for any reason upon sixty (60) days' notice to University, and (b) any party immediately upon written notice if another party materially breaches any of its obligations under this Agreement and fails to cure such breach within thirty (30) days following receipt of written notice.

7.3 *Effect of Termination.* Upon the effective date of termination of this Agreement: (a) University's license to the Software ceases, and University shall immediately remove all copies of the Software from all systems owned or controlled by University. Each party will securely destroy all copies of Confidential Information of the other party in its possession except as required to comply with any applicable legal or accounting record keeping requirement.

8. General.

8.1 *Export.* University agrees not to export, or allow the export or re-export of any Software, or of information regarding any Software in violation of any export laws, restrictions and regulations of the Department of Commerce or other United States or foreign agency or authority.

8.2 *Business Practices.* University will: (a) conduct its business (including, without limitation, performance of its obligations under this Agreement) in a manner that reflects favorably on the goodwill and reputation of AAI; and (b) avoid deceptive, misleading or unethical practices detrimental to AAI, it Software and services offerings, or the public, including, without limitation, by refraining from making any representations or warranties to any third party with respect to the features or

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capabilities of any AAI courses or training certifications, AAI products or services, that are inconsistent with the literature and documentation distributed by AAI.

8.3 *Anti-Corruption.* The parties each represent and warrant that neither it, nor any of its subsidiaries, nor any of their respective directors, officers, employees or agents have taken any action, directly or indirectly, that would constitute a violation, or implicate AAI in a violation, of any law of any jurisdiction in which it performs business, or of the United States of America, including without limitation, the Foreign Corrupt Practices Act of 1977, as amended ("FCPA"), and where applicable, any anti-bribery/corruption legislation ("Anti-Bribery Act") enacted by countries in which it is incorporated as an entity, including, but not limited to, the country or countries in which it is to perform under this Agreement (collectively, "Anti-corruption Laws"). University, and, to its knowledge, its affiliates have conducted their businesses in compliance with such Anti-corruption Laws and have instituted and maintain policies and procedures designed to ensure, and which are reasonably expected to continue to ensure, continued compliance therewith.

8.4 *Third-Party Software.* The Software contains and is distributed with open source software that is covered by a different license, and AAI's obligations set forth in this Agreement do not extend to any such open source software. University agrees that all such open source software shall be and shall remain subject to the terms and conditions under which it is provided.

8.5 *Governing Law and Jurisdiction.* This Agreement and all matters relating to this Agreement shall be governed by, and construed in accordance with the following laws:

1. If University is located outside of the United States, then any dispute arising out or in connection with this Agreement, including any question regarding its existence, validity or termination, shall be referred to and finally resolved by arbitration under the LCIA Rules (the "Rules"), which Rules are deemed to be incorporated by reference into this clause. The number of arbitrators shall be three. The seat, or legal place, of arbitration shall be London. The language to be used in the arbitral proceedings shall be English.

2. If University is located within the United States, then the governing law of this Agreement shall be the substantive law of California. Jurisdiction shall be of the State of California (without giving effect to the choice of law principles thereof). Any action based on or arising out of this Agreement or the Services shall be brought and maintained exclusively in any state or federal court, in each case located in Santa Clara County.

The parties hereby expressly and irrevocably submits to the jurisdiction of the above-referenced courts for the purposes of any such action and expressly and irrevocably waives, to the fullest extent permitted by law, any objection which it may have or hereafter may have to the laying of venue of any such action brought in any such court and any claim that any such action has been brought in an inconvenient forum.

8.6 *Injunctive Relief.* The parties acknowledge that any breach of the confidentiality provisions or the unauthorized use of a party's intellectual property may result in serious and irreparable injury to the aggrieved party for which damages may not adequately compensate the aggrieved party. The parties agree, therefore, that, in addition to any other remedy that the aggrieved party may have, it shall be entitled to seek equitable injunctive relief without being required to post a bond or other surety or to prove either actual damages or that damages would be an inadequate remedy.

8.7 *Force Majeure.* A party is not liable under any Agreement for non-performance (other than failure to pay) caused by events or conditions beyond that party's reasonable control, if the party makes reasonable efforts to perform.

8.8 *Parties' Relationship.* The parties agree that this Agreement is non-exclusive, and no party will be prevented from entering into similar arrangements with other third parties. The parties are independent contractors of each other in the performance of the obligations of this Agreement. Notwithstanding the identification of "Partner" in this Agreement, neither party will be considered the legal partner of the other party in any respect, and nothing in this Agreement or in the performance hereof will create or imply any joint venture, franchisee-franchisor relationship, or principal-agent relationship between the parties. No party will have any right, power or authority to create any obligation, express or implied, on behalf of the other party.

8.9 *Binding Nature; Assignment.* This Agreement shall be binding on the respective parties thereto and their respective permitted successors and assigns; provided, however, that University shall not assign, delegate, or otherwise transfer this Agreement or any of its rights or obligations to a third party without the prior written consent of AAI; any other attempted assignment shall be void.

8.10 *Notices.* Ordinary day-to-day operational communications may be conducted by email or telephone communications. Any other notice required by this Agreement shall be made in writing and given by (a) personal delivery, (b) prepaid, first class, certified mail, return receipt requested, (c) email (with a duplicate notice sent promptly by one of the other methods in this Section), or (d) courier service of recognized standing (with confirmation of receipt); in any case to the receiving party, "Attention: Legal" at its address set forth in the heading to this Agreement, or to a different address of which the addressee party has notified the other in accordance with this Section. Any notice given in conformance with this Section shall be effective upon actual delivery or refusal of delivery.

8.11 *Headings.* Section headings are included for convenience or reference only and are not intended to define or limit the scope of any provision of this Agreement and should not be used to construe or interpret this Agreement.

8.12 Survival; *Interpretation; Severability.* All provisions which are intended by their nature to survive, shall survive such performance, or the expiration or termination of this Agreement, including without limitation those relating to limitation of liability, and infringement indemnity. Each provision of this Agreement shall apply to the fullest extent of the law, whether in contract, statute, tort (such as *negligence*) or otherwise, notwithstanding the failure of the essential purpose of any remedy. If any provision of this Agreement shall for any reason be held illegal or unenforceable, such provision shall be deemed severable from the remaining provisions of this Agreement and shall in no way affect or impair the validity or enforceability of the remaining provisions of this Agreement, unless such omission would frustrate the intent of the parties, in which case this Agreement may be reformed to give effect to the other provisions hereof.

8.13 *Entire Agreement; Modification and Wavier.* This Agreement constitutes the entire understanding between the parties with respect to the subject matter hereof, and no other terms or conditions set forth in any other document provided by University shall be part of any this Agreement unless specifically accepted by AAI in writing. No modification of this Agreement will be binding unless in writing and signed by an authorized representative of each party. Any express waiver or failure to exercise promptly any right under this Agreement will not create a continuing waiver or any expectation of non-enforcement. There are no third-party beneficiaries to this Agreement.

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IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be signed by duly authorized officers or representatives as of the Effective Date.

AUTOMATION ANYWHERE, INC.

By: DocuSigned by: Bob Baker A0D9749C956E4F4...

Name: Bob Baker

Title: VP, Corporate Operations

Date: 1/10/2020

UNIVERSITY: Jaipur Engineering College & Research Centre

By: DocuSigned by: Prof. (Dr.) Vinay Kumar Chandha A3852FA41D1B426...

Name: Prof. (Dr.) Vinay Kumar Chandha

Title: Principal

Date: 20th December 2019

Email: principal@jecrcmail.com

END OF DOCUMENT

JAIPUR ENGINEERING COLLEGE
AND RESEARCH CENTRE

Ref. No. JECRC/2020/1819

30/06/21

To

Prof. D.K. Palwalia,
Dean, Academic Affairs,
Rajasthan Technical University,
Kota.

Sub.: Approved Centre of Excellence at JECRC by TechieNest Pvt. Limited, Jaipur..

Dear Sir,

This is with reference to your letter No. RTU/F(17)Acad./2020/1414-15 dated 30/09/2020, regarding grant of approval of Centre of Excellence.

This is to inform you that Jaipur Engineering College and Research Centre, Jaipur has a distinguished Centre of Excellence established by **TechieNest Pvt. Limited, Jaipur** and providing training to the students in the area of Robotics, AI and IoT.

Under the aegis of this Center of Excellence at JECRC, have in turn trained more than 800 students of Electronics and Communication Engineering. Students have not only acquired the Essential Level certification from TechieNest Pvt. Ltd. and are well accepted by the industries of repute and have benefited the certified students during their placement also.

Further, the Centre of Excellence was established in the year 2018-19 by providing necessary hardware, space and licensed software, as laid down in the MOU.

The list of students who got certified under the program, sample certificate and training course module are attached herewith for your kind reference.

We wish to extend the facility to all the affiliated institute of Rajasthan Technical University, Kota by providing necessary skills and a certificate in association with TechieNest Pvt. Ltd. at a very nominal cost. We are hopeful that you will consider the said Centre of Excellence established approved by TECHINEST Pvt. Ltd. and will give due credit to JECRC in the QIV ranking.

Thank you

Prof. V.K. Chandna
Principal

Cc: Hon'ble Vice Chancellor, RTU, Kota

PRINCIPAL
JaipurEngineering College
Research Centre
Tonk Road, Jaipur-302022

JECRC Foundation
www.jecrcfoundation.com

Jaipur Engineering College and Research Centre
Approved by AICTE & Affiliated to RTU
JECRC Campus, Shri Ram Ki Nangal,
Via Sitapura RIICO, Opp. EPIP Gate, Tonk Road, Jaipur 302 022
t: 0141 2770120, 2770232 f: 0141 2770803 e: info@jecrcmail.com

Memorandum of Understanding

Is executed on 12th October, 2018

between

TechieNest Pvt. Ltd., hereinafter referred to as "TechieNest", A company duly incorporated under the provisions of Companies Act 1956, having its registered office at 7 Jawahar Nagar Colony, Gate No 1, near Glass Factory, Tonk Road, Jaipur - 302015 represented through its authorised signatory **Mr Chandra Bhan**, party of the first part.

And

Jaipur Engineering College & Research Centre, hereinafter referred as **"JECRC, Jaipur"** represented through its, **Principal Dr Vinay Kumar Chandana**, party of the second part

For

Collaboration of Training/workshops/Seminar/Projects is for the 3 years w.e.f. 12th October'2018.

TechieNest Pvt. Ltd., Jaipur DELIVERABLES:

1. TechieNest will sponsor INR 1 lakh per year in two instalment.
2. TechieNest will run all technical courses for Electrical & Electronics branch.
3. TechieNest will set up a centre of Excellence in Embedded Systems at JECRC campus.
4. TechieNest will set up training kit in excellence centre (Refundable after training).
5. Students will trained to participate in national level events.
6. The cost of training will be discussed before the start of training course/ making any announcement to the students.
7. 100 % Placement Assistance to each Participants/ Students who will complete minimum three trainings from us.
8. Lifetime Free of cost hands on practice member ship card to each participants.
9. A Chance to each participant to win TechieNest Scholarship for any future training on behalf of final training assessment test.
10. Golden opportunity to do summer internship as TechieNest Research Intern at one of our 7 offices across India.
11. TechieNest will provide **Certificate to each Student Coordinator.**
12. TechieNest will provide participation **Certificate** to each participants.
13. TechieNest will provide letter of appreciation to college and faculty coordinators.
14. TechieNest will help students to organize technical fest/event.

V. Chand
PRINCIPAL
Jaipur Engineering College & Research Center
Tonk Road, Jaipur - 303 905

For TechieNest Private Limited

Director

JECRC, Jaipur **DELIVERABLES:**

1. JECRC will arrange in house training for EC and electrical branch on regular basis.
2. Provide following technical requirements for setting Excellence Centre: -
   - A room.
   - 1 projector
   - White board and marker
   - Extension board (for power supply)
3. Assign at least 2 faculty coordinators from each branch who will support from starting to end of the training.
4. Arrange seminars to interact with students.
5. Try to get maximum registration for Training.
6. Provide Association Certificate/Momentous to TechieNest.
7. TechieNest logo and name will be placed in JECRC website and all social media pages.
8. TechieNest Poster, banner, standee in respective branches.
9. TechieNest name, logo, banner, canopy during annual fest/conference of college.

Terms & Condition

1. Second party will not collaborate/invite any other company/institute/Member for EC and electrical branch and during college fest.

Signature on Behalf **JECRC, JAIPUR**

Name: Dr Vinay Kumar Chandana
Title: Principal
JECRC, JAIPUR
Date:

PRINCIPAL
Jaipur Engineering College & Research Center,
Tonk Road, Jaipur - 303 905

Signature on Behalf of **TechieNest Pvt Ltd, Jaipur**

For Techinest Private Limited

Director

Name: Chandra Bhan
Title: Director
TechieNest Pvt Ltd, Jaipur
Date:

JAIPUR ENGINEERING COLLEGE
AND RESEARCH CENTRE

Ref. No. JECRC/2020/1818 30/06/21

To

Prof. D.K. Palwalia,
Dean, Academic Affairs,
Rajasthan Technical University,
Kota.

Sub.: Approved Centre of Excellence at JECRC by LIVEWIRE a division of CADD centre, Jaipur.

Dear Sir,

This is with reference to your letter No. RTU/F(17)Acad./2020/1414-15 dated 30/09/2020, regarding grant of approval of Centre of Excellence.

This is to inform you that Jaipur Engineering College and Research Centre, Jaipur has a distinguished Centre of Excellence established by **LIVEWIRE (a division of CADD centre Training services, Jaipur). LIVEWIRE** is a Jaipur based company and providing training to the students in the area of Auto-Cad and solid works.

Under the aegis of this Center of Excellence at JECRC, have in turn trained more than 80 students of Mechanical engineering. Students have not only acquired the Essential Level certification from CADD Centre and are well accepted by the industries of repute and have benefited the certified students during their placement too.

Further, the Centre of Excellence was established in the year 2019-20 by providing necessary hardware, space and licensed software, as laid down in the MOU.

The list of students who got certified under the program, sample certificate and training course module are attached herewith for your kind reference.

We wish to extend the facility to all the affiliated institute of Rajasthan Technical University, Kota by providing necessary skills and a certificate in association with LIVEWIRE at a very nominal cost. We are hopeful that you will consider the said Centre of Excellence established and approved by LIVEWIRE and will give due credit to JECRC in the QIV ranking.

Thank you,

Prof. V.K. Chandna
Principal

Cc: Hon'ble Vice Chancellor, RTU, Kota

PRINCIPAL
Jaipur Engineering College & Research Centre

JECRC Foundation
www.jecrcfoundation.com

Jaipur Engineering College and Research Centre
Approved by AICTE & Affiliated to RTU
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LIVEWIRE
FOR LIVE CAREERS

JECRC
JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

MEMORANDUM OF UNDERSTANDING

Between

LIVEWIRE (A division of CADD CENTRE TRAINING SERVICES)

(By its Raja Park, Jaipur Centre)

And

JECRC Foundation, JAIPUR

LIVEWIRE FOR LIVE CAREERS

31/8/19

PRINCIPAL
Jaipur Engineering College &
Research Centre
Tonk Road, Jaipur-302022

MEMORANDUM OF UNDERSTANDING

Livewire Training Services will sign a MOU with JECRC Foundation, Jaipur, Rajasthan to establish **"Centre of excellence".**

This Memorandum of Understanding hereinafter is referred to as " MoU" is made and executed on this 22nd Aug. 2019.

By and Between

LIVEWIRE India (A division of CADD CENTRE TRAINING SERVICES PVT. LTD. Chennai), having its local office at No. 106-107 Mahima Majesty, Ram Gali No. 6, Raja Park Jaipur. (hereinafter referred as **"LIVEWIRE"** for the sake of brevity) and represented by its Centre head, – **Mr. Rajeev Bhargava** which expression shall mean and include its successors in office and assigns.

And

Principal (Dr. Vinay Kumar Chandna), JECRC Foundation, Jaipur, Rajasthan, (herein after referred as "JECRC Foundation" represented by its Dr. Vinay Kumar Chandna (Principal), which expression shall mean and include its successors in office and assigns.

Objective of the program (Centre Of Excellence):

In today's world IT/Robotics & Automation, has become an indispensable skill required to make every professional employable and productive in the work place. The objective of the training program (under COE) is:

- To train the students of JECRC FOUNDATION Jaipur at their college campus.
- To train the students of JECRC FOUNDATION Jaipur on the concepts and soft tools of IT, AI, IOT, Robotics and automation, machine learning etc. all latest technologies use by industry.
- To facilitate them to excel in their workplace.
- Motivate to student's for innovation and startup by using new technologies.
- To facilitate and help them into making their projects.
- To bridge the skill gap between the individuals and the industry.
- Saves on travel time as centre of excellence is established in College.
- World class training at their Campus in very low price in comparison to their center site.
- Internationally recognized certificate.
- To build / improve confidence level of students to face the challenges in real time.

LIVEWIRE

31/8/19

PRINCIPAL

Course Fees and Training Program Detail:-

As per annexure 1

COURSEWARE

As per Livewire norms.

SUBJECTS:

THEORY

PRACTICALS / LAB

PROJECT BASED ASSESMENT:

Students are encouraged to work on their own projects during the training program. Project-based learning helps students to learn the subject and understand to meet the international standards. Project-based learning encourages students to use information, ideas, skill, to answer real-world questions and solve them. Projects will be assessed by the instructor.

The advantages of project-based learning:

- ➢ Provides real-world orientation.
- ➢ Encourages higher-order thinking skills.
- ➢ Allows the instructor to be a facilitator of learning.
- ➢ Provides for ongoing student self-assessment.

LiveWire through its Raja Park, Jaipur Shall Provide

- The proprietary and internationally acclaimed LiveWire course material to each Student.
- Provide qualified trainers for the course.
- Periodical assessments of students for their further improvement.
- Certificate of Completion will provided to every student who will successfully complete the training program.
- LiveWire will provide "Certificate of **Centre Of Excellence**" between LiveWire with JECRC FOUNDATION Jaipur.

31/8/19

PRINCIPAL
Jaipur Engineering College & Research Centre

- Permit JECRC FOUNDATION Jaipur to use LiveWire logo as the Skill Development Partner.
- LiveWire will help out to student's in their technical projects.
- LiveWire will help to college by conducting workshop / Seminar / Conferences related topics.
- **Livewire Will help College student's to get job placement through its placement drive for studnt's who joined their courses.**

JECRC FOUNDATION JAIPUR Shall Provide:

- The required number of computer systems with latest configuration, switch in the lab and other required infrastructure for the practical session.
- The Class rooms with LCD projector (if available) for the theory classes and for practical class if student's have their laptop.
- Computer lab for training as mutually decide.

PARTICIPANTS:

The participants would be the Students of JECRC FOUNDATION JAIPUR.

COURSE CONTENTS:

As per LiveWire norms and course books (DLM – Deep Learning Module).

Proposed Class Timing

As mutually decide.

COURSE FEES & PAYMENT PATTERN

The course fee per student for each course offered is decided and mutually agreed by both the parties as mention in annexure 1. The student shall pay the course fee directly to MULTI CAD SOLUTION (LIVEWIRE – Authorized Franchisee jaipur), Jaipur.

Validity

This contract shall be in force for three years and valid till Aug. 2022 and reviewed every year if need any changes may occurred.

31/8/19

JURISDICTION

All matters, queries, disputes, or differences, whatsoever, arising between the parties touching the construction, meaning, operation or effect of this Memorandum of Understanding or out of or relating to this Memorandum of Understanding or breach thereof shall settled through arbitration in accordance with the relevant Arbitration Act in force at such time. The Arbitration award shall be binding on both parties.

This Memorandum of Understanding shall come into effect from 22nd Aug. 2019.

For: **JECRC FOUNDATION, Jaipur**

31/8/19

Name: **Dr Vinay Kumar Chandna**
Designation: Principal
Date: 22nd Aug. 2019

PRINCIPAL
Jaipur Engineering College &
Research Centre
Tonk Road, Jaipur-302022

for: **MULTI CAD SOLUTION (LIVEWIRE).**

Name: **Mr. RAJEEV BHARGAVA**
Designation: **Centre Head**
Date: 22nd Aug. 2019

LIVEWIRE
FOR LIVE CAREERS

Annexure 1

Courses offered at JECRC campus under COE :-

S. No.	Course	Duration(hrs)	Fees under COE
1.	**Python**	40 hrs	**Decided mutually as per targeted batch (no. of student's) / technology.**
2.	**AI (Artificial Intelligence)**	56 hrs.	
3.	**Robotics & Automation**	80 hrs.	
4.	**Machine Learning by Python**	96 hrs.	
5.	**Matlab (Electronics / Electrical) kit extra**	64 hrs.	
6.	**IOT (Internet of Things)**	48 hrs.	
7.	**Cloud Computing**	40 hrs.	
8.	**Data Science / Block Chain**	48 hrs.	
9.	**Ethical Hacking**	68 hrs.	
10.	**Data Center Virtualization**	56 hrs.	
11.	**Diploma in Cloud Computing (Cloud Computing + Data Center Virtualization)**	96 hrs.	

Notes :-

1. **DLM (Deep Learning Module – Online Course material, ref. links, videos, special lectures, doubts clearing section) Course material excess to each student's.**
2. **Globally Authorized Certificate after completion of course will provided to each student.**
3. **DLM app access for a month.**
4. **For Robotics and Automation kit can be purchase separately.**

31/8/18

PRINCIPAL
Jaipur Engineering College &
Research Centre
Tonk Road, Jaipur-302022

JAIPUR ENGINEERING COLLEGE
AND RESEARCH CENTRE

Ref. No. JECRC/2020/1815

29/06/21

To

Prof. D.K. Palwalia,
Dean, Academic Affairs,
Rajasthan Technical University,
Kota.

Sub.: To acknowledge Centre of Excellence at JECRC in the area of Science & Spirituality (DST sponsored Research Project facility)

Dear Sir,

This is with reference to your letter No. RTU/F(17)Acad./2020/1414-15 dated 30/09/2020, regarding grant of approval of Centre of Excellence.

This is to inform you that Jaipur Engineering College and Research Centre, Jaipur has Centre of Excellence in the field of Science and Spirituality since 2016 and duly approved by:

"Rajyoga Education & Research Foundation (Education Wing), Anand Bhawan, 3rd Floor, Shantivan, Abu Road – 307510. (Raj.)"

This Centre of Excellence is providing research and education in the field of Life Science of Human being, which is an emerging area as per the AICTE, New Delhi and National Education Policy (NEP).

Further, this Centre of Excellence was established with the help of a grant of Rs.42,56,400/- (Forty Two Lacs Fifty Six Thousand Four Hundred only) from the Department of Science & Technology under the Ministry of Science & Technology, Government of India, through the grant scheme of Cognitive Science & Research Initiative (CSRI).

Many activities and product development has taken place through this Centre of Excellence. This cell also offers customized trainings to the students and faculty members for gaining knowledge about various aspect of life science of human being and technology development through Artificial Intelligence (AI) with a nominal fee of Rs. 500/- with a batch size of 30 members. Students also get an opportunity to prepare their hardware project in technical cum spiritual dimension.

I hope that you will find this Centre of Excellence as suitable to be approved by the Rajasthan Technical University Kota and due credit will be given in the QIV ranking.

Thank you,

Prof. V.K. Chandna
Principal

Cc: Hon'ble Vice Chancellor, RTU, Kota

PRINCIPAL
Jaipur Engineering College &
Research Centre
Tonk Road, Jaipur-302022

JECRC Foundation
www.jecrcfoundation.com

Jaipur Engineering College and Research Centre
Approved by AICTE & Affiliated to RTU
JECRC Campus, Shri Ram Ki Nangal,
Via Sitapura RIICO, Opp. EPIP Gate, Tonk Road, Jaipur 302 022
t: 0141 2770120, 2770232 f: 0141 2770803 e: info@jecrcmail.com

Rajyoga Education & Research Foundation (Education Wing)
Anand Bhawan, 3rd Floor, Shantivan, Abu Road - 307 510 (Raj.)
E-mail : bkmruthyunjay@gmail.com, Phone No. : 02974-228101-4
Website: www.brahmakumaris.com, www.bkvalueeducation.in

RERF/EW/2020/087 **15th July, 2020**

Certificate of Excellence

This is to certify that Spiritual Research Cell is a Rajyoga Thought Laboratory, established in the premises of Jaipur Engineering College & Research Centre, Jaipur, Rajasthan is working in collaboration with Education Wing of Rajyoga Education and Research Foundation, Mount Abu, Rajasthan since 6th October, 2016. Education wing of RERF approves the Spiritual Research Cell, JECRC as the Centre of Excellence in the field of Science and Spirituality.

(B.K. Mruthyunjaya)
Chairman, Education Wing
Mount Abu, Rajasthan

29/6/22

PRINCIPAL
Jaipur Engineering College & Research Centre
Tonk Road, Jaipur-302022

Jaipur Engineering College and Research Centre

Shri Ram Ki Nangal, Via Sitapura RIICO, Opp. EPIP Gate,
Tonk Road, Jaipur-302 022
Ph. No.0141-2770232, 2770120
Fax No.0141-2770803

Incubation Centre/Skill Development Cell/Startup Cell/ED Cell

S. No	Centres Available	Points claimed
1	Incubation Centre with Policy available	10
2	Skill Development Centre Available	5
3	Entrepreneurship Development Centre with start-up Policy Available	5
4	Start-up Cell = 2+3*2 =8 Documents of Two start-ups with equity sharing with JECRC is attached	8
5	Ongoing start-up are also attached	
Total Points		**28**

Whole document is uploaded on the link as below:

https://jecrcfoundation.com/jf-data/QIV/QIV-21-22-Point-No9.pdf

Points 20

QIV

Session 2021-2022 (RTU)

PRINCIPAL
Jaipur Engineering College & Research Centre
Tonk Road, Jaipur-302022

JAIPUR ENGINEERING COLLEGE
AND RESEARCH CENTRE

30/06/2021

To Whomsoever It May Concern

Following are the documents attached herewith for your kind reference –

S. No.	Particulars
1	List of incharges of Incubation centre, Entrepreneurship cell, startup cell
2	List of students having startup registered in the year 2020
3	Documents related to Rural Technology Business Incubator (RTBI)
4	JECRC Incubation Centre Policy
5	List of events by Rural Technology Business Incubator (RTBI)
6	JECRC Startup Centre policy
7	JECRC Entrepreneurship Development Centre (EDC) and related documents
8	JECRC Skill development cell
9	JECRC combined incubation and startup policy
10	Paper related to startup by two students in the year 2020 with respect to equity sharing
11	List of JECRC students having startups in past
12	List of Incubaties at present in Incubation Centre

Prof. Vinay Kumar Chandna
PRINCIPAL

PRINCIPAL
Jaipur Engineering College &
Research Centre
Tonk Road, Jaipur-302022

JAIPUR ENGINEERING COLLEGE
AND RESEARCH CENTRE

To Whomsoever It May Concern

List of Incharges:

S. No.	Name of Centre	Agency	Incharge	E-mail ID
1	Incubation Centre by	Rural Technology Business Incubator (RTBI) by the Department of Science & Technology (DST) Rajasthan allotted vide their letter No. 15(2) DST/EDP-SDP/2016-17/Part I/4869 dated 23.02.2018 wherein funding of Rs. 24,00,000/- (Twenty four Lacs) vide letter No. DST/EDP-SDP/2016-17/Part I/5945 dated 26.03.2018	Shri Mukesh Agarwal, CEO (RTBI)	ceo.rtbi@jecrc.ac.in
2	Entrepreneur Development Cell (EDC)	For skill development of students through MOUs with various industries	Shri Manish Jain, Dy. Director (Spl. Projects)	dydirector.sp@jecrc.ac.in
3	Startup Cell	By the JECRC as JECRC Incubation Centre (JIC) startup / incubation policy implemented in the year 2019 by Vice Chairpersons Shri Amit Agrawal and Shri Arpit Agrawal	Shri Mukesh Agarwal / Shri Tarun Saraswat, Incubation Manager	ceo.rtbi@jecrc.ac.in / tarun.saraswat@jecrc.ac.in

Prof. Vinay Kumar Chandna
Principal

PRINCIPAL
Jaipur Engineering College &
Research Centre
Tonk Road, Jaipur-302022

JAIPUR ENGINEERING COLLEGE
AND RESEARCH CENTRE

To Whomsoever It May Concern

List of Students having startup registered in the year 2020

S. No.	Name	Area	Date of MOU
1	Shri Keshav Jangid	Providing AI Education to School and College Students and also to Professionals.	27/08/2020
2	Shri Rajat Gulati	Providing awareness, guidance and support services to individuals/ professionals in both education (conventional) and co-curricular (non-conventional) categories.	27/08/2020

Prof. Vinay Kumar Chandna
Principal

PRINCIPAL
Jaipur Engineering College &
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Tonk Road, Jaipur-302022

Jaipur Engineering College and Research Centre
Shri Ram Ki Nangal, Via Sitapura RIICO, Opp. EPIP Gate,
Tonk Road, Jaipur-302 022
Ph. No.0141-2770232, 2770120
Fax No.0141-2770803

Student Enrolled

Student Enrolled : $70 * \left(\frac{3787}{3960}\right)$

: 66.94

Points 67

QIV

Session 2021-22 (RTU)

PRINCIPAL
Jaipur Engineering College &
Research Centre
Tonk Road, Jaipur-302022

Jaipur Engineering College and Research Centre

Shri Ram Ki Nangal, Via Sitapura RIICO, Opp. EPIP Gate,
Tonk Road, Jaipur-302 022
Ph. No.0141-2770232, 2770120
Fax No.0141-2770803

Student Performance

Student Enrolled	:	1027
Student Pass-out without backlog	:	836
No. of Students Passout with backlog but in stipulated time	:	191

Student Performance : $\frac{10*836+5*191}{1027}$

: $\frac{9315*10}{1027} * 10$

: 90.70

Points 91

QIV

Session 2021-22 (RTU)

PRINCIPAL
Jaipur Engineering College & Research Centre
Tonk Road, Jaipur-302022

(12)

Jaipur Engineering College and Research Centre

Shri Ram Ki Nangal, Via Sitapura RIICO, Opp. EPIP Gate,
Tonk Road, Jaipur-302 022
Ph. No.0141-2770232, 2770120
Fax No.0141-2770803

Percentage of Student

Student Enrolled	:	1027
Student Pass with I Division	:	834
Student Percentage	:	$\frac{834}{1027}$
	:	$0.81 * 30$
	:	24.36

Points 25

PRINCIPAL
Jaipur Engineering College &
Research Centre
Tonk Road, Jaipur-302022

QIV

Session 2021-22 (RTU)

Jaipur Engineering College and Research Centre
Shri Ram Ki Nangal, Via Sitapura RIICO, Opp. EPIP Gate,
Tonk Road, Jaipur-302 022
Ph. No.0141-2770232, 2770120
Fax No.0141-2770803

Percentage of Students Qualified GATE Exam

No. of Qualified Students	:	53
No. of Enrolled Students	:	63
Percentage of Qualified	:	$30 * \left(\frac{53}{63}\right)$
	:	25.23
	:	26

Points 26

PRINCIPAL
Jaipur Engineering College &
Research Centre
Tonk Road, Jaipur-302022

QIV

Session 2021-2022 (RTU)

Jaipur Engineering College and Research Centre, Jaipur

GATE Enrolled and Qualified Student

S. No	RTU Roll No.	Branch	Name of Student	GATE Registration Roll No.	GATE Qualified (Yes/No)	Max. Marks	Marks Obtained
1	17EJCCE001	CE	Aashish Kumar Verma	CE21S13016075	Yes	100	32.25
2	17EJCCE024	CE	Avinash Jain	CE21S13019397	Yes	100	49.02
3	17EJCCE028	CE	Bhawesh Bhatnagar	CE21S23014056	Yes	100	19.42
4	17EJCCE050	CE	Kartik Nair	CE21S23021838	Yes	100	31.23
5	17EJCCE030	CE	Chhayank Verma	CE21S13019127	No	100	----
6	17EJCCE057	CE	Mayank Tiwari	CE21S13014031	Yes	100	46.62
7	17EJCCE063	CE	Mohit Kansal	CE21S13003006	Yes	100	34.99
8	17EJCCE088	CE	Roushan Kumar	CE21S16056202	Yes	100	23.7
9	17EJCCE097	CE	Saurabh Gupta	CE21S23018059	Yes	100	31.57
10	17EJCCE034	CE	Deshna Jain	CE21S23021012	No	100	----
11	17EJCCE098	CE	Sawarmal Sharma	CE21S23018123	Yes	100	27.18
12	17EJCCE101	CE	Sharad Sharma	CE21S23003002	Yes	100	35.95
13	17EJCCE110	CE	Tanmay Jain	CE21S13018277	Yes	100	33.28
14	17EJCCE121	CE	Vivek Sehra	CE21S23021150	Yes	100	25.83
15	17EJCCS729	CSE	Kartik Katara	CS21S63018351	Yes	100	45.75
16	17EJCCS041	CSE	Bhavya Vijayvergiya	CS21S53021159	Yes	100	51.43
17	17EJCCS060	CSE	Harsh Maheshwari	CS21S53016171	Yes	100	27.38
18	17EJCCS139	CSE	Rajani Sharma	CS21S53021252	Yes	100	38.14
19	17EJCCS020	CSE	Alok Mehta	CS21S53018407	Yes	100	39.41
20	17EJCCS304	CSE	Sandeep Jain	CS21S63015107	No	100	16.04
21	17EJCCS108	CSE	Nihal Gupta	CS21S53017341	Yes	100	28.33
22	17EJCCS192	CSE	Yash Yadav	CS21S63016095	Yes	100	41.71
23	17EJCCS104	CSE	Mohit Jain	CS21S53021231	Yes	100	27.07
24	17EJCCS119	CSE	Poorvanshu Gupta	CS21S63021185	Yes	100	27.41
25	17EJCCS191	CSE	Yash Vardhan Sharma	CS21S53021179	Yes	100	49.84
26	17EJCCS144	CSE	Raunak Sarada	CS21S63015171	Yes	100	40.24
27	17EJCCS190	CSE	Yash Agrawal	CS21S53015067	Yes	100	26.43
28	17EJCCS711	CSE	Anuj Parashar	CS21S63017460	Yes	100	40.61
29	17EJCCS121	CSE	Pradhyumna Palore	CS21S53001048	Yes	100	29.28
30	17EJCCS099	CSE	Manish Kumar Garg	CS21S63018293	Yes	100	57.85
31	17EJCCS070	CSE	Jayesh Joshi	CS21S63018203	Yes	100	46.85
32	17EJCCS715	CSE	Chandan Kumar	CS21S53018465	Yes	100	28.65
33	17EJCEE113	EE	Tiksha Kumari	EE21S33017008	Yes	100	31

PRINCIPAL
Jaipur Engineering College & Research Centre
Tonk Road, Jaipur-302022

34	17EJCEE037	EE	Gaurav Sharma	EE21S33015110	Yes	100	51.33
35	17EJCEE084	EE	Priyul Dave	EE21S33024429	No	100	
36	17EJCEE007	EE	Abhishek Singh	EE21S33003149	Yes	100	57.33
37	17EJCEE038	EE	Guneet Gupta	EE21S33021066	No	100	
38	17EJCEC028	ECE	Ankit Kaushik	EC21S43018211	Yes	100	39.67
39	17EJCEC093	ECE	Jatin Sharma	EC21S43014218	Yes	100	31.33
40	17EJCEC107	ECE	Mahima Jain	EC21S43018270	Yes	100	22.67
41	17EJCEC197	ECE	Shubham Mittal	EC21S43018009	No	100	13.67
42	17EJCEC860	ECE	Tanuj Agarwal	EC21S43019004	Yes	100	37.67
43	17EJCEC883	ECE	Yash Gupta	EC21S43014220	No	100	12.33
44	17EJCEC884	ECE	Yash Gupta	EC21S43019003	Yes	100	37
45	17EJCEC884	ECE	Yash Gupta	IN21S13019052	Yes	100	52
46	17EJCIT003	IT	Aditya Vyas	CS21S63033459	No	100	24.84
47	17EJCIT023	IT	Deepank Srivastava	CS21S65002123	Yes	100	31.81
48	17EJCIT068	IT	Ritul Singal	CS21S63021098	Yes	100	49.41
49	17EJCME741	ME	Rohit Tanwar	ME21S83017075	Yes	100	60.92
50	17EJCME086	ME	Rajedra Prajapat	ME21S83014069	Yes	100	51.42
51	17EJCME041	ME	Harshul Agarwal	ME21S83017426	Yes	100	49.79
52	17EJCME108	ME	Shubhada Agarwal	ME21S83017063	Yes	100	49.46
53	17EJCME050	ME	Karan Pandey	ME21S83014053	Yes	100	45.53
54	17EJCME009	ME	Aditya Kumar	ME21S83015078	No	100	
55	17EJCME022	ME	Bhanu Prasad Dixit	XE21S63016178	Yes	100	44
56	17EJCME050	ME	Karan Pandey	XE21S63014152	Yes	100	39.33
57	17EJCME042	ME	Harshvardhan Lodhi	ME21S73017013	No	100	27.19
58	17EJCME085	ME	Rahul Soni	ME21S83016046	Yes	100	38.98
59	17EJCME032	ME	Deeya Sharma	ME21S83014075	Yes	100	37.67
60	17EJCME046	ME	Hitik Khandelwal	ME21S83017071	Yes	100	36.69
61	17EJCME022	ME	Bhanu Prasad Dixit	ME21S83016070	Yes	100	36.04
62	17EJCME085	ME	Rahul Soni	XE21S63016124	Yes	100	36
63	17EJCME124	ME	Yash Bakliwal	ME21S83001056	Yes	100	35.06

PRINCIPAL
Jaipur Engineering College &
Research Centre
Tonk Road, Jaipur-302022

Jaipur Engineering College & Research Centre

From : Information Technology Department	To : Principal Office

Noting Reference No. JECRC/IT/02/2020-21 24/05/21

OFFICE NOTE

Sub.: Details of GATE 2021 Examination of Information Technology Department

As per the communication regarding GATE 2021 information, please find below the details –

Total GATE qualified in the year 2021	2
Total GATE not qualified in the year 2021	1
Total Appeared in the GATE examination	3

List of GATE qualified in the year 2021 enclosed.

Submitted for information please,

Dr. Smita Agarwal
Program Coordinator (IT)

Encl.: List enclosed

Jaipur Engineering College and Research Centre, Jaipur

Department of Information Technology

GATE Enrolled and Qualified Student

S. No	RTU Roll No.	Branch	Name of Student	GATE Registration Roll No.	GATE Qualified (Yes/No)	Max. Marks	Marks Obtained
1	17EJCIT003	IT	Aditya Vyas	CS21S63033459	No	100	24.84
2	17EJCIT023	IT	Deepank Srivastava	CS21S65002123	Yes	100	31.81
3	17EJCIT068	IT	Ritul Singal	CS21S63021098	Yes	100	49.41

CE

Jaipur Engineering College & Research Centre

From : Civil Engineering	To : Principal Office

Noting Reference No. JECRC/02/2020-21/CE 23/05/21

OFFICE NOTE

Sub.: Details of GATE 2021 Examination of Civil Engineering Department

As per the communication with the office regarding GATE 2021 information, please find below the details –

Total GATE qualified in the year 2021	12
Total GATE not qualified in the year 2021	2
Total Appeared in the GATE examination	14

List of GATE qualified in the year 2021 enclosed.

Submitted for information please,

K.K. Saini
Program Coordinator (CE)

Encl.: List enclosed

Jaipur Engineering College and Research Centre, Jaipur

Department of Civil Engineering

GATE Enrolled and Qualified Student

S. No	RTU Roll No.	Branch	Name of Student	GATE Registration Roll No.	GATE Qualified (Yes/No)	Max. Marks	Marks Obtained
1	17EJCCE001	CE	Aashish Kumar Verma	CE21S13016075	Yes	100	32.25
2	17EJCCE024	CE	Avinash Jain	CE21S13019397	Yes	100	49.02
3	17EJCCE028	CE	Bhawesh Bhatnagar	CE21S23014056	Yes	100	19.42
4	17EJCCE050	CE	Kartik Nair	CE21S23021838	Yes	100	31.23
5	17EJCCE030	CE	Chhayank Verma	CE21S13019127	No	100	----
6	17EJCCE057	CE	Mayank Tiwari	CE21S13014031	Yes	100	46.62
7	17EJCCE063	CE	Mohit Kansal	CE21S13003006	Yes	100	34.99
8	17EJCCE088	CE	Roushan Kumar	CE21S16056202	Yes	100	23.7
9	17EJCCE097	CE	Saurabh Gupta	CE21S23018059	Yes	100	31.57
10	17EJCCE034	CE	Deshna Jain	CE21S23021012	No	100	----
11	17EJCCE098	CE	Sawarmal Sharma	CE21S23018123	Yes	100	27.18
12	17EJCCE101	CE	Sharad Sharma	CE21S23003002	Yes	100	35.95
13	17EJCCE110	CE	Tanmay Jain	CE21S13018277	Yes	100	33.28
14	17EJCCE121	CE	Vivek Sehra	CE21S23021150	Yes	100	25.83

CSE

Jaipur Engineering College & Research Centre

From : Computer Science & Engineering Deptt.	To : Principal Office

Noting Reference No. JECRC/CSE/02/2020-21 24/05/21

OFFICE NOTE

Sub.: Details of GATE 2021 Examination of Computer Science & Engineering Department

As per the communication regarding GATE 2021 information, please find below the details –

Total GATE qualified in the year 2021	17
Total GATE not qualified in the year 2021	1
Total Appeared in the GATE examination	18

List of GATE qualified in the year 2021 enclosed.

Submitted for information please,

Dr. Sanjay Gaur
Program Coordinator (CSE)

Encl.: List enclosed

Jaipur Engineering College and Research Centre, Jaipur

Department of Computer Science and Engineering

GATE Enrolled and Qualified Student

S. No	RTU Roll No.	Branch	Name of Student	GATE Registration Roll No.	GATE Qualified (Yes/No)	Max. Marks	Marks Obtained
1	17EJCCS729	CSE	Kartik Katara	CS21S63018351	Yes	100	45.75
2	17EJCCS041	CSE	Bhavya Vijayvergiya	CS21S53021159	Yes	100	51.43
3	17EJCCS060	CSE	Harsh Maheshwari	CS21S53016171	Yes	100	27.38
4	17EJCCS139	CSE	Rajani Sharma	CS21S53021252	Yes	100	38.14
5	17EJCCS020	CSE	Alok Mehta	CS21S53018407	Yes	100	39.41
6	17EJCCS304	CSE	Sandeep Jain	CS21S63015107	No	100	16.04
7	17EJCCS108	CSE	Nihal Gupta	CS21S53017341	Yes	100	28.33
8	17EJCCS192	CSE	Yash Yadav	CS21S63016095	Yes	100	41.71
9	17EJCCS104	CSE	Mohit Jain	CS21S53021231	Yes	100	27.07
10	17EJCCS119	CSE	Poorvanshu Gupta	CS21S63021185	Yes	100	27.41
11	17EJCCS191	CSE	Yash Vardhan Sharma	CS21S53021179	Yes	100	49.84
12	17EJCCS144	CSE	Raunak Sarada	CS21S63015171	Yes	100	40.24
13	17EJCCS190	CSE	Yash Agrawal	CS21S53015067	Yes	100	26.43
14	17EJCCS711	CSE	Anuj Parashar	CS21S63017460	Yes	100	40.61
15	17EJCCS121	CSE	Pradhyumna Palore	CS21S53001048	Yes	100	29.28
16	17EJCCS099	CSE	Manish Kumar Garg	CS21S63018293	Yes	100	57.85
17	17EJCCS070	CSE	Jayesh Joshi	CS21S63018203	Yes	100	46.85
18	17EJCCS715	CSE	Chandan Kumar	CS21S53018465	Yes	100	28.65

ECE

Jaipur Engineering College & Research Centre

From : Electronics & Communication Engineering Department	To : Principal Office

Noting Reference No. JECRC/ECE/02/2020-21 24/05/21

OFFICE NOTE

Sub.: Details of GATE 2021 Examination of ECE Department

As per the communication regarding GATE 2021 information, please find below the details –

Total GATE qualified in the year 2021	6
Total GATE not qualified in the year 2021	2
Total Appeared in the GATE examination	8

List of GATE qualified in the year 2021 enclosed.

Submitted for information please,

Dr. Sandeep Vyas
Program Coordinator (ECE)

Encl.: List enclosed

Jaipur Engineering College and Research Centre, Jaipur

Department of Electronics and Communication Engineering

GATE Enrolled and Qualified Student

S. No	RTU Roll No.	Branch	Name of Student	GATE Registration Roll No.	GATE Qualified (Yes/No)	Max. Marks	Marks Obtained
1	17EJCEC028	ECE	Ankit Kaushik	EC21S43018211	Yes	100	39.67
2	17EJCEC093	ECE	Jatin Sharma	EC21S43014218	Yes	100	31.33
3	17EJCEC107	ECE	Mahima Jain	EC21S43018270	Yes	100	22.67
4	17EJCEC197	ECE	Shubham Mittal	EC21S43018009	No	100	13.67
5	17EJCEC860	ECE	Tanuj Agarwal	EC21S43019004	Yes	100	37.67
6	17EJCEC883	ECE	Yash Gupta	EC21S43014220	No	100	12.33
7	17EJCEC884	ECE	Yash Gupta	EC21S43019003	Yes	100	37
8	17EJCEC884	ECE	Yash Gupta	IN21S13019052	Yes	100	52

EE

Jaipur Engineering College & Research Centre

From : Electrical Engineering Department	To : Principal Office

Noting Reference No. JECRC/EE/02/2020-21 26/05/21

OFFICE NOTE

Sub.: Details of GATE 2021 Examination of Electrical Engineering Department

As per the communication regarding GATE 2021 information of Electrical Engineering students, please find below the details –

Total GATE qualified in the year 2021	3
Total GATE not qualified in the year 2021	2
Total Appeared in the GATE examination	5

List of GATE qualified in the year 2021 enclosed.

Submitted for information please,

Dr. Prerak Bhardwaj
Program Coordinator (EE)

Encl.: List enclosed

Jaipur Engineering College and Research Centre, Jaipur

Department of Electrical Engineering

GATE Enrolled and Qualified Student

S. No	RTU Roll No.	Branch	Name of Student	GATE Registration Roll No.	GATE Qualified (Yes/No)	Max. Marks	Marks Obtained
1	17EJCEE113	EE	Tiksha Kumari	EE21S33017008	Yes	100	31
2	17EJCEE037	EE	Gaurav Sharma	EE21S33015110	Yes	100	51.33
3	17EJCEE084	EE	Priyul Dave	EE21S33024429	No	100	
4	17EJCEE007	EE	Abhishek Singh	EE21S33003149	Yes	100	57.33
5	17EJCEE038	EE	Guneet Gupta	EE21S33021066	No	100	

ME

Jaipur Engineering College & Research Centre

From : Mechanical Engineering Deptt.	To : Principal Office

Noting Reference No. JECRC/ME/02/2020-21 24/05/21

OFFICE NOTE

Sub.: Details of GATE 2021 Examination of Mechanical Engineering Department

As per the communication regarding GATE 2021 information, please find below the details –

Total GATE qualified in the year 2021	13
Total GATE not qualified in the year 2021	2
Total Appeared in the GATE examination	15

List of GATE qualified in the year 2021 enclosed.

Submitted for information please,

Dr. M.P. Singh
Program Coordinator (ME)

Encl.: List enclosed

Jaipur Engineering College and Research Centre, Jaipur

Department of Mechanical Engineering

GATE Enrolled and Qualified Student

S. No	RTU Roll No.	Branch	Name of Student	GATE Registration Roll No.	GATE Qualified (Yes/No)	Max. Marks	Marks Obtained
1	17EJCME741	ME	Rohit Tanwar	ME21S83017075	Yes	100	60.92
2	17EJCME086	ME	Rajedra Prajapat	ME21S83014069	Yes	100	51.42
3	17EJCME041	ME	Harshul Agarwal	ME21S83017426	Yes	100	49.79
4	17EJCME108	ME	Shubhada Agarwal	ME21S83017063	Yes	100	49.46
5	17EJCME050	ME	Karan Pandey	ME21S83014053	Yes	100	45.53
6	17EJCME009	ME	Aditya Kumar	ME21S83015078	No	100	
7	17EJCME022	ME	Bhanu Prasad Dixit	XE21S63016178	Yes	100	44
8	17EJCME050	ME	Karan Pandey	XE21S63014152	Yes	100	39.33
9	17EJCME042	ME	Harshvardhan Lodhi	ME21S73017013	No	100	27.19
10	17EJCME085	ME	Rahul Soni	ME21S83016046	Yes	100	38.98
11	17EJCME032	ME	Deeya Sharma	ME21S83014075	Yes	100	37.67
12	17EJCME046	ME	Hitik Khandelwal	ME21S83017071	Yes	100	36.69
13	17EJCME022	ME	Bhanu Prasad Dixit	ME21S83016070	Yes	100	36.04
14	17EJCME085	ME	Rahul Soni	XE21S63016124	Yes	100	36
15	17EJCME124	ME	Yash Bakliwal	ME21S83001056	Yes	100	35.06

(14)

Jaipur Engineering College and Research Centre

Shri Ram Ki Nangal, Via Sitapura RIICO, Opp. EPIP Gate,
Tonk Road, Jaipur-302 022
Ph. No.0141-2770232, 2770120
Fax No.0141-2770803

Percentage of Student Placed

Student Intake	:	1027
Student Pass with I Division	:	744
Student Percentage	:	$\frac{744*1.43}{1027}$
	:	$\frac{1063}{1027}$
	:	72.45

Points 70

Link of Detailed list of placed students and offer/appointment letters:

https://jecrcfoundation.com/jf-data/placements/Point-14-Placed-students-Batch-2019-2020-JECRC-Jaipur.pdf

QIV

30/6/21

PRINCIPAL
Jaipur Engineering College & Research Centre
Tonk Road, Jaipur-302022

Session 2021-22 (RTU)

(15)

Jaipur Engineering College and Research Centre

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Tonk Road, Jaipur-302 022
Ph. No.0141-2770232, 2770120
Fax No.0141-2770803

Percentage of Student Placed

Student Enrolled	:	1027
Student Placed	:	744
Student Placed above 3.5Lac	:	377
Percentage of Student above 3.5 Lac	:	$\frac{377}{744}$
	:	$0.50 * 30$
	:	15.20

Points 16

Link of detailed list of placed students and offer/appointment letters having above 3.5 Lacs package:

https://jecrcfoundation.com/jf-data/placements/Point-15-3.5-plus-LPA-placed-students-Batch-2019-2020-JECRC-jaipur.pdf

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Session 2021-22 (RTU)

Jaipur Engineering College and Research Centre
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16

Paper Publication

S. No.	Paper Published	No. of Papers	Points
1	SCI/SCIE/ESCI/Web of Science	2	2*10 = 20
2	Patent Published	9	9*4 = 36
3	Patent Granted	1	1*20 = 20
4	Scopus or UGC approved Journals	14	14*7 = 98
5	Other Journals with valid ISSN	12	12*5 = 60
	Total	38	234

Points 100

PRINCIPAL
Jaipur Engineering College & Research Centre
Tonk Road, Jaipur-302022

QIV

Session 2021-22 (RTU)

Paper Published in SCI/SCIE/ESCI/Web of Science Journals for QIV 2021-22

S. No.	Faculty Name	Depar tment	Paper Title	Date of Publicati on	Journal Name	ISSN /ISB N	Volume/ Isssue	SCI/SCIE/E SCI/ Web of Science Journal	Open Access (Y/N)	Peer Revie wed (Y/N)
1	Dr. Jaiverdhan	ECE	Broadband circularly polarized compact MIMO slot antenna based on strip and stubs for UWB applications	March, 2021	Electroma gnetics, Tayler and Francios	0272 - 6343	Volume 41, 2021 - Issue 3	SCI	N	Y
2	Mr. Krishan Kumar Saini	CE	Physico-Chemical Assesment of Groundwater Quality of Pipar City Jodhpur, Rajasthan	31 May 2021	Bulletin of Environm ent, Pharmaco logy and Life Sciences [BEPLS]	ISSN : 2277 - 1808		Web of Science	Y	

Patent Published and Granted

Sr. No.	Faculty Name	Patent Title	Agency Name	Applic ation No.	Year	Mont h	Dep art men t
1	Dr. Mahendra Pratap Singh	Dustbin System for recycling of plastic waste into fuel using pyrolysis		2020110 23690	2020	June	ME
2	Dr Fauzia Siddiqui	Hybrid energy management system using solar ,wind,fuel cell source for remote region		2020110 05557	2020	July	ME
3	Dr Rishi Pareek	Twirl Gas Burner		2020110 27817	2020	August	ME

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4	Mr. Yogesh Kumar Agarwal	Water impurity detection using internet of things (IOT) for smart city	Department of promotion of industry and internal trade, India	202041025992 A	2020	July	CE
5	Mr. Yogesh Kumar Agarwal	Mechanism for detection and prevention of water and mud inrush in underground construction using spatial analysis	Department of promotion of industry and internal trade, India	202041026400 A	2020	July	CE
6	Dr. Nilam Choudhary	A Novel Intelligent Software Based Cardiovascular Monitoring System		202011035976	2020	September	CSE
7	Dr. Nilam Choudhary/ Dr. Vijeta Kumawat	Child Monitoring Device to Protect Falling in to Abandoned Deep Bore Well		202041033447	2020	August	CSE
8	Geerija Lavania	Improving the Quality of health care by smart glass using cloud computing		202011031451	2020	July	EC
9	Dr.Vinita Mathur/ Dr. parul Tyagi	Design Of a Hybrid Floating Solar System (Granted)	Australian Goverment	2020103119	2019	Feb	EC
10	Ritambhara	Ensuring Nutrional value of food products from Manufatures to consumers using Blockchain technolgy and Wireless Sensor Network	Indian Patent	202141021547A	2019	June	EC

PRINCIPAL

Paper Published in Scopus OR UGC approved Journals for QIV 2021-22

S.no	Faculty Name	Department	Paper Title	Date of Publication	Journal Name	ISSN /ISBN	Volume/ Issue	Scopus or UGC Approved Journals	Open Access (Y/N)	Peer Reviewed (Y/N)
1	Vinita Mathur	ECE	Performance Comparison Of Different Fractal Shape Antennas For Ultra Wide Band Applications	10th Sep2020	International Journal of Systems Control and Communications	1755-9359	11(4)	Scopus	N	Y
2	Ashish Sharma	ECE	A Binary NSGA-II Model for declustering seismicity in earthquake prone regions	28 june-1 July 2021	IEEE Congress for Evolutionary Computation 2021, Poland	International	Indexed	Scopus	No	Yes
3	Dr M P Singh	ME	Optimization of Process Parameter by using CNC Wire Electrical Discharge Machine through Taguchi Method	August,2020	International Journal of Engineering and Advanced Technology (IJEAT)	2249-8958	Vol.-9 Issue-6	Scopus	Yes	
4	Dr M P Singh	ME	Performance obstacles in sustainable manufacturing-model building and validations	June 2020	Journal of Advances in Management Research	0972-7981	Vol-17, Issue-4	Scopus	Yes	
5	Dr M P Singh	ME	Identification of Drivers and Barriers of Sustainable Manufacturing" in: Optimization Methods in Engineering.	June 2020	Lecture Notes on Multidisciplinary Industrial Engineering. Springer, Singapore	978-981-15-4549-8		Scopus	Yes	

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6	Dr M P Singh	ME	An ISM Approach to Performance Indicators of Sustainable Manufacturing Through MICMAC Analysis in Indian Manufacturing Industry	June 2020	Lecture Notes on Multidisciplinary Industrial Engineering. Springer, Singapore	ISBN 978-981-15-4549-8		Scopus	Yes	
7	Dr. Bhuvnesh Bhardwaj	ME	Multiresponse Optimization of EDM Machining Parameters Using Taguchi Methodology with Grey Relational Analysis	2021	lecture notes on Optimization Methods in Engineering, springer	ISBN 978-981-15-4550-4		Scopus	Yes	
8	Dr. Bhuvnesh Bhardwaj	ME	Effect of Tool Rotation on Metal Removal Rate During Electro-Discharge Machining of Hastelloy C-276	June 2020	Lecture Notes on Multidisciplinary Industrial Engineering. Springer, Singapore	ISBN 978-981-15-4549-8		Scopus	Yes	
9	Dr. Bhuvnesh Bhardwaj	ME	Air Erosion Behavior of SiC-Filled Carbon Fiber–Epoxy Composites	June 2020	Lecture Notes on Multidisciplinary Industrial Engineering. Springer, Singapore	ISBN 978-981-15-4549-8		Scopus	Yes	
10	Dr. Bhuvnesh Bhardwaj	ME	Effect of Tool Rotation on Surface Roughness During Electro Discharge Machining of Hastelloy C-276	June 2020	Lecture Notes on Multidisciplinary Industrial Engineering. Springer, Singapore	ISBN 978-981-15-4549-8		Scopus	Yes	

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11	Dr. Bhuvnesh Bhardwaj	ME	Investigation of Mechanical Properties in Silicon Carbide-Filled Carbon Fiber Composites	June 2020	Lecture Notes on Multidisciplinary Industrial Engineering. Springer, Singapore	ISBN 978-981-15-4549-8		Scopus	Yes	
12	Dr. Bhuvnesh Bhardwaj	ME	Prediction and optimization of abrasive wear loss of ultrahigh strength martensitic steel using response surface methodology,Harris Hawk and artificial neural network	May 2021	International Journal of Systems Assurance Engineering and Management, Springer	ISSN: 09764348		Scopus	N	Y
13	Yogesh Kumar Agarwal	CE	Energy Valuation of Hydroxy Alkanoates as Biopolymer Mediated Lignin Degradation of Lignocellouse Waste		European Journal of Molecular & Clinical Medicine	ISSN: 2515-8260	Nov-Dec 2020	Scopus		
14	Avani Sharma	CSE	Towards Utilizing Blockchain for Countering Distributed Denial-of-Service (DDoS)	2021	IGI Global, Book Chapter	DOI: 10.4018/978-1-7998-7589-5.ch002		Scopus Indexed	N	

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Paper Published in Other Journals with valid ISSN for QIV 2021-22

S. No	Faculty Name	Depar tment	Paper Title	Date of Publica tion	Journal Name	ISSN/IS BN	Volume/ Isssue	Open Access (Y/N)	Peer Reviewe d (Y/N)
1	Dr Sanjay Gour	CSE	Algorithmic Approaches for Data Mining and Machine Learning	2020	International Journal Distributed computing and Technology,	ISSN-2455-7307	Vol.-6, No.-2, Pp-24-29.	Yes	Yes
2	Dr Sanjay Gour	CSE	Recommendatio n System: An Algebraic Perspective of Machine Learning with Knowledge Endorsement	2020	International Journal Distributed computing and Technology,	. ISSN-2455-7307	Vol.-6, No.-2, Pp-30-34	Yes	Yes
3	Dr. Vijeta Kumawat	CSE	The Evolution and Growth of Digital Marketing	2020	International Journal of Mobile Computing Devices	ISSN-2455-7307	Vol.-6, No.-2 , Pp-27-30.	Yes	Yes
4	Dr. Vijeta Kumawat	CSE	Evolution of Immersive Technology: Journey of Computational Reality	2020	International Journal of Computer Science & Programming languages	ISSN-2455-7308	Vol.-6, No.-2, Pp-24-28.	Yes	Yes
5	Dr. Vijeta Kumawat	CSE	IOT Big Data Techniques for Smart Home: A Study for Applicable in Small City at India	2020	Journal of Operating Systems Development & Trends	ISSN-2455-7309	Vol.-7, No.-3, Pp-20-24.	Yes	Yes
6	Anoop Mehta	CSE	Object Detection & Categorization with Deep Learning	2021	IJRASET	2321-9653	Vol-9(2). Pp-40-44	Yes	Yes
7	Abhishek Jain	CSE	Soil Analysis Technique: NPK Detection using IOT	2020	Journal of Operating Systems Development & Trends	ISSN:-2454-9355	Volume 7, Issue 3	Yes	Yes
8	Rajan Kumar Jha	CSE	Intelligent Farming Using Internet of Things	2021	IJEDI	ISSN: 2582-0788	Volume - 3, Issue - 1	Yes	Yes

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9	MS.Tanya Shruti	CSE	A Peer Review of different techniques of Sentiment analysis and Methodology	2020	International Journal of Computer Science & Programming languages		Volume 6, Issue 2	Yes	Yes
10	Mr Amit Mithal	CSE	A Novel Approach to Localized a Robot in a Given Map with Optimization Using GP-GPU	2020	Recent Trends in Communicatio n and Intelligent Systems, Algorithms for Intelligent Systems	ISBN 978-981-15-0426-6		Yes	Yes
11	Ms. Anima Sharma	CSE	A Study of machine Learning Approaches for Water Quality Detection	2021	Journal of Emerging technologies and Innovative Research	2349-5162	Volume 8 Issue 3	Yes	Yes
12	Ms. Neha Solanki	CSE	Optimized Image Classification based on universal image distance and support vector machines	2021	International Journal of Science and Advance Research in Technology	ISSN 2395-1052	Volume 7 Issue 1	Yes	Yes

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...netics >
..., 2021 - Issue 3

Research Article

Broadband circularly polarized compact MIMO slot antenna based on strip and stubs for UWB applications

Jaiverdhan, M. M. Sharma & R. P. Yadav

Pages 185-195 | Published online: 30 Mar 2021

SCI & Patents
1, 2, 3

SCI

Reg No. 216/2012 [ISSN 2277-1808]

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(A Monthly Refereed International Journal of Environment, Pharmacology and Life Sciences)
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COSMOS Impact Factor : 4.032
NAAS Rating 4.95

MS no. BEPLS-F-631.202
31.05.2021

Date:

NOW: BEPLS INDEXED IN ISI MASTER JOURNAL LIST AND ZOOLOGICAL RECORDS

Acceptance Letter

Physico-Chemical Assessment of Groundwater Quality of Pipar City Jodhpur Rajasthan

Dr Sangeeta Parihar1, Jai Singh Kachhwaha2, Dr Poonam Poonia3 ,Tarun Gehlot 4, Krishan Kumar Saini5

1- Assistant Professor, Department of Chemistry, JNV University Jodhpur, Rajasthan (India).
2- Ph.D. Scholar, Department of Chemistry, JNV University Jodhpur, Rajasthan (India).
3- Assistant Professor, Department of Zoology, JNV University Jodhpur, Rajasthan (India).
4- Structural Engineering Department, JNV University Jodhpur, Rajasthan (India).
5- Structural Engineering Department, JNV University Jodhpur, Rajasthan (India).
Email ID: sp.ch@jnvu.edu.in, Contact Number: +91 94141 61135.

Dear Prof/Dr./Mr.
I have immense pleasure to inform you that your paper have been accepted and the editorial board agrees to publish your paper in the forthcoming issue of *Bulletin of Environment, Pharmacology and Life Sciences Volume 10 [7/8] 2021.**

Thank You

Date: 31.05.2021
Place: AGRA

Manish Kumar
Dr. Manish Kumar
[BEPLS]

Fee 3000
Bank Name: State Bank of India
Branch Name: Bodla, Agra
Address: Bodla, Agra- 07, UP, India
Account Name: Manish Kumar
Account No: 32325378078
IFSC Code: SBIN0011657

Correspondence to Dr. Manish Kumar, 27, B.N.Puram, Pashim Puri Road, Sikandra-Bodla, Agra-282007, U.P. INDIA. Email: manishzoology06@gmail.com, Mob: +91-9457202960, 9457053501.

Office of the Controller General of Patents, Designs & Trade Marks
Department of Industrial Policy & Promotion,
Ministry of Commerce & Industry,
Government of India

(http://ipindia.nic.in/index.htm)

INTELLECTUAL PROPERTY INDIA (http://ipindia.nic.in/index.htm)

Application Details

APPLICATION NUMBER	202011023690
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	05/06/2020
APPLICANT NAME	1 . DR. RAVINDRA PATHAK 2 . DR. SUNIL K. SOMANI 3 . Dr Fauzia Siddiqui 4 . Dr Mahendra Pratap Singh 5 . Dr. Mohammad Israr
TITLE OF INVENTION	DUSTBIN SYSTEM FOR RECYCLING OF PLASTIC WASTE INTO FUEL USING PYROLYSIS PROCESS
FIELD OF INVENTION	CHEMICAL
E-MAIL (As Per Record)	patentminder@gmail.com
ADDITIONAL-EMAIL (As Per Record)	
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--

Patent

PUBLICATION DATE (U/S 11A) 26/06/2020

Application Status

APPLICATION STATUS

Awaiting Request for Examination

View Documents

➡ Filed ➡ Published ➡ RQ Filed ➡ Under Examination ➡ Disposed

Office of the Controller General of Patents, Designs & Trade Marks
Department of Industrial Policy & Promotion,
Ministry of Commerce & Industry,
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Application Details

APPLICATION NUMBER	202011005557
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	07/02/2020
APPLICANT NAME	1 . Radhey Shyam Meena 2 . Dr Mohammad Israr 3 . Dr Mahendra Pratap Singh 4 . Dr Fauzia Siddiqui 5 . Paramjit Thakur 6 . M.Suresh 7 . Dr Anshul Gangele 8 . Dr Hitesh Panchal 9 . Poonam Meena
TITLE OF INVENTION	HYBRID ENERGY MANAGEMENT SYSTEM USING SOLAR, WIND, FUEL CELL SOURCES FOR REMOTE REGION
FIELD OF INVENTION	ELECTRICAL
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PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	21/02/2020

Application Status

APPLICATION STATUS	Awaiting Request for Examination

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Filed → Published → RQ Filed → Under Examination → Disposed

Office of the Controller General of Patents, Designs & Trade Marks
Department of Industrial Policy & Promotion,
Ministry of Commerce & Industry,
Government of India

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Application Details

APPLICATION NUMBER	202011027817
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	30/06/2020
APPLICANT NAME	Jaipur Engineering College and Research Centre
TITLE OF INVENTION	TWIRL GAS BURNER
FIELD OF INVENTION	MECHANICAL ENGINEERING
E-MAIL (As Per Record)	dr.keertigupta@gmail.com
ADDITIONAL-EMAIL (As Per Record)	mohit.gambhir@gmail.com
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	28/08/2020

Application Status

APPLICATION STATUS	Awaiting Request for Examination

View Documents

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :19/06/2020

(21) Application No.202041025992 A

(43) Publication Date : 03/07/2020

(54) Title of the invention : WATER IMPURITY DETECTION USING INTERNET OF THINGS (IOT) FOR SMART CITY

(51) International classification :G01N 33/00

(31) Priority Document No :NA

(32) Priority Date :NA

(33) Name of priority country :NA

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

(71)**Name of Applicant :**

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2)Ms.S.Rani

3)Mr. Neeraj Chandnani

4)Mr.Yogesh Kumar Agarwal

5)Dr.Kudaravalli Sai Manoj

6)Dr Chiranjeevi Paritala

7)Dr. Shaik Khaleel Ahamed

8)Dr S.V.N. Sreenivasu

9)Mr.ANANTHNATH G.V. S

(72)**Name of Inventor :**

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4)Mr.Yogesh Kumar Agarwal

5)Dr.Kudaravalli Sai Manoj

6)Dr Chiranjeevi Paritala

7)Dr. Shaik Khaleel Ahamed

8)Dr S.V.N. Sreenivasu

9)Mr.ANANTHNATH G.V. S

(57) Abstract :

This invention provides an in-pipe water impurity detection system using IoT for smart city. With the new improvement in communication technologies, this real-time in-pipe water impurity detection is getting more extra attention. This invention is to develop an IoT based method that can examine and identify the impurities and unwanted particles present in the water. The system will be located at the origin point of every society/colony. The system can determine the hardness, alkalinity, and turbidity of the water. The system tests the water at frequent periods provided for pipelines to the customers/citizens. The real-time pieces of information are analyzed using fuzzy artificial evaluation also uploaded over the cloud. When an impurity is disclosed in the water, the system transmits an alert to the customers about the water impurity parameters. It prevents the additional flow of water in the contaminated zone in the pipe utilizing a solenoid valve. Some other area which provides quality water to the customers in the water delivery network continues flowing. The outcomes show that this invention can examine the characteristic water parameters in real-time and can successfully treat, forward data to the cloud, and suggest the consumers about the contamination in the zone.

No. of Pages : 12 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :23/06/2020

(21) Application No.202041026400 A

(43) Publication Date : 03/07/2020

(54) Title of the invention : MECHANISM FOR DETECTION AND PREVENTION OF WATER AND MUD INRUSH IN UNDERGROUND CONSTRUCTION USING SPATIAL ANALYSIS

(51) International classification :G06Q 50/00

(31) Priority Document No :NA

(32) Priority Date :NA

(33) Name of priority country :NA

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

(71)**Name of Applicant :**

1)Dr.S.KRISHNA MOHAN

Address of Applicant :Professor, Mechanical Engineering, EGS Pillay Engineering College, Old Nagoor Road, Thethi village, Nagapattinam- 611002 Tamil Nadu India

2)Dr. BARMAVATU PRAVEEN

3)MR.YOGESH KUMAR AGARWAL

4)MR. GOURAV KALRA

5)Dr LALIT GARG

6)Dr. K. SATYA NARAYANA

7)Dr RAHUL DEV GUPTA

8)Dr. GANUGAPENTA RAMESH

(72)**Name of Inventor :**

1)Dr.S.KRISHNA MOHAN

2)Dr. BARMAVATU PRAVEEN

3)MR.YOGESH KUMAR AGARWAL

4)MR. GOURAV KALRA

5)Dr LALIT GARG

6)Dr. K. SATYA NARAYANA

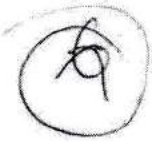
7)Dr RAHUL DEV GUPTA

8)Dr. GANUGAPENTA RAMESH

(57) Abstract :

Ground stabilization and development play an essential role in the successful construction of some of the existing underground facilities. This role becomes indispensable, primarily when subsurface natural soil and groundwater levels represent an alarming factor that reflects the expected risks during the design and construction of such new developments. Water and Mud rushes are sudden surpluses of fine wet ore in underground mines. They can damage people and equipment as well as cause delays in production. Block and panel spelunking mines are vulnerable to mud rushes in production levels. In this proposal, the underground images are captured by using remote sensors, CCD cameras, and GPS receivers. The advanced preprocessing techniques such as FLAASH reduce the effect created by the atmosphere and change spectral radiance to water-surface reflectance. This invention presents the combination of convolutional neural network models such as VGG-16 as a feature extractor to extract feature maps and Inception V4 for classification. Grouting is a primary technique used to limit water and mud inrush in mines and underground engineering. This proposal facilitates effective grouting in tunnels with the help of the latest scientific methodologies to ensure the safety of personals working in the tunnel.

No. of Pages : 12 No. of Claims : 5



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Ministry of Commerce and Industry

Application Details

APPLICATION NUMBER	202011035976
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	20/08/2020
APPLICANT NAME	1 . Prashant Kumar 2 . Dr. Neelam Choudhary 3 . Dr. Praveen Kumar Agrawal 4 . Kanagaraj Venusamy 5 . Dr. Pradeep Kumar Sharma 6 . Dr. Priyesh P. Gandhi 7 . Dr. Nand Kishore Gupta 8 . Dr. Shilpi Jain 9 . Dr. Vivek Kumar 10 . Dr. Rani Fathima Kamal Basha 11 . Mr. Sulochanan Karthich Ramanathan 12 . Dr. Shashank Tiwari 13 . Dr. Pushpendra Singh 14 . Dr P Karthiigeyan
TITLE OF INVENTION	A NOVEL INTELLIGENT SOFTWARE BASED CARDIOVASCULAR MONITORING SYSTEM
FIELD OF INVENTION	COMPUTER SCIENCE
E-MAIL (As Per Record)	iprkarthi@gmail.com
ADDITIONAL-EMAIL (As Per Record)	
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	18/09/2020

Application Status

View Documents

INTELLECTUAL PROPERTY INDIA
PATENTS | DESIGNS | TRADE MARKS
GEOGRAPHICAL INDICATIONS

GOVERNMENT OF INDIA

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Department of Industrial Policy and Promotion
Ministry of Commerce and Industry

Application Details

APPLICATION NUMBER	202041033447
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	05/08/2020
APPLICANT NAME	1 . Dr. Niraj Upadhayaya 2 . Dr. T.C. Manjunath 3 . Dr. Vijeta Kumawat 4 . Mr. Nilesh Kumar Dubey 5 . Dr. Muddada Murali Krishna 6 . Dr. Ajay Singh Yadav 7 . Ms.Garima Sethi 8 . Dr. Nilam Choudhary 9 . Srishti Ahlawat 10 . Sarvesh Kumar 11 . Dr.G.NARMADHA 12 . S.DEIVASIGAMANI
TITLE OF INVENTION	CHILD MONITORING DEVICE TO PROTECT FALLING INTO ABANDONED DEEP BORE WELL
FIELD OF INVENTION	CIVIL
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(57) Abstract :
Ensuring Nutritional Value of Food Products from Manufacturers to Consumers Using Wireless Sensor Networks and Blockchain Technology (NVFPMC) helps the consumer to make use of the NVFPMC to ensuring the nutritional value of food products from manufacturers to consumers automatically using bar-code and blockchain technology. Smart farming is used to cultivate food items efficiently with full nutrition values. The food manufacturing factory helps to process the food items into food products without reducing the nutrition values. Then it measures the nutrition values of each food product and labeled them as a bar-code value. Then the food products are kept maintaining in the food storage unit by retailers. Then it will be transferred to supermarkets through appropriate logistics without degrading the nutrition values of food products. The end-user will purchase the food products in the supermarket by ensuring the nutrition values. If any deviation in the nutrition values, then the user may decide to purchase it or not as well as make a complaint about the products. The NVFPMC control unit helps to monitoring and managing the successful functioning of the whole NVFPMC system. By using this NVFPMC, the consumer to make use of the NVFPMC to ensuring the nutritional value of food products from manufacturers to consumers automatically using bar-code and blockchain technology.

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Performance comparison of different fractal shape antennas for ultra wide band applications

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Abstract: A related analysis of fractal antennas with distinct geometry is done in this paper. Patch shapes (square, hexagon, and circle), which are suitable for ultra-wideband applications have been considered. The fractal monopole square fractal is designed by novel Giuseppe Peano geometry, hexagon fractal patch antenna is formed by Koch structure and circle by Minkowski fractal elements. Matching for microstrip feed input is provided by rectangular ground plane. FR4 substrate has been used for fabrication purpose. The analogy is established on the output values of return loss, bandwidth, VSWR, group delay, gain, directivity and axial ratio. This investigation will help the design engineers to

A Binary NSGA-II Model for De-clustering Seismicity of Turkey and Chile

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***Abstract*—Seismicity de-clustering is the technique to isolate the earthquake catalog into aftershock-foreshock (clustered) and background (random) events. These isolated events are widely used in seismology for hazard assessment and to design the model for future earthquake predictions. The key challenge in seismic de-clustering is due to significant overlapping and high correlation between the space-time domain of aftershock-foreshock and background events. In this manuscript, a new model is proposed to de-cluster earthquake catalog based on a binary Non-dominated sorting genetic (B/NSGA)-II algorithm. In the fundamental version of the popular NSGA-II algorithm, one apprehension is that crossover and mutation are performed only on real-valued population. Here binary domain logical crossover and mutation operators are employed to optimally segregate the seismic events. The proposed model is tested on thirty year historical earthquake catalog of Turkey and Chile. Comparative analysis has been demonstrated with five benchmark de-clustering techniques. The simulation results demonstrate the potential of the proposed model efficiently discriminates the aftershocks and background events in the two catalogs.**

***Index Terms*—Seismicity De-clustering, Binary Multi-objective Optimization, Binary NSGA-II, Coefficient of Variance, m-Morisita Index.**

I. INTRODUCTION

Earthquakes are triggering phenomenon that generates clusters in space and time, thus they produce biased events in a seismic catalog. Therefore, de-clustering is an essential step in seismicity analysis. Probabilistic seismic hazard assessment (PSHA) is one of the most interesting fields for researchers and geologists. PSHA aims to evaluate the rate of ground motions for future prediction of earthquake events at a specific location. It is also used to assess the structural requirement, seismic loss estimation, and earthquake risk modeling. Earthquake catalogs are mostly used in PSHA to find out the seismicity patterns, source estimation and to design empirical models of ground motions. The de-clustered earthquake catalog is the prime requirement in seismic hazard assessment. However, seismic de-clustering is not an easy task due to the complex nature of earthquake patterns and the high correlation between earthquake events. Seismicity analysis is mostly done with correlated earthquake events called mainshocks, foreshocks-aftershocks, which occurred during seismic tremors or volcanic activity rather than regular earthquake swarms [1] also called Background events (BG). These background events are the earthquake that has not been triggered by another but the result of tectonic loading.

Statistical analysis of seismic events allows us to extract relevant information from correlated and de-clustering events. Generally, the seismic events are correlated in space and time due to their appearance along the faults (spatial clustering) and close in time to mainshocks (temporal clustering). Recently, it has been proved that de-clustering is a vital process to separate background seismic events and triggered events for prediction of ground movement and PSHA analysis [2], [3]. Gardner and Knopoff [4], [5] was the first group of researchers who tried to isolate the background seismicity and triggered events by applying the Poisson distribution algorithm and later the window-based methods in earthquake swarms. The drawback of Gardener and Knopoff method is that the seismic activity that occurred due to triggering events has not been taken into consideration. Reasenberg [6] provided a cluster-link methodology for detection of aftershocks generated from secondary dependent events in the clusters but it requires completeness of magnitude associated with the catalog. In the year 2011, Tibi *et al.* extended cluster-link methodology by applying magnitude dependent time window technique and removes the drawback of Reasenberg approach [7]. Zhuang *et al.* presented a stochastic algorithm and used an epidemic type aftershock sequence (ETAS) model for spatial intensity estimation and de-clustered the seismic events [8]. Hainzl *et al.* proposed a concept of inter-event time distributions for the estimation of background seismicity. They proved the existence of a strong correlation between inter-event time and background events in catalog [10]. Nanda *et al.* proposed a Tri-stage de-clustering model for the seismicity analysis of earthquake prone regions [11]. Vijay and Nanda *et al.* [12] extended the work proposed by Nanda *et al.* and designed a Tetra-stage clustering model to de-cluster the earthquake catalog of Japan, Himalaya and Taiwan. Golay reported a new technique based on the multi-point Morisita index for the analysis of spatially-distributed patterns [13]. The [illegible] the clustering [illegible] in patterns by counting the number of points in quadrat [illegible]. Hawaadi *et al.* used the ETAS model for de-clustering [illegible] plateau seismic catalog [14] [illegible]

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Optimization of Process Parameter by using CNC Wire Electrical Discharge Machine through Taguchi Method

Pankaj Sharma, M. P. Singh

Abstract: *Wire Electrical Discharge Machining (WEPSPDM) is utilizedin industries to manufacture components of conductive strong metal with complicated shape, greater tolerance and precision. A review of the literature exposes that most of the research work has been intended for towards the optimization of WEDM operation and modeling of the process. Conventional wire electrode has been developed to a brass wire from a copper wire and finally to zinc coated wire on the brass, steel or copper wire core, by which more advanced WEDM, is realized in terms of better machining speed and accuracy. To examine the parameters likePeak Current (I_p), Time of Pulse ON (T_{on}), Time of Pulse OFF (T_{off}), etc. by the optimization of WEDM operation and modeling of the process during micro slit machining. Analyzed the results and optimize the process parameter conditions for maximum MRR (g/min), and surface roughness based on Taguchi's Methodology. The ANOVA analysis indicates the significant factors for maximization of MRR, improvement of Surface Roughness and regression analysis. By the research work, it has been concluded that the MRR reduces with raise in Time of Pulse OFF (T_{off}) and Set Voltage of spark gap (SV) besides Material Removal Rate (MRR) increases with escalating in Time of Pulse ON (T_{on}) and PC (I_p).*

Key Words: *WEDM, MRR, ANOVA,DOE, EDM*

I. INTRODUCTION

In Wire Electric Discharge Machining (WEDM) process the quality of product is always concerned by its procedural parameters such as wire feed, peak current time, time of pulse ON, time of pulse OFF etc. At past decennaries, several research seekers were deeply go through the tested parameters. In current scenario, numerous seekers were specifically using Design of Experiment (DOE) for such kind of studies and identifies the finest factors which influences the obtained result.

One simple work piece arrangement was used in this study and DOE was enforced to discover the best optimal input parameter value that alters the outcome result for specimen of WEDM. There was difficulty to pick out suitable approach for designing experiments because of enormous complexity in DOE. It was exposed through literature review that DOE founded by Taguchi method was previously utilized by many seekers and present study is also applying Taguchi method. Investigational complications plays a very important function for formulating DOE experiments. Table 1.1 shows the summary chart of four factors & four levels and Table1.2 shows the L9 orthogonal arrays.

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1. Using MINITA

Table 1.1: Summary chart of Factors and Levels

Levels	Factors			
	Peak Current (I_P) (Ampere)	Time of Pulse ON (T_{on}) (µs)	Time of Pulse OFF (T_{off}) (µs)	Feed Rate (m/ min)
1	6	0.7	4	5
2	7	0.9	5	7
3	8	1.1	6	9

2. Orthogonal Array

Table 1.2: L9 Orthogonal Arrays

S. No.	Peak Current(I_P) (Ampere)	Time of Pulse ON (T_{on})(µs)	Time of Pulse OFF (T_{off})(µs)	Feed Rate (m/min)
1	6	0.7	4	5
2	6	0.9	5	7
3	6	1.1	6	9
4	7	0.7	5	9
5	7	0.9	6	5
6	7	1.1	4	7
7	8	0.7	6	7
8	8	0.9	4	9
9	8	1.1	5	5

II. DATA ANALYSIS AND DISCUSSION

WEDM process was experimentally solved in this study for wire cutting of using Regression Analysis (ANOVA) &Design of Experiment (DOE) were utilized further to get equations. DOE tables were discussed. Main responses from this study were following, which discussed. As discussed, feed backare essential prophecy for quality of product. For finding the almost essential critical factors and their feedback on present study, firstly, ANOVA was used in present investigation and discussed further in pursuing article.

This investigation uses Minitab software for Regression Analysis & ANOVA. Table 2.1 represents the four factors & four level.

Sustainable manufacturing | Performance obstacles | Exploratory factor analysis | Confirmatory factor analysis | Structural equation modeling

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Performance obstacles in sustainable manufacturing – model building and validation

Priyanka Pathak, M.P. Singh, Gaurav Kumar Badhotiya

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Abstract

Purpose

Manufacturing organization has adopted the concept of sustainability to improve the performance of product and process as well as to focus on environmental issues. Despite technological advancements and awareness, there exist several performance obstacles for the implementation of sustainable manufacturing in an organization. The objective of the current study is to identify the performance obstacles, propose a structural model and validate the proposed model.

Design/methodology/approach

Twelve performance obstacles are identified through critical literature review and discussion with field experts. Primary and secondary factor analysis, that is, exploratory factor analysis (EFA) and confirmatory factor analysis (CFA), are used for the creation of the structural model, and further, structural equation modeling is used as a validating tool. EFA deals with the categorization of all performance obstacles in four major criteria, and CFA works for proposing a model for a relationship among all obstacles.

Findings

A validated structural model is provided through hypothesis acceptance for structural equation modeling. The outcome of this study can be helpful for decision-makers to incorporate sustainable practices in the manufacturing organization.

Originality/value

This study has extracted and identified performance obstacles for

Identification of Drivers and Barriers of Sustainable Manufacturing

Optimization Methods in Engineering pp 227-243 | Cite as

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Conference paper
First Online: 06 June 2020

Part of the Lecture Notes on Multidisciplinary Industrial Engineering book series (LNMUINEN)

Abstract

Sustainable manufacturing is playing an important role in the growth of manufacturing organizations by providing social, financial, and environmental benefits. Drivers and barriers are the core essentials of any system. Their need to pursue a system in any manner always exists. For this pursuance, the very basis is their proper identification, so that they can be used for implementation in any system. In this study, drivers and barriers of sustainable manufacturing are identified through critical review of relevant literature. Out of 124 articles identified for study, specifically, 34 articles for drivers and 35 articles for barriers are reviewed for core driver/barriers identification.

Keywords

Sustainable manufacturing Implementation Manufacturing industry Driver Barrier

Nomenclature

SM

An ISM Approach to Performance Indicators of Sustainable Manufacturing Through MICMAC Analysis in Indian Manufacturing Industry

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Conference paper
First Online: 06 June 2020

Part of the Lecture Notes on Multidisciplinary Industrial Engineering book series (LNMUINEN)

Abstract

This paper emphasizes analysis of various performance indicators for successful implementation of sustainable manufacturing in Indian industries. This research carries identification of performance variables through survey and brain storming, interpretive structural modeling of these indicators and MICMAC analysis for all the identified variables. The paper gives driving and dependent variables through ISM for using the driving factors as potential asset for sustainability and to give less emphasis to dependent factors. Also, the key factor/factors identified through MICMAC analysis should be given priority over others while dealing with these in manufacturing industries.

Keywords

ISM, Interpretive structural modeling
MICMAC, Matriced' impacts croises-multiplication appliqué' and classment
SSIM, Structural self-interaction matrix IRM, Initial reachability matrix
FRM, Final reachability matrix

References

1. www.cii.in/sectors.aspx (http://www.cii.in/sectors.aspx)

2. www.cii.in/SocialDevelopment.aspx (http://www.cii.in/SocialDevelopment.aspx)

3. Pathak, P., Singh, M.P., Sharma, P.: Sustainable manufacturing: an innovation and need for future. In: International Conference on Recent Innovations in Engineering and Technology (ICRIET-18 FEB, 2017) (2017) Google Scholar (https://scholar.google.com/scholar?q=Pathak%2C%20P.%2C%20Singh%2C%20M.P.%2C%20Sharma%2C%20P.%3A%20Sustainable%20manufacturing%3A%20an%20innovation%20and%20need%20for%20future.%20In%3A%20International%20Conference%20on%20Recent%20Innovations%20in%20Engineering%20and%20Technology%20%28ICRIET-18%20FEB%2C%202017%29%20%282017%29)

4. Rachuri, S., Sriram, R.D., Narayanan, A., Sarkar, P., Lee, J.H., Lyons, K.W., Kemmerer, S.J. (ed.): Sustainable Manufacturing: Metrics, Standards, and Infrastructure—Workshop Report. NISTIR 7683 (2010) Google Scholar (https://scholar.google.com/scholar?q=Rachuri%2C%20S.%2C%20Sriram%2C%20R.D.%2C%20Narayanan%2C%20A.%2C%20Sarkar%2C%20P.%2C%20Lee%2C%20J.H.%2C%20Lyons%2C%20K.W.%2C%20Kemmerer%2C%20S.J.%20%28ed.%29%3A%20Sustainable%20Manufacturing%3A%20Metrics%2C%20Standards%2C%20and%20Infrastructure%E2%80%94Workshop%20Report.%20NISTIR%207683%20%282010%29)

5. Pathak, P., Singh, M.P.: Sustainable manufacturing concepts: a literature review. Int. J. Eng. Technol. Manag. Res. 4(6), 1–13 (2017) Google Scholar (http://scholar.google.com/scholar_lookup?title=Sustainable%20manufacturing%20concepts%3A%20a%20literature%20review&author=P.%20Pathak&author=MP.%20Singh&journal=Int.%20J.%20Eng.%20Technol.%20Manag.%20Res.&volume=4&issue=6&pages=1-13&publication_year=2017)

6. Pathak, P., Singh, M.P.: Performance variables of sustainable manufacturing: a survey measurement. In: International Conference on Emerging Trends in Materials and Mechanical Engineering—2018 (ICETMM-29 Jan 2018) (2018) Google Scholar (https://scholar.google.com/scholar?q=Pathak%2C%20P.%2C%20Singh%2C%20M.P.%3A%20Performance%20variables%20of%20sustainable%20manufacturing%3A%20a%20survey%20measurement.%20In%3A%20International%20Conference%20on%20Emerging%20Trends%20in%20Materials%20and%20Mechanical%20Engineering%E2%80%942018%20%28ICETMM-29%20Jan%202018%29%20%282018%29)

7. Chauhan, A.S., Badhotiya, G.K., Soni, G., Ratore, A.P.S.: Analysis of success factors for a new product development initiative in Indian automotive industry: an ISM approach. Int. J. Adv. Oper. Manag. 9(4), 1–18 (2017) Google Scholar (http://scholar.google.com/scholar_lookup?title=Analysis%20of%20success%20factors%20for%20a%20new%20product%20development%20initiative%20in%20Indian%20automotive%20industry%3A%20an%20ISM%20approach&author=AS.%20Chauhan&author=GK.%20Badhotiya&author=G.%20Soni&author=APS.%20Ratore&journal=Int.%20J.%20Adv.%20Oper.%20Manag.&volume=9&issue=4&pages=1-18&publication_year=2017)

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Multiresponse Optimization of EDM Machining Parameters Using Taguchi Methodology with Grey Relational Analysis

Optimization Methods in Engineering pp 349-357 | Cite as

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Abstract

In the present research, Taguchi methodology with grey relational analysis has been employed to optimize EDM parameters for multiple responses, i.e. metal removal rate and surface roughness during the EDM machining of Hastelloy C-276 alloy. The experiments have been carried out according to Taguchi approach based on L_9 orthogonal array. The gap voltage, peak current and pulse on time have been considered as EDM parameters, while metal removal rate and surface roughness have been taken as responses. A grey relational grade has been obtained from the grey relational analysis. The optimum level of parameters has been obtained on the basis of rank. The percentage contribution of EDM parameters on multiple responses is calculated using analysis of variance. The pulse on time has been found main influencing parameter that affects the metal removal rate as well as surface roughness. The best-performance characteristics have been obtained at the first level of peak current, at first level of gap voltage and at first level of pulse on time.

Keywords

Chapter 12
Effect of Tool Rotation on Metal Removal Rate During Electro-Discharge Machining of Hastelloy C-276

Nikhil Jain, Jinesh Kumar Jain, and Bhuvnesh Bhardwaj

Abstract In the present work, two-level full factorial design with Box-Cox transformation has been used to investigate the impact of EDM conditions on metal removal rate during the machining of Hastalloy C-276. The pulse on time, gap voltage, peak current and tool motion has been considered as EDM conditions. It has been revealed that pulse on time is the main influencing EDM condition affecting the metal removal rate. The metal removal rate increases with increase in pulse on time, peak current and with tool rotation but decreases with increase in gap voltage.

Keywords Hastelloy C-276 · EDM · Tool motion · Metal removal rate

12.1 Introduction

In the present era, materials such as die steel, new alloys, superalloys, ceramics and metal matrix composite are extensively employed in different industries such as automotive, aerospace, surgical, die molding [1]. The machining of these materials is very difficult using conventional machining due to high hardness, wear resistance and toughness. These materials can be easily machined using electrical discharge machining (EDM). During the EDM, the molten metal from the surface of work-piece and tool electrode evaporates rapidly. Flushing the eroded material from the machining gap is the major problem during the EDM machining [2]. Due to these reasons, in the past, lot of researches have been carried out to improve flushing in EDM. Wang and Yan [3] investigated the effect of EDM conditions on MRR, surface

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Chapter 30
Air Erosion Behavior of SiC-Filled Carbon Fiber–Epoxy Composites

Monika Khurana and Bhuvnesh Bhardwaj

Abstract The carbon fiber-reinforced composites have all the ideal properties and have been widely used in many applications over the last decade. The objective of the present research is to optimize the erosion conditions for minimum erosion rate of SiC particulate-filled carbon-reinforced polymer composites. An attempt has also been to investigate the effect of erosion conditions on erosion rate. It has been found that erosion rate increases with increase in erodent size and impact velocity, while it decreases with increase in impingement angle and SiC loading. The minimum erosion rate is achieved at highest level of SiC loading, lowest level of erodent size, lowest level of impact velocity, and highest level of impingement angle.

Keywords SiC · Carbon fiber · Erosion · Optimization

30.1 Introduction

In the present era, carbon fiber polymer composites are replacing metals in many applications such as aircraft, space, satellites, automobiles, ships, and civil infrastructure because of its excellent mechanical, physical, and thermal properties [1]. The failure in machine parts takes place because of the wear. The wear is the main influencing factor for the failure of the machine parts. In the past, a number of researchers investigated the effect of different wear conditions on tribological properties of fabricated fiber reinforcement composites.

Vina et al. [2] examined the wear behavior of glass fiber fabric-reinforced polyetherimide composites. The study concludes that wear rate of composite

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Chapter 18
Effect of Tool Rotation on Surface Roughness During Electro Discharge Machining of Hastelloy C-276

Nikhil Jain, Jinesh Kumar Jain, and Bhuvnesh Bhardwaj

Abstract In the research work, two-level full factorial design with Box-Cox transformation has been employed for the investigation of EDM conditions on surface roughness during the machining of Hastalloy C-276. The pulse on time, gap voltage, peak current and tool motion have been considered as EDM conditions. The pulse on time has been found most significant EDM condition that affects the surface roughness.

Keywords Hastelloy C-276 · EDM · Tool motion · Surface roughness

18.1 Introduction

The unconventional methods of machining have respective specific advantages over conventional methods of machining. These methods are not limited by brittleness, hardness and toughness of the material and can produce any intricate shape on any workpiece material by desirable control over the various physical parameters of the processes. In the present era, new alloys, super-alloys, ceramics and composites having high toughness, hardness and strength are employed in different industries. Li et al. [1] studied the surface characteristics of Ti–6Al-4 V by SiC abrasive mixed EDM with magnetic stirring. Rozenek et al. [2] studied the effect of EDM conditions with tool electrode feed rate on surface roughness (SR) during the machining of a metal matrix composite (MMC). Dwivedi and Choudhury [3] studied the effect of tool motion on SR, recast layers and micro-cracks during the EDM machining of AISI D3 steel. Saha and Choudhary [4] studied the dry EDM process with negative polarity and air as dielectric using central composite design (CCD). Khan et al. [5]

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Chapter 29
Investigation of Mechanical Properties in Silicon Carbide-Filled Carbon Fiber Composites

Monika Khurana, J. K. Purohit, R. Gupta, and Bhuvnesh Bhardwaj

Abstract The main aim of the present research is to investigate the mechanical properties (hardness, tensile strength, tensile modulus, flexural strength, flexural modulus, inter-laminar shear strength, and impact strength) of unfilled carbon reinforcement fiber composites and SiC-filled carbon reinforcement fiber composites and to identify the best combination in terms of wt% of filler, matrix, and reinforcement for best mechanical properties. The results revealed that SiC-filled carbon reinforcement fiber composite with 10 wt% of SiC particulates has been exhibited by the better mechanical properties among all fabricated unfilled carbon reinforcement fiber composites and SiC-filled carbon reinforcement fiber composites.

Keywords CFRP · SiC · Mechanical properties · Hand layup technique

29.1 Introduction

Recently, fiber-reinforced polymer (FRP) composites commonly used material in automobile and aerospace industries due to its excellent mechanical and tribological properties. In these composite, reinforcement and matrix largely maintain their properties which are the combination of the properties of constituents [7]. In the present scenario, carbon fiber-reinforced polymer (CFRP) composites are widely used in different manufacturing applications due to their better strength to weight and excellent

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ORIGINAL ARTICLE

Prediction and optimization of abrasive wear loss of ultrahigh strength martensitic steel using response surface methodology, Harris Hawk and artificial neural network

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Abstract Three-body abrasion wear problem in real industry application has been significantly reduced by replacing the heat-treatable steels with the newly developed ultrahigh strength martensitic steel. The wear performance under these conditions of one such steel, namely JFE EH400 was investigated in the present work. The input process parameters selected at different levels were employed to formulate the design matrix. Accordingly, 30 number of real time abrasion wear experiments were performed using dry sand rubber wheel test. The experimental results obtained were used to develop the quadratic model using Response Surface Methodology. Further, the prediction effectiveness was verified using Analysis of Variance. The results showed that the effect of load on wear loss was found to be most significant followed by the number of revolutions, flow rate and rotational speed. Moreover, for the validation of the performance obtained from statistical analysis, experimental data was employed to build the prediction models using Neural Networks (NNs). The proposed improved Generalised Regression-NN (GR-NN) was found to be an efficient and explorative predictive model in comparison to the Levenberg–Marquardt Perceptron-NN and Adaptive Linear-NN. The GR-NN was found to be most accurate owing to the minimum error as compared to other prediction models. The prediction ability of the GR-NN model with Harris Hawk Optimization was found to be better as compared to quadratic model, which was further validated using Scanning Electron Microscopy (SEM). The proposed model is efficient, accurate and encouraging for the prediction of wear loss in the industrial applications involving abrasion wear conditions.

Keywords JFE EH400 steel · Response surface methodology · ANOVA · Artificial neural network · Harris Hawk optimization · SEM

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ENERGY VALUATION OF HYDROXYALKANOATES AS BIOPOLYMER MEDIATED LIGNIN DEGRADATION OF LIGNOCELLULOSE WASTE

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Abstract

In this study, lignin degradation of lignocellulose waste using biopolymer as derived from agro waste. Initially, biopolymer was extracted by optimizing recovery time and rhamnolipid dose. At 50 min of recovery time and 25 % v/v of rhamnolipid dose, a higher of biopolymer (825 mg/g) was derived. The functional group of biopolymer was predicted and it is exhibited the hydroxyalkanoates group. Then, hydroxyalkanoates mediated lignin degradation of lignocellulose waste was proceeded at optimizing conditions.At 27 min of degradation time and 5 mg of hydroxyalkanoates dose, a higher lignin degradation (52 %) were descried which is higher than non treated lignocellulose waste. Further, the energy valuation of hydroxyalkanoates mediated lignin degradation per kg of lignocellulose waste was studied. During energy valuation, energy expended for centrifugation, drying, stiring, incubation, control the temperature of lignocellulose waste and hydroxyalkanoates extraction were considered as the input energy for lignin degradation steps and is measured as 217 kWh.

Chapter 2
Towards Utilizing Blockchain for Countering Distributed Denial-of-Service (DDoS)

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ABSTRACT

Distributed denial of service (DDoS) attacks have been a matter of serious concern for network administrators in the last two decades. These attacks target the resources such as memory, CPU cycles, and network bandwidth in order to make them unavailable for the benign users, thereby violating availability, one of the components of cyber security. With the existence of DDoS-as-a-service on internet, DDoS attacks have now become more lucrative for the adversaries to target a potential victim. In this work, the authors focus on countering DDoS attacks using one of the latest technologies called blockchain. In inception phase, utilizing blockchain for countering DDoS attacks has proved to be quite promising. The authors also compare existing blockchain-based defense mechanisms to counter DDoS attacks and analyze them. Towards the end of the work, they also discuss possible future research directions in this domain.

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Other Journals with ISSN (5)

International Journal of Distributed Computing and Technology

Open Access Subscription or Fee Access

Algorithmic Approaches for Data Mining and Machine Learning

Sanjay Gour, Awanit Kumar, Rahul Shandilya, Deepak Sharma

Abstract

ABSTRACT

Trends and technology always innovative and comes with some new. Sometimes technologies are introduces in more user friendly environment. In such version of technology advancement are also incorporated. Data mining is a best widespread knowledge attainment approach for knowledge discovery. The naval trends Machine learning also have a big interfere of data mining. Infect most of the data mining algorithm and methods are utilized for machine learning with minor amendment and advancement or sometimes as it is. This paper is an attempts to presents a view of various approaches of machine learning and data mining.

Keywords: Data Mining, Machine Learning, Decision Tree, Bayesian network, Nearest Neighbor, Support Vector Machine (SVM).

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International Journal of Distributed Computing and Technology

Open Access Subscription or Fee Access

Recommendation System: An Algebraic Perspective of Machine Learning with Knowledge Endorsement

Awanit Kumar, Sanjay Gaur, Rahul Shandilya, Deepak Sharma

Abstract

ABSTRACT

Learning is continual process and machine learning is innovative approach towards information management as well as knowledge management. The endorsement of knowledge in association of big data is crucial task. The machine learning algorithm and technologies gives an insight towards better expansions and consolidation of knowledge. For optimization of knowledge recommendation system plays an important role and gives ground to produce solution. The role of recommendation system is basically one of the information whose purpose is to suggest, or recommend item and action to users. The present research article is an attempt to club the basic and advance approaches which are associated with recommendation system in algebraic from.

Keywords: Machine learning, Recommendation, System, Knowledge, big data, Data Mining.

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International Journal of Mobile Computing Devices

Open Access Subscription or Fee Access

The Evolution and Growth of Digital Marketing

B. Umamaheswari, Dr. Vijeta Kumawat

Abstract

ABSTRACT

In this digital age, digital marketing is a mode that is sweeping across the entire world. The inclination of digital marketing is budding day by day with the ideas of online marketing that is turning into a crucial platform of digital marketing beside with the electronic gadgets like the digital billboards, tablets, and smart phones and many more that facilitate digital marketing. The huge budge in mobile, forcing brands and companies to meet the increasing consumerism demand and also it changes the way they look at the marketing platforms. And few years from now it will be eventually seen that the conventional marketing being replaced by digital marketing. Content writing is not enough to stay at the game. Visuality is important more than ever. Many creative apps and new technologies continue to rise. To attack the future, first stay tuned with the past.

Keywords: *Digital marketing, electronic gadgets, digital billboards, tablets, mobile, creative apps, consumerism, visuality*

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International Journal of Computer Science & Programming languages

Open Access Subscription or Fee Access

Evolution of Immersive Technology: Journey of Computational Reality

Vijeta Kumawat, Riya Dhaked, Lakshita Sharma, Stuti Jain

Abstract

ABSTRACT

In this modern era, Technology is influencing the human life in every field that is making every single person able to harness actively the latest technical trend. It encourages the brisk pace development of creation of thrived form of actuality mixed with digitalized or computerized delusory world. Decades ago, Even the imagination of having a printed magazine and a mobile phone were just in thoughts. But today with the help of immersive technology development, we are having the imagination and tangibility connected with each other with a fine bridge created between the virtuality and reality. VR (Virtual Reality) and AR (Augmented Reality) are also the adequate appropriate technologies which have given an amazing definition to the human's thoughts or the fantasies that were existing just in imagination. AR and VR have given a portrait model for the human's illusory world with fantastic feature provided to live in that imaginary world too. This enhanced technology enables users to interact with virtual and real time applications and to bring out the natural experiences or feel to user. With the exuberance of practices of Ivan Sutherland in 1968 in the development of "a window of virtual world", had served the biggest concept in the creation of VR and AR. This concept has created a major impact in the field of technology. From 3D games to the treatment of psychological disorders, from entertainment industry to education, VR has left no stone unturned. Snapchat, Google Lens and Google glass are the fine examples of the development of AR in a positive number. The games like Pokemon Go, Jurassic World Alive, Zombies Run, Harry Potter and many other have the feature with AR to facilitate the user to play with the characters of the popular games in their surroundings. Also, the Google lens and Google glass device were unveiled by Google. Google glass is a device with a pair of AR glasses that helps in different kind of experiences. Google lens uses AR for better navigation and searching the destination with a description provided for every place. Google maps, Gmail and Google+ and other several applications are working with AR. Proliferation of affordable hardware and software have made AR and VR more adored and feasible in many domains. In addition, the merging of AR and VR has led to MR (Mixed Reality), where a user can have both VR and AR experiences together. Even today the world is developing the combination of AR, VR and MR to be leading to XR (Extended Reality) for betterment of real time experiences. Now-a-days the business organizations are using these methods to boost the education of employees, as it is on peak, the investors might be very engaged towards immersive technology development. AR and VR are rooted in the technology deeply as they are having their fascinating global attraction and attention of users, developers and investors. Globally, AR and VR market in 2019 was estimated to be $16.8 Billion and by 2023 forecast, it will be almost at $34 Billion. Mainly Gaming and Entertainment holds 40.5 % of VR market share. Inclusively AR and VR both technologies are affecting Education, Military, Healthcare, Fashion industry, Entertainment, Heritage, Media, Sport, Business, etc. Today, almost each field is fragmented by the fragrance of the growth of immersive technology. This research is mainly focused to highlight the entire journey of growth of immersive technology. Here, the evolution of AR and VR in every field is salient point for the research with a futuristic approach and scope is determined in positive manner with the applications and impacts on human's life.

Keywords: *Immersive Technology, Virtual Reality, Augmented Reality, Mixed Reality, Extended, Reality*

Journal of Operating Systems Development & Trends

Open Access Subscription Access

IOT Big Data Techniques for Smart Home: A Study for Applicable in Small City at India

Dr. Nilam Choudhary, Vijeta Kumawat, Vivek Kumar

Abstract

Abstract

Internet of Things is the connections of embedded technologies that contained physical objects and is used to communicate and intellect or interact with the inner states or the external surroundings, rather than people to people communication, IoT emphasis on machine to machine communication. This paper represents Big Data deployment in smart homes as it was limited for its applicability in IT industry. The proposed architecture can be applied to different smart cities applications. Authors describe multiple objectives of smart cities based on big data analysis. This approach is to find the possible applicability of Internet of Things techniques to provide better way towards building smart cities, such as the management of the energy consumption.

Keywords

Internet of Things, Smart homes, Big Data, Cloud computing, HVAC

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Object Detection & Categorization with Deep Learning

Sachin Gupta[1], Anoop Mehta[2], Kanishk Jain[3], Ashish Ameria[4]
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Abstract: ***Efficient and perfect entity recognition has been an imperative topic in improving computer hallucination systems. With the initiation of deep learning techniques, the accuracy for object detection has increased dramatically. The company plans to consolidate the state-of-the-art system for item identification with the aim of achieving high accuracy with constant action. A noteworthy test in a significant number of object recognition frameworks is the reliance on other PC vision strategies to aid the deep learning-based methodology, which requires moderate and non-ideal execution. use a totally deep learning method to tackle the problem of object recognition in a project from start to finish. The subsequent structure is fast and precise, thus supporting those applications that require the position of objects.***
Keywords: Deep Learning, Object Detection, Neural Network

I. INTRODUCTION

To gain a full understanding of the image, we should focus on grouping certain images while trying to properly evaluate the ideas and areas of the articles contained in each image. This mapping is known as object recognition, which usually consists of several sub-tasks, such as: face recognition, identification of people on foot, and discovery of the skeleton. Models achieved.

A clear case of a first class framework for class identification is the Deformable Parts Based Model (DPM). It expands carefully planned representations and kinematic ally animated part resolutions of objects that are communicated as a graphic model [1]. As one of the major problems with PC vision, object identification can provide the semantic understanding of images and recordings with profitable data.

Meanwhile, acquiring from neural systems and related learning frameworks, advancement in these fields will create neural system computations and will also affect object detection techniques that can be considered as learning frameworks, perspectives, postures, impediments and lighting conditions, it is difficult to achieve the location of the object in a consummate way with an additional task of restricting elements. Much attention has been paid to this field lately.

The problem definition of article discovery and characterization is to find out where objects are in a certain image (object localization), with which classification each article has a place (object classification). For example, the pipeline of conventional article identification models can largely be divided into three phases: Discovery of the district determination, including extraction and classification.

Determination of the useful area, since various elements can appear anywhere in the image and have different proportions or perspective sizes, it is characteristic to check the entire image with a sliding window on several scales. These comprehensive methodologies can find every imaginable position of the articles; its shortcomings are also evident [2]. Highlight extraction, to perceive distinctive elements, we need to remove visual reflections which can give a semantic and powerful representation andHaar-type highlights are from delegates.

This is because of how these highlights can provide representations related to complex cells in the human mind. It is difficult to physically structure a vigorous element descriptor to perfectly represent a wide range of elements classification. In addition, a classifier is expected to recognize an objective article from the various classifications and to make the representations increasingly progressive, semantic, and educational for visual confirmation.

Usually the SVM (Supported Vector Machine) model, AdaBoost and Deformable Part-based Model (DPM) are good choices. Among these classifiers, the DPM is a flexible model [3]. In DPM, carefully structured high-level highlights and kinematically induced part falsifications are consolidated under the guidance of a graphic model. The discriminative learning of graphical models also requires consideration of producing high-precision parts-based models for a selection of article classes.

Journal of Operating Systems Development & Trends

Soil Analysis Technique: NPK Detection using IOT

Abhishek Jain, Vinayak Mathur, Vaishnavi Ajmera

Abstract

Abstract

The growth and maintenance of the crops is a very important task in the agricultural domain. There are a lot of ways in which we can make sure that the crops are properly grown and the soil quality is high, we can use good quality seeds, we can regularly grow different crops to ensure the balanced nutrients in the soil, also irrigation and fertilization are great methods to do so. But the current soil testing systems in the agricultural sectors are not easily accessible by the farmers, and those which are accessible have a very slow process. Being a major drawback, there is a need for a tool with a good methodology that is able to produce real time results which can be used by the farmers with ease. Such a device would greatly reduce the time delay, and will be able to accurately identify the nutrient composition of the soil samples. The nutrients focused in the soil analysis technique are N, P and K, these nutrients are essential requirements for all the major crops. In this paper, we will take a look at the standard method to check the nutrients of the soil (N, P, and K) for crops and focus on an IoT based analysis which would provide a brief report, according to which the farmers can use the best-suited fertilizer to enhance the growth of crops.

Keywords

Agriculture, soil, N: nitrogen, P: phosphorus, K: potassium, fertilizer, farmer, IoT: Internet of Things

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Department of Computer Science & Engineering

International Conference on Advent Trends in Computer Technology

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Aug 27th - 28th, 2020

Certificate of Participation

This is to certify that Prof./Dr./Mr./Ms. *Abhishek Jain* of *JECRC Foundation, Jaipur*,

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Abstract:
In recent times due to COVID'19 all of us are staying indoors. Many people , especially in India most of the population depends on Agriculture. In India around 70 percentage population depends on Agriculture. During this pandemic situation, they couldn't able to work in fields. In this situation Technology should help farmers also to work from Home. In this paper we are going to discuss about Intelligent way of farming using Internet of Things. For using this technology in a better way, farmer should need smart phone with internet. If the farmer uses touchpad phone, just he will get notification. Some of the problems facing by farmers are electricity problem, wild life's problem, water problem, crop disease, climate problem etc. All these problems will be solved by using this technology. Also the proposed work will help farmer in irrigation system, monitor pH value of soil and also helps farmer to monitor all the above problems from home.

Key Words:
Internet of Things, pH, sensors

1. Introduction

As we all know, in India 70 percentage of the population depends on Agriculture. But these farmers are facing lots of challenges, even after investing lots of amount. In every year, many farmers in India commits suicide due to loss. Also in India man power is more than using technology. But in recent situation COVID'19 , to save their life, farmers also in a situation to stay indoors. In these situation they couldn't able to monitor their crops. Also they are facing major problems like electricity problem, wild lifes problem, climate problem, water problem, crop disease problem[5]. To solve all these problems, in our proposed system we are using Internet of Things. In this proposed work we are going to use different sensors[6,7,8,9] which help the farmers to monitor their crops through smart phone with internet connection or just by notification message. Nowadays mostly everyone knows how to use smart phone in India. So it will not be difficult for the farmers to monitor their crops through smart phone during pandemic situation. Result of the proposed work help farmers to get more profit with less man power. After using this technology, farmers does not need to afraid in any situation

2. Related work

Big Data is changing the extension and association of cultivating through a draw push system. Worldwide issues, for example, food security and wellbeing, manageability and subsequently proficiency improvement are attempted to be tended to by Big Data applications. These issues make that the extent of Big Data applications stretches out a long ways past cultivating alone, yet covers the whole gracefully chain[1]
Tending to environmental change impacts on agribusiness is uncommon test. There are number of components that impact the degree to which ranchers in a specific area receive innovations. This examination applied a participatory evaluation strategy to survey ranchers' inclinations and ability to-pay for chosen practices and innovations in differing precipitation zones. The investigation found that ranchers' inclinations for innovations are set apart by certain shared traits just as contrasts as indicated by their financial qualities and precipitation zones. The most favored innovations by neighborhood ranchers were

International Journal of Computer Science & Programming languages

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A Peer Review of different techniques of Sentiment analysis and Methodology

Tanya Shruti, Lal Babu Purbey

Abstract

ABSTRACT

This paper provides an overview of various approaches that are mainly used for sentiment analysis. It focused on the description of the latest technology and tools introduced for this purpose. There are various algorithms thatare used for opinion mining. Sentiment analysis is used to extract opinionated information from various sources by applying different techniques such as Natural language processing technique (NLP), Computational Linguistics and Text Analysis. In this paper, we are going to discuss the different levels of sentiment analysis and different approaches for sentiment classification. In this paper, we discussed the different levels of sentiment and modern approach to analyze this.

Keywords: *Sentiment analysis, Machine learning, opinion extraction, sentiment analysis tools, feature level analysis*

Full Text:

PDF

References

REFERENCES

B. Pang, L. Lee, and S. Vaithyanathan, 2002. "Thumbs up? Sentiment classification using machine learning techniques," Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP), pp.79–86.

P.Turney, 2002, "Thumbs Up or Thumbs Down? Semantic Orientation Applied to Unsupervised Classification of Reviews. Proceeding of 40th annual meeting of the Association for Computational Linguistics (ACL), pp. 417-424.

E. Riloff, and J. Wiebe, 2003, "Learning Extraction Patterns for Subjective Expressions", Proceedings of the Conference on Empirical Methods in Natural Language Processing (EMNLP), Japan, Sapporo.

H.Yu, and V.Hatzivassiloglou, 2003, "Towards Answering Opinion Questions: Separating Facts from Opinions and Identifying the Polarity of Opinion Sentences", published in ACM digital library EMNLP-03, conference on empirical methods in natural language processing.

T. Wilson, J. Wiebe, and R. Hwa, 2004, "Just how mad are you? Finding strong and weak opinion clauses", In the Association for the Advancement of Artificial Intelligence, pp. 761-769.

B. Liu, and J. Cheng, 2005, "Opinion Observer: Analyzing and comparing opinions on the web", Proceedings of WWW.

A.M.Popescu, O. Etzioni, 2005, "Extracting Product Features and Opinions from Reviews", In Proc. Conf. Human Language Technology and Empirical Methods in

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A Novel Approach to Localized a Robot in a Given Map with Optimization Using GP-GPU

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Part of the Algorithms for Intelligent Systems book series (AIS)

Abstract

This paper proposes a novel method of acquiring sensory data of a robot with emphasis on physical sensory environment. The system produces better acustomization within environment of previously known map. The system developed and presented also has analysis and optimization of sectorial errors in movement within curve of maps. The proposed system has better response as compared to SLAM algorithm with better known map of the environment, as the system uses candidate algorithm as one of the novel method. The system is also equipped with GPU-based parallel processing which enhances the overall performance and computation of the system.

Keywords

AMD GP-GPU Gmapping

References

1. Mittal R, Pathak V et al (2018) A review of robotics through cloud computing. J Adv Robot
   Google Scholar (https://scholar.google.com/scholar?q=Mittal%20R%2C%20Pathak%20V%20et%20al%20%282018%29%20A%20review%20of%20robotics%20through%20cloud%20computing.%20J%20Adv%20Robot)
2. http://haifux.org/lectures/267/Introduction-to-GPUs.pdf (http://haifux.org/lectures/267/Introduction-to-GPUs.pdf)
3. https://www.boston.co.uk/info/nvidia-kepler/what-is-gpu-computing.aspx (https://www.boston.co.uk/info/nvidia-kepler/what-is-gpu-computing.aspx)

4. Dhiman NK, Deodhare D et al (2015) Where am I? Creating spatial awareness in unmanned ground robots using SLAM: a survey
Google Scholar (https://scholar.google.com/scholar?q=Dhiman%20NK%2C%20Deodhare%20D%20et%20al%20%282015%29%20Where%20am%20I%3F%20Creating%20spatial%20awareness%20in%20unmanned%20ground%20robots%20using%20SLAM%3A%20a%20survey)

5. Balasuriya BLEA, Chathuranga BAH et al (2016) Outdoor robot navigation using Gmapping based SLAM algorithm. In: 2016 Moratuwa engineering research conference
Google Scholar (https://scholar.google.com/scholar?q=Balasuriya%20BLEA%2C%20Chathuranga%20BAH%20et%20al%20%282016%29%20Outdoor%20robot%20navigation%20using%20Gmapping%20based%20SLAM%20algorithm.%20In%3A%202016%20Moratuwa%20engineering%20research%20conference)

6. Apriaskar E, Nugraha YP et al (2017) Simulation of simultaneous localization and mapping using hexacopter and RGBD camera. In: 2017 2nd international conference on automation, cognitive science, optics, micro electro-mechanical system, and information technology (ICACOMIT)
Google Scholar (https://scholar.google.com/scholar?q=Apriaskar%20E%2C%20Nugraha%20YP%20et%20al%20%282017%29%20Simulation%20of%20simultaneous%20localization%20and%20mapping%20using%20hexacopter%20and%20RGBD%20camera.%20In%3A%202017%202nd%20international%20conference%20on%20automation%2C%20cognitive%20science%2C%20optics%2C%20micro%20electro-mechanical%20system%2C%20and%20information%20technology%20%28ICACOMIT%29)

7. Frese U, Hirzinger G (2001) Simultaneous localization and mapping—a discussion
Google Scholar (https://scholar.google.com/scholar?q=Frese%20U%2C%20Hirzinger%20G%20%282001%29%20Simultaneous%20localization%20and%20mapping%E2%80%94a%20discussion)

8. Fatahalian K (2012) How GPU works
Google Scholar (https://scholar.google.com/scholar?q=Fatahalian%20K%20%282012%29%20How%20GPU%20works)

9. AMD accelerated parallel processing guide.pdf
Google Scholar (https://scholar.google.com/scholar?q=AMD%20accelerated%20parallel%20processing%20guide.pdf)

10. Najam S, Ahmed J et al (2019) Run-Time resource management controller for power efficiency of GP-GPU architecture. IEEE Access 7
CrossRef (https://doi.org/10.1109/ACCESS.2019.2901010)
Google Scholar (http://scholar.google.com/scholar_lookup?title=Run-Time%20Resource%20Management%20Controller%20for%20Power%20Efficiency%20of%20GP-GPU%20Architecture&author=Shaheryar.%20Najam&author=Jameel.%20Ahmed&author=Saad.%20Masood&author=Chuadhry%20Mujeeb.%20Ahmed&journal=IEEE%20Access&volume=7&pages=25493-25505&publication_year=2019)

11. https://armkeil.blob.core.windows.net/developer/.../pdf/.../Mali_GPU_Archite (https://armkeil.blob.core.windows.net/developer/%e2%80%a6/pdf/%e2%80%a6/Mali_GPU_Architecture)

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A STUDY ON MACHINE LEARNING APPROACHES FOR WATER QUALITY DETECTION

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Abstract : Water is an inorganic , transparent , tasteless , odourless chemical substance , which is the one of the main constituents of the Earth's hydrosphere and is significant for all vital forms of life but Rapid urbanization has result in its deterioration . Predicting recreational water quality in inexpensive ways is one in every of the foremost difficult task and so as to try to do that the models and algorithms of machine learning were explored by the researchers . The model includes artificial (ANN) , deep (DNN) , recurrent neural network (RNN) , linear discriminant analysis (LDA) , super vector machines (SVM), logistic regression and long-short term memory (LSTM) while the algorithms checks the water quality index (WQI) and also the water quality class (WQC) . The Simulation study is conducted to test performance of every algorithm using F-score metric . The study was conducted so as to analyse the algorithms and methods together and can further provide the sunshine to the trail of future research on the water quality detection using advanced techniques.

IndexTerms – **Machine Learning , Water Quality Detection , Deep Learning .**

I. INTRODUCTION

Water makes about 70% of the Planet i.e..2/3 of total surface and its vital for all kind of life sustaining here however life itself is becoming the threat to water . The surging , tormenting diseases are the results of poor water quality . The pollution results in Parasitic , Bacterial and Viral diseases such as typhoid , cholera , encephalitis , poliomyelitis , hepatitis , etc. which had became an acute problem especially in developing Countries .

The methods used before applying these machine learning algorithms and models were quite expensive and time consuming because those methods includes sample collection , transportation to labs and statistical analysis . Therefore the basic requirement was of the adequate and accurate agitating system that enables for simple and early recognization of all the changes , in order to take the required necessary decisions at the proper time . The major challenge was that of the noise and the highly imbalanced data because of which the prediction of anything was becoming a herculean task . Therefore the investigation was exhausted in order to look at the validity of popular algorithms on the highly imbalanced data and therefore the comparision was made between statistical and machine learning algorithms . The experiment was performed within the phases so as to grasp that which one could gain the simplest result . Within the first phase the classification of information was performed through the statistical algorithm logistic regression and therefore the second part was entended to the machine learning techniques like ANN , DNN,RNN , LDA , SVM , LSM . After these a representative set of supervised machine learning Algorithm were employed on dataset for predicting the water quality index and Sophistication . It had been concluded that Machine learning algorithms can simply deduce the quantity of false predictions and achieved good results for anomaly detections .

II. LITERATURE REVIEW

Byer and Carlson [1] were the first to form and test an internet monitoring of portable drinking water distribution system .

Zhang , Zhu , Yue and Wong [2] proposed a novel anomaly detection algorithm for water quality data using dual time moving windows.

Mohammadpour el al. [3] have investigated the matter by using super vector machines and a couple of methods of artificial neural network .

Kang , Gao and Xie [4] developed model for water quality prediction , the simplest result was achieved using artificial neural network with non linear autoregressive.

Recurrent Neural Networks and Long-Short term memory are pretty good at extracting patterns in input feature space where the input file spans overlong sequence. The estimated water quality in work is predicted on only three parameters : Turbidity , Temperature and pH , tested in step with the WHO.

Ahmat et al. [5] employed single feedforward neural network [NN] and a mix of multiple neural networks to estimate water quality index [WQI] .

Sakizadeh [6] predicted the water quality index [WQI] using 16 water quality parameters and Artificial Neural [illegible] with Bayerian regularization .

Rankonc et al. [7] predicted dissolved Oxygen using feedforward Neural network [illegible]

Gazzaz et al. [8] used artificial neural network [ANN] *to predict* [illegible] *23 in number which made it quite expensive .*

Ali Qamar [9] classified samples into quality classes [illegible]

Abyaneh [10] predicted Chemical Oxygen Demand [illegible] Network [ANN] and multivariate rectilinear regression parameters utilised by him were pH , Temperature , Total [illegible] Total Suspended Solids .

Hamza Ahmad Isiyaka et al. [13] inspected and initiated a decrease in quantity of WQ monitoring places and [illegible] mixture for the WQ modelling utilising artificial neural network [ANN].

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Optimized Image Classification Based on Universal Image Distance and Support Vector Machines

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Abstract- *Image Classification of remotely sensed images is one of the most important field of research in computer engineering. Image classification techniques are being used in object recognition, quality control and OCR systems. Many of the machine vision systems used in industrial applications employ well known image processing algorithms to discriminate between good and bad parts. Algorithms such as thresholding, blob analysis and edge detection, for example, can be found in every machine vision software vendor's toolbox since they can be used in numerous applications to solve a relatively large number of imaging tasks. Image classification may be performed using supervised, unsupervised or semi-supervised learning techniques. In supervised learning, the system is presented with numerous examples of images that must be manually labeled. Using this training data, a learned model is then generated and used to predict the features of unknown images. Such traditional supervised learning techniques can use either generative or discriminative models to perform this task. In this dissertation, UID techniques are used in an optimized manner to represent an image in the form of a vector in finite dimensions. The distance between this representation and that of a prototype image is computed to find the similarity score between the images. This mating score can be used to train any machine learning system under supervised or unsupervised environment. In this dissertation, an SVM based classifier is trained using feature vectors to train a classifier in a supervised environment. The precision and accuracy of the machine is computed over the benchmark techniques of image classification. The overall performance of the proposed methods is evaluated using R simulator in terms of precision, recall and kappa measure. Simulation results establish the validity and efficiency of the approach.*

Keywords- Universal Image Distance, LZ Complexity, Machine Learning, Support Vector Machines

I. INTRODUCTION

Image classification is one of the most focused problem in the modern era of digital image processing and machine learning. In image classification, an image is classified according to its visual content. For example, does it contain an airplane or not. An important application is image retrieval - searching through an image dataset to obtain (or retrieve) those images with particular visual content. Classification includes a broad range of decision-theoretic approaches to the identification of images. All classification algorithms are based on the assumption that the image in question depicts one or more features, for e.g., geometric parts in the case of a manufacturing classification system, or spectral regions in the case of remote sensing, and that each of these features belongs to one of several distinct and exclusive classes [1]. The classes may be specified a priori by an analyst (as in supervised classification) or automatically clustered (i.e. as in unsupervised classification) into sets of prototype classes, where the analyst merely specifies the number of desired categories.

Image classification analyzes the numerical properties of various image features and organizes data into categories. Classification algorithms typically employ two phases of processing: training and testing. In the initial training phase, characteristic properties of typical image features are isolated and, based on these, a unique description of each classification category, i.e. training class, is created. In the subsequent testing phase, these feature-space partitions are used to classify image features.

The description of training classes is an extremely important component of the classification process. In supervised classification,statisticalprocesses(i.e.basedonanaprioriknowledge of probability distribution functions) or distribution - free processes can be used to extract class descriptors [2]. Unsupervised classification relies on clustering algorithms to automatically segment the training data into prototype classes. In either case, the motivating criteria for constructing training classes is that they are:

1. Independent, means. a change in the description of one training class should not change the value of another,
2. Discriminatory, i.e. different image features should have significantly different descriptions, and
3. Reliable, all image features within a training group should share the common definitive descriptions of that group.

A convenient way of building a parametric description of this sort is via a feature vector , where n is the number of

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Paper Published in Conference Proceedings

S. No.	Paper Published (Indexed/ Non Indexed)	No. of Papers	Points
1	Indexed Conference Proceeding	23	23*5 = 115
2	Non Indexed Conference Proceeding	26	26*3 = 78
	Total	49	193

Points 30

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Session 2021-22 (RTU)

10	Dr. Vinita Mathur	ECE	A Survey on Evolution of Internet of Things	Sep, 2020	ICCOMET 2020 - 2nd International Conference on Communication, Optical and Microelectronics: "The Emerging Trends"-2020	Internati onal		ISSN 2229-5518	Y	Y
11	Dr. Vinita Mathur	ECE	A Study on the Behaviour of MANET: Along with Challenges, Applications and Security Attacks	Sep, 2020	ICCOMET 2020 - 2nd International Conference on Communication, Optical and Microelectronics: "The Emerging Trends"-2020	Internati onal		ISSN 2229-5518	Y	Y
12	Devesh Gupta	ECE	Novel Vedic Multiplication Technique and its Implementation â€“ A Fast and Simple Method of Convolution	27-28th August 2020	ICCOMET 2020 - 2nd International Conference on Communication, Optical and Microelectronics: "The Emerging Trends"-2020	Internati onal	Indexed	ISSN 2229-5518	Y	Y
13		ECE	A Review on ground use & ground Cover in India	27-28th August 2020	ICCOMET 2020 - 2nd International Conference on Communication, Optical and Microelectronics: "The Emerging Trends"-2020	Internati onal	Indexed	ISSN 2229-5518	Y	Y
14	Ritambhar a	ECE	Carbon Nano-Tube Field Effect Transistor (CNTFETs): A Promising Technology for future Ics	27-28th August 2020	ICCOMET 2020 - 2nd International Conference on Communication, Optical and Microelectronics: "The Emerging Trends"-2020	Internati onal	Indexed	ISSN 2229-5518	Y	Y
15	Ritambhar a	ECE	The Study on SILVER AND GOLD BASED PLASMONICS BASED FIBRE OPTIC SENSORS: A REVIEW	27-28th August 2020	ICCOMET 2020 - 2nd International Conference on Communication, Optical and Microelectronics: "The Emerging Trends"-2020	Internati onal	Indexed	ISSN 2229-5518	Y	Y
16	Jaiverdhan	ECE	Quad-band Frequency Reconfigurable Microstrip Patch Antenna Using Modified Ground Plane for the WI-FI, Wi-Max, RF-Altimeters, and WLAN Applications	27-28th August 2020	ICCOMET 2020 - 2nd International Conference on Communication, Optical and Microelectronics: "The Emerging Trends"-2020	Internati onal	Indexed	ISSN 2229-5518	Y	Y
17	Dr. Sandeep Vyas	ECE	Review: the Human Pose Estimation using Radio Frequency	27-28th August 2020	ICCOMET 2020 - 2nd International Conference on Communication, Optical and Microelectronics: "The Emerging Trends"-2020	Internati onal	Indexed	ISSN 2229-5518	Y	Y

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18	Vikas Sharmaa	ECE	Steagnography-An introduction and various techniques in digital image processing	27-28th August 2020	ICCOMET 2020 - 2nd International Conference on Communication, Optical and Microelectronics: "The Emerging Trends"-2020	International	Indexed			Y
19	Ashish Sharma	ECE	Design and Simulation of Tapped Input Compact Hairpin Band Pass Filter	Sept. 2020	ICCOMET 2020 - 2nd International Conference on Communication, Optical and Microelectronics: "The Emerging Trends"-2020	International	Indexed	ISSN 2229-5518	Y	Y
20	Ashish Sharma	ECE	Time frequency localized improved S-transform for ECG Signal Analysis	Sept. 2020	ICCOMET 2020 - 2nd International Conference on Communication, Optical and Microelectronics: "The Emerging Trends"-2020	International	Indexed	ISSN 2229-5518	Y	Y
21	Deepak sankala	ECE	A Review on Doped and Defected Graphene-based materials for supercapacitor electrodes	27-28th August 2020	ICCOMET 2020 - 2nd International Conference on Communication, Optical and Microelectronics: "The Emerging Trends"-2020	International	Indexed	ISSN 2229-5518	Y	Y
22	Deepak sankala	ECE	Adder designing process LUT based using FPGAs.	27-28th August 2020	ICCOMET 2020 - 2nd International Conference on Communication, Optical and Microelectronics: "The Emerging Trends"-2020	International	Indexed	ISSN 2229-5518	Y	Y
23	Dr. Ruchi Mathur	Mathematics	Solution of fractional kinetic equations by using integral transform	26/08/2020	AIP Conference Proceedings	International	Indexed		Y	Y

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1	Deepika Bansal	IT	Graphical password authentication	Dec 2020	NCITSA -21	National	Non Indexed	0973-2861	Y	Y
2	Deepika Bansal	IT	Review on smart city using internet of things	June 2021	NCITSA -21	National	Non Indexed	0973-2861	Y	Y
3	Deepika Bansal	IT	Search engine optimization techniques and impliementation	June 2021	NCITSA -21	National	Non Indexed	0973-2861	Y	Y
4	Preeti Sharma	IT	Modeling Error	Dec 2020	NCITSA	National	Non Indexed	0973-2861	Y	Y
5	Preeti Sharma	IT	Data science: an approach to learn things	Dec 2020	NCITSA	National	Non Indexed	0973-2861	Y	Y
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19	Mohd. Rizwan Khan	IT	Digital Payments	June, 2021	NCITSA -25	National	Non Indexed	0973-2861	Y	Y
20	Ms.Kusum Yadav	IT	Comprehensive View of Big Data	June, 2021	NCITSA -21	National	Non Indexed	0973-2861	Y	Y
21	Ms.Kusum Yadav	IT	IOT based Object Detection System	June, 2021	NCITSA -21	National	Non Indexed	0973-2861	Y	Y
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24	Ms.Shikha Shrivastava	IT	5G Mobile Technology: A Review	June, 2021	NCITSA -21	National	Non Indexed	0973-2861	Y	Y
25	Brijesh Kumar Singh	IT	HoneyPot: Tracking Cyber Criminals	June, 2021	NCITSA -21	National	Non Indexed	0973-2861	Y	Y
26	Brijesh Kumar Singh	IT	Covid-19 Data Analysis	June, 2021	NCITSA -21	National	Non Indexed	0973-2861	Y	Y

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Coronavirus (COVID-19) in India- Statistics & Facts

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Abstract

Document Sections

I. Introduction

II. How it Spreads in India

III. How India is Combating COVID-19

IV. Impact of COVID 19 in India

Abstract:
COVID-19 is a pandemic that make the world even harder and faster than tsunami does. Covid-19 is a contagious disease caused by the virus named Severe Acute Respiratory Syndrome COronaVirus-2 (SARS-CoV-2). It started off from Wuhan city of Hubei province china in December 2019. Initially it was known as 2019 novel coronovirus (2019 nCoV). On 11 march WHO declared COVID-19 as pandemic. India reported its first patient on January 30 from Thrissur Kerala, a student from Wuhan. In this paper we did a survey of the outbreak and its spread in a short span and its impact on the people both physically and mentally. Also we tried to justify our survey with enough facts and statistical data.

Published in: 2020 Fourth World Conference on Smart Trends in Systems, Security and Sustainability (WorldS4)

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A Novel Approach to Optimize SLAM Using GP-GPU

Authors | Authors and affiliations

Rohit Mittal ✉, Vibhakar Pathak, Amit Mithal

Conference paper
First Online: 30 October 2020

Part of the Lecture Notes in Networks and Systems book series (LNNS, volume 148)

Abstract

Mapping is the process to scale down and represent actual geo-allied information whereas localization is to identify and accommodate itself in the environment. Various papers had been published in this respect which sees SLAM algorithms, but a few had considered and examined for identification of object through SONAR and IR sensors. Apart from identification of object,

4th World Conference on

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in 4th World Conference on Smart Trends in Systems, Security & Sustainability (WorldS4 2020) held during July 27 - 28, 2020. The conference was held through digital platform ZOOM. The paper has also been selected for publication in the (WorldS4) conference as per fulfilment of guidelines issued by IEEE.

We wish the authors all the very best for future endeavors.

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RGB Image Watermarking Using DCT

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Conference paper
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Part of the Algorithms for Intelligent Systems book series (AIS)

Abstract

In current era of technology, work over internet is increasing day by day due to which security becomes very critical issue. Therefore, to address this issue this paper presents an algorithm proposed for watermarking using DCT. Watermarking and de-watermarking using DCT are easy and very effective as compared to other existing transforms. This algorithm splits the color input image into three components, namely 'red,' 'green' and 'blue.' This digital image watermarking technique works effectively and efficiently for security purpose as compared to other techniques in spatial and DCT domains. In de-watermarking process, the received image is of good visual quality.

Keywords

Image Watermarking DCT

References

1. M. Kaur, S. Jindal, S. Behal, A study of digital image watermarking 2(2), (2012). (ISSN: 22493905)
Google Scholar (https://scholar.google.com/scholar?q=M.%20Kaur%2C%20S.%20Jindal%2C%20S.%20Behal%2C%20A%20study%20of%20digital%20image%20watermarking%202%282%29%2C%20%28201%29%20%28ISSN%3A%2022493905%29)
2. V. Singh, Digital watermarking: a tutorial. JSAT, Jan Edition (2011)

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Salesforce IoT Cloud Platform

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Conference paper
First Online: 24 April 2021

Part of the Algorithms for Intelligent Systems book series (AIS)

Abstract

The Salesforce launched IoT cloud to provide a platform for users to store and process data from connected devices. The success of the IoT world requires service provision attributed with ubiquity, reliability, high-performance, efficiency, and scalability. In order to accomplish this attribution, future business and research vision are to merge the Salesforce (A CRM which works on cloud) and IoT concepts, i.e., enable an "Everything as a Service" model. Aim of this paper is to highlight the key feature of Salesforce IoT cloud platform for all the domain of IT and education.

Keywords

Salesforce Internet of things CRM GPUs Sensors

References

1. Y. Benazzouz, C. Munilla, O. Günalp, M. Gallissot, L, Gürgen, Sharing user IoT devices in the cloud, in *2014 IEEE World Forum on Internet of Things (WF-IoT)*
Google Scholar (https://scholar.google.com/scholar?q=Y.%20Benazzouz%2C%20C.%20Munilla%2C%20O.%20G%C3%BCnalp%2C%20M.%20Gallissot%2C%20L%2C%20G%C3%BCrgen%2C%20Sharing%20user%20IoT%20devices%20in%20the%20cloud%2C%20in%202014%20IEEE%20World%20Forum%20on%20Internet%20of%20Things%20%28WF-IoT%29)
2. V. Arya, J. Singh, Image compression algorithm using two dimensional discrete cosine transform, Imperial J. Interdisc. Res. (IJIR) **2**(8) (2016). ISSN 2454-

Springer Link

High-Speed SET D Flip-Flop Design for Portable Applications

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Abstract

For reliability of battery operated and portable applications, VLSI designers are being motivated by three basic goals, viz., minimizing the transistor count, minimizing the power consumption and minimizing them, nm and propagation delay. Flip-flop is the basic building block of a sequential device since it is utilized in designing memory block of any digital circuit. This research paper proposes an edge-triggered flip-flop and its outcomes are compared with the flip-flop, which has minimum number of transistors and very less delay. Proposed design is simulated at various temperature and voltage values at 90, 65 and 32 nm technologies that the proposed circuit works efficiently independent of technology. Proposed latch produces better results in terms of delay and PDP as compared to the existing circuit employing less number of transistors is one beneficial way with the aid of which reduction in parasitic capacitances, chip area, propagation delay and power consumption can be acquired.

Keywords

9T flip-flop 10T flip-flop Delay PDP

Notes

Past to Future of Network Security with AI

Nishita Gupta and Nilam Choudhary

Abstract Networking is that part of technology which without any doubt is going to increase day by day, but everything has its pros and cons. Therefore, to deal with the cons, various network security protocols have been established. These have helped us to an extent to maintain the security and privacy of networking. But there are other concerns too regarding the advancement of technology in the future. This research paper is written with the idea to dig out the issues that the world is facing and the problems which have the potential to be a threat and affect the growth of networking. The author will also focus on the solutions which have the future scope to counter these problems including new techniques developed and devised by some researchers and network security-based start-ups incorporating AI, which will be the future trend for solving a lot of upcoming issues in the technology.

Keywords AI · Network threats · Cybersecurity · DDoS · IoT · End-point security

1 Introduction

"Country's computers linked here first" read the headline of a tiny article in the student newspaper of UCLA on July 15, 1969 [1]. The article briefly explained the work which was going on at UCLA on coming up with a new network connecting geographically separated computers. This project was supported by the Defense Department's Advanced Research Project Agency (ARPA) with the idea of protecting the flow of information between military installations via a technology developed called network control protocol (NCP).

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Effect of Dimensionality Reduction on Prediction Accuracy of Effort of Agile Projects Using Principal Component Analysis

Effect of Dimensionality Reduction on Prediction Accuracy of Effort of Agile Projects Using Principal Component Analysis

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Abstract. Agile framework for software development has received a lot of recognition in software industry in previous years as it focuses on rapid incremental delivery, lower risk and customer satisfaction. At early stages of development, the effort must be predicted so that the project is completed successfully within the time and cost deadlines. In recent years, various researchers have done study in this area and it is observed that the prediction of effort faces a problem of large dimension of features. Hence the prediction accuracy may be increased by reducing the dimensions of the features. In this paper, PCA has been used for reduction of feature dimensions for effort estimation. PCA identifies the key attributes by reducing the dimensions of the attribute which are those having highest correlation with the effort. The methodology shows the effect of PCA on the original dataset and the results are observed by applying various machine learning techniques pre and post PCA. The comparison metrics used are Mean Magnitude relative Error (MMRE), Root Mean Square Error (RMSE), and Prediction Accuracy (PRED (25)). The decreased values of errors and increased value of accuracy shows the better model accuracy when PCA is applied on the dataset. All the computations and implementations in this paper are done using Python on Scikit-learn library.

1. Introduction

1.1 Estimation

The estimation of effort plays a significant role in software development management and planning. The estimations are expected to be reasonable in terms of resources, cost and schedule. A limited time frame is planned for the estimations and they must be updated regularly as well with the progress of project development. The effort basically predicts the resources in man-hours [1]. Agile is used as a software development framework in recent years in software industry as it is found to have many strengths over other traditional development framework like waterfall etc. Agile is an iterative approach which focuses on customer satisfaction and incremental delivery of software so that at any moment requirements may be accommodated during the development cycle thus making it dynamic and low risk prone [2]. The effort is calculated in agile mainly depending on the software size which is measured by no. of story points which is a measure of user stories and team velocity. We have considered a public dataset of projects having various features required for calculation of effort specifically for software projects developed using agile framework [3]. The prediction normally suffers from an issue of large dimension of features [4][5][6]. In this paper we suggest the application of PCA for feature extraction for improving the accuracy of prediction and reducing the error. The methodology discusses the detailed steps required for PCA like finding the covariance matrix and

(8)

Recent Trends in Communication and Intelligent Systems pp 157-164 | Cite as

A Novel Approach to Localized a Robot in a Given Map with Optimization Using GP-GPU

Authors Authors and affiliations

Rohit Mittal ✉, Vibhakar Pathak, Shweta Goyal, Amit Mithal

Conference paper
First Online: 18 January 2020

Part of the Algorithms for Intelligent Systems book series (AIS)

Abstract

This paper proposes a novel method of acquiring sensory data of a robot with emphasis on physical sensory environment. The system produces better acustomization within environment of previously known map. The system developed and presented also has analysis and

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Octagonal patch antenna for WiMax Applications

Vinita Mathur, Parul Tyagi, Neha Singh

Abstract— In this manuscript microstrip feed patch antenna is designed for S band applications. The structure is suitable from 2.2 to 4GHz. The octagonal shape is taken and squares are added that makes it a wing like structure. The proposed antenna is designed on FR4 substrate board of dimensions 50x55x1 mm³. All the simulations are performed using CST Microwave Studio. The current distribution and radiation patterns of proposed model are also presented in this paper.

Index Terms— octagonal patch, S-band, square patch, CST Microwave Studio.

1 Introduction

Microstrip patch antennas are most frequently used in wireless communication systems due to their benefits in terms of low manufacturing cost, light weight, compact size and easily integrated to microwave circuits. Patch antennas have capability to work in dual and multiple frequency bands. Present scenerio of wireless communication system required compact and multiple band antenna design. Since much system are operating at multiple frequency range, requiring dual and triple band antenna for various applications such as WLAN, WiMAX, RFID, satellite communication, etc. Presently, many printed monopole antenna are proposed. Serve for wireless applications to cover the wireless standards for Wireless local area network (WLAN: 2.4–2.48, 5.15–5.35, and 5.75–5.825GHz) and worldwide interoperability for microwave access (WiMAX: 3.4– 3.69 GHz) are two among the available wireless standards which allow interconnections of devices for communication [1].

However, the major drawback of this type of antenna is narrow bandwidth. To overcome this problem several techniques are proposed, such as increasing thickness of the substrate, introducing parasitic elements, defected ground structures, introducing slots and modifying the shape of patches [1-3]. Few of the antenna are introduced by implementing various shape of strips and slots for wireless communications. Many other antennas are proposed with the compact size or simple [4-6].

However, reducing antenna height gives rise to a decrease in bandwidth and this effect is independent of the technology used. In fact, the narrow bandwidth characteristic of microstrip antennas cannot meet the continuously increasing bandwidth demand of most modern multiband systems [7-10].

2 ANTENNA DESIGN

The proposed antenna geometry is compact and simple. The proposed patch antenna is microstrip fed as shown in Fig. 1. This antenna consists of octagonal patch with rectangles added which give it a wing like structure. The antenna is designed on FR-4 substrate (relative dielectric constant 4.4). With the dimension of 55X50X1 mm³. Dimensions of the proposed patch are shown in Table 1.

Table 1 Dimensions of patch

L	W	W_f	L_f	r	ε
55	50	2	31	8	4.4

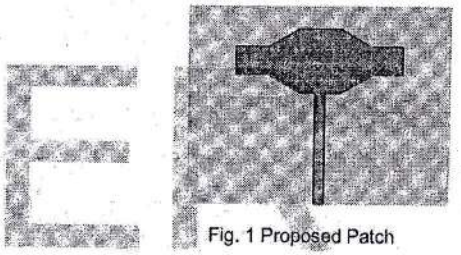

Fig. 1 Proposed Patch

3 RESULTS AND DISCUSSION

Various types of printed monopole antennas are considered for wireless applications, such as square, circular, elliptical, pentagonal, hexagonal, octagonal etc. Out of these octagonal shaped monopole antennas are considered here for designing and analysis.

The change in S11 with effect in the height of the substrate is shown in Fig. 2. Substrate is important for the mechanical strength of the antenna. It is used for degraded electric properties as the surface wave formed on the dielectric extract a portion of total power for space waves. From Figure it is analyzed that better results are observed at h2 = 1 mm. Therefore the substrate thickness taken is h2 = 1 mm.

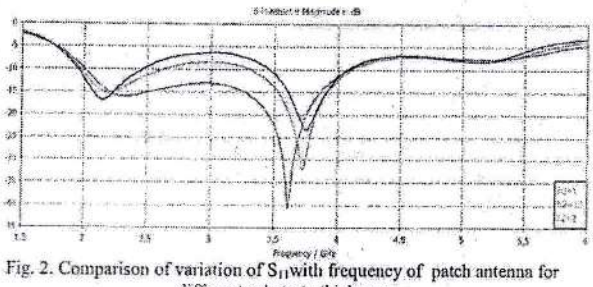

Fig. 2. Comparison of variation of S_{11} with frequency of patch antenna for different substrate thickness

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A Survey on Evolution of Internet of Things

Neha Singh, Parul Tyagi, Vinita Mathur

Abstract— In the recent era of advanced technology, everyone is coming across many new paradigms of technology. IoT is one of the most talked-about among them in the industry. Internet of Things is attracting the lifestyle and is becoming the most growing technology. IoT is one of the characters of a "universal global neural network" whose prime concern is to associate with numerous things. The IoT consists of smart machines that communicate with other instruments and the Radio Frequency Identification (RFID) and sensor network technologies will accelerate to match and overcome the new confrontations. This research article comprises of the meaning of IoT, characteristics, and applications. The main objective of this paper is to provide an overview of the evolution and the management of the Internet of Things (IoT).

Index Terms— Internet of things, Smart devices, Radio frequency identification, Architecture, web services

1 Introduction

In early times to handle machines and other automation, simple manual methods were used. Although with the change in time and new technologies advanced methods came into existence to control mechanization. With the increase in the availability of computers and the internet a huge amount of data can be accessed. In recent times with the touch of a button, everyone wants an economical and protected method to manage the machines with the Internet.

The abbreviation IoT is one of the most commonly used technology in the field of education and industrialization. Generically it epitomizes the scope of network appliances to sense and regularly gather data from numerous sources around the globe and then transmit and receive information over the internet [1]. The information that has been shared is then further revised and being used for other effective objectives. The IoT is a catalog of smart machines interacting with more smart automation, gadgets, environments, and framework as shown in figure 1.

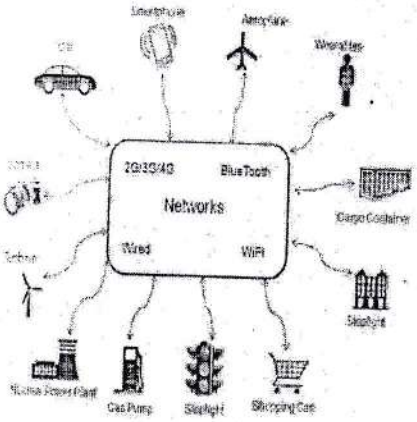

Fig. 1 IOT in various fields

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The advancement in the internet of things (IoT) permits various articles loke sensor nodes, embedded systems, and intermediate devices to gather and interchange the information to accomplish the objectives of the entire connected world, in the upcoming future as shown in figure 2. Commonly, the architecture of an IoT architecture comprised of different sensor and RFID nodes to form large-scale distributed embedded systems for various applications based on real-time like smart health-care [2], [3], intelligent transportation systems [4], and smart energy systems [5]–[7].

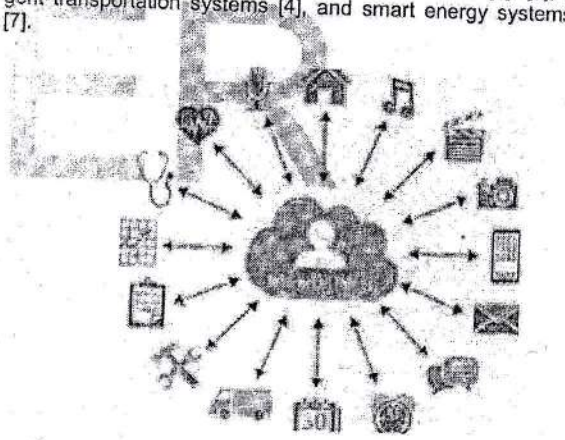

Fig. 2 Internet of Things

2 ARCHITECTURAL ARRANGEMENT

The security issue correlated with several devices being connected is the prime concern in the continuous development of the internet of things. Figure 3 shows the architectural arrangement of an IoT wireless device with the destination host. In the diagram, the cellular device is associated with the local serving unit tower through encoded radio access hobnobs. The tower shown in the figure is actively linked to the mobility data center of the home.

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A Study on the Behaviour of MANET: Along with Challenges, Applications and Security Attacks

Parul Tyagi, Vinita Mathur, Neha Singh

Abstract— Mobile ad-hoc network (MANET) is a self-configuring, infrastructure less network of mobile devices connected by wireless (as shown in fig.1) Ad hoc is latin and it means "for this purpose". Every gadget in a MANET is allowed to move autonomously toward any path and will along these lines be a router, the essential test in building a MANET is preparing every gadget to consistently withstand the data required to legitimately course activity. In this paper we concentrated on the exploration challenges and assess open issues being developed of directing procedures in MANETs. Because of versatility and specially appointed nature, security in versatile important systems is especially difficult to accomplish. In MANETs correspondence between hubs is finished through the remote medium. We break down security objectives of MANET's and will depict the exploration challenges evaluate open issues in development of routing techniques in MANET's.

Index Terms — QoS, MANET's, EMI, OSI, IP, TTL, attacks..

1 Introduction

Remote correspondence has turned into an ever-display part of present day life, from worldwide cell phone frameworks to neighborhood and even individual territory systems. Remote broadcast communications systems are for the most part executed also, regulated utilizing radio correspondence. This usage happens at the physical level (layer) of the OSI demonstrates arrange association. Portable specially appointed systems (MANETs) comprise of a gathering of remote portable hubs which progressively trade information among themselves without the dependence on a settled base station or a wired spine organize With late execution advancements in PC and remote correspondences advances, propelled portable remote figuring is required to see progressively predominant utilize and application, a lot of which will include the utilization of the Internet Protocol (IP) suite. The vision of versatile specially appointed systems administration is to support hearty furthermore, proficient task in portable remote systems by coordinating steering usefulness into versatile hubs. Such systems are proposed to have dynamic, once in a while quickly evolving, arbitrary, multi-jump topologies which are likely stately of moderately data transmission obliged remote connections. Because of the constrained transmission scope of remote system hubs, different bounces are generally required for a hub to trade with some other hub in the system [1].

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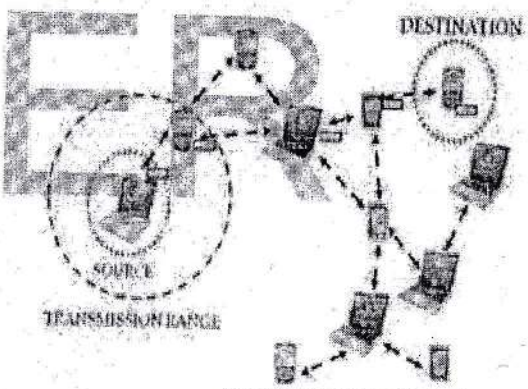

Fig. 1. Mobile Ad hoc Network

Inside the Internet people group, steering support for portable hosts is by and by being enunciated as "versatile IP" innovation. This is an innovation to help versatile host "wandering", where a meandering host might be associated through various intends to the Internet other than its understood settled address area space [2].

This is an innovation to help versatile host "wandering", where a meandering host might be associated through various intends to the Internet other than its understood settled address area space [2]. The host may be straightforwardly physically associated with the settled system on a remote subnet, or be associated through a remote connection, dial-up line, and so forth. Supporting this type of host versatility needs address administration, convention interoperability upgrades and so forth, yet center system capacities , for example, jump by-bounce directing still by and by depending after prior steering conventions working inside the settled arrange. Interestingly, the target of portable specially appointed organizing is to broaden versatility into

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Novel Vedic Multiplication Technique and its Implementation – A Fast and Simple Method of Convolution

R. Bathija, Devesh Gupta, I. Suwalka

Abstract— Urdhya Triyakbhyam a new method of convolution based on Vedic Mathematics has been explained for digital signal processing. It has been shown that the convolution of large sequence can be found out in comparatively short time, by this method. We have demonstrated the capability of the method on eight samples. We had used Tanner tool for simulation and 16nm CMOS technology. A delay 53.21ns and power dissipation is 14.91uW has been found.

Index Terms— — Urdhya Triyakbhyam, Vedic Mathematics, CMOS technology, power dissipation, Convolution, Delay,VLSI implementation.

1 Introduction

With the latest advancement of VLSI technology the demand for portable and embedded digital signal processing (DSP) systems has increased considerably. Using programmable devices for DSP applications could narrow the gap between the flexibility of general purpose processor (GPP), programmable DSP (PDSP). FPGAs are being increasingly used for variety of computationally intensive applications. In digital signal processing convolution is a fundamental computation that is ubiquitous in many application areas [1].

Convolution is the most important and fundamental concept in signal processing and analysis. Many researchers have been trying to improve performance parameters of convolution system[ ]. One of the factors in performance evaluation of any system is speed. The core computing process in convolution is always a multiplication routine. Faster addition and multiplication are of extreme importance in DSP. Therefore, engineers are constantly looking for boosting performance parameters of it using new algorithms and hardware. After comparative study of different multipliers, Urdhva Tiryagbhyam sutra based on ancient Indian wisdom book – the Vedas, is shown to be an efficient multiplication algorithm [2][3].

2. Background: In Ref.[1],convolution is carried out by serial processing. They used only one 4×4 bit Vedic multiplier based on Urdhva Tiryagbhyam sutra. Though hardware is less, delay is more as sixteen multiplications are carried out one by one using only single multiplier. Direct method for calculating the linear convolution sum of two finite length sequences is easy to learn and perform. The approach is easy to learn because of the similarities to computing the multiplication of two numbers by a pencil and paper calculation.

FPGA implementation is future work [2]. In parallel FIR filter algorithm, the preprocessing, post-processing and sub-filter matrices can be calculated easily with Matlab. Then, Matlab can be used to automatically generate Verilog code for the hardware implementation of this algorithm [5]. But in automatically generated code there is no control on architecture level.

ROM look up tables can be used to implement the computational modules. Multipliers can be realized using memory based approach. Multiplication of two n bit input variables can be performed by ROM table of size 2 with power 2n entries [7]. But this approach is not efficient in area point of view.CRT algorithm minimizes multiplication operation at cost of increase in addition operations [8]. Parallel implementation improves speed [9]. The sutras in Vedic mathematics are easy to understand, easy to apply and easy to remember. Vedic maths is helpful to software developers as it is more scientific than the normal system of mathematics [10].

3. Convolution: Discrete time convolution can be defined as $y[n] = \sum_{k=-\infty}^{\infty} x[k]h[n-k]$

Where x[n] is the input and h[n] is the impulse response. Thus the output of the LTI system is given by a weighted sum of time shifted impulse responses. It is known as convolution sum and represented as *. Thus $x[n] * h[n] = \sum_{k=-\infty}^{\infty} x[k]h[n-k]$

For example if

then convolution sum will be calculated as

For example $x[n] = \{10,20,30,40\}$ & $h[n] = \{2,3,5,6\}$

Then

Similarly in the case of binary

In above method of linear convolution, it is simply a multiplication process with addition with no carry being propagated. This method utilizes large area of the chip. Also this method is bit slow & slower if we take large no of samples for convolution.

4. Proposed method of convolution:

Vedic mathematics is part of four Vedas (books of wisdom). It is part of Sthapatya-Veda (book on civil engineering and architecture), which is an upa-veda (supplement) of Atharva Veda. It gives explanation of several mathematical terms including arithmetic, geometry (plane, co-ordinate), trigonometry, quadratic equations, factorization and even calculus.

His Holiness Jagadguru Shankaracharya Bharati Krishna Teerthaji Maharaja (1884-1960) comprised all this work together and gave its mathematical explanation while discussing it for various applications.

The work presented here, makes use of Vedic Mathematics. "Urdhva Tiryagbhyam Sutra" or "Vertically and Crosswise Algorithm" of Vedic

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A Review on ground use & ground Cover in India

Devesh Gupta, Dinesh Sethi, Rajesh kumar Bathija

Abstract: Information on land use/land cover in the form of maps and statistical data is very vital for spatial planning, management and utilization of land. Land-Use and Land-Cover (LULC) scenario in India has undergone a radical change since the onset of economic revolution in early 1990s. These changes involve a series of complex interaction between biophysical and socioeconomic variables. LULC follows a set of scientific themes which includes detection and monitoring, carbon and biogeochemical cycle, ecosystems and biodiversity, water and energy cycle, predictive land use modeling and climate variability and change. With the changing times and increasing demand on the availability of information on land use/land cover, it becomes necessary to have a standard classification system, precise definition of land use/land cover and its categories, uniform procedures of data collection and mapping on different scales over Indian region. The current review thus attempts to focus on development of a national goal towards changes in LULC as a necessary step for an interdisciplinary research program involving climate, ecological and socioeconomic drives, the processes of change and the responses and consequences of change.

Index Terms— Minimum 7 keywords are mandatory. Keywords should closely reflect the topic and should optimally characterize the paper. Use about four key words or phrases in alphabetical order, separated by commas.

1 Introduction

India is bestowed with valuable natural resources serving the needs of sustenance of around a billion population and varied ecological functions. Since independence the population has increased by 284% (363 to 1033 Million) and food grain production by 386% (51 to 196 Million Ton). The country has 150 Million ha of agricultural area and about 24% GDP is met from the agricultural production. The loss of forest cover in India for the period between 1990 and 2000 is 380.89 km², annually (FAO, 2000). The forests are integrated with social system for their dependence for fuel wood, fodder, minor forest products and timber. Fuel wood stands as the main stay of energy resource for 70% of Indian population and 125 Million Ton are extracted annually. In addition over half of the live stock population (270 million) depends on forest for grazing resources and NTFP worth of Rs. 6.5-20 billion is met annually from forest

Information on land use/land cover in the form of maps and statistical data is very vital for spatial planning, management and utilisation of land for agriculture, forestry, pasture, urban-industrial, environmental studies, economic production etc. Today, with the growing population pressure, low man-land ratio and increasing land degradation, the need for optimum utilization of land assumes much greater relevance.

National Land Use Policy and strategy on Optimum Land Use Planning and the creation of National Land Use Conservation Board (NLUCB) in 1985 clearly indicate the serious concern of the Government in this regard. Further, with the present thrust that the agricultural planning in the country should be based on agro-climatic zones, the *prima-facie* need is to have a comprehensive information on the spatial distribution pattern of land use/land cover, particularly on the availability of agricultural land during Kharif and Rabi crop seasons, cropped area during both seasons and area under fallow, apart from the other land use/land cover classes. Besides, it is also required to know their area for the whole country covering all the 15 agro-climatic zones in the 442 districts (now the number of districts are 584). This needs land use inventory surveys periodically, to make available the information on the type, spatial distribution, location, aerial extent, rate and pattern of change of each category of land use/land cover. Preparation of an up to date, accurate and reliable information on land use/land cover over large areas on a contiguous basis is possible using remote sensing techniques on an operational, timely and on a cost effective basis.

The Indian experience on use of satellite data for Land Use/Land Cover analysis mainly comes from studies conducted at National Remote Sensing Agency (NRSA) in

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A Study on Carbon Nano-Tube Field Effect Transistor (CNTFETs): A Promising Technology for future ICs

Ritambhara, Yazusha Sharma, Nishi Agarwal, Sandeep Vyas

Abstract—Presently, the low power and high efficiency are imperishable problem in technological gadgets. With the emergence of technologies like 5G and others, it has become requisite to meet the challenge before peeved. In this paper we entrust FinFETs, and CNTFETs technologies which are found to be upbeat field of research. The paper presents the performance enhancements of CNTFETs at 14 nm node and discusses the important areas of their applications and future scope.

Index Terms— CMOS, FinFETs, CNTFTs, Simulation, Permittivity, Device Modeling, Device Scalability, MOSFET, Scaling.

1 Introduction

As Gordon Moore predicted, over the last three decades number of transistors in a single chip has been increased from thousand to several billion and suggested it doubles every year [1]. International Technology Roadmap for semiconductor in 2015 predicted and stated that in next five years CMOS technology will stop shrinking because industry will not able to scale CMOS resulting to death impart to Moore's law [2]. Si-MOSFET based technology has its own limitations like high power density, high leakage current, and decreased gate control resulting them to be inappropriate for ultra-high speed and low power applications. The limitations forced scientists and research to explore other alternatives, FinFETs and CNTFETs has emerged as most promising due to the properties like higher scalability, better performance and higher carrier mobility with suppressed short channel effect. Among the two alternatives CNTFETs are more preferred over FinFETs due to heat dissipation problem, as heat easily gets escalated on the fins. The Carbon the primary constituent of will surpass the silicon the widely employed material in the designing Integrated, Carbon will be the material for future integrated circuits [3],[4]. The advancements in technologies have resulted in high speed multi-core processors, memory storage with greater size and low power devices. Yet, today's devices based on robotics system, Artificial Intelligence and embedded systems demand higher speeds, much smaller sized IC's that what is being offered by existing technologies to push boundaries of their performance. To aid the development of such systems, it is necessary for IC technology to scale down the size of transistors and enhance the speed and performance with low power requirements. Metal Oxide Semiconductor Field Effect Transistor (MOSFET) enabled to develop advanced systems like day to day required gadgets like Smart Phones, Laptops, etc., which is prior to the 22 nm node. With 22 nm node technology, further scaling down of MOSFET is not possible due to increased Short Channel Effects (SCE) such as Drain Induced Barrier lowering (DIBL), Impact Ionization, velocity saturation, Channel length modulation, so most of the foundries introduced new type of transistor called Fin Field Effect Transistor (FinFETs), which has less SCE's, and better control over the channel; this transistor structure is being used in 16 and 14 nm node also. The FinFETs based 14 nm node technology portrays some serious issues, which leads to the degraded performance of the ICs. The Technological advancements era had viewed other alternatives for MOSFET apart from FinFETs [5],[6] such as TFET[7], JLITFET[8] along with CNTFETs. Among all they will fail to compete with the CNTFET due to its advantages. As per the recommendation and credits by industry experts as well as researchers, CNTFET will be choice of next generation VLSI chips due to its small dimension and high performance [9],[10]. It has been reported that CNTFET based circuit are more efficient and 3 times faster than silicon based circuit at same power [11].

International Technology Road map for Semiconductors (ITRS) updates 2013 speaks that it is the future of transistors [12]. This paper is organized as follows; Section 2 presents FinFETs based device and their Issues and section 3 gives details about CNTFET technology and related issues. Sect 4 discusses the techniques for performance enhancement and various applications of CNTFETs are presented in section 5. The Section 6 covers the future scope with conclusion in last section.

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2. FinFETs Device and their Issues:

In FinFETs both source and drain are connected with thin fin which forms the channel and the gate copes all around the channel to control current flow preciously; hence transistor entered into 3D form from the planar form [13]. Since more than one gate can be used to control the channel which in turn re-

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Silver and Gold Coated Plasmonics Based Optical Fiber Sensors: A Review

Yazusha Sharma, Ritambhara, Ritu Vyas, Sandeep Vyas

Abstract: This survey focuses on the most valuable contribution in the field of fibre optic plasmonic sensors recent years. Fibre optic plasmonic (FOP) sensor use optical field to test the biological agents. Due to high sensitivity, high figure of merit and high resolution and low cost, FOPs turn out to be potential alternatives to conventional biological fibre optic sensors. The work is focussed on review of type of plasmonics based optical fibre. The important characteristics of plasmonic based FOPs are discussed in this article. The different types of structures fibre sensors like single mode fibre, multimode fibre, microstructure fibre. The different structures, their performance parameters and experimental results related to some important works have been discussed here. Based on the present view, the future scope, its different applications and related aspects have been discussed. SPR fiber sensors can have variety of structures such as D-shape, cladding-off, fiber tip or tapered fiber structures. Major applications of these include chemical sensors, bios sensors and gas-sensors. The surface plasmon resonance (SPR) property of metallic nano-particles is widely useful for chemical and biological sensing. Selective bio-sensing of molecules using these nano-particles has become a major research interested area between chemistry, biology and material science. Noble metals, especially gold (Au) and silver (Ag) nano-particles, exhibit unique and tunable plasmonic properties; the control over these metal nanostructures size and shape allows manipulating their LSPR and their response to the local environment. In this review, we will focus on Ag-based nano-particles, a metal that has probably played the most important role in the development of the latest plasmonic applications, owing to its unique properties. These nano-structured fiber sensors have attracted considerable research and development interest, because of their unique advantages and unique properties, which include high sensitivity, small sensor head footprint and the flexibility of the optical fibers. They are also of academic interest, and many novel ideas are continuously developed.

Keywords- SPR, FOP (Fibre optic plasmonic sensor), FBG,LPG, PCF, SP, LSP, MMF(Multi-mode fibre), Plasmonics, LSPR

1 INTRODUCTION

The present trends, the surface Plasmon resonance (SPR) based biosensors have attached much attention due to its rapid real time sensing performance [1, 3, 5]. There are lots of application of SPR sensors in different field of practical life like medical diagnostic, gas detection, organic chemical sensing, water testing, maintain food quality, bio-sensing ,bio-imaging, environment monitoring, glucose monitoring, diseases detection, real time monitoring and so on. The researchers have been developing many effective applications based on SPR sensors, terahertz sensors, and optical sensors for the improvement of current technology. Ritchie et. Al in 1950's first observed about SPR theoretically [4-6]. On the basis of prism coupling, Lied berg et. Al in 1983first, introduced about SPR. Usually, the prism is used to activate surface Plasmon's [6-7]. Prism is used to pass the light to the metal surface interface whereas transverse magnetic or p-polarized light is induced in the metal surface and the free electrons of the metal absorb the light and generate surface Plasmon's wave (SPW)[7-10]. But there are some limitations to used prism based SPR sensing devices such as; it provides a bulky size devices with various kinds of optical and mechanical parts [9, 10]. So it is not suitable for remote sensing applications [10, 12].

In a fiber optic SPR sensor probe, a small portion of cladding is removed in optical fibre and the unclad portion is coated with a thin metal layer [14, 21, 24]. The characteristics of SPR optical fiber sensor are admirable sensitivity to the refractive indices of the surrounded dielectric medium. Thus with the PCF based sensor, one can have the miniaturization of the device, compatibility and portal, rapid and multi–sample testing with sensing performance etc.[15-17]. This optical sensing is known as phase-matching which can be easily achieved in the PCF based SPR sensor by engineering the effective refractive index of the core guided mode and the plasmonic mode. Recently, great interests in engineering the geometrical and material properties of the PCF-SPR sensors are numerically investigated with different biological samples to monitor the medical conditioning. PCF has gained its importance because it has different appealing characteristics e.g. controllable bire fringes, high confinement and single mode propagation. Utilizing these special characteristics an evanescent field can be manipulated easily. The effective sensing performance of the fibre is controlled by the evanescent field. SPR sensors give high sensitivity rather than fibre based sensors [20-22]. The sensing application of optical fibre depends upon metal layer properties, fibre

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Quad-band Frequency Reconfigurable Microstrip Patch Antenna Using Modified Ground Plane for the WI-FI, Wi-Max, RF-Altimeters, and WLAN Applications

Jaiverdhan[1], Ashish Kumar[2], Girraj Sharma[3], Sandeep Vyas[4]

Abstract – In this paper a novel design of frequency reconfigurable microstrip patch antenna is presented. The antenna consists of a square patch with modified ground structure having four PIN diodes and a DC blocking capacitor. This modified ground structure reduces overall size of antenna. By miniaturization of antenna it is able to operate at lower frequency. The antenna provides stable radiation at 2.61 -2.68 GHz (BW=2.7%) (Wi-Fi), 3.37-3.63 GHz (BW=7.71%) (Wi-MAX) and 4.14-4.65 GHz (BW=12.31%) (RF-altimeters), 5.24-5.64GHz (BW=7.63%) (WLAN). In the proposed method feeding is done by microstrip feed line of 50-ohm impedance. Overall dimension of proposed antenna is 20 X 20 mm². The results are simulated using CST Microwave studio V. 2017. In proposed paper we computed different parameters like S_{11}, VSWR, Surface current and Gain Plot which are significant for different wireless applications.

Index Terms—Microstrip antenna, reconfigurable, PIN diode, DC blocking capacitor; WiFI, WiMax, WLAN, RF-Altimeters.

1 Introduction

RECONFIGURABLE microstrip patch antennas has caught great attention in recent years and because of different kinds of gadgets in our everyday life and increases the use of reconfigurable antennas [1]. These antennas have several merits as compared to the conventional antennas. In such types of antenna, we can use single radiating element for different applications thus reducing the system complexity. The reconfigurable patch antenna has the capability to switch in between various standards, it also has the advantage of reducing the noise and increasing the gain of system. It also saves the energy of the system[2].

Reconfigurable antennas can be classified as:

- Electrical Reconfigurable antennas: In these antennas switching is done with the help of switches such as PIN diodes, varactor diodes, RF-MEMs, etc.
- Optical Reconfigurable antenna: In these the optically operated switches are used.
- Physicaly reconfigurable antenna: In these the physical dimension of the radiating element is altered.
- Material Reconfigurable antennas: Here the substrate material used, is altered.

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The patch can be fed by several techniques such as coaxial probe feeding, microstrip feeding, proximity coupling and aperture feeding technique.

The main advantage of the transmission line feeding is that the impedance of the line can be easily changed by varying the width of the line. Also it can be made as a part of the planar fabrication technique [3].

While using the same radiating element for varous applications having different operating bands, there must be sufficient isolation in between the adjacent band to avoid any interference. These features can be easily achieved by using the reconfigurable antennas.

Several research is carried out in case of multiband antennas. To obtain the multiband behavior for a particular antenna several techniques have been devised which includes the use of multiple radiation sections, cutting slots on the radiating element or the ground, etc.[4].

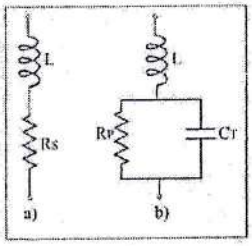

Figure 1-Equivalent circuit of PIN diode a) ON b) OFF state

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Review: the Human Pose Estimation using Radio Frequency

Atul Kumar, Diya Patel, Arundhati Sharma, Baibhav Ranjan, Sandeep Vyas

Abstract— Machine learning and artificial intelligence(AI) has made a lot of advancement in the technologies available. These modifications in the technology have led many researchers of Computer Science and Artificial Intelligence (AI) Laboratory(CSAIL) at Maassachusetts institute of technology to develop an idea which provides a technique that is able to construct a human-like stick figure of a person standing behind a wall. They examined and evaluated the plan of RF-Capture and tools which could analyze data generated through radio signals. Using computer vision as a technique to build a mechanism that is capable of seeing through walls is like achieving a great milestone in this field. The accurate human pose can be estimated even through occlusions and walls using computer vision that was never possible before. Even the results of the experiment were unexpected. It performed beyond what the scientists thought. Moreover, it is not required to provide visual data to model to predict posture, hence there is no need of attaching a device.

Index Terms— Machine learning, Artificial intelligence, Human pose estimation.

1 Introduction

Localizing and tracking the motion of the people in the past years has been at boom due to security and medical reasons using wireless signals. This is now possible using the newly developed neural network model RF-Pose. RF-Pose uses AI technique and tools to sense people's movements through walls. The project senses change in radio frequencies when a human comes into view, and uses an AI trained with both images of humans in certain poses and the corresponding reflected radio frequencies from their bodies to tell what someone is doing. While normal humans can't spot through walls, the AI system was designed using images and RF changes with no visible barrier but was then able to pick out people's poses when a wall was placed between them and the system [1].

The image seen in figure 1 illustrates this ability quite well, where stick-legs are generated on a human whose torso is visible through a window.

To capture a human figure whether occluded or from behind a wall RF-pose first emits wireless signals that can penetrate wall but not a human body. These signals that bounce back from the human's body are analyzed by the neural network and are used to reconstruct the stick figure. Moreover, it does not require the person to attach any sensor to the body or to wear any device.

The applications are as follows [2]:

- It can detect a person through occlusions and walls.
- It can determine a person's movement from behind a wall.
- It can even trace handwriting of a person in air through walls.

The neural network incorporated is used to guide wireless devices to observe posture and action of people even from the other side of the wall. The power of the transmitted signal is 10000 times weaker as compared to a standard cell-phone. These are the radio signals that reflect back after striking human's bodies. Hence these signals are used to create a dynamic stick figure and heat map as shown in figure 2, which moves its body exactly how a person moves [3].

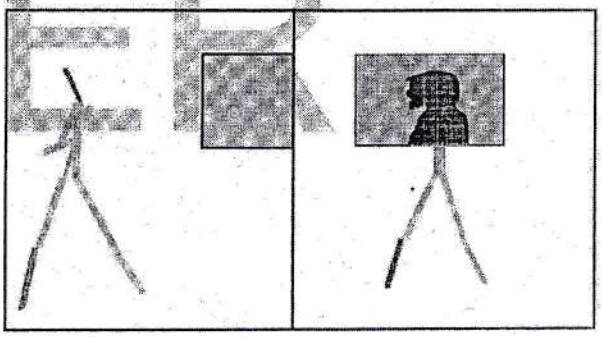

Fig. 1 Stick figure obtained from the neural model.

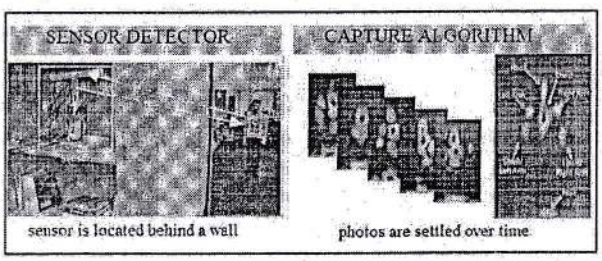

Fig. 2 Device Setup and Heat map (Reproduced from [2]).

2 Working

2.1 Dataset

The data was collected in the public environment and was recorded and used with the consent of the person. It was col-

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Steganography: An Introduction and various techniques in Digital Image Processing

Vikas Sharma, Manish Yadav, Ashish Kulshrestha

Abstract: Steganography is the process of image data hiding in a way that nobody other than sender and known recipient know that communication is on progress. It is also worked in authenticate the digital images. The steganography is classified in spatial domain and frequency domain methods. This research paper presents cryptography based methods to authenticate the images and can be used to protect image fraud. In steganography it has been worked around for decades, the digital revolution has enlightened and renewed area interest in this domain. This paper, focused specifically in the techniques used in protecting information in digital images.

Keywords: Authentication, Least signed bit, encryption, secret message, steganography, security.

I. INTRODUCTION

Steganography word came from the Greek word which means covered hand writing and primarily means "to hide the plain sight". As stated by Mr. Cachin [2] steganography is the science of communicating in a such different manner that the presence of message cannot be detected and found. Basic stego techniques have been in existence for centuries, but the increasing and very vast use of images and files in digital media few new techniques for information protection have become most required. This research paper examines few early methods of Steganographic process general principles behind its usage. Then we will examine, why it has became an important issue in recent time frame. There will be a brief discussion of some specific domain techniques for covering information in many other formats and the attackers which might be used to by pass steganography techniques. Here, figure 1 shows that how information data hiding could break down in different areas. The Steganography may be used to hide a data message intended for post retrieval by an individual or a group of users. In this case the basic primary aim is to protect the message being tracked by third party. So, another major field of steganography is copyright marking, where an input message used to insert copyright over a document.

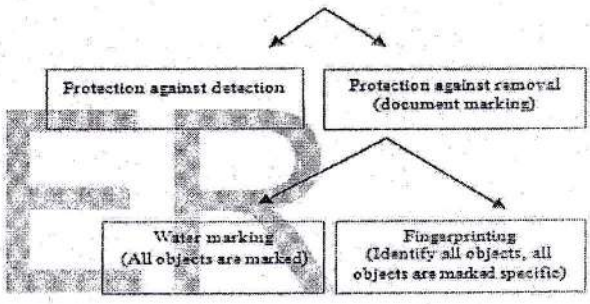

Figure.1. Classification of steganography

Encryption and steganography are the both used to ensure data security. However the main difference is that encrypt user can see both parties are transmitting and receiving secret manner but not in stegnography. The steganogra method covers the presence of a secret message, in b case users can't see both parties are communicating i defending way. This builds steganography is best suita between both. And adding the encrypted copyright mess and information of an digital image file can be easy to ext but embedding within contents of the digital file so itself co protect being easily identified and also removed. Table 1 p a detailed comparison of many techniques for setting communication in secret. The Encryption methods in wh secure communication needs a right key to read the encryp information. A cyber information attacker couldn't fe encryption but it is comparatively easy to c modify the dig file, making it unreadable and unidentified for partic recipient.

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Design and Simulation of Tapped Input Compact Hairpin Band Pass Filter

Girraj Sharma, Ashish Kumar, Jaiverdhan, Ashish Sharma, Jitendra Sharma

Abstract—In this paper design and simulation of a tapped input microwave hairpin filter has been presented. The filter is designed for center frequency of 2.8 GHz. The proposed filter has a bandwidth of 390 MHz. It is found that the filter is giving return loss of -25dB. The 2.8 GHz frequency is covered by microwave S-band which have applications in surveillance radar, surface radar, and satellite communication. The proposed filter is suitable for radar applications due to its compactness. The filter is of 12 X 20mm size and works in a single band mode. The design steps are given to determine the filter dimensions.

Index Terms— Microstrip line, bandpass filter, Hairpin filter, S-band application, Microwave filter, Distributed system

1. Introduction

Band pass filters are necessary part of any Communication and signal processing system. It is also an essential part of superhetrodyne receivers which are presently used in many radio frequency communication applications. The discrete components are exchanged by transmission lines at microwave frequencies [1]. The microstrip finds its role in low power applications. The proposed Paper describes the designing of a microwave band pass filter using microstrips. There are many techniques by which a microstrip filter can be designed. In this paper a fifth order chebyshev hairpin bandpass filter is designed.

2. Design Methodology

Hairpin filter are one of the most commonly used filter in many microwave applications. The concept of hairpin filter designing is based on parallel coupled half wavelength resonator filters [2]. The major advantage of hairpin filter is its low space employment compared to parallel coupled and end coupled microstrip filters. In hairpin structure, the half wavelength long resonators are folded in U-shape hence the overall space is saved. This design is simpler than other microwave filters.

The mutual coupling coefficient is Mi, i+1, between two resonators and Qei and Qeo are the quality [1]factor at the input and output respectively. These are the design parameters for the hairpin filter and can be determined as

$$Q_{ei} = \frac{g_0 g_1}{FBW} \quad (1)$$

$$Q_{en} = \frac{g_n g_{n+1}}{FBW} \quad (2)$$

$$M_{i,i+1} = \frac{FBW}{\sqrt{g_i g_{i+1}}} \quad (3)$$

The proposed filter is designed for a fractional bandwidth equals to 20% or FBW = 0.2 at a center frequency f_0 = 2.8 GHz. For this filter a three pole Chebyshev lowpass prototype is chosen. The passband ripple of 0.5 dB is selected. For a given normalized lowpass cutoff frequency, the low pass prototype parameters are determined using table 1.

In the next step of the filter design, dimensions of coupled microstrip lines are determined. These lines show the desired odd and even mode impedances. In the first step microstrip shape ratios (w/d) is determined. The shape ratio relates the coupled line ratios to the single line ratios.

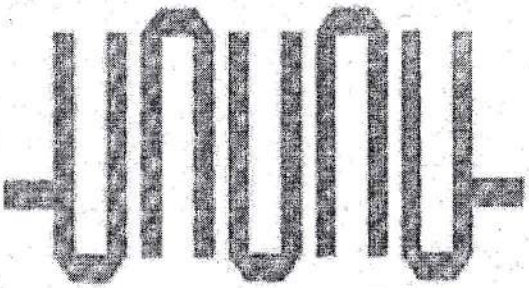

Figure 1: tapped line input 5-pole Hairpin Filter

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Time Frequency localized Improved S-transform for EEG Signal Analysis

Ashish Sharma, Rahul kumar Vijay, Girraj Sharma, Ashish Kumar

Abstract Many signals in nature are non-stationary and their attributes vary with time. Time-frequency analysis is the approach used to detect the time-varying behavior of the signal. Due to the change in the frequency with time, Fourier based approaches does not provides useful results. In this paper, we applied the stockwell transform (ST) based approach for time-frequency decomposition on Electrocardiograph (ECG) signal. The S-transsfrom based approach detects the condition on which frequecy of ECG signal changes for the detection of the driving Fatigue condition. The results show that the S transform can detect the various stages of drivers fatigue condition efficiently which can helps to prevent the accidents on roads.

Index Term EEG, time-frequency analysis, S-transform, driving fatigue.

I. Introduction

EEG (Electroencephalogram) signal[1] is the electrical changes of the mind, which is recorded by joining cathodes to the scalp. The mind is a tremendously complex structure and contains various data related to the human soul and natural structures. Along these lines, numerous scientists from sorts of fields constantly separate and break down the understood data of EEG by a wide range of signal processing techniques. Here, the fundamental strategies in EEG examination are time-frequency analysis. Time-frequency analysis is a useful method by which one-dimensional signal can be transformed two-dimensional signal. When we apply it on any time series data, not only it reveals the frequency distribution but also the time duration of every component[2-7]. Various time-frequency methods to analyze the EEG Data are Short-Time Fourier Transform (STFT), Wavelet Transform (WT), Gabor Transform, Wigner-Ville Distribution (WVD), Hilbert-Huang Transform (HHT) and so on. S-transform is developed based on the Short Time Fourier Transform(STFT) and Continous Wavelet Transform(CWT). The S-transform, time-frequency representation of a time series. It uniquely combines frequency-dependent resolution that simultaneously localizes the real and imaginary spectra. The basis functions for the S-transform are Gaussian modulated cosinusoids so that it is possible to use intuitive notions of cosinusoidal frequencies in interpreting and exploiting the resulting time-frequency spectrum. With the advantage of fast lossless invertibility from time, to time-frequency, and back to the time domain, the usage of

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the S-transform is very analogous to the Fourier transform. In the case of nonstationary disturbances with noisy data, the S-transform provides patterns that closely resemble the disturbance type and, thus, requires a simple classification procedure. Further, the S-transform can be derived from the continuous wavelet transform (CWT) choosing a specific mother wavelet and multiplying a phase correction factor. Thus, the S-transform can be interpreted as a phase-corrected continuous wavelet transform. It has been successfully used in electrical engineering [8], geological engineering [9], noise filtering [10] and other fields.

II. The S-transform

A. Introduction

In recent years, Time-Frequency analysis of the non-stationary signal is one of the most concerned topics of research in seismic signals processing. It is the capable technique for investigation of the non-stationary signals. It provides the jointly distributed information between time domain and frequency domain, which provides knowledge about the time instants where frequency changes along with time. Such as the Short-Time Fourier Transform (STFT), Wavelet Transform (WT). Both transform algorithm is easy and also free from the interference of crossover terms. The only limitation is the Heisenberg uncertainty principle; that is why peak time-frequency resolution is not achieved. In STFT resolution is destitute due to fixed window length. While basis functions are used in Wavelet Transform (WT), which expands and contracts with frequency.

III. The Stockwell Analysis

let consider a signal h(t); The Stockwell[11] change is characterized as the Fourier transform of the result of time arrangement h(t) with Gaussian window $\psi(t)$ situated at t= τ.

$$S(\tau, f) = \int_{-\infty}^{\infty} h(t)\psi(t-\tau, f)e^{-j2\pi ft}dt \qquad (1)$$

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A Review on Doped and Deffected Graphene-based materials for supercapacitor electrodes

Yogita Taluja, Devesh gupta, Deepak shankhla, Bhoopesh kumar Kumawat

Abstract— The graphene supercapacitor having brilliant surface area about 26.3*10^{6}cm2/g[5], still it is unable to attain the essential energy density due to small quantum capacitance and poor accessibility to electrolyte. The functionalization of graphene can grow electrolyte wettability, electrical conductivity, electrode accessibility and capacitance [1,2]. Especially, Reasons for given preference to nitrogen doped graphene are it has favorable energy density , electrical conductivity, power density catalysis absorption and life cycle[3-4]. In this study, we see structural, the quantum capacitance, electronic properties of defected and nitrogen doped graphene sheet using Density Functional Theory (DFT) and non-equilibrium Green's function (NEGF) formalism for their practicable application as supercapacitor electrodes.
The 3N-Pyrrolic -type defect configuration having formalized high thermodynamic stability along with the electrical conductance in analogy to all the other configurations. The quantum capacitance of graphene surge with the pyrrolic concentration. A notable 486.32 uF/cm2 quantum capacitance has been remarked at a pyrrolic concentration of 6.38%[4,5]. It suggests that the quantum capacitance of graphene grow with the pyrrolic concentration.

Index Terms—Graphene-based materials, Defect, DFT, Supercapacitors, Quantum Capacitance, pyrrolic, Functionalization.

1 Introduction

The demand for energy storage is on the bloom these days in view of growing energy consumption and declining fossil fuel resources. A previous surge in power generation through intermittent energy sources (wind, water and solar) stipulates the need[1]as we all knew that wind , water and solar is not stable with time. Solar energy can't be produce during night, the wind and tidal powers are dependent on the environment. That's why Growing the attention of the researcher on Supercapacitor. It is such a favorable device having fast charging and discharging represent by its high power density and extremely high life cycle greater than 1000 cycle[6-7]. Problem with the supercapacitor is its comparatively low energy density(5-10 Wh/kg) to conventional conventional storage devices lead-acid battery (20-35 Wh/kg), Li-ion battery (120-170 Wh/kg), LiMH battery (40-100 Wh/kg) [2,4,8,17,18] as, EDLCs Store energy through adsorption process at the electrode and electrolyte interface; high surface area by with good electrical conductivity are the necessary requirements to attain high energy densities.

Thus, besides developing the advanced electrolytes, the researchers have also focused on optimizing the electrode material. The graphene-based materials are prosperous for applications in supercapacitors electrode and other energy storage devices because of the intriguing properties, i.e., highly tunable surface area, outstanding electrical conductivity, excellent mechanical behavior and good chemical stability. It has been reported experimentally and theoretically, functionalization of graphene honeycombs can grow electrical conductivity, electrode, capacitance and electrolyte wettability,availability [11,12]. Mainly,Nitrogen doped graphene see as assuring material for electrical conductivity, lifetime, power density, catalysis adsorption and energy storage[13-17,1]. Substitution of nitrogen in pure graphene(pristine) commonly resultant donor states in the electronic structure. Beside that many survey state that the type of conductivity(p-type or n-type) depends on different factor and change by different ways[18-19] . In addition, surface properties of carbon just as surface polarity and electron donor affinity increase through the substitution of nitrogen.[16,1]

Similar nitrogen functionalization of defected carbon nanotubes (CNTs) by Rocha et al.[20] reported growing stability with nitrogen functionalization.[1]. As per the study, it is anticipated that for excel the adequate surface area reachability by electrolytic ion and quantum capacitance (CQ) of graphene bring up

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Adder Designing Process LUT based Using FPGAs

Deepak Sankhala, Yogita Taluja, Deepak Verma

Abstract— This paper presents a imagination of reconfigurable hardware appliance of the most basic operation of mathematics function addition on FPGA. Now a day field programmable gate arrays (FPGAs) have very huge and manifold logic resources resulting in the migration of their coating domain from image low and medium volume formation designing. In this work, we use an access to straightly map the design described in a high level package i.e. on FPGA platforms. Therefore, the concept which is using for addition it take major portion in all the digital designs and also many digital concepts are available to perform addition operation. Technology dependent optimizations are carried out to utilize this FPGA primitive efficiently and the result is compared against various adder designs. The fast carry chain propagation is reached by optimizing the use of 6-input LUTs together with the dedicated MUXCY resources available in the Virtex-5 FPGA chip. The state of processing adequate skill of any digital contemplation is determined on the basis of various parameters such as hold, power, space and time. . This paper proposes a fast adder structure for Xilinx Virtex-5 FPGAs In this paper we consider the mapping of arithmetic adders on look-up table (LUT) based FPGAs. Representing fact as they are to assign the given Boolean function into an look at the bright side of things So net list that can implement the desired working with minimum cost. We analysis and focus on 6-input LUTs that are inherent in all the modern day FPGAs.. This paper proposes a fast adder structure for Xilinx Virtex-5 FPGAs. The fast carry chain propagation is reached by optimizing the use of 6-input LUTs together with the dedicated MUXCY resources available in the Virtex-5 FPGA chip. Technology dependent optimizations are carried out to utilize this FPGA primitive efficiently and the result is compared against various arithmetic's operation designs

Index Terms TECSA (Time Efficient Carry Select Adder), Virtex, FPGA, MAC , Boolean logic functions, VHDL, multiplexers

1 Introduction

So for fast implementation processing and less delay time we explore the possibility of using a field programming logic array. Field Programmable Gate Arrays (FPGAs) combine limited cost and reconfigurability with very high make in to one unit facility and performances. Such characteristics, along with reduced price and make them a valid alternative to the more multifold and time to market demanding Application Specific Integrated Circuits (ASICs)

Sum of digit is the main operation of each arithmetic circuit, thus improving speed performances and reducing the area occupancy of adder circuits is still an initiative research topic . In digital Very Large Scale Integration (VLSI) Circuits, full adder forms are the basic building blocks for all arithmetic operations. Therefore, adder has the great impact in performance of the circuits, which are based on the arithmetic operations.

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The various existing adder structures such as Ripple Carry Adder (RCA), Carry Look Ahead Adder (CLA), Carry Save Adder (CSA), Carry Select Adder (CSEL), Carry Bypass adder (CBY) and Area Efficient Carry Select Adder (AECSA) are analyzed based on the performance. Among all structures, some structures reduce the area occupied by the circuit with the increased delay and some structures reduce the delay with the increased consumption of area. The proposed adder structure results in optimized performance, that is, the delay is reduced with the equal consumption of area which was observed in normal adder design.

The characteristics of the digital circuit are analyzed mainly based on the time and area consumption. programmable gate arrays provide an alternative approach to application specific integrated circuits (ASIC) implementation with features like large-scale integration, design verification post production, lower non-recurring costs, reconfigurable design approach etc.
Field Programmable Gate Arrays (FPGAs) combine limited cost and reconfigurability with very high integration capability and performances. Such characteristics, along with reduced low volume costs make them a valid alternative to the more complex and time to market demand-

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Solution of fractional kinetic equations by using integral transform

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Solution of Fractional Kinetic Equations by using Integral Transform

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Abstract. In the present article the author develop the solution of Fractional Kinetic Equation in a new and further generalized form by involving the ζ-Gauss Hypergeometric Functions as Kinetic Equations are having great importance in certain astrophysical problems. The change of chemical composition in star like the sun can be computed by this new generalized form of Kinetic equations. The main fold generality of the ζ-Gauss Hypergeometric Functions is discussed in terms of the solution of the Fractional Kinetic Equation. Special case involving the Gauss Hypergeometric function are also considered. The obtained results imply more precisely the known results and easily computable solution can also be established by the given results.

INTRODUCTION

Fractional Kinetic Equations

Nuclear reaction has been done in two forms called as Fission and Fusion. If atomic nuclei splitting into smaller subatomic particles then it is called Fission and and if from the nuclei of small atoms the large atoms are created then it is called Fusion. During this process, part of mass of the fused nucleus is converted onto energy and released as heat, light or various forms of radiations. It is highly energetic process and also an example of thermonuclear reactions. Stars themselves are formed and fueled naturally throughout the universe. In this process the large amount of solar energy have produced in this process. Rate of change of $\aleph$ with respect to time t is given by the following equation

$$d\aleph/dt = -\psi + \omega \tag{1}$$

where ψ and ω are destruction and production rate of $\aleph$ respectively.
Equation (1) can be written as:

$$d\aleph/dt = -\psi(\aleph_t) + \omega(\aleph_t) \tag{2}$$

$$\aleph(t) = \aleph_0 \sum_{n=0}^{\infty} \frac{(-1)^n}{\Gamma(\nu n + 1)} (ct)^{\nu n} \tag{3}$$

$$d\aleph_i/dt = -c_i \aleph_i(t) \tag{4}$$

Now after integrating and declining the index i, (2) reduces to

$$\aleph(t) - \aleph_0 = -c_0 \, {}_0D_t^{-1} \aleph(t) \tag{5}$$

where ${}_0D_t^{-1}$ is the well known Riemann-Liouville fractional integral operator [9],[4],[3].
Generalized fractional kinetic equation is defined as [5]:

$$\aleph(t) - \aleph_0 f(t) = -c^{\nu} \, {}_0D_t^{-\nu} \aleph(t), R(\nu) > 0 \tag{6}$$

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GRAPHICAL PASSWORD AUTHENTICATION

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Abstract: **For the authentic users, password is the main choice in the computer system for the privacy terms. "Username" and "password" is the most authentic terms in the computer system. Alphanumeric is generally used for the authentication. It is notable that passwords are at risk to assault, clients will in general pick passwords that are anything but difficult to recollect, and this implies they are additionally simple for an assailant to accomplish via scanning for applicant passwords. On the other hand, if a password is hard, then it is much difficult to remember by the users and difficult to attackers to attack.**

Graphical passwords may give the security which are preferred over content that are based on passwords in light of the fact that numerous individuals are trying to retain content based passwords and plain words are utilized. Textual passwords are used instead of pictures because humans can remember pictures more easily than characters. In graphical user interface, graphical password is an authentication system picture selected by user is the parameter this is required for working by a graphical password which is an authentication system. That's why, the graphical password approach is called graphical user authentication.

Keywords---Authentication, Computers, passwords, security, Graphical.

I. INTRODUCTION

A form of authentication which is graphical password authentication demands the recall and selection of an images or points in an image inputted during the registration stage in a graphical user interface. Passwords give security to validation and insurance of administrations against not wanted access to assets. A graphical based secret phrase is one reasonable option of literary passwords. The most common authentication method in computers used today is alphanumeric usernames and passwords. This method has many disadvantages. Clients will in general pick important passwords that are simple for assailants to figure out, however solid framework allotted passwords are troublesome to get recall for the clients. Utilizing a graphical secret phrase, clients click on pictures instead of alphanumeric characters. Today, the most secure form of authentication is biometric based but the problem with biometric is that they are not economical to use but an alternative which is more secure and less expensive is the use of graphical passwords.

Preferred security is given by graphical passwords that are based over content on the grounds that numerous individuals those who are trying to remember content based passwords, which are utilized by plain words. Graphical passwords use pictures rather than literary passwords and are incompletely spurred by the way that people can recall pictures more effectively than alphanumeric characters. A graphical secret key is a confirmation framework that works by having the client select from pictures, in a particular request, displayed in a graphical UI. That is the reason the graphical secret phrase approach is called graphical client verification.

II. CATEGORIES

A. Techniques which are based on recall

A client is approached to repeat something that he made or chose before amid the enlistment arrange.

Scheme of Draw-a-Secret (DAS)

Clients draws a straightforward picture on a 2D framework, the directions of the lattices involved by the pictures are put away in the request of illustration. Redrawing needs to contact similar matrices in a similar grouping in confirmation.

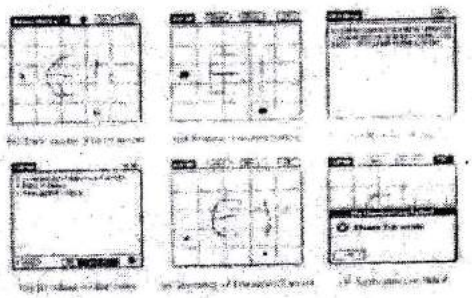

Fig 1 DAS

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Review on Smart City Using Internet ofThings

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Abstract: **A smart city is not only a high tech place their people use high technologies. A smart city is actually called a smart city when it has a balanced amalgum of a technology, strong infrastructure and positively forwarded society. There are lots of challenges faced by urban mobility; and their elements influence the manner in which individuals move, for the most part however not just, inside urban communities and huge metropolitan areas. For example if a city has a number of high tech metros on the road but no cleanliness and time-tables then it cannot be a smart city. A city needs a lot of effort to be a smart city, without proper knowledge and education as a man cannot improve his life style and so as city as well. Smart City should have a society which can make it ways as solid as the building build on it but not only the infrastructure the society should be strong to understand the modern need of the city. There are a lot of challenges which our world is facing as technologies have both profit and losses. To build a smart city a dynamic balance of the profit and losses is required at most level. Before introducing any technology in our life style we should know the proper use of it else we will face to build a true smart place for us.**

Keywords: Urban mobility, high tech, amalgum, smart city, metropolitan area.

I.INTRODUCTION

In today scenario everybody is just running to build a smart city. What smart city actually means? A smart city is only a place with multi-storeys building, modern transportation, amenities or technology in every work of daily life??? No, smart city is a place which use technology for its development without hampering its social life and their life styles.

Internet of things is defined as a Complex "ecosystem" which is used to connect anything, any resource, business and subject using any network. It also describes a world in which everyday objects are connected to a network so that data can be shared. Internet of things is largely recognized as collection of interrelated things within the smart cities. Here we talked about the layer organize design and layered smart cities architecture in this paper. Here the Internet of things is centered around the particular applications and advances for layer in keen urban communities, for example, brilliant homes, transportation, waste and water the executives and so on.. Here we also discussed about the challenges that are faced by urban mobility such as environmental challenges, transportation challenges, societal challenges and governance challenges. Smart rail depends upon the smart technologies as the future of the railways.

II. VERSATILITY ON THE 21ST CENTURY: THE CHALLENGES

Presently days the urban versatility is confronting a societal, transportation, ecological and administration challenges, with the high effect on the urban communities way of life. In this section we provide the details about the challenges that are faced by cities.

A) Societal Challenge:

Huge urban communities individuals focus on work like centre points of transportation, business and governments. In 2016, urban zones populace was 54.5% while by 2013 it was suited by 60% of individuals which implies that in any event half of million

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SEARCH ENGINE OPTIMIZATION TECHNIQUES AND IMPLEMENTATION

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Abstract : **Search Engine Optimization (SEO) is the way toward influencing the perceivability of a site or a website page in a web search tool's unpaid outcomes. It is the way toward getting traffic from the "free," "natural," "article" or "normal" list items on web indexes. Website improvement is a vital method to take a web record in top indexed lists of a web index. Online nearness of an association isn't just a simple method to reach among the objective clients however it might be productive as well if advancement is finished keeping taking into account the objective clients as of the explanation that more often than not clients search out with the watchwords of their utilization (Say; PhD in web innovation) instead of looking through the association name, and on the off chance that the page connect comes in the top positions, at that point the page ends up being gainful.**

Keywords : **SEO, Search Engine Optimization, PageRank, Search Algorithms, Search Engine**

I. INTRODUCTION

Internet has given all the organizations and associations a huge stage to sell and promote their items and administrations. However, effortlessly to outreach accessible to every last one of them the opposition has risen significantly more. There is no uncertainty an enormous crowd they would now be able to target however they are not by any means the only ones who can do as such. There are abundant sites that manage a similar item/administration which a specific association is managing. Indeed, even a very much displayed, organized and intuitive site may fall in the hands of expanding rivalry. In this day and age where every single significant business have gone on the web, if your site isn't recorded among the best scarcely any pages of list items, your business can endure significant misfortunes. Site improvement (SEO) is to the salvage. It empowers you to not just get recorded on Search Engine Results Page (SERP) yet in addition extend your business. Additionally considers have demonstrated that it can support the quantity of guests on your site by 400% and client transformations by 100%.

II. SEARCH ENGINE ALGORITHMS

[a] PageRank Algorithm

Page Rank is a calculation wherein a numerical weight is appoint to a website page as indicated by its relative significance. It utilizes approaching connection data to appoint worldwide significance score to all pages on the web. Number of approaching connections from quality locales gauges the notoriety of a page. It depends on amount and nature of both inbound and outbound connections. Pages which have higher position are generally significant and it has

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MODELING ERROR

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Abstract— **Overfitting is a modeling error that occurs when a function is too closely fit to a limited set of data points. Overfitting the model generally takes the form of making an overly complex model to explain idiosyncrasies in the data under study.**

In reality, the data often studied has some degree of error or random noise within it. Thus, attempting to make the model conform too closely to slightly inaccurate data can infect the model with substantial errors and reduce its predictive power.

Keywords— **Overfitting, Machine Learning, Modeling Error, Data Science, Neural Network.**

I . INTRODUCTION

In supervised machine learning, there's an un-detouring issue. Model does not generalize well from observed data to unseen data, which is called overfitting. Because of the existence of overfitting, the model performs perfectly on the training set, while fitting poorly on the testing set. This is due to that over-fitted model has difficulty coping with pieces of the information in the testing set, which may be different from those in the training set. On the other hand, over-fitted models tend to memorize all the data, including unavoidable noise on the training set, instead of learning the discipline hidden behind the data. The causes of this phenomenon might be complicated. Generally, we can categorize them into three kinds: 1) noise learning on the training set: when the training set is too small in size, or has less representative data or too many noises. This situation makes the noises have great chances to be learned, and later act as a basis of predictions. So, a well-functioning algorithm should be able to distinguish representative data from noises; 2) hypothesis complexity: the trade-off in complexity, a key concept in statistics and machining learning, is a compromise between Variance and Bias. It refers to a balance between accuracy and consistency. When the algorithms have too many hypotheses (too many inputs), the model becomes more accurate on average with lower consistency. This situation means that the models can be drastically different on different datasets; and 3) multiple comparisons procedures which are ubiquitous in induction algorithms, as well as in other Artificial Intelligence (AI) algorithms. During these processes, we always compare multiple items based on scores from an evaluation function and select the item with the maximum score. However, this process will probably choose some items which will not improve, or even reduce classification accuracy.

II. METHODOLOGY

2.1 Detection

A key challenge with overfitting, and with machine learning in general, is that we can't know how well our model will perform on new data until we actually test it. To address this, we can split our initial dataset into separate *training* and *test* subsets. This method can approximate how well our model will perform on new data. If our model does much better on the training set than on the test set, then we're likely overfitting. For example, it would be a big red flag if our model saw 99% accuracy on the training set but only 55% accuracy on the test set. If you'd like to see how this works in Python, we have a full tutorial for machine learning using Scikit-Learn. Another tip is to start with a very simple model to serve as a benchmark. Then, as you try more complex algorithms, you'll have a reference point to see if the additional complexity is worth it. This is the Occam's razor test. If two models have comparable performance, then you should usually pick the simpler one.

2.2 Prevention

Detecting overfitting is useful, but it doesn't solve the problem. Fortunately, you have several options to try. Here are a few of the most popular solutions for overfitting: Cross-validation: Cross-validation is a powerful preventative measure against overfitting. The idea is clever: Use your initial training data to generate multiple mini train-test splits. Use these splits to tune your model. In standard k-fold cross-validation, we partition the data into k subsets, called folds. Then, we iteratively train the algorithm on k-1 folds while using the remaining fold as the test set (called the "holdout fold"). Cross-validation allows you to tune hyperparameters with only your original training set. This allows you to keep your test set as a truly unseen dataset for selecting your final model.

Early stopping when you're training a learning algorithm iteratively, you can measure how well each iteration of the model performs. Up until a certain number of iterations, new iterations improve the model. After that

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DATA SCIENCE: AN APPROACH TO LEARN THINGS

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Abstract - In our daily lives, a great amount of data is being generated. About 2.5 quintillion of data is generated by our world daily. This data is mainly based on some specific uses and generated by various people. The data generated is somehow broken which means that, it is either in form of structured data or some kind of data is unstructured. For our uses, we need to extract some sort data from that structured or unstructured data and this extraction is done by data mining which is a part of data science. Data science is a vast field and can be elaborated in many ways. Data science is not only about Data analysis and Data Mining. Data science includes Machine Learning, Deep Learning, Big Data, Analytics, and Data Modeling, Data integration, Mining and artificial Intelligence. Data Science starts from processing of Data to Extracting of data and visualizes it according to the needs. Data Science is totally a mix up of several components of Data. Why is it called Data Science? The answer behind it is simply defined from the word science only. It means that science behind all the data comes under Data science. Playing and arranging the data according to needs is the basics of Data Science. There are several systems for Data Science. There is no standard benchmark for evaluating or comparing these data systems for doing data science.

Keywords - Data, Mining, Extraction, Analysis;

[1] INTRODUCTON

Data science is the study of general extraction of knowledge from various kinds of data whether a structured data or unstructured data.

A common epistemic requirement in assessing whether new knowledge is actionable for decision making is its predictive power, not just its ability to explain the past. A data scientist is required with all of his ability to deploy the things. A data scientist requires an integrated skill set spanning mathematics, machine learning, artificial intelligence, statistics, databases, and optimization, along with a deep understanding of the craft of problem formulation to engineer effective solutions.

The world is driven by research and development at different levels and especially with advanced digital technologies. The term data science is somehow a huge part of the new technologies. The term "science" implies knowledge gained through systematic study. In one definition, it is a systematic enterprise that builds and organizes knowledge in the form of testable explanations and predictions. Data science is different from statistics and other existing disciplines in several important ways. To start the raw material the "data" part of Data Science is increasingly heterogeneous and unstructured - text, images, and video - often emanating from networks with complex relationships between their entities.

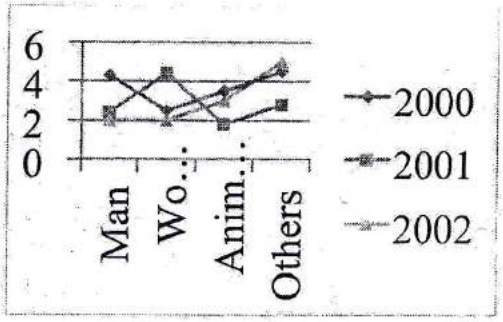

Fig 1. A Data Graph

[2] DATA SCIENCE

The field encompasses analysis, preparing data for analysis, and presenting findings to inform high-level decisions in an organization. As such, it incorporates skills from computer science, mathematics, statistics, information visualization, graphic design, and business. Data Science consists of several things like Machine Learning, deep learning, artificial intelligence, Big Data, Data Mining, and Data Analytics. To describe what is

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APPLICATIONS OF NANOTECHNOLOGY IN ELECTRONICS AND COMMUNICATIONS

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Abstract - **In this paper we can see developments in electronics and communication engineering by providing advantages of implementing the nanotechnology in these areas. This paper presents an insight into some of recent breakthroughs in nanotechnology which incorporates different devices like nano transistors, paper battery, nano robotics, nano sensors, wireless innovation, nano communication and networks. Nanotechnology is therefore expected to enable the production of smaller, cheaper and powerful devices with increasing efficiency.**

Keywords: **Nanotechnology, transistors, nano robotics communications, nano sensors, wireless technology.**

[I] INTRODUCTION

Nanotechnology is the study of phenomena and finetuning of materials at atomic, molecular and macromolecular scales, where properties differ significantly from those at a larger scale. Nanotechnology is also defined as the study of structures which are in size between 1 to 100 nm.

Nanotechnology is changing significantly in the field of electronics, especially in regard to computers, telecommunications and optics [1], [2], [3], [6]. In some sense, electronic miniaturization has been the true driving force for nanotechnology research and applications. The main aim in this area is to understand nano scale rules and mechanism in order to implement new ICT (Information and communication technology) systems more economic, little and reliable. Nanotechnology has application in drug delivery, i.e. most harmful side effects of treatment such as chemotherapy are a result of drug delivery methods which do not pin point their intended target cells accurately. Nanoparticles of iron can be effective in the cleanup of chemicals in groundwater because they react more efficiently to those chemicals than larger iron particles. Nano sized particles of carbon like nanotubes and Bucky balls are composed of only carbon and they are very strong. A T-shirt weight bullet proof vests made out of carbon nanotubes is the best example that shows how much strong will be the Nano sized particles of carbon. This is because their strength comes from special characteristics of the bonds between carbon atoms. Nano-sized particles of titanium dioxide and zinc oxide are used in many sunscreens to block UV radiation more effectively.

Nanotechnology may offer new ways of working for electronics. Nanotechnology science is developing new circuit materials, new processors, new means of storing information and new manners of transferring information. Nanotechnology improve the capabilities of electronic components like by reducing the size of transistors used in integrated circuits, researchers are developing a type of memory chip with projected density of one tera byte of memory per square inch and this increases the density of memory chips. By improving display screens on electronics devices and this reduces power Consumption and also the weight and thickness of the screens.

In communication system based on nanotechnology is discovering new materials on the nanometer length scale expected to play an important role in future challenges in the field of communication systems such in devices of ultra-high-speed for long- and shortrange communications links, power efficient computing devices, high density memory and logics, and ultra-fast interconnects [5]. Also the use of

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5G and its Enabled Technologies

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Abstract

The 5th generation (5G) of cellular and wi-fi communications networks pursuits at addressing a various set of use instances, services, and packages with a specific recognition on permitting new enterprise instances through community slicing. The improvement of 5G has for that reason superior speedy with studies tasks and standardization efforts ensuing with inside the 5G baseline structure. Nevertheless, for the conclusion of local end-to-end (E2E) community slicing, in addition functions and optimizations shall nonetheless be introduced. In this paper, we offer an opening evaluation of present day 5G system (5GS) with appreciate to a few precise improvements and element our insights at the permitting improvements that may fill the recognized gaps. We will then speak the critical constructing blocks and layout ideas of an developed 5G baseline structure capitalizing at the improvements which can be being developed.

Introduction

At the start of wi-fi cellular conversation, it begins off evolved with the voice conversation gadget only, i.e. the primary generation (1G). With the significant development in wi-fi conversation structures, there became a constant development with inside the wi-fi cellular conversation which in end result offer the second (2G),third (3G) and fourth-generation (4G) wi-fi networks respectively. Due to immoderate use of multimedia and net making use of packages together with the use of voice functions, a few new technology want to be brought via way of means of focusing increment in capacity, better facts rate, minimal latency and notable QoS . 5G networks are the only which affords the above-cited functions which are notably required via way of means of destiny networks. Some of the important necessities of 5G structures are facts rate, latency, strength usage and cost. Utilization of strength is constantly a challenging factor of designing and operation of all wi-fi conversation structures and the equal is going for 5G networks.

How does 5G works?

Verizon is provisioning its 5G Ultra Wideband community with numerous additives, such as fiber-optic cable, small cells and sizable radio wave spectrum holdings. A crucial aspect of Verizon's spectrum holdings is known as millimeter wave spectrum, which refers to excessive frequency bands—specifically, the ones with inside the 28 GHz to 38 GHz range. It is in those spectrum bands that tomorrow's maximum audacious, latency-touchy and bandwidth-in depth improvements will rely. Think of millimeter wave spectrum because the widest, quickest dual carriageway at the planet, with hundreds of thousands of vehicles journeying centimeters other than each other at incredible build out are small cells and the fiber-optic cable. Small cells are transmitters, more or less the scale of a computer computer, which might be strategically located in places wherein utilization needs are highest—consisting of downtown areas, purchasing centers, sports activities venues, and university campuses.

Fiber-optic cables incorporate dozens to loads of optical fibers inside a unmarried casing, shifting records alerts from the

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CLOUD CRYPTOGRAPHY

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Abstract:

Cloud computing is an Internet-based processing model that gives a few assets through Cloud Service Providers (CSP) to Cloud Users (CU) on interest premise without purchasing the fundamental foundation and follows a pay-per-use premise. A client will pay the sum as indicated by the measure of the extra room utilized. Cloud computing offers support to the client through a webassociation. It underpins the virtualization of actual assets to improve productivity and the achievement of numerous errands simultaneously. The fundamental explanation behind utilizing the cloud is that the client canstore and access the put-away information in the cloud from anyplace whenever. The cloud client need not stress over the upkeep of programming, equipment, and storage. The principle explanation behind utilizing the cloud is that the client can store and access the put-away information in the cloud from anyplace whenever. The cloud client need not stress over the support of programming, equipment and extra room. The fundamental preferred position of distributed computing is every one of these administrations are given with ease to the client. Therefore, all clients move their information on the cloud.

The significant issue in distributed computingis security in light of the fact that the data put away in the cloud isn't straightforwardly kept up by the client. Security is by all accounts an interesting worry in the cloud While sending the information through the web any unapproved client can alter the information or access it. Various kinds of administration models under distributed computing encourage different degrees of security administrations. We will get the base security in IaaS (Infrastructure as a Service) and most with a SaaS supplier. In this paper, we will center after looking into and understanding cloud security issues by proposing crypto calculations and powerful measures in order to guarantee information security in the cloud. Alongside this, we will explain a touch more about some security parts of cryptography by exhibiting some protection issues of current distributed computing environmental factors.

Keywords: Cloud Computing, Cryptography, Cryptography techniques, Service models, Deployment Models, Steganography

I. Introduction

Cloud Computing is the moving innovation that utilizes the organization to offer support to the client. Cloud goes about as a virtualized programming. The large-scale and small scale organizations are going through a lot of cash to store and keep up their information.

Distributed computing offers assistance to the finance managers by putting away, calculating, and keeping up the information effortlessly.

Distributed computing permits the business client or individual client to utilize the application through the web without introducing in their framework. For instance: Gmail, Facebook, YouTube, dropbox. The client will pay the sum according to informations utilization. The principle bit of leeway of distributed computing is ease, expanded capacity, and adaptability. The significant danger in distributed computing is security and

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AR & VR: Challenges and Future Scope

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Abstract

Nowadays, with the development of highly competitive and low cost hardware, computers are already take their places as a part of our everyday life. High performance mechanism and electronics is now offer great and continuously improving resources ready to reinforce us in the implementation of ordinary tasks. A way to utilize these new resources is given by Augmented Reality (AR).Augmented Reality mixes virtual and actual reality, making available to the user new tools to ensure efficiency in the transfer of knowledge for featured processes and in several environments. It is providing many useful features that is attracting greater attention from the researchers ,students and professionals. Several solutions based on Augmented Reality have been proposed by the research community: specially in maintenance functioning Augmented Reality tools have proposed new perspectives and have promised dramatic implementation .VR & AR proved their importance, when planning, education, marketing, tourist sport preservation coming to light. Application of Virtual Reality (VR) system has been proven to be reasonable and effective in proposing the importance and engagement for users to working with the virtual environment (VE). An attempt to specify the issues from presented studies by the researchers within the time of papers between in last 14 years. There is no big changes implemented in this reviewing process but the aim is to connect the user experience and application system through concern and learning from the challenges in the system itself. This paper also contains the future research directions and predicts the development trends and scope of AR and VR system.

Keywords: *Augmented Reality, Virtual Reality, Virtual Environment;*

Introduction

Augmented Reality (AR) is a new technology that contains the overlay of computer graphics and interactive experience of the real world . One of the best overviews of the technology, that defined the field, described the problems, and summarized the improvements. Augmented reality basically works on reality and physical subjects to activated computer-generated environment over the top of reality, in real time. Essentially, Augmented Reality is a technology that build computer-generated pictures or images over a user's view of the real time world. These images are typically converted & build in shape as 3D models & videos.

A system application that is delivered through 3-dimension computer imageries in simulated environment and provides possibilities for users to explore and experience immersive by utilizing unique designed electronic technologics for visualization and/or to perform interactions in real time within the built VE or virtual world is called VR. The Augmented Reality had came before just over one decade, but the growth and progress in this field in past few years has been remarkable.

Virtual Reality environment system in this case is the generation of an environment which filled with rich interactivity for users to explore and interact freely with an entire computer generated environment. Furthermore, so as to attain great level of engagement and sense of presence when experiencing the appliance system, understanding and learning about the problems within the context can bridge the challenges gap. Consider understanding the users in design and development phase instead of heavily focusing only on the practice or inventions features.

The issues and challenges can acquire from both hardware and software implementation within the Virtual Reality application system. As for visualization in VR system, there are many ways of installation and setups presented to achieve the stereoscopic view depending on the 3D imageries output platform such as head-mounted display (HMD), desktop screen, smart phone, wall projection and other more. In enhancing the immersion of exploration, the method in navigation system also plays a significant role to guide users on how to

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A Review On Holography In Fingerprint Authentication

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Abstract — **In this period of exceptionally progressed computerized picture handling, it is extremely hard to store biometric subtleties like finger impression of a profoundly needed criminal in a safe way. Any carefully put away information can be manufactured, or the put away information can be effortlessly obliterated or controlled. Consequently, a protected stockpiling and handily recuperated strategy should be applied in such fields. Computerized holographic information stockpiling is perhaps the most secure stockpiling techniques accessible that can be utilized to determine this issue. It gives a tenable route in the finger impression procurement in the criminal examination field. The precise stage remaking is the extraordinary preferred position of advanced holography contrasted and conventional unique finger impression securing strategies. Also, computerized holography has numerous critical preferences, for example, basic, high precision and high goal, besides, it is a non-ruinous strategy, doesn't subvert the on location fingerprints. Additionally, some advanced picture preparing can be applied to the first visualization and the recreated picture, for example, the picture contrast lighting up, separating, etc. Subsequently, it is conceivable to acquire an advanced visualization with higher caliber. Subsequently, advanced holography can be utilized for secure capacity and examination of fingerprints in the criminal examination field.**

Keywords :- Fingerprints, analysis, visualization and bifurcation.

I. INTRODUCTION

Fingerprints are the most precise and ordinarily utilized biometric strategy for individual distinguishing proof. Since 1880s fingerprints were utilized as biometric procedures for human distinguishing proof in the criminal examination field[1]. It is the invariant property and uniqueness of finger impression which makes it an individual identifier. The primary issue emerges with regards to the protected stockpiling of the fingerprints. By ordinary strategies dormant fingerprints can't be gathered without staining the surface with the unique mark. Likewise with the extremely progressed procedures in computerized picture handling, any picture put away carefully can be controlled or annihilated. It involves concern with regards to the fingerprints of exceptionally needed hoodlums. Such

$$E_0(x,y) = a_0(x,y)exp(i\acute{o}_0(x,y)) \qquad (1)$$

fingerprints put away carefully can be handily controlled by basically affecting an official in the legal division. Likewise if a noxious assailant accesses the gadget, the aggressor additionally accesses the biometric. Numerous procedures were utilized for expanding the security of put away fingerprints. Distinct C Draper proposed a technique utilizing Selpian Wolf codes which portrayed a strategy to encode unique mark biometrics safely for storage.They introduced a model for a protected biometric framework. In any case, there was a compromise between the security of the framework and the vigor of authentication[2]. Davida,Frankel, and Matt considered the utilization of mistake revision coding as an answer for this problem[3]. Juels and Sudan presented the possibility of a fluffy vault to formalize the utilization of mistake revision codes for such applications[4].Several specialists have investigated crypotographic parts of the issue in more profundity. Altogether these techniques the fingerprints must be encoded first. However, even in the wake of encoding, they are put away in an advanced way, which again can be fashioned.

II. THEORETICAL ANALYSIS

A. Recording Of Digital Hologram

The 3D image age is an obstruction cycle. and visualizations are normally recorded with a laser light source. The wave containing the data of the item is known as the article wave, and the other meddling wave is the reference wave. For straight forwardness, the reference wave is now and then taken to be a uniform plane wave. When all is said in done, the item wave at the account plane can be depicted as where a0 is the sufficiency and φ0 is the period of the

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Transforming healthcare throughInternet of Things

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Abstract

In the current era, there is a requirement of a system with connected devices, persons, time, places and networks, which is completely incorporated in what is called as Internet of Things (IoT). Internet of Things has become the ultimate building blocks in the development of healthcare monitoring system. Theaim of an efficient IoT healthcare system is to providereal time remote monitoring of patient health condition, to prevent the critical patient conditions and to improve the quality of life through smart IoT surroundings. New challenges have been introduced with IoT for the security of systems and processes andalso with the privacy issues of person's medical data.Information security using IoT is very complicated and difficult; since global connectivity and accessibility is the major concerns related to IoT. Security and privacy by design need to be part of anyIoT use case, project or deployment. A number of papers have worked on the access control mechanism with different techniques and with energy efficiency. Few papers have proposed different types of protocolsfor authentication. A system is required for the fusion of authentication protocol with energy efficient accesscontrol mechanism along with the solutions to countermeasure the other attacks in security and privacy of patient healthcare data. After going through the methodology for authentication protocol, for access control and for energy efficient access control mechanism, a combined methodology is proposed to be adopted to pool the gap.

1. Introduction

Traditional methods of providing security cannot be directly implemented in IoT's because of different standards and communication stacks involved. Information and Communication Technologies (ICTs) deployed as part of medical information systems must assure various significant security necessities together with integrity, confidentiality, availability, non-repudiation, authentication, authorization, and accountability so as to secure medical information without affecting the efficiency of services and privacy of patients' data.

Why IoT for healthcare? The major problem that every patient, particularly living in remote locations found was unavailability of doctors and treatment on critical conditions. This had very dreadful consequences on people's mind about the hospitals and doctors services. Nowadays with the implementations of new technologies by making use of IoT devices for healthcare monitoring system, these issues have been sorted to huge extent. IoT has the potential to not only keep patients safe and healthy, but to improve how physicians deliver care as well. Healthcare IoT can also boost patient engagement and satisfaction by allowing patients to spend more time interacting with their doctors. The usage of the Internet of Things (IoT) in healthcare is a vast ecosystem. Within the overall connected healthcare and eHealth picture, more integrated approaches and benefits are sought with a role for the so-called Internet of Healthcare Things (IoHT) or Internet of Medical Things (IoMT).

2. A brief review of the work already done in the field

Definition of IoT:

Kevin Ashton firstly proposed the concept of IoT in 1999, and he referred the IoT as uniquely identifiable interoperable connected objects with radio-frequency identification (RFID) technology (Shancang, 2015). Luigi et al. in their paper addresses the Internet of Things. Main enabling factor of this promising paradigm is the integration of several technologies and communications solutions. Identification and tracking technologies, wired and wireless sensor and actuator networks, enhanced communication protocols (shared with the Next Generation Internet), and distributed intelligence for smart objects are just the most relevant (Atzori, 2010). The basics of IoT as the combination of internet and the emerging technologies has been discussed (Korteum, 2010).

Shen has studied that the e-Healthcare system mainly consists of three domains: body area, communication and networking, and service. The bodyarea domain is defined by a number of wireless body area networks (WBANs), each corresponding to a user. The major functionality of the communication and networking domain is to bridge the body area and service domains. Advanced wireless communications technologies (e.g., cellular networks, WiFi, and WiMAX) link WBAN gateways to the Internet and enable efficient mutual data communication between two WBANs. In the service domain, a trusted authoritymaintains an online server that is responsible for receiving, recording, and analyzing user health-related information. (Shen X., 2012).

The architecture of IoT framework and the issues in design of IoT hardware and software components (Gordana, 2017) have been discussed. They have elaborated the various application areas of IoT, such as

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Smart Voting System Through Facial Recognition

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Abstract— **Voting system plays a critical role in democratic countries. Vote means to choose a good candidate who is contesting an election. The current voting system is not secure and time consuming as well. The voters need to go to distributed places like polling booths and stand in a very long queues to cast their vote, due to these reasons most of the people misses the chance of casting their votes. The people who are not eligible for voting, they also cast their votes which can cause various problems. There are many loopholes in the current scenario of voting. There is always been question on the working of Electronic Voting Machine (EVM), so we need to take care of that aspect also. Considering all the drawbacks of existing voting system and to make it more secure, we come up with an idea of using face detection technique in voting system. Here we have three steps in voting process. The first step would be the unique id number (UID) verification, second step would be the election id number (EID) verification and third step would be face recognition. This proposed Voting System could offer higher security than the existing one and could increase the vote percentage.**

Keywords— **Electronic Voting Machine(EVM), Unique Id Number(UID), Election Id Number(EID).**

I. Introduction

There are two types of method followed in India for voting. The first method is used to vote through ballot paper, in which many papers are used and second method is EVM (electronic voting machine). We need to make existing system more secure or adapt new technologies to make it more secure. In this paper, our main focus is to make the voting system more secure by using face recognition technique. We used face recognition concept to identify the exact person whose image is stored in the database. Three levels of verification were used for the voters in our proposed system. The first one is to verify Unique id number, second level is to verify election commission id or voter card number, if that number is correct then only you could go for the third step which is face detection method. If the image taken matches with the respective image of the voter in the database, then a voter can cast their vote in the election as in this current scenario the voting process is not too secure.

II. Existing Techniques

In the current voting system, the ballet machines were used which displays various parties symbols. When we press the button of any respective party's symbol, then only it is said that is voting is done. The chances of casting a vote by any unwanted or unethical way is more in current system. Many people could easily cast the vote by any other person's name without being caught or they could easily capture the booth and cast numerous numbers of votes. This is completely unacceptable in huge democratic country like India. In the existing system, the person has to travel long places to his constituency to cast his vote.

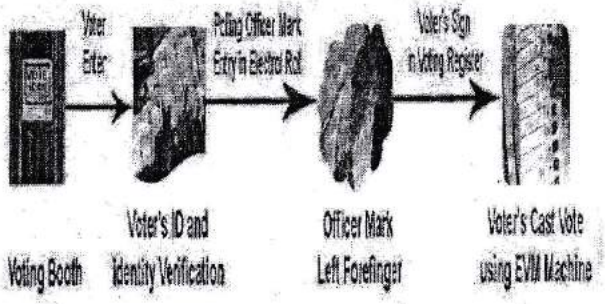

Fig.1 Existing Voting Process Scenario

So we need a system that is far more effective and more secure than the existing one and which could cover all the loopholes present in the existing system. Thus, we are proposing a system which is more secure and better that the existing one, which uses face recognition technique. A facial authentication process is used for detecting the right person which will help the voters to cast their vote from their place itself.

III. Literature Survey

Talking about the related work, there is pretty much research is already done on these topics, these are:

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Software Defined Networking andits Challenges

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Abstract- Trends (e.g., versatile, social, cloud, and huge information) in information and communication technologies (ICT) are instructing new difficulties to future Internet, that pervasive openness, high transfer speed, and dynamic administration are crucial. However, old methodologies upheld manual configuration of exclusive gadgets are awkward and blunder inclined, and that they can't completely use the capability of actual network infrastructure. As of late, Software Defined Networking (SDN) has been promoted together of the most promising answers for future Internet. SDN is described by its two recognized highlights, including decoupling the control plane from the information plane and giving programmability to arrange application advancement. Therefore, SDN is expected to supply more proficient setup, better execution, and better adaptability to oblige imaginative organization plans.

Software defined networking offers a few advantages for networking by isolating the control plane from the Data plane. Nonetheless, networks' versatility, dependability, and accessibility stay as a colossal issue.

SDN (Software Defined Networking) is a technique that plans to improve the control of network and flexibility. It is mainly associated with open flow network and ODIN V2 for remote communication. Its architecture is central, agile and programmatically configured. We talk about security features that upholds the insurance of GUI by requiring validation, SSL/TLS combination and logging/security audit services. The job based approval Fort NOX and ciphers like AES and DES will be utilized for encryption of information and improving the safety of SDN environment. These methods are valuable for upgrading the security structure of the controller.

I. Introduction

In the SDN architecture, the control and data planes are decoupled, network insight and state are logically centralized and consequently the fundamental network infrastructure is abstracted from the appliance. SDN centers around detachment of the control plane from the data plane, centralized controller and perspective on the network, open interfaces between the gadgets in the control plane (controllers) and those in the data plane and programmability of the organization by outside applications [4].

Traditional networks are intricate and hard to oversee. They include distinctive hardware that run complex distributed control software that is shut and exclusive. Traditional IP networks are upward coordinated, that is, they need the control and data plane packaged together. The objective of Software Defined Networks, SDN is to frame networks more programmable. The programmability of the network is accomplished through programming applications which run on top the network working framework (NOS) [4].

SDN isolates the control and data plane and it advances logical centralization of network control and acquaints the ability to program the network. SDN likewise makes it simpler to make and present new abstractions in networking, improving network management and facilitating network evolution. Also, SDN breaks vertical mix by isolating the 2 planes; The control plane – which chooses the best

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Scaling Decentralized Finance

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Abstract - **DeFi is a financial system built around Cryptocurrencies, especially existing on the Ethereum blockchain, people lend in their stable tokens(cryptocurrencies) and earn interest on them, there are swaps and financial services as well. All this happens with the least human intervention, and everything is controlled by protocols, it currently suffers from two major problems, very high transaction costs and traffic too high on Ethereum. Other cross-chain solutions have way too little footfall to make the whole thing sustainable/ profitable.**
This problem can only be solved when we go cross-chain while ensuring high APR to attract more footfall and not trigger a chicken and egg situation. The proposed solution is to use cross-chain solutions like Polkadot to transfer assets to substrate-based Polkadot chain and then perform all the DeFi operations there. to ensure good APR stake the locked tokens in the mining process to overcome the chicken and egg situation. Higher APR can be sought by connecting to more Proof of Stake based chains where stake can be delegated and a smart contract can decide which chain is giving higher APR and then stake the tokens, a decentralized swap will be required to exchange one token for another and then staking them.

Index Terms - Decentralized finance, scalability, blockchain interoperability, cryptocurrency swaps, cryptocurrency staking.

I. INTRODUCTION

Satoshi Nakamoto brought forth the best use case of blockchain with the introduction of bitcoin. But it was limited to only transacting bitcoins from one address to another, little to no services could be built around it, especially the decentralized ones. Vitalik Buterin, inspired by bitcoin, came forward with Ethereum that supported smart contracts which laid the foundation for services to be built around cryptocurrencies, especially ETH. This wasn't enough to trigger the DeFi race. DeFi started when MakerDAO introduced DAI, the first cryptocurrency-backed stable coin. It helped people with the biggest thing in the cryptocurrency world, Fear of missing out. People could now lock in their Eth and get DAI, if prices were to fall they could buy more ETH from stable coin DAI. If prices were to rise they could take their ETH back and sell it thus it created a win-win situation. After this DeFi never looked back, it has $16 Billion locked in protocols. Countless services are being built on top of DeFi. Most of the banks and investment banking groups are looking towards Ethereum and DeFi as a good investment.

II. SCALABILITY ISSUES IN DE-FI

Decentralized finance is revolutionizing finance sector but it is at the same time gripling with a lot of issues, mainly because of limited throughput of the underlying platform, Ethereum, as innovative as Ethereum is it still suffers from slow speed and there are a lot of users in Ethereum.

- DeFi has increased transactions so much on Ethereum that it leads to price wars for getting the transaction in, thus it causes exponentially hiked gas prices. For a simple approval call sometimes it takes about $25 which is not an appropriate fee. Hiked gas prices lead to spending more money in transactions than that being earned from DeFi protocols.
- DeFi has increased transactions so much that now 15 transactions per second of Ethereum is way too slow to handle the huge traffic, thus it leads to transactions being pending for hours and days, it has an extremely adverse effect on the transactions that involve using current prices because by the time that transaction gets through prices would have changed for better or worse.
- Going cross-chain or to layer 2 to solve all the problems has a different problem, that is the chicken and egg situation: protocols will not give better APR until there are a good amount of users and good amount of users will

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Networks Based Green Cloud Computing Schemes

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Abstract -- ***We are particularly aware that Green Cloud Computing (GCC) is a broad rang and a hot field. The distinction between "consumer of" and "provider of" cloud-based energy resources may very important in creating a world-wide ecosystem of GCC. A user simply submits its service request to the cloud service provider with the connection of Internet or wired/wireless networks. The result of the requested service is delivered back to the user in time, while the information storage and process, interoperating protocols, service composition, communications, and distributed computing are all smoothly interactive by the networks. In this paper, this is a survey on green cloud computing schemes based on networks. We first introduce the concept and history of Green computing, and then focus on the challenge and requirement of Cloud computing. Cloud computing needs to become green, which means provisioning cloud service while considering energy consumption under a set of energy consumption criterions and it is called GCC. Furthermore, we introduce recent work done in GCC based on networks, including microprocessors, task scheduling algorithms, virtualization technology, cooling systems, networks and disk storage. After that, we present the works on GCC from our research group in Georgia State University. Finally, we give the conclusion and some future works.***

I. INTRODUCTION

Here we are particularly aware that Green Cloud Computing (GCC) is a broad rang and a hot field. The distinction between "consumer of" and "provider of" cloud-based energy resources may very important in creating a world-wide ecosystem of GCC. A user simply submits its service request to the cloud service provider with the connection of Internet or wired/wireless networks. The result of the requested service is delivered back to the user in time, while the information storage and process, interoperating protocols, service composition, communications, and distributed computing are all smoothly interactive by the networks. In this section, we first introduce the concept and history of Green computing, and then focus on the challenge and requirement of Cloud computing. Cloud computing needs to become green, which means provisioning cloud service while considering energy consumption under a set of energy consumption criterions and it is called GCC.

II. GREEN COMPUTING: CONCEPT AND HISTORY

Green computing or green IT, refers to environmentally sustainable computing or IT. San Murugesan defines the field of green computing as "the study and practice of designing, manufacturing, using, and disposing of computers, servers, and associated subsystems-such as monitors, printers, storage devices, and networking and communications systems-efficiently and effectively with minimal or no impact on the environment [1]."

Modern IT systems are complicated because all of them rely on so many factors such as applications or software, people, networks and hardware. A solution may also need to address end user satisfaction, management restructuring, regulatory compliance, and return on investment (ROI). To reduce the use of hazardous materials, maximize energy efficiency during the product's lifetime, and promote the recyclability or biodegradability of defunct products and factory waste are the main goals of Green computing, which can be attained by making the use of computers as energy-efficient as possible and designing algorithms and systems for efficiency-related computer technologies.

In 1992, the U.S. Environmental Protection Agency (EPA) launched a voluntary labeling program named Energy Star, which is designed to promote energy-efficiency technologies in monitors, climate control equipment and so on. The term "green computing" was probably coined shortly after the Energy Star program began. Concurrently, the Swedish organization TCO Development launched the TCO Certification program. At first, this program was to promote low magnetic and electrical emissions from CRT-based computer displays, and was later expanded to include criteria on energy consumption, ergonomics, and the use of hazardous materials in construction.

III. CLOUD COMPUTING: CHALLENGES AND REQUIREMENTS

"If computers of the kind I have advocated become the computers of the future, then computing may someday be organized as a public utility just as the telephone system is a public utility. The computer utility could become the basis of a new and important industry." John McCarthy, who received the Turing Award in 1971 for his major contributions to

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A Study on Privacy and Security in Internet of Things Devices

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Abstract- In the new era of Internet of Things (IoT) , where smart devices are enabled with sensors that collect information from its surrounding environment, process it and transfer it for further analysis. Companies usually don't give importance to security measures before connecting these devices to the internet. Possibility arises that someday connected devices might be used to harm the users. This might prove to be hazardous for medical industries as it might take the lives of patients. The potential risk of medical devices has put pressure on FDA to issue guidelines that should be followed while manufacturing wearable and healthcare devices. A wide range of data can be gathered that can vary from simple heart rate, blood pressure, habits to communication, location,24 X 7 monitoring through webcams. Using cheap sensors, IoT empowers a variety of devices and objects around us to look, feel and find. While IoT brings endless benefits, it poses a number of challenges, especially security and privacy. IoT security, ethics, ethical constraints and challenges have been discussed.

1. INTRODUCTION

The Internet of Things (IoT) is a collection of interconnected smart physical devices. These devices are embedded with software, hardware, and internet that enable them to gather and share data. IoT can be remotely controlled across all existing network infrastructure, this creates the opportunity for greater integration of devices into computer-based systems leading to improved performance, and accuracy. This in turn provides economic benefits for those who use it.

In the last few decades, the number of Internet of Things (IoT) devices has increased drastically . With a total of close to 26 billion, a surprising conclusion is reached that there are at least two interactions per person living [1]. The trend is expected to continue, with an estimated 50 billion connected devices by 2025, most of them IoT and portable devices [2]. Similar to embedded systems, IoT and portable devices are equipped with multiple sensors while also providing ways to establish network connectivity, allowing data transfer to a remote location.

To better understand security and privacy issues associated with the current IoT device design flow and results, we used Google Nest Learning Thermostat and Nike + Fuelband SE Fitness Tracker, after this called Nest Thermostat and Nike + Fuelband, as test devices. Our selection of these units was based on the fact that both Nest Labs and Nike Inc. are among the few manufacturers that have taken safety measures Devices and protection of user data. Nest Labs also said "Use advanced data security tools" to protect its products and user data for unauthorized access.

2. The importance of IoT in healthcare

Health care is defined as an act of taking prevention or procedures required to improve human well-being. This can be done surgically, the operation of medicine, or other modification of a person's way of life. These services are usually provided with a health care plan developed by hospitals and doctors.

There are various areas in healthcare that have an important role.

• Care for the elderly, which includes tracking older person accommodation / nursing home and hospital

• Data collection, which is the most mature area in health care, including many equipment ourselves look at the bedside in hospitals as an EKG consultant,

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Augmented Reality

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1. Introduction

The field of Augmented Reality (AR) has existed for just over one decade, but the growth and progress in the past few years has been remarkable. In 1997, the first author published a survey (based on a 1995 SIGGRAPH course lecture) that defined the field, described many problems, and summarized the developments up to that point. Since then, the field has grown rapidly. In the late 1990 s, several conferences specializing in this area were started, including the International Workshop and Symposium on Augmented Reality, the International Symposium on Mixed Reality, and the Designing Augmented Reality Environments workshop. Some wellfunded interdisciplinary consortia were formed that focused on AR, notably the Mixed Reality Systems Laboratory in Japan and Project ARVIKA in Germany. A freely-available software toolkit (the ARToolkit) for rapidly building AR applications is now available. Because of this wealth of new developments, an updated survey is needed to guide and encourage further research in this exciting area.

The goal of this new survey is to cover the recent advances in Augmented Reality that are not covered by the original survey. This survey will not attempt to reference every new paper that has appeared since the original survey; there are far too many new papers. Instead, we reference representative examples of the new advances.

What is Augmented Reality? The basic goal of an AR system is to enhance the user s perception of and interaction with the real world through supplementing the real world with 3D virtual objects that appear to coexist in the same space as the real world. Many recent papers broaden the definition of AR beyond this vision, but in the spirit of the original survey we define AR systems to share the following properties:

1) Blends real and virtual, in a real environment
2) Real-time interactive
3) Registered in 3D

Registration refers to the accurate alignment of real and virtual objects. Without accurate registration, the illusion that the virtual objects exist in the real environment is severely compromised. Registration is a difficult problem and a topic of continuing research.

Note that this definition of AR is not restricted to particular display technologies, such as a Head-Mounted Display (HMD). Nor is it limited to the visual sense. AR can potentially apply to all senses, including touch, hearing, etc. Certain AR applications also require removing real objects from the environment, in addition to adding virtual objects. For example, an AR visualization of a building that used to stand at a certain location would first have to remove the current building that exists there today. Some researchers call the task of removing real objects Mediated or Diminished Reality, but this survey considers it a subset of Augmented Reality.

Milgram defined a continuum of Real to Virtual environments, where Augmented Reality is one part of the general area of Mixed Reality. In both Augmented Virtuality and Virtual Environments (a.k.a Virtual Reality), the surrounding environment is virtual, while in AR the surrounding environment is real. This survey focuses on Augmented Reality and does not cover Augmented Virtuality or Virtual Environments.

This new survey will not duplicate the content of the 1997 survey. That paper described potential applications such as medical visualization, maintenance and repair of complex equipment, annotation and path planning. It summarized the characteristics of AR systems, such as the advantages and disadvantages of optical and video approaches to blend virtual and real, and problems in the focus and contrast of displays and the portability of AR systems. Registration was highlighted as a basic problem. The survey analyzed the sources of registration error and described strategies for reducing the errors. Please refer to the original survey for details on these topics.

The remainder of this survey organizes the new developments into the following categories: Enabling Technologies, Interfaces and Visualization, and New Applications. Enabling Technologies are advances in the basic technologies required to build a compelling AR environment: displays, tracking, registration, and calibration. The Interfaces and Visualization section describes new research in how users interact with AR systems and what they see displayed. This covers new

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Implementation of IoT for Smart Cities

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Abstract

The Internet of Things (IoT) is a cutting-edge technology that allows a variety of digital devices with various sensing, actuation, and processing capabilities to connect to the Internet, resulting in a multitude of new services in the context of a smart city. Smart city efforts are being enabled all around the world thanks to enticing IoT technologies and big data analytics. These services are increasing the quality of life in cities by upgrading infrastructure and transportation systems, reducing traffic congestion, and providing waste management. We create a taxonomy in this article to best present a generalised overview of the IoT paradigm for smart cities, integrated ICT, network kinds, potential prospects, and significant requirements. In addition, an overview of current standard-setting activities is provided.

Keywords: *Appealing IoT services, Internet of Things, Smart City, Traffic Congestion, ICT, Standard Bodies, Open Source.*

I. Introduction

The Internet of Things (IoT) is a ground-breaking communication paradigm that attempts to create a transparent and innovative framework for connecting a wide range of digital items to the Internet. As a

result, it aspires to make the Internet more immersive and all-encompassing. The growing Internet of Things sector is gaining traction as operators, sellers, manufacturers, and businesses grasp the opportunities it presents. According to the most recent IDC forecast1, the global IoT market will be worth 1.7 trillion dollars in 2020, up from 655.8 billion dollars in 2014, with a compound annual growth rate of 16.9%. In 2020, the devices alone are estimated to account for 31.8 percent of the overall global IoT market.. This greater percentage of the revenue in 2020 is expected by building IoT platforms, application software, and service-related offerings. A smart city is a complex ecosystem characterized by the intensive use of ICT, aiming at making the cities more attractive, more sustainable and a unique place for innovation and entrepreneurship.

The smart city cycle also includes a variety of ICT technologies, development platforms, maintenance and sustainability, citizen-centric apps, and technical, social, and economic key performance indicators (KPIs). As a result, Internet of Things technologies will be critical in the deployment of large-scale heterogeneous infrastructures. Network type, scalability, coverage, adaptability, heterogeneity, repeatability, and end-user involvements are all factors to consider while developing IoT-based smart city applications. These applications can be divided into four categories: personal and home, utilities, mobile, and enterprises. Personal and household applications, for example, include the ubiquitous healthcare services to live independently via Body Area BANs are networks that allow a doctor to remotely monitor patients. Smart grid, smart metering/monitoring, water network monitoring, and video-based surveillance are examples of utilities applications. Intelligent transportation systems (ITS) and logistics, traffic management, congestion control, and waste management are all examples of mobile applications. A network of devices inside a work place is also common in IoT-based enter-prize applications. To connect IoT with smart city environments, several research initiatives have been performed. Zanella, for example, gave a thorough overview of the architectures, protocols, and enabling technologies for a web-servicesbased IoT framework.in the Padova smart city project. The proof of concept implementation with numerous technical solutions aim to monitor street lighting, the quality of air and identification of most critical issues. A survey on the fundamental IoT elements in realizing smart cities was conducted in which also described a case study on noise monitoring. Nathalie proposed a different perspective of smart cities in which IoT devices were considered service providers mimicking cloud based services. By removing the barriers between physical IoT devices and logical (cloud service providers) worlds, the concept provided

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Digital Payments

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Abstract -- ***Information Technology (IT) has revolutionized the different parts of our lives; especially it has given a simple approach for digital payments. During the Demonetization period, all commercial transactions were forced to be done via Digital mode. The common people started to move from traditional payment systems towards Digital Payments systems, ensuring safe, security, and convenience. With the advancement in the technological world and with the easy access to the Internet, India inclined towards Digital Payments. The percentage of digital payments through other modes is also increasing at a significant speed. The objective of the present study is to know about the various types of Digital payment transactions that are used by the common people in their day-to-day lives. As a result, in 2015-2016, a complete of 4018 billion has been transacted through mobile banking compared to sixty billion in 2012-13. The reach of mobile networks, the net, and electricity is additionally increasing digital payments to remote areas. So, It is, without doubt, said that the future transaction system is a cashless transaction.***

I. INTRODUCTION

Financial scholars and empiricists are attempting to completely comprehend the primary advancement occurring with innovation in various areas and their orderly ramifications. A central perception with significant impacts for monetary strength is that digitalization is delivering a tremendous collection of immaterial capital that possibly makes monetary delicacy [3]. The continuous computerized insurgency may prompt an extreme take-off from the conventional model of money related trade. We may see an unbundling of the different jobs of cash, making fiercer contest among particular monetary forms. Then again, computerized monetary standards related with huge stage biological systems may prompt a re-packaging of cash in which payment administrations are bundled with a variety of information administrations, empowering separation yet debilitating interoperability between stages. Advanced monetary standards may likewise create a disturbance of the worldwide money related framework: nations that are socially or carefully incorporated with their neighbors may confront computerized dollarization, and the predominance of foundationally significant stages could prompt the development of computerized cash zones that rise above public boundaries. National bank computerized cash (CBDC) guarantees that public cash stays an applicable unit of record [1]. Digitalization has altered cash and payments frameworks. Albeit computerized cash itself isn't new to present day economies, advanced monetary standards currently work with momentary distributed exchanges of significant worth in a formerly incomprehensible manner. New monetary standards will arise as the focal lynchpins of enormous, foundationally significant social and financial stages that rise above public lines, rethinking how payments and clients' information associate. The coming of these new monies could reshape the idea of cash rivalry, the engineering of the global financial framework, and the part of officially sanctioned public cash. The digitalization interaction of the most recent quite a while has fortified rivalry considerably more. It made new opponents for banks as fintech organizations (FinTechs). FinTechs are subbing banks in numerous customary business sectors, including payment administrations, resources the board, and monetary counselling. They recommend customers collaborate with them in an extremely modest and helpful manner. And yet, FinTechs carry with them new dangers for shoppers in light of the fact that these non-bank foundations are not controlled with undeniable devices which are utilized by national banks to get dependability in the financial framework. Digitalization expects banks to be on the edge of advancement and to give a satisfactory reaction to new difficulties. Brilliant workplaces of manages an account with a consistent innovation of serving customers, wide capability of staff, and other extraordinary highlights is one of the methods in the battle of genuine saves money with semi banks or shadow saves money with advanced nature. Another test for everything except particularly for banks in a computerized age is network safety. On the off chance that banks don't give adequate consideration to the security of the monetary and individual information of their customers, they represent a genuine danger to purchasers. Online robbery of cash from computerized wallets and Mastercards, tax evasion through advanced stations, and numerous different violations are natural satellites of computerized accommodation and success [3].

II. OVERVIEW

By the execution of digitalization, banks can give enhanced client administrations. This gives accommodation to clients and helps in saving time. Digitalization diminishes human mistake and hence fabricates client dependability. Another influx of innovation is changing the manner in which clients draw in with their accounts. From social to versatile capacities, banks need to reconsider the manner in which they work together to convey a superior client encounter and stay serious. The new presentation of open banking and the Payments Services Directive 2 (PSD2) guideline is rushing this change by putting power in the possession of clients. Banks should now permit clients to share their monetary information, like ways of managing money and ordinary payments, with approved

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Comprehensive View of Big Data

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Abstract - In today's world scenario as the amount of data is increasing day by day the term Big Data is also becoming huge. Big Data is a collection of various forms of data that cannot be managed by traditional data management methods. The need and importance of big data are increasing continuously for the past few years even some organizations are depended on information extracted after analyzing big data for making important decisions. This paper helps to understand Big Data by explaining its characteristics and architecture. It also provides information about major sources of big data, its application in various fields. But as we know, every technology has some limitations, so it also defines the major problems in big data analysis and the solutions required to overcome them. The main aim of the paper is to make the term "big data" more clear by explaining all basic terms related to it, to make working with it easier and more effective.

Keywords- Big Data, volume, variety, velocity, veracity, value

I. INTRODUCTION

Big Data defines huge and complex data which is increasing exponentially day by day. It is not possible to manage this data with the traditional database management system, as the data can be in any form that is structured data (dataset in a row and column format), unstructured data (audio, video, images, or any other format) or semi-structured data (data in XML, JSON format. Semi-structured data is a combination of both structured and unstructured data) [5].

The tenn Big Data was first introduced by Roger Mougalas back in 2005. But big data exists in the world for a very long time. 5 exabytes (10 bytes) of data were created by humans till 2003. Now, this amount of data is created within 2 days due to the increase in the use of social media, technologies, and experiments. In 2012 the amount was around 2.72 zettabytes which are becoming double every two years and it is expected to reach 175 zettabytes by 2025. Even a personal computer holds around 500 gigabytes of information, so it requires approximately 20 billion PCs to store all the world's data. Google only has 9 million servers around the world and 8.3 billion mobile subscriptions globally. So, the need to analyze and store this data properly for future perspectives is very important.

II. CHARACTERISTICS OF BIG DATA

Big Data is categorized or defined in terms of 5 Vs: volume, variety, velocity, veracity, value. Initially, there were only 3 V's of Big data that is velocity, volume, variety. But with the rapid growth of data, two new Vs were introduced that are veracity, value by Gartner to the data processing concepts.

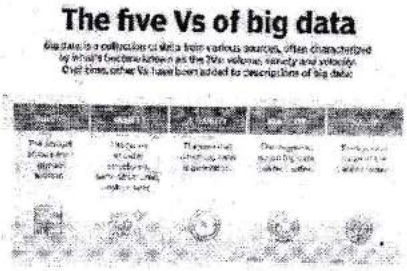

Fig.1 Five Vs of Big data

2.1 Volume- refers to the amount of data that is produced every day. This volume of data is generated from various sources such as the education sector, media, healthcare sector, etc. in different-different formats such as pdf, images, videos, etc. For example- Facebook alone can generate billions of messages and around 350 million posts per day.

2.2 Variety- defines the nature of data that is structured, unstructured, semi-structured. It shows diversity in data sources and type. In today's world, 80 percent of data is classified as unstructured data.

2.3 Velocity- defines the continuous flow of data through multiple channels social media, mobile phones, computer networks, etc. The data flow is massive and continuous. Velocity determines the speed at which data is processed and generated to meet real-world demands. It is done in a fraction of seconds in real-time.

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IOT based Object Detection System

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Abstract - Object detection is a computer technology innovation identified with computer vision and image processing that manages to identify occurrences of semantic objects of a specific class. (for example, people, structures, or vehicles) in digital images and videos. Well-informed spaces of object detection incorporate face identification and pedestrian face recognition. Object detection has applications in numerous spaces of computer vision, including image recovery and video surveillance. In its least complex structure, tracking can be characterized as a technique for finishing an article progressive picture casings to decide its overall development as for different items. As such, a tracker relegates predictable marks to the followed objects in various casings of video. One can work on following by forcing limitations on the movement or presence of articles. One can additionally compel the object movement to be of steady speed or quickening dependent on earlier data. Earlier information about the number and the size of items, or the article's appearance and shape can likewise be utilized to improve on the issue.

The physical object detection system for example, through Ultrasonic, infrared, and so on can be joined with Computer Vision for better productivity and accuracy. Computer Vision is the part of the study of computer and programming frameworks that can perceive pictures and scenes. Computer Vision is comprised of different viewpoints, for example, picture acknowledgment, object discovery, picture age, picture super-goal, and some more. Object identification is broadly utilized for face discovery, vehicle recognition, walker tallying, web pictures, security frameworks, and self-driving vehicles. In this venture, we are utilizing profoundly precise article location calculations and techniques, for example, R-CNN, Fast-RCNN, Faster-RCNN, RetinaNet, and quick yet exceptionally exact ones like SSD and YOLO. Utilizing these techniques and calculations, given profound realizing which is likewise founded on AI require bunches of numerical and deep learning framework understanding by utilizing dependencies, for example, Tensor Flow, OpenCV, image and so forth, we can distinguish every single item in the picture by the zone object in a featured rectangular box and recognize every single object and relegate its tag to the object. This likewise incorporates the accuracy of every method for distinguishing objects.

I. INTRODUCTION

IoT (Internet of Things) is a communication network that associates physical or things with one another or with a gathering altogether. The utilization is generally well known these days and its use has ventured into intriguing subjects. Particularly, it is getting more famous to explore in cross subjects, for example, blending brilliant frameworks in with PC sciences and designing applications together. Article identification is one of these subjects. Real-time object discovery is one of the chief fascinating subjects due to its figure costs. Holes in the system, obscure ideas, and deficiency in numerical demonstrating make it harder for planning these registering calculations. Algorithms in these applications can be created within AI as well as mathematical techniques that are accessible in logical writing. These activities are conceivable just if correspondence of items inside themselves in actual space and consciousness of the articles close by. Fake Neural Networks may help in these examinations. In this examination, Yolo calculation which is viewed as a vital component for ongoing item location in IoT is investigated. It is acknowledged and appeared in outcomes that advancement of figuring and investigation of framework aside this examination which accepts Yolo calculation as an establishment point. Accordingly, it is seen that our model methodology has fascinating potential and curiosity.[12]

There are two major problems with the existing tracking algorithms. First, it is the tracking accuracy and robustness. Visual object tracking is a challenging task, especially when faced with difficult tracking conditions e.g., occlusion, object deformation, and background cluttering. The ability to handle these difficulties directly influences the tracking accuracy and robustness of a tracking algorithm. Recently, the adoption of discriminative

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Convention To Deploy Internet In Rural And Remote Areas

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Abstract

At present, we seek the service of Internet Service Providers to connect us to the global network. The telephone companies or the telecommunication operators provide this kind of service for us. This is reachable to only one out of three in the world's population. The remaining people are not able to get internet access. It is not an easy task to lay the telecommunication lines all around the world to provide internet connection everywhere. Since the developing countries cannot afford such a huge sum of money to lay fiber cables, this will not be the optimal solution. To provide internet facilities in remote places and rural areas, we need a high-altitude platform. Google came up with an innovative solution to use balloons to provide internet connection in remote regions. Balloons are used for numerous purposes but here it is used to provide internet connection in remote regions. This project is a network of balloons floating in the stratosphere. It acts as a wireless station and provides internet service to rural areas and remote regions in a cost-effective manner.

This technology will replace the existing fiber, optic network system. This will be done by using a tethered balloon along with the payload (containing a receiver, a transmitter, and a radio communication device). This payload will be suspended from the ground at an altitude (depending on the area of coverage required). Users under this area will be able to access this system directly for internet connectivity. This system can be used over large areas like universities, companies and societies to provide internet facility to their users through Wi-Fi or over an area where the user is specified (commercial purposes).

Along with this balloon technique, we have another way to transfer the internet to remote places. which is by using a satellite internet system.

Keywords: *ISP, Remote Areas, Internet Facilities, Global Network, Balloon Technique;*

Introduction

Nowadays, approximately twenty million people are connected to the Internet. but there are more who cannot connect on the web. A large percentage of upcoming web users will come from emerging markets. particularly from countries such as India and Indonesia. India has over 10 billion people; approximately 750 million people live in 637,000 villages in rural India with no internet connectivity. From this, we can say that the next billion web users could come from rural India. Internet connectivity would allow rural Indians the opportunity to achieve economic status.

Rural India's poor infrastructure results in undependable electricity and very low bandwidth with disturbed Internet connectivity which are the reasons for poor rural Internet penetration. Another block is the lack of affordable computer systems and internet connections due to rural people's lower income. India's literacy rate is still below 75 percent as an entire and much lower in rural India. Many attempts have been taken to offer better connectivity over the last decade, including setting up shared telecenters, but none of these efforts has given significant results. Most of rural India remains unconnected.

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A Review on Recent Advances in RecurrentNeural Networks

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Abstract - **Recurrent neural networks (RNNs) are capable of learning features and long term dependencies from sequential and time-series data. The RNNs have a stack of non-linear units where at least one connection between units forms a directed cycle. A well-trained RNN can model any dynamical system; however, training RNNs is mostly plagued by issues in learning long-term dependencies. In this paper, we present a survey on RNNs and several new advances for newcomers and professionals in the field. The fundamentals and recent advances are explained and the research challenges are introduced.**

Keywords - Deep learning, long-term dependency, recurrent neural networks, time-series analysis.

I. INTRODUCTION

Speech is a complex time-varying signal with complex correlations at a range of different timescales. Recurrent neural networks (RNNs) contain cyclic connections that make them a more powerful tool to model such sequence data than feed- forward neural networks. RNNs have demonstrated great success in sequence labeling and prediction tasks such as handwriting recognition and language modeling. In acoustic modeling for speech recognition, however, where deep neural networks (DNNs) are the established state-of-the-art, recently RNNs have received little attention beyond small scale phone recognition tasks, notable exceptions being the work of Robinson [1],Graves [2], and Sak [3].

LSTM and conventional RNNs have been successfully applied to various sequence prediction and sequence labeling tasks. In language modeling, a conventional RNN has obtained significant reduction in perplexity over standard *n*-gram models [6] and an LSTM RNN model has shown improvements over conventional RNN LMs [7]. LSTM models have been shown to perform better than RNNs on learning context- free and context-sensitive languages [8]. Bidirectional LSTM (BLSTM) networks that operate on the input sequence in both directions to make a decision for the current input have been proposed for phonetic labeling of acoustic frames on the TIMIT speech database [9]. For online and offline handwriting recognition, BLSTM networks used together with a Connectionist Temporal Classification (CTC) layer and trained from unsegmented sequence data, have been shown to outperform a state- of-the-art Hidden-Markov-Model (HMM) based system [10]. Similar techniques with a deep BLSTM network have been proposed to perform grapheme-based speech recognition [11]. BLSTM networks have also been proposed for phoneme prediction in a multi-stream framework for continuous conversational speech recognition [12]. In terms of architectures, following the success of DNNs for acoustic modeling [13, 14, 15, 16], a deep BLSTM RNN combined with a CTC output layer and an RNN transducer predicting phone sequences has been shown toreach state-of-the-art phone recognition accuracy on the TIMITdatabase [17].

II. LSTM Network Architectures

The LSTM contains special units called *memory blocks* in the recurrent hidden layer. The memory blocks contain memory cells with self-connections storing the temporal state of the network in addition to special multiplicative units called gates to control the flow of information. Each memory block in the original architecture contained an *input gate* and an *output gate*. The input gate controls the flow of input activations into the

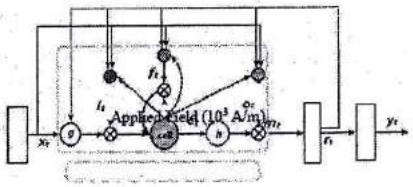

Figure 1: LSTMP RNN architecture. A single memory block isshown for clarity

memory cell. The output gate controls the output flow of cell activations into the rest of the network. Later, the *forget gate*

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5G Mobile Technology: A Review

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Abstract — 5G technology stands for mobile technologies fifth generation from starting generation 1G to 2G and from 3G to 5G the globe of telecommunication has seen a number of improvements along with improved performance every single day. This fast revolution in the era of mobile computing hinges our daily life which is how we work, interact and learn. This paper also shows all receding generations of mobile communication along with fifth-generation technology which provides affordable broadband wireless connectivity. The paper also looks at the network architecture of fifth-generation technology, which mainly focuses on voice over IP (volP) enabled devices that enables users to experience a high level of call volume and data transmission. 5G network seems to fulfil all the requirements of its users through which they can simultaneously connect to the multiple wireless technologies and can switch between them.

Keywords—5G, 5G Architecture, 1G to 5G, Improvement in generations

I. Introduction

Communication is typically an important offer of life wireless communication has begun at intervals the first Seventies. At intervals consequent forty years, mobile wireless technology has evolved from 1G to 5G generations. 5G technology provides an extremely high system of measurement that users practiced before from 1G to 4G. The 5G technologies offer varied new advanced choices that build it most powerful and in giant demand at intervals the long run. Recently all totally different wireless and mobile technologies unit of measurement gift like third-generation mobile networks 5G is that the fifth-generation mobile network. It is a fresh world wireless commonplace once 1G, 2G, 3G, and 4G networks. 5G permits a fresh quiet network that is designed to connect nearly everyone and everything on in addition as machines, objects, and devices. 5G wireless technology is meant to deliver higher multi-Gbps peak data speeds, ultra-low latency, further liableness, giant network capability, hyperbolic accessibility, uniform user experience to additional users. Higher performance and improved efficiency empower new user experiences and connect new industries. 5G architectures in addition software-defined platforms, at intervals that networking utility is managed through software package packages rather than hardware. Advancements in virtualization, cloud-based technologies, and IT and business methodology automation amendment 5G style to be agile and versatile and to provide anytime, anywhere user access. 5G networks can turn out softwaredefined subnetwork constructs stated as network slices. These slices enable network administrators to dictate network functionality based on users and devices.

II. Background

A. Requirement of 5G system

Mobile communication has become more popular in last few years due to fast revolution in mobile technology. 5G is the next-generation wireless cellular network to fulfill the needs of next generation users with effective features. 5G possesses some characteristics unused in 1G to 4G network technologies. A massive amount of data is generated. According to the International Telecommunication Union (ITU),there are more than 7.5 billion mobile devices around the world in 2017 [1], and the number of mobile devices is expected to increase to 25 billion by 2020 [2], contributing to ultradense networks. Consequently, there is an explosive growth in the amountof data from 16.5 exabytes in 2014 to an estimate of 500 exabytes in 2020 [3], contributing to a growth rate of 30 times.

B. How fast is 5G

5G technology network is designed to provide peak data rates up to 20 Gbps based on IMT-2020 requirements. Qualcomm Technologies' flagship 5G solutions, the Qualcomm Snapdragon X55 and Snapdragon X60 Modem-RF Systems, are designed to achieve up to 7.5 Gbps in downlink peak data rates. But the 5G is about more than just how fast it is. In addition to higher peak data rates, 5G is designed to provide much more network capacity by expanding into new spectra, such as mmWave. 5G can also deliver much lower latency for a more immediate response and can provide an overall more uniform user experience so that the data rates stay consistently high—even when users are moving around. And the new 5G NR mobile network is backed up by a Gigabit LTE coverage foundation, which can provide ubiquitous Gigabit-class connectivity [4]

III. Evolution

A. First Generation (1G)

1G emerged in the 1980s. It contains Analog System and popularly known as cell phones. It introduces mobile technologies such as Mobile Telephone System (MTS), Advanced Mobile Telephone System (AMTS), Improved Mobile Telephone Service (IMTS), and Push to Talk (PTT). It uses an analog radio signal which has a frequency of 150 MHz, voice call modulation is done using a technique called Frequency-Division Multiple Access (FDMA). It has low capacity, unreliable handoff, poor voice links, and no security at all since voice calls were played back in radio towers, making these calls susceptible to unwanted eavesdropping by third parties [5].

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HoneyPot: Tracking Cyber Criminals

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***Abstract*—as the number of devices on computer networks are increasing at great speed, in the same way the number of cyber-attacks are increasing. And these increasing number of network attacks can harm our information system effectively. In order to deal with these cyber-attacks we need a system that has the capacity to track these attacks and counteract them. "Honeypot is a defense technology in which resources placed in a network, which lure the hackers with the aim to observe and capture new attacks"**

Keywords*—Honeypot, control center, firewall, Intrusion detection, network security

I. INTRODUCTION

The devices connected over the computer network are increasing rapidly and as a consequence the number of network-based attacks also increased. Cybint Solutions estimates that these attacks are approximately 765 million. For such a vast number of attacks it is necessary to find out the defense solution. And one such defence mechanism is honeypots. Honeypot is a cyber-security mechanism which helps the users to detect and counteract the actions of the illegal users on the information security system. This also helps us to determine which security systems are at their best conditions and which security protocols require an update or improvement. It is a proactive technology that intentionally encourages the hackers to attack the computer network and take their records and data with the aim to observe capture the new attacks. Honeypots can be used for a variety of purposes such as observation, detection, and prevention and information collection.

Honeypot is divided into two categories, namely high interaction honeypots and low interaction honeypots. High-interaction honeypots are real time operating systems which are quite complex and includes the routers and switches. These systems provide detailed picture of how an attack is executed in real time systems. While low-interaction honeypots systems provide very less interaction between the system and the hackers.

II. HISTORY

The possibility of honeypots started in 1991 with two distributions, "The Cuckoo's Egg" and "An Evening with Berferd "."The Cuckoo's Egg" by Clifford Stoll was about his experience getting a PC programmer that was in his enterprise looking for privileged insights. The other distribution, "An Evening with Berferd" by Bill Cheswick is about a PC programmer's travels through snares that he and his partners used to get him. In both of these works were the beginnings of what became honeypots.

The main sort of honeypot was discharged in 1997 called the Deceptive Toolkit. The point of this pack was to utilize duplicity to assault back. In 1998 the principal business honeypot turned out. This was called Cybercop Sting. In 2002 the honeypot could be shared and utilized everywhere throughout the world. From that point forward honeypot innovation has improved enormously and numerous honeypot clients feel this is just the starting. In the year 2005, The Philippine Honeypot Project began to advance PC wellbeing over in the Philippines.

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National Conference On Information Technology & Security Applications 2021 (NCITSA-2021)

Covid-19 Data Analysis

[1]Ayush Khandelwal, [2]Gaurav Kothari, [3]Brijesh Kumar Singh
Assistant Professor[#]*Information Technology, Jaipur Engineering College and Research Centre, Sitapura, Jaipur-302022, India*

Abstract- **The spread of coronavirus in India is increasing at a very fast speed. The Government of India is having a hard time on how to deal with or decrease the spread of covid-19 in India. The main objective of this research is to perform analysis on the covid-19 data and gain insights about the data by using exploratory Data Analysis(EDA). This research includes India's analysis of covid-19 cases till October 2020. The result of the analysis shows the impact of COVID-19 in India on daily and weekly basis, and also the impact of covid-19 cases in different states of India, and what are the most common symptoms of covid-19, and also what are the measures that we can take to prevent being affected from Covid-19.**

Keywords— COVID-19, exploratory data analysis , India's analysis, symptoms, measures

I. INTRODUCTION

Coronaviruses (CoV) are an oversized cluster of viruses which can cause health problems starting from the cold to more severe diseases like Middle East Respiratory Syndrome and Severe Acute metabolic process. A coronavirus (CoV) is a new virus that has never been identified in humans. COVID-19 is the illness caused by a new coronavirus known as SARS-CoV-2. Several known coronaviruses have been found in animals that haven't yet found in humans. The most common signs of covid-19 virus are fever, dry cough and tiredness. The less known symptoms of covid-19 are aches and pains, pharyngitis, diarrhea, conjunctivitis, headache, loss of taste and smell, a rash on skin and color transformation of fingers and toes. The serious symptoms of covid-19 include difficulty in breathing, chest pain, loss of speech or movement. We should minimize any close contact with anyone who is having respiratory problems like cold and cough. As many of us doesn't know about the health of other people, so it is possible that we may catch covid-19 from them who are having mid cough or who does not feel illness. To get protection from and prevention from COVID-19 you can follow the number of straight-forward steps such as: (i) Continuously sanitizing your hands with an alcohol based sanitizer or washing your hands with soap, (ii) Do not touch your eyes and nose as it will cause the virus to enter your body, (iii) If you are having cold or cough and feeling unwell, then stay at home and take advice from the doctor for proper consultation, (iv) Do not go outside your house if it is not necessary and if your work can be done from home, (v) Do follow the guidelines of the Government as they have maximum information about the disease.

II. LITERATURE SURVEY

In paper [1], the researchers have implemented exploratory data analysis on Covid-19 data. The analysis focuses on the statistical information about covid-19 such as what are the number of confirmed cases, deaths, recovered cases and active cases in different states of India.

In paper [2], the authors review and analyze the covid-19 spreading statistics in different countries using the Bailey's method. The World Health Organization reports were considered when performing the analysis of different countries.

In paper [3], the authors have performed data visualization techniques using different data visualization libraries in python to get the graphical representation of the covid-19 cases. This also involves visualizing the covid-19 cases in the lockdown period and how the cases had been decreased gradually in that period.

In paper [4], the researchers study and analyze the influence of air temperature on the transmission of covid-19 and they find out that the arrival of summer and rainy season can to some extent reduce the transmission of covid-19. They also observed the different symptoms that are caused due to covid-19.

In paper [5], the researchers study and analyze the origin of covid-19 as well as it covers the entire "coronavirus cycle" in great detail.

III.I MPORTANCE OF COVID-19 INDIA'S DATA ANALYSIS

The main objective of this analysis is to keep the track of the amount of covid 19 cases in India. This analysis tells the number of active cases, confirmed cases, deaths and fatality rate in India and what are the current trends in the rise of covid-19 cases and the prediction of the number of covid cases in India.

18

Jaipur Engineering College and Research Centre

Shri Ram Ki Nangal, Via Sitapura RIICO, Opp. EPIP Gate,
Tonk Road, Jaipur-302 022
Ph. No.0141-2770232, 2770120
Fax No.0141-2770803

Consultancies

No. of Consultancies	:	10
Total Amount	:	22,55,000/-
Total Points	:	67.65

Points 50

PRINCIPAL
Jaipur Engineering College &
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Tonk Road, Jaipur-302022

QIV

Session 2021-2022 (RTU)

JAIPUR ENGINEERING COLLEGE
AND RESEARCH CENTRE

Ref. No. JECRC/2021/6 05.07.2021

To Whomsoever It May Concern

Please find total consultancy at Jaipur Engineering College and Research Centre, Jaipur during the period from 01/07/2020 to 30/06/2021-

S. No.	Name of the Company provided to consultancy	Department	Name of Faculty	Date of award	Amount of consultancy Rs.
1	Arogya Diagnostic Centre, Shanti Path, Raja Park, Jaipur	ECE	Dr. Parul Tyagi	01/08/2020	20000/-
2	Baba Automobile Pvt. Ltd. Pratap Nagar, Jaipur	ME	Dr. M.P. Singh	01/09/2020	65000/-
3	Arogya Diagnostic Centre, Shanti Path, Raja Park, Jaipur	ECE	Sh. Babu Lal Sharma	14/12/2020	20000/-
4	S. Kalra Refrigeration & Air Conditioner, M.I. Road, Jaipur	ME	Sh. Lalit Kumar Sharma Sh. Rajendra Gupta	17/12/2020	175000/-
5	Comskynet technologies Private Limited, Tonk Road, Jaipur	IT	Sh. Naveen Kedia Sh. Piyush Gautam	27/02/2021	250000/-
6	R Tekhno Solution (P) Ltd., Phoolia Gate Road, Shahpura	ME	Dr. Bhuvnesh Bhardwaj	28/02/2021	50000/-
7	ActiveServers Technosoft OPC Pvt. Ltd., Chakliya Road, Dahod	IT	Sh. Naveen Kedia	31/03/2021	175000/-
8	Balaji Stonex Agarwal Farm, Mansarover, Jaipur	ME	Dr. M.P. Singh	01/04/2021	450000/-
9	Biyani Group of Colleges	CSE	Sh. Mukesh Agarwal	08/04/2021	250000/-
9	Elixation Informatique Pvt. Ltd., Anand Plaza, Udaipur	CSE	Dr. Sanjay Gaur	12/04/2021	300000/-
10	Malhotra & Associates, JLN Marg Bapu Nagar, Jaipur	ME and CE	Dr. Bhuvnesh Bhardwaj, ME Dr. Manoj Gupta, ME Sh. K.K. Saini, CE Sh. Hetram Sharma, CE	14/04/2021	500000/-
				Total Rs.	22,55,000/-

(Rupees Twenty Two Lacs Fifty Five Thousand Only)

Prof. V.K. Chandna
PRINCIPAL

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Jaipur Engineering College &
Research Centre
Tonk Road, Jaipur-302022

AROGYA DIAGNOSTIC CENTRE

50, Shanti Path, LIC Office Basement, Ram Gali No. 8 Corner, Raja Park, Jaipur
Mobile: 9351592822, 9828278921 Email : arogyajaipur@yahoo.in

To Whomsoever It May Concern

Dr. Parul Tyagi, (Associate Professor) In the Department of Electronics & Communication Engineering, JECRC, Jaipur is hereby appointed to work as consultant in our organization on the following terms and conditions.

1. The consultancy period shall be for a period of (10 days), beginning from (19th August 2020), which can be extended further or terminated earlier with (2 days) notice on either side, without assigning any reason.

2. You will be paid a consolidated amount of Rs. 20,000 per annum.

3. Any of our technical or other important information which might come into your possession during the continuance of your assignment with us shall not be disclosed, divulged or made public by you even thereafter.

If you accept the terms and conditions above mentioned, please sign the declaration in the duplicate and return to us. The original shall be retained by you.

We welcome you to (Jaipur Engineering College and Research Center, Jaipur) family and look forward to a fruitful collaboration.

With best wishes,

For AROGYA Diagnostic Centre

Director

Date: 01/08/2020

AROGYA DIAGNOSTIC CENTRE

50, Shanti Path, LIC Office Basement, Ram Gali No. 8 Corner, Raja Park, Jaipur
Mobile: 9351592822, 9828278921 Email : arogyajaipur@yahoo.in

I agree to accept consultancy on the terms and conditions above mentioned. The original of this letter is in my possession.

Name with Signature: PARUL TYAGI

Place: Jaipur

Date: 10th Aug 2020

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HRINTR2021EXP0701

TO WHOMSOEVER IT MAY CONCERN

Dr. M. P. Singh of Jaipur Engineering College and Research Centre, Shri Ram Ki Nangal, Via Sitapura, RIICO, Tonk Road, Jaipur are hereby appointed as consultants for two years with effect from 1st September 2020.

Under the expansion of our project work, there is need of advanced technology training and advanced equipment's . The aforementioned experts will assist the completion of the project, starting from procurement of the machinery and equipment, their installation for satisfactory working and maintenance for two years.

As per the terms agreed upon, a sum of Sixty Five Thousands (Rs.65,000 /-) will be paid to the consultants on successful completion of the project in the assigned tenure of two years. It has been well informed to and agreed by the consultants that their services will be reviewed every six months by our board members and their performance index will decide their association further with us.

Hoping for a long and wonderful association with you all

Thanking you

Yours Truly
Nimesh Baba
Director
Baba Automobiles
Email: babaautomobilejaipur@gmail.com
Phone: +91-8769405920

JAIPUR

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Baba Automobile

Baba Automobile Pvt. Ltd

AROGYA DIAGNOSTIC CENTRE

50, Shanti Path, LIC Office Basement, Ram Gali No. 8 Corner, Raja Park, Jaipur
Mobile: 9351592822, 9828278921 Email : arogyajaipur@yahoo.in

To Whomsoever It May Concern

Mr. Babulal Sharma in the Department of Electronics & Communication Engineering, JECRC, Jaipur is hereby appointed to work as consultant in our organization on the following terms and conditions.

1. The consultancy period shall be for a period of (10 days), beginning from (24th Dec. 2020), which can be extended further or terminated earlier with (2 days) notice on either side, without assigning any reason.

2. You will be paid a consolidated amount of Rs. 20,000 per annum.

3. Any of our technical or other important information which might come into your possession during the continuance of your assignment with us shall not be disclosed, divulged or made public by you even thereafter.

If you accept the terms and conditions above mentioned, please sign the declaration in the duplicate and return to us. The original shall be retained by you.

We welcome you to (Jaipur Engineering College and Research Center, Jaipur) family and look forward to a fruitful collaboration.

With best wishes,

Date: 14/12/2020

AROGYA DIAGNOSTIC CENTRE

50, Shanti Path, LIC Office Basement, Ram Gali No. 8 Corner, Raja Park, Jaipur
Mobile: 9351592822, 9828278921 Email : arogyajaipur@yahoo.in

I agree to accept consultancy on the terms and conditions above mentioned. The original of this letter is in my possession.

Name with Signature: Mr. Babulal Sharma

Babulal

Place: Jaipur

Date: 18/12/2020

TIN No.: 08312114594

2313000, 3297790
94605-48244
96943-13000

S. KALRA REFRIGERATION & AIR CONDITIONER

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251, Sahid Abdul Hamid Nagar, Behind Jayanti Market, M.I. Road, Jaipur

Ref. No.

Dated 17/12/2020

To Whomsoever it may concern

On behalf of S. Kalra Refrigeration & Air Conditioner, I am pleased to offer the consultancy to the following members of Department of Mechanical Engineering, of Jaipur Engineering College and Research Centre, Shri Ram Ki Nangal, Via Sitapura, RIICO, Tonk Road, Jaipur for one year with effect from 1st January 2021.

1. Shri Lalit Kumar Sharma
2. Shri Rajendra Gupta

Above said expert members will help us to investigate and provide the complete technical report covering the requirement, installation and maintenance of air conditioning and other cooling systems in hotels, restaurants and societies in and around Jaipur city.

It has been well informed to the consultants that they will be paid sum of rupees One Lakh seventy five thousand (Rs. 1,75,000/-).

Both the parties have agreed upon the following conditions.

1. The customer feedback will be considered for review of the work and performance every 3 months.
2. This consultancy can be declared cancelled if the performance is not satisfactory at any time.
3. This consultancy will be renewed after end of duration once again, and depending upon the conditions it may be further extended.

Looking forward for an association for mutual benefits and growth.

Shree Prakash Kalra
Partner

Comskynet
technologies private limited

Dated: 27 Feb 2021 Ref: HR/2021/00967

TO WHOM IT MAY CONCERN

This is to certify that Mr. Naveen Kumar Kedia and Mr. Piyush Gautam, Assistant Professor, in the Department of Information Technology, JECRC, Jaipur is hereby appointed to work as consultant in our organization on the following terms and conditions.

1. The consultancy period shall be for a period of Twelve months, beginning from 1st March 2021, which can be extended further or terminated earlier with Two Month notice on either side, without assigning any reason.
2. You will be paid a consolidated amount of Rs 2,50,000 /- per annum.
3. Any of our technical or other important information which might come into your possession during the continuance of your assignment with us shall not be disclosed, divulged or made public by you even thereafter.
4. A Review Meeting of consultancy will be scheduled in October 2021.

Congratulations and welcome to Comskyent.

Regards,

(Authorized signatory)

10, Vikas Marg Manasinghpura, Tonk Road, Jaipur (Raj) 302018
info@comskynet.com | 9785016789

RTEKI SOLI

Dated: 28.02.2021

TO WHOMSOEVER IT MAY CONCERN

This is stated that **Dr. Bhuvnesh Bhardwaj** of Jaipur Engineering College and Research Centre, Shri Ram Ki Nangal, Via Sitapura, RIICO, Tonk Road, Jaipur are hereby appointed as consultants for two years with effect from 1st March 2021.

Under the expansion of our product portfolio, there is need of advanced technology training and advanced equipment. The aforementioned experts will assist the completion of the product development, starting from concept validation to procurement of the machinery and equipment and prototype testing for two years.

As per the terms agreed upon, a sum of rupees fifty thousand (Rs. 50000/-) will be paid to the consultants on successful completion of the project in the assigned tenure of two years.

It has been well informed to and agreed by the consultants that their services will be reviewed every six months by our board members and their performance index will decide their association further with us.

Hoping for a long and wonderful association with you.

For R Tekhno Solution (P) Ltd

Sandeep Chandalia

Director

ActiveServers

23, MEGHDOOT SOCIETY,
Chakliya Road,
Dahod - 389151
www.activeservers.in

Dear Naveen Kumar Kedia, Assistant Professor, JECRC, Jaipur

In Reference to the interview you had with us, we are pleased to offer you the position of consultant in our organization to be based at Dahod, Gujarat.

Your total Consultancy amount will be Rs. 175000/-per Year. You need to give 250 hours for our website and server consultancy.

You are requested t join us 1st April 2021.

You have to write all unique content for Social Media Marketing within the SLA.

There will be a review meeting in the month of October, 2021 whether to continue the consultancy or not.

We welcome you to Activeservers team and hope you will have a long and successful career with us.

Activeservers Technosoft OPC Pvt.Ltd.

Authorized Signatory

Signature : N.L Agrawal

Name: Hema Pankaj Agrawal

Date: 31/03/2021

ACTIVE SERVERS TECHNOSOFT OPC PVT LTD.

N.L Agrawal

DIRECTOR

BALAJI STONEX

Balaji Stonex
(+91) 9950846989
P No. 106/19, Sector 10, Block 106
Agarwal Farm , Mansarowar
Jaipur, Rajasthan

TO WHOMSOEVER IT MAY CONCERN

Dr. M. P. Singh, Shri Manish Jain and Shri Kuldeep Sharma of Jaipur Engineering College and Research Centre, Shri Ram Ki Nangal, Via Sitapura, RIICO, Tonk Road, Jaipur are hereby appointed as consultants for two years with effect from 1st April 2021.

Under the expansion of our project work, there is need of procurement of few mining and other material handling equipment. The aforementioned experts will assist the completion of the project, starting from procurement of the machinery and equipment, their installation for satisfactory working and maintenance for two years.

As per the terms agreed upon, a sum of rupees Four Lakhs fifty thousand (Rs. 4,50,000/-) will be paid to the consultants on successful completion of the project in the assigned tenure of two years.

It has been well informed to and agreed by the consultants that their services will be reviewed every six months by our board members and their performance index will decide their association further with us.

Hoping for a long and wonderful association with you all.

Chandra Prakash
02/04/2021

For BALAJI STONEX

MANAGER

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- Biyani Girls B.Ed. College
- Biyani College of Science & Mgmt. (Co-Ed.)
- Biyani Law College (Co-Ed.)
- Biyani Institute of Skill Development (Co-Ed.)
- Biyani Institute of Pharmaceutical Sciences (Co-Ed.)
- Biyani Institute of Yoga & Naturopathy (Co-Ed.)
- Biyani Pvt. ITI (Co-Ed.)

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Ref.: BGC/2021-22/135

Dated: 08.04.2021

Prof. Dr Vinay Kumar Chandna,
Principal JECRC,
Tonk Road, Jaipur

Subject : Consultancy for establishing and operating Rajyoga Thought Laboratory at our campus

Dear Sir,

This is to inform you that a team of our faculty members visited Spiritual Research Cell – A Rajyoga Thought Laboratory situated at JECRC campus and highly inspired to develop such facility in our campus. We wish to work in this direction and looking for the various possibilities of support from the experts of Spiritual Research Cell at JECRC.

Further, we had an in-house meeting with our management and faculty members in which we came to a conclusion that it would be great if we can get some consultancy from your side in this matter. Please let us know the commercials involved along with the details to proceed in this matter. We need consultancy in the following areas:

1. Layout of Rajyoga Thought Lab
2. Equipment
3. Spiritual Library
4. Tools for creating spiritual ambience

Regards,

Dr. Sanjay Biyani
Director (Academics)

• **Campus 1 :** Sector-3, Vidhyadhar Nagar, Jaipur • **Campus 2 :** Kalwar-Jobner Road, Kalwar, Jaipur
• **Campus 3 :** Champapura, Kalwar Road, Jaipur • **Tel. :** +91-141-2338591-95 • **Fax :** +91-141-2338007
• **E-mail :** info@biyanicolleges.org • **Website :** www.biyanicolleges.org • www.facebook.com/biyanigroupofcollege

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- Biyani Girls B.Ed. College
- Biyani College of Science & Mgmt. (Co-Ed.)
- Biyani Law College (Co-Ed.)
- Biyani Institute of Skill Development (Co-Ed.)
- Biyani Institute of Pharmaceutical Sciences (Co-Ed.)
- Biyani Institute of Yoga & Naturopathy (Co-Ed.)
- Biyani Pvt. ITI (Co-Ed.)

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Ref.: BGC/2021-22/136

Dated: 18.04.2021

Prof. Dr. Vinay Kumar Chandna,
Principal JECRC,
Tonk Road, Jaipur

Subject : Acceptance for consultancy proposal for Rajyoga Thought Laboratory at our campus

Dear Sir,

After going through the detailed proposal vide letter dated 14 April, 2021 and as per discussion with our experts and team we accept your proposal and agree to your commercials. Kindly spare both the experts from your side for this work.

The amount INR 250000 (Two lakh fifty thousand) is inclusive of all taxes will be paid to JECRC Foundation. After completion of work. The next meeting on the progress will be held in the month December, 2021. The project is to be completed by June 2022.

Dr. Neha Pandey, Principal will the SPOC for further communications from our side.

Looking forward to initiate this work at the earliest possible.

Regards,

Dr. Sanjay Biyani
Director (Academics)

• **Campus 1 :** Sector-3, Vidhyadhar Nagar, Jaipur • **Campus 2 :** Kalwar-Jobner Road, Kalwar, Jaipur
• **Campus 3 :** Champapura, Kalwar Road, Jaipur • **Tel. :** +91-141-2338591-95 • **Fax :** +91-141-2338007
• **E-mail :** info@biyanicolleges.org • **Website :** www.biyanicolleges.org • www.facebook.com/biyanigroupofcollege

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Date .....

Ref. No.EL2021/00412 12/04/2021

TO WHOM IT MAY CONCERN

This is to certify that Dr. Sanjay Gour, Professor and Head, Computer Science & Engineering of Jaipur Engineering College & Research Centre, Jaipur is hereby appointed to work as consultant in our organization.

Followings are the terms and conditions which are applicable till further review.

The consultancy period shall be of twelve month, beginning from 1st May 2021.

The consultancy services can be extended or terminated with Two month notice without assigning any reason.

Project, technical or any personnel information related to company shall not made public by you.

You will be paid a consolidate amount of Rs. 3,00,000/- per annum.

A review meeting of consultancy will be scheduled in December 2021.

Regards,

ELIXATION INFORMATIQUE PVT. LTD. UDAIPUR

(Authorised Signature)

234, B –Block Anand Plaza University Road, Udaipur (Raj) Ph.- 0294-6500005, 8233750005, mail- elixationinformatique@gmail.com

Malhotra & Associates

Architects – Engineers – Interior Designers

To,

Dated: 14.04.2021

Prof. Dr Vinay Kumar Chandna,

Principal JECRC, Tonk Road.

Sub: Consultancy for HVAC and Civil Technical support by faculty members of Mechanical and Civil Engineering Department for Rs. 5,00,000/- (Rupees Five Lakh Rupees only/-)

Dear Sir,

This is to inform you that we are a renowned architecture firm and take care of Multi Crore Worth of projects in and around Rajasthan and for this purpose experts are needed for HVAC and civil work support. In view of the same, our technical and design team visited Civil Engineering department and Mechanical Engineering department of your college in the month of January 2021 to find out various possibilities of support from the experts of your institute from the two departments and met head of departments also.

Further, after thorough discussion and deliberations with the technical team at JECRC we have found out that following experts are found suitable to provide technical consultancy are:

1. Dr. bhubnesh Bharadwaj, Mechanical
2. Dr. Manoj Gupta, Mechanical
3. Sh. K. K. Saini , Civil
4. Sh. Hetram Sharma, Civil

Further, the nature of work is also discussed with the experts and on mutual consent and as per the company policy Rs. 5,00,000/- (Rupees Five Lakh only) is sanction for the work and will be paid in four installments to JECRC.

I request you to spare these faculty members as per your convenience for the work assigned.

I hope to have better and healthy relations with JECRC in near future.

Regards

Ashok malhotra

For Malhotra & Associates

IInd Floor, C-86-B, Nand Kishor Pareek Marg, JLN Marg, Bapu Nagar JAIPUR
Ph # 91-141-2700661, 2706431 • E-mail : ashokarmalhotra@gmail.com, ma@ma-arch.co

Jaipur Engineering College and Research Centre
Shri Ram Ki Nangal, Via Sitapura RIICO, Opp. EPIP Gate,
Tonk Road, Jaipur-302 022
Ph. No.0141-2770232, 2770120
Fax No.0141-2770803

National/International Conference Organised/Hackathon

1.	International Conference	:	04	:	20*4	= 80
2.	National Conference	:	06	:	10*6	= 60
3.	Hackathon	:	01	:	30*1	= 30
		Total :	11	:		= 170

Points 40

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Jaipur Engineering College &
Research Centre
Tonk Road, Jaipur-302022.

QIV

Session 2021-2022 (RTU)

National/International Conferences/Hackathon Organized at JECRC, Jaipur (Point No. 19)

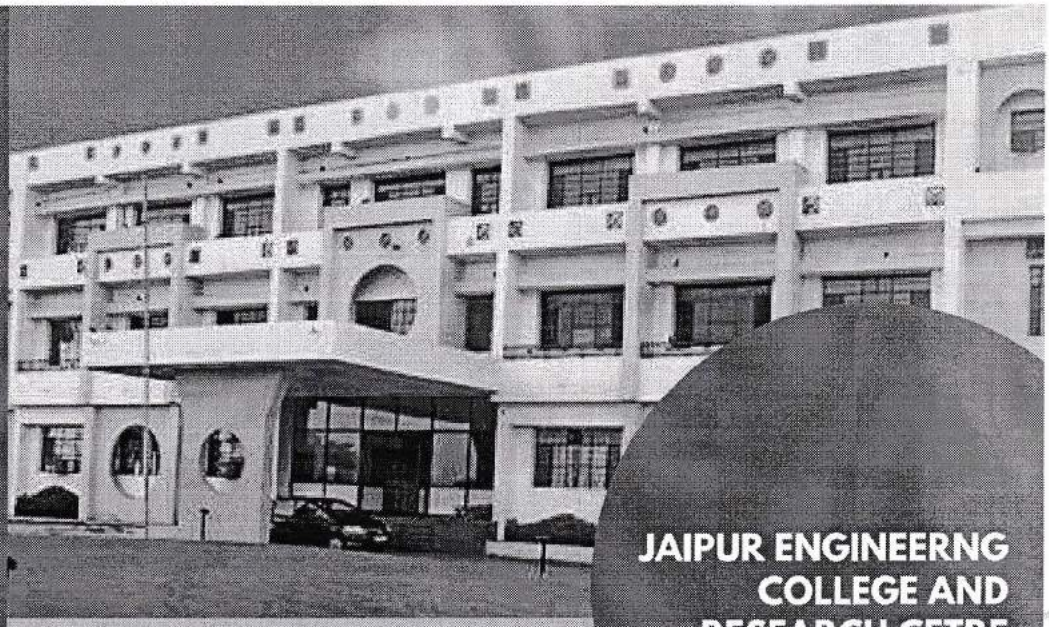
S.No	Depart ment	Name of Faculty	Designation	Type National Conference / International Conference/ Hackathon	Title	Sponsered agency	Date
1	CE	Mr. Krishan Kumar Saini	Assistant Professor	National Conference	Emerging Trends in Civil Engineering for Sustainable Development	JECRC	29-30 June 2021
2	CSE	Dr. Sanjay Gour	Professor	International Conference	International Conference on Contemporary Issues in Computer Technology	International Journal of Information Technology (Springer)	27-28 Aug2020
3	CSE	Dr. Sanjay Gour	Professor	National Conference	3rd National Conference on Futuristic trends in Mechanical Engineeing	JECRC	22-23 June 2021
4	ECE	Dr. Sandeep Vyas	Professor	International	2nd International Conference on Communication, Optical, and Microelectronics: "The Emerging Trends" - 2020 (ICCOMET-2020)	OSA Student Chapter-JECRC, Institution of Electronics and Telecommunication Engineers (IETE)	27-28 Aug2020
5	ECE	Dr. Sandeep Vyas	Professor	International	International Conference on Advances in Material Science, Communication and Microelectronics (ICAMCM-2021)	OSA Student Chapter-JECRC, IETE Rajasthan Centre, Elsevier Materials Today Proceedings (Scopus Indexed) & IOP: Materials Science and Engineering (Scopus Indexed).	19-20 February, 2021
6	ECE	Dr. Sandeep Vyas	Professor	National Conference	3rd National Confernce on recent advancement in Communication optoelectronics and Nano technology	JECRC	June 26-27,2021
7	EE	Dr. Prerak Bhardwaj	Assistant Professor	Natiolnal Conference	Recent Trends and Smart Technologies in Electrical Engineering	JECRC	28-Jun-21
8	IT	Dr. Smita Agrawal & Dr. Mitthlesh Arya	Professor	National Conference	3rd National Conference on Information Technology and Security Applications	IJAC Online (UGC Approved)	28-29 May 2021
9	IT	Mr.Naveen Kumar Kedia	Assistant Professor	Hakkathon 4.0	Hakkathon 4.0	JECRC	28-Jun-21
10	ME	Dr M.P.Singh & Dr Fauzia Siddiqui	Professor	International	3rd International Conference on Recent Innovation and Technological Development in Mechanical Engineering (ICRITDME 2020),	SPRINGER &IFO	27-28 Aug2020
11	ME	Dr M.P.Singh & Dr Fauzia Siddiqui	Professor	National	5th National Conference on Futuristic trends in Mechanical Engineeing	JECRC	22-23 June 2021

19
Proofs

JECRC™

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

National Conference on Emerging Trends in Civil Engineering for Sustainable Development



JAIPUR ENGINEERNG COLLEGE AND RESEARCH CETRE

ISBN 978-8-19-405435-1

DATE: 29-30 JUNE 2021

TIME: 09:30 AM ONWARDS

Organized By

Department of Civil Engineering, Jaipur Engineering college and research centre, Jaipur

Shri Ram ki Nangal, via Sitapura RIICO Tonk Road, Jaipur-302 022, Rajasthan Phone No. 0141-2770120, 2770232

ABOUT JECRC

The National Society for Education Research and Development was set up and registered in the year 1999 in Jaipur with the major objective of providing quality education and research environment in Rajasthan. Keeping this objective in view the pioneers in the field of education implanted JECRC Foundation in the year 2000. With the remarkable success the foundation achieved within a short span of time, today it has three institutions that conduct UG, PG and PhD programs in several disciplines duly approved by the UGC and AICTE, Government of India with the student strength exceeding 10000. The Foundation has an active collaboration with several industries. Our alumni have been placed in industries of repute and have also been pursuing higher studies abroad at prestigious universities. The foundation has the legacy of nurturing the essence of growth in education with the prime focus being the holistic development of the students, thus becoming the most preferred choice for students with a variety of academic pursuits.

ABOUT DEPARTMENT

The department of Civil Engineering is the major department involving number of laboratories with a diversified variety of equipment being the core branch and with laboratories focusing on fundamental aspects of Civil Engineering. In order to cope up with the requirement of industries, the department also has laboratories with the latest technologies. Students have open access in the laboratories to understand as well as apply their knowledge to explore their engineering skills.

ABOUT THE CONFERENCE

JECRC is a grown-up organization with various startups to its credit. NCETCESD-2021 is aiming to promote students, research scholars and faculty members to present their preliminary idea that may be transformed into a product/startup. This conference is being organized to bring researchers and experts from academia on a common platform to address the challenges and opportunities in the field of Science & Technology. The conference will provide an opportunity for paper presentation related to experimental and analytical research in the field of Civil Engineering.

CONVENER

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CO-CONVENER

Mr Yogesh Kumar Agarwal &
Mr Hetram Sharma

ORGANIZING SECRETARY

Mr Teekam Singh

THEMES OF NCETCESD -2021

- Civil Engineering Design
- Modern Construction Materials
- Surface and Ground Water Studies
- Sustainable building technologies
- Climate change and the urban environment
- Geo-environmental Engineering
- Geotechnical Earthquake Engineering
- Vehicle Safety and Emissions
- Sustainable Transportation Infrastructures
- Transportation Safety

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IMPORTANT DATES

Last Date for	Date
Submission of Manuscript	19/06/2021
Acceptance Notification	23/06/2021
Submission of Camera Ready Paper	24/06/2021
Registration	26/06/2021

REGISTRATION FEES

Category	Amount
Students (Authors) & Participants	INR 100/- Per group
Industry Persons	INR 500/-
Faculty members	INR 200/-

GUIDELINES FOR PAPER SUBMISSION

Authors are requested to submit their manuscript using Times New Roman with Font Size 12pt in MS Word in IEEE format. Send your Paper to hod.ce@jecrc.ac.in. Selected paper after the review will be considered for publication in conference proceedings with ISBN No: ISBN 978-8-19-405435-1

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CONTACT PERSON

Mr. Krishan Kumar Saini
Email : hod.ce@jecrc.ac.in
Mobile : 9694908459

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The JECRC Foundation having 19 year of existence is amongst the most reputed educational groups in Higher and Technical Education in North India which has 2 large campuses with 10,000 students enrolled as on date in various courses alongside engineering courses, the major chunk of admissions being routed through JEE examinations. The engineering colleges are approved by the AICTE, New Delhi and are affiliated to the Rajasthan Technical University, Kota.

About Conference

As JECRC is a grown up organization with 71 startups to its credit. ICATCT-21K20 is aiming to promote students, research scholars and faculties members to present their preliminary ideas that may be transformed into a product/startup.

This conference is being organized to bring researchers and experts from academia on a common platform to address the challenges and opportunities in the field of Science and Technology. The conference will provide an opportunity for paper presentation related to emerging technologies and developments in the area of Computer Engineering and Technology.

About CSE Department

The department of Computer Science & Engineering was established in 2001. The department aims at developing the technical skills among students. To accomplish this we organized many events like Hackathon, Ideathon, SIP expo, and many different seminars and workshops to enhance the skills and overall personality of students. To enhance the entrepreneurship skills and research areas, the department has established excellence in teaching and learning. The department not only focuses on technical skill but also provides them area of different educational opportunities.

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JECRC Foundation

International Conference on Advent Trends in Computer Technologies (ICATCT-21K20)

April 2nd & 3rd, 2021

Organized by
Department of Computer Science & Engineering
In Association with

IJSER

Springer

Jaipur Engineering College and Research Centre
Opp. EPIP Gate, Sitapura Industrial Area
Tonk Road, Jaipur-302022 Rajasthan
Website: www.jecrconference.in

Conference Tracks

- Communication, Network and Security
- Smart IT Infrastructure and Computation
- Computational and Designing Engineering
- Computer Engineering and Other Disciplines
- E-Governance and Social media
- Latest Technology and Trends
- Intelligent System

Guidelines for Paper Submission

Original and unpublished research work/case study on any one or more of the themes are invited from practicing engineers, academicians, R&D personnels and consultants.

Quality research papers will be published in following Journal

- Springer Nature's BJIT - International Journal of Information Technology (Indexed In: Springer Nature, ICI, INSPEC, Index Copernicus, Google Scholar and more)

- International Journal of Scientific & Engineering Research -IJSER (UGC Approved Journal Indexed In: Thomson Reuters (RID),Google Scholar, DBLP, Scribd, Citeseer and more)

Paper Submission Link [Easy Chair]

Papers may be uploaded via the web using on-line conference management system utilizing Easy Chair submission portal by February 3, 2020.
The papers accepted for presentation will be notified by March 3, 2020. For the final presentation of a paper, one of the authors must register for the conference. Submission Link:
https://easychair.org/conferences/?conf=icatct2k20

Kindly send your query on:

icatct2k20@jecrc.ac.in

Keynote Speakers

- Dr. U. G. Singh, University of Kwazulu Natal, Westville
- Mr. Praveen K. Tak, Advisor Chegn IT solution, USA/Australia
- Prof. M. N. Hoda, Professor BVICAM, Delhi
- Dr. Kesari Verma, NIT Raipur

Mode of Payment

Delegates are requested to send their payments through Net Banking/DD/Cash payable at "Jaipur Engineering and Research Centre", Jaipur.

PAYEE: Jaipur Engineering College and Research Centre, Jaipur
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IFSC CODE: HDFC0001437
BANK NAME: HDFC Bank
BRANCH: Chora Rasta, Jaipur

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Important Dates

Last Date for	Date
Submission of Manuscript	March 4, 2020
Acceptance Notification	March 20, 2020
Submission of Camera Ready Paper	March 25, 2020
Registration	March 27, 2020

Registration Fees

Category	Amount
Industry Person	INR 3,500/-
Academia	INR 2,500/-
Research Scholars	INR 2000/-
Foreigner	$ 100
Participants	INR 1000/-

Participants should make their payment through online/DD /Cash in favor of Jaipur Engineering College and Research Centre, payable at Jaipur and send to organizing secretary ICATCT-2K20 JECRC Jaipur.

Address for Correspondence

Prof. (Dr.) V. K. Chandna, Principal
Jaipur Engineering College & Research Centre Shri Ram Ki Nangal, Via Sitapura
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About JECRC Foundation

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About Conference

NCICT is a national conference to be held in JECRC. It aims at bringing together students, scholars, researchers, academicians and industry persons to deliberate on contemporary issues concern to computer world and research aspects of emerging technologies and applications. NCICT-2020 is organized with a vision to address various issues to promote the development of sm[illegible]esolution in future. It is expected that researchers will br[illegible]ew prospects for collaboration across disciplines and gain ideas facilitating novel concepts. The first NCICT-2019 stood as a premier conference, organized by the Department of Computer Science & Engineering on March 16, 2019 at JECRC, Jaipur and the second NCICT-2020 organized on March 7, 2020 at JECRC, Jaipur. NCICT-2021 is keeping the legacy continue on June 22, 2021 at JECRC, Jaipur.

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3rd National Conference
on
Contemporary Issues in Computer Technology
(NCICT-2021)

June 22-23, 2021

ISBN No.: 978-81-940543-2-0

Organized by

Department of Computer Science & Engineering
Jaipur Engineering College and Research Centre,
Jaipur-India

Jaipur Engineering College and Research Centre
Shri Ram ki Nangal, via Sitapura RIICO,
Tonk Road, Jaipur Rajasthan - 302022,
PhNo. 0141-2770120, 2770232

Objective of Conference

- To focus on emerging technologies and developments in the area of Computer Engineering and Technology.
- To provide platform to students, scholars, academicians and industry persons to converse and share the ideas.
- To meet and discuss the practical solutions, scientific results and methods in solving various problems with people who are actively involved in emerging research fields.

Conference Tracks

1. Artificial Intelligence and Machine Learning
2. Internet of Things
3. Big Data and Data Analytics
4. Software Engineering
5. Block Chain
6. Wireless and Spectrum Technologies
7. Soft Computing
8. Cyber and Information Security
9. Hardware and Network Engineering

Guidelines for Paper Submission

Authors are invited to submit manuscripts reporting original unpublished research article, review paper and paper concern to recent developments in the topics related to the conference. It is required that the manuscript follows the standard IEEE camera ready format. Regular papers should present novel perspectives within the general scope of the conference. The conference only accepts full manuscripts with maximum 6 pages.

Submission of paper must be original and should not have been previously published or under consideration for publication. All papers will be sent for peer review and the corresponding author will be notified of the outcome of the review process. At least one of the authors of each accepted paper must be register for the conference and present their paper in the conference. All submissions are to be done electronically through official conference e-mail.

Paper Publication Details

The submitted papers will go through a cutthroat review process and the accepted papers will be considered for oral presentation and published with proceeding:

ISBN No.: 978-81-940543-2-0

"Contemporary Issues in Computer Technology"

Paper Submission Link

All paper submission should be done electronically through official conference e-mail:

conference.cse@jecrc.ac.in

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Ms. Tripti Dua
Ms. Priya Jyotiyana
Ms. Pratibha Sharma
Ms. Punita Panwar
Ms. Rahul Panwar

Important Dates

Deadline for	Date
Submission of Manuscript	18/06/2021
Acceptance Notification	19/06/2021
Submission of Camera Ready Paper	20/06/2021
Registration	21/06/2021

Registration Fees

Category	Amount
Student (Outside JECRC)	INR 500/-
Research Scholar / Academicians	INR 1000/-
Industry Person	INR 2000/-
Foreigner	$ 50/-
Attendee	INR 500/-

Participants should make their payment through online /DD /Cash in favor of Jaipur Engineering College and Research Centre, payable at Jaipur and send to organizing secretary NCICT-2021 JECRC, Jaipur.

Address for Correspondence

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Jaipur Engineering College & Research Centre
Shri Ram Ki Nangal, Via Sitapura RIICO,
Opp. EPIP Gate, Tonk Road,
Jaipur-302022(Rajasthan)

Location of JECRC Foundation

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Outcome Of The Conference

ICCOMET-2020 is being organized by Department of Electronics & Communication Engineering, Jaipur Engineering College and Research Centre, Jaipur on 3-4 April 2020. The aim of the conference is to promote the innovative ideas of research scholars, faculty members and students which may be transformed into a new technology, applications, product or start-up, contributing to build a better society to live in. ICCOMET-2020 aims to create an acclaimed platform for researchers, experts from academia and industry. This conference will look at all dimensions of technology in the field of communication, optical and microelectronics. The deliberations in the conferen[illegible]l help the researchers to overcome the shortcomings of the problems.

About JECRC

JECRC Foundation is one of the prestigious institute of the country. JECRC marked its inception in the year 2000 with a vision to impart quality education to students and nurture the young minds to contribute and serve the society. The institute is approved by AICTE, New Delhi and is affiliated to Rajasthan Technical University (RTU), Kota. The meritorious students of JEE examination are admitted through REAP admission process. In its 18 years of journey to provide quality education, develop research mind-set and nurturing talents, JECRC Foundation has emerged as renowned and trusted educational groups across the country. It has two large campuses with more than 10,000 students enrolled in various courses under graduate, post graduate and doctoral programmes in diversified fields (Engineering & Technology, Basic & Applied Sciences, Management Studies and Languages, Law, Agriculture, Journalism & Mass Communication and Hotel Management) and has also set up centers of research.

Over the years, the institute has become an epitome for its quality education and healthy environment. The alumni of this institute have distinguished themselves through their achievements and contributions to industry, academics, research, business, government and social domains. JECRC has a strong base of 9000+ alumni stationed at various locations across the globe working in internationally acclaimed organizations. The institute has 150+ alumni start-ups that have not only established themselves but assist in the internships and placements of students.

Education is the most powerful weapon which you can use to change the world, with this ideology the JECRC Foundation has continuously adopted well to pace with the rapid changes in the Education methodology. The Foundation has strived to nurture students for fast-changing industry and society. The students are prov[illegible]ith platforms, supportive environment, resources to develop their skills and [illegible] competent at the global levels. The Foundation stands atop the numerous institutes, having become the most trusted name in professional and technical education. The foundation has set benchmark for quality education across the nation.

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Shri Arpit Agrawal, Director, JECRC

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ICCOMET 2020

JECRC
JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

2nd International Conference

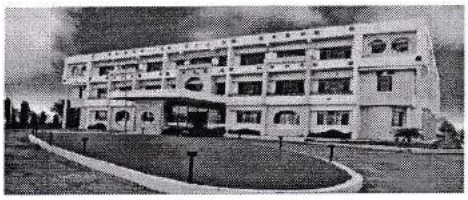
On

Communication, Optical & Microelectronics: "THE EMERGING TRENDS"

ICCOMET-2020

(3 - 4 APRIL 2020)

Organized by
Department of Electronics and Communication Engg.



In Association

THE INSTITUTION OF ELECTRONICS AND TELECOMMUNICATION ENGINEERS • INDIA • IETE

Student Chapter
OSA
JECRC Foundation Jaipur

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Tonk Road, Jaipur-302 022, Rajasthan
Ph no. 0141-2770120, 2770232
http://www.jecreconference.in/iccomet2020

ICCOMET 2020

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

2nd International Conference

On

Communication, Optical & Microelectronics:

"THE EMERGING TRENDS"

ICCOMET-2020

(3 - 4 APRIL 2020)

Registration Form

Full Name:_____

Designation:_____

Affiliation with Address:_____

_____

Pin Code:_____ Mob No. _____

Email:_____

Fees Details:

Amount Rs._____ only, Draft No.:_____

Dated_____

Issued by (Bank & Branch)_____

Accommodation Required: Y/N

Date: _____

Signature of Applicant

Payment Method

Participants should make their payment through Net Baking/DD/ Cash to payable at Jaipur and send to Organizing Secretary (ICCOMET) JECRC, Jaipur with Following Details-

PAYEE : Jaipur Engineering College and Research Centre, Jaipur

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Branch- Chaura Rasta, Jaipur

A/C No. 200006658098

IFSC Code: HDFC0001437

Completed forms will reach the organizing Secretary, ICCOMET- 2020 through mail.

For Further Queries:

Mr. Devesh Gupta Mob:+919950005942,

Email:-iccomet2020@jecrc.ac.in,

Kindly follow the link for paper submission:

https://easychair.org/conferences/?conf=iccomet2020

Important Dates

Last Date for	Date
Submission of Manuscript	29/02/2020
Acceptance Notification	05/03/2020
Submission of Camera Ready Paper	10/03/2020
Registration	18/03/2020

Registration Fees

Category	Amount
Foreign Authors	$100
Industriallist	₹ 3000/-
Academicians	₹ 2500/-
Research Scholars/Student	₹ 2000/-
Participant	₹ 1000/-

Guidelines of Manuscript

Authors are requested to submit their manuscript using Time New Roman with Font size 12pt in MS Word in IEEE format at https://easychair.org/conferences/?conf=iccomet2020 Paper should have an Abstract of 150 words. 4- 6 Keywords, Figures, Diagrams, Tables, Graphs and References in prescribed format and full length paper should not exceed more han 6 pages. Authors have to follow the dates as mentioned. Selected paper after review will be considered for publication in UGC approved Journal of IJSER and IJERT. The paper can be presented through skype in case of foreign authors and non -availability of author.

Accommodation

Jaipur offers a wide range of accommodation from economy to luxury class hotels within 10 kms from the Conference Venue. Delegates are requested to book the accommodation in advance to get their preferred choice. Limited accommodation is available at nominal charges on first come first serve basis at JECRC Students Hostels. Your request for accommodation can be sent to iccomet2020@jecrc.ac.in before 10 th of march.

JECRC UNIVERSITY

Tracks

1. **Communication**
   - Satellite Communication
   - Cognitive Radio & Networks
   - Next Generation Networking
   - Communication & Information Systems
   - Signal Processing for Communication System
2. **Optical**
   - Nonlinear Optics
   - Optical Materials & Devices
   - Advances in Optical Networking
   - Nanoscale & ultrafast photonics
   - Photonic Communication Systems
3. **Microelectronics**
   - VLSI Systems
   - Systems on Chip
   - Material Engineering
   - Micro/Nano Fabrication
   - Microelectronics & Nanotechnology
4. **Others**
   - Sensors MEMS/NEMS/MOEMS
   - Renewable & Green Energy
   - Advanced Nanoelectronics
   - Organic & Flexible Electronics

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International Conference on Advances in Materials Science, Communication and Microelectronics (ICAMCM-2021)

February 19-20, 2021 (Virtual Mode)

Organised by

Department of Electronics and Communication Engineering

(NBA Accredited)

Jaipur Engineering College and Research Centre, Jaipur, Rajasthan, India

Conference website

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

ELSEVIER — Publication Partner

IOP science

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Registration Details

Registration Categories	Early Bird		Regular	
	Materials Today	IOP: MSE	Materials Today	IOP: MSE
Student and Research Scholar	3000 (INR)	5000 (INR)	4000 (INR)	6000 (INR)
Academicians	4000 (INR)	6000 (INR)	5000 (INR)	7000 (INR)
Industry Delegate	5000 (INR)	7000 (INR)	6000 (INR)	8000 (INR)
Foreign Delegate	75 (USD)	100 (USD)	100 (USD)	125 (USD)
#Extra Paper (Indian Author)	2000 (INR)	4500 (INR)	2500 (INR)	5000 (INR)
#Extra Paper (Foreign Author)	65 (USD)	90 (USD)	90 (USD)	100 (USD)

The extra paper registration fees are for those authors who register for more than one paper. After registration of first paper, each extra paper will be discounted according to extra paper charges. To avail the discount on extra papers, the registrations of all papers should be made through same author.

Important Dates

Last Date of Full Paper Submission	31 December 2020
Notification of Acceptance	10 January 2021
Registration Deadline (early bird)	25 January 2021

Publication and indexing:

All the accepted papers related to Material Science track will be published in the Materials Today: Proceedings, Indexed in Scopus (Elsevier) and the CPCI (Thomson Reuters, Web of Science). The accepted papers of the remaining tracks will be published in IOP Conference Series: Materials Science and Engineering (MSE) indexed in Scopus and open access.

ICAMCM-2021

The International Conference on Advances in Materials Science, Communication and Microelectronics (ICAMCM-2021) is to be organized with the perception to address the various issues of the society in the fields of material science, communication engineering and electronic technology. In this conference, it will be expected that researchers will bring new prospects for collaboration across intra and inter disciplines to facilitated novel concepts.

JECRC Foundation

A journey of Two decades for JECRC, having more than 4000 students on campus under 6 UG programs, has earned laurels to their students, faculty members and for the institute in many ways. More than 10000 alumni's spread over the globe has climbed the ladder to leadership positions and providing mentorship to their juniors by way of skill development, incubation, startup, research and angel funding. Contribution towards International publications, technical activities, co-curricular activities by faculty members, students and delivery of Outcome based education is recognized by National Board of Accreditation and AICTE. JECRC has become synonymous to placements and JECRCians have made their presence felt at every reputed company / government organization.

Department of Electronics and Communication Engineering (NBA Accredited)

The Electronics and Communication Engineering (ECE) Department has a rich tradition in research and teaching. The ECE department is NBA accredited. The research interests of the faculty members of the department encompass the wide area of applied and fundamental aspects of Electronics and Communication Engineering. Collaboration between the research groups of the department and with other departments is also a practice.

Call for papers

The technical committee invites authors to submit papers which clearly present the work, methods, originality, significance and applications from the following topics of interest, but are not limited to.

1. Material Science, VLSI, MEMS and nanotechnology
2. Digital signal, Image and video processing
3. RF, wireless and Optical Fiber Communication
4. Real time-based embedded systems

Submission of the papers:

a) For Materials Today: Proceedings: Authors should prepare the manuscript according to the template given at https://www.materialstoday.com/proceedings-template. The manuscript can be submitted at: http://ees.elsevier.com/MATPR/default.asp

b) For IOP: Materials Science and Engineering: Authors should prepare the manuscript according to the guidelines given at: https://publishingsupport.iopscience.iop.org/author-guidelines-for-conference-proceedings/ The manuscript can be submitted at: https://easychair.org/conferences/?conf=icamcm2021

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About JECRC

Jaipur Engineering College & Research Centre (JECRC) was established in the year 2000 by JECRC Foundatoin.Encouraged by its splendid achievements and overwhelming public patronage, it ventured into establishing JECRC University in the year 2012. JECRC University is conducting UG and Doctoral programmes in diversified fields (Engineering & Technology, Applied Science, Law and Management) and has also set up centres of research. The JECRC foundation has now become a brand name in professional education in Rajasthan.

About ECE Department

Electronics & Communication Engineering department was established in the year 2000 with an idea to provide best technical expertise and placement opportunities to the under graduate students. The department has been continuously striving for excellence in engineering education. The department has always been on a high growth path to keep pace with the ever-increasing importance of the major disciplines of study and current technology trends. The programme emphasizes on the basics of Electronics,Computers, Communication, Signal Processing, Instrumentation and other related relevant fields. In order to cope up with the requirement of industries, the departments have excellent laboratories with latest equipments. The department has a team of highly motivated and dedicated faculty members to the cause of academics and striving to do the best in the interest of the college and the students. Most of the faculty members are actively involved in research work. Research work of faculties has been published in various journals and conferences of international repute. The department conducts regular technical activities like workshops, seminars, webinars and conferences under the umbrella of IETE and OSA student chapters. The department run student clubs and centre of innovative learning in the field of IOT and Robotics.

Research Areas Pursued by the Faculty Members

Wireless Communication, Microwave Engineering, Antennas, Digital Signal Processing, Image Processing, Analog Circuit Design, Mixed Mode Signal Processing, RF Passive Component Modeling & Analysis, Control System, Power Electronics, Optoelectronics, Optical Communication, Material Science and Engineering, Nanoscience and Nanoelectronics, VLSI design, Wireless Sensor Networks, MEMS, Energy Science and Engineering, Semiconductor Devices.

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JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

JECRC RACON 2021

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

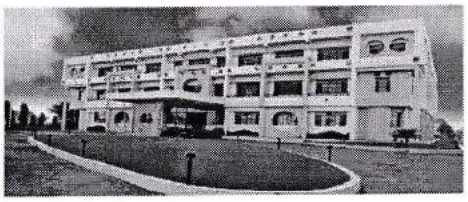
3rd National Conference

On

Recent Advancement in Communication, Optoelectronics & Nanotechnology

RACON 2021

(June 26-27, 2021)



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Ph no. 0141-2770120, 2770232
http://www.jecrcfoundation.com/

About Conference

The National Conference "RACON-2021" is organized with a vision to address and provide solution to the various technical issues related to society. It is expected that researchers will bring new prospects for collaboration across disciplines and gain ideas facilitating novel concepts. The theme of this conference will motivate the researchers to adopt the outcome for implementation. The national conference on Recent Advancement in Communication, Optoelectronics and Nanotechnology-2021 (RACON- 2021) is a premier conference, organized by the Department of Electronics & Communication Engineering on June 26-27, 2021 at JECRC, Jaipur. RACON-2021 aims to bring together the researchers, scientists, engineers, and research scholar in areas of Engineering and Technology, and it provides a national forum for the dissemination of original research, new ideas and ...ical development experiences. The conference has prime focus on addressing the challenges in the field of engineering and science.

Objective of Conference

- To provide an exceptional platform to the academicians, researchers and students to share their research ideas.
- To meet and discuss the practical outcomes, scientific results and methods to provide probable solutions to the problems of society.
- To focus on the recent technological developments in all the areas of Electronics and Communication Engineering.

Tracks

- Biomedical Engineering
- Communication Systems
- Data Communication Network
- Electronic Sensors
- Embedded System Technology
- Green Energy
- Internet of Things
- MEMS and Nanotechnology
- Microprocessor and Microcontroller Based Systems
- Microwave and Radar Technology
- MIMO Technology
- Modern Control Systems
- Network & Coupled Circuits
- Optical C...nication
- Robotics ...eural Networks
- Speech/Signal/Image Processing
- VLSI Design
- Wireless Communication
- Wireless Sensor Networks
- Fabrication and Characterization
- Simulation and Modelling of Electronic Systems
- Network Analysis and Synthesis

Guidelines for Submission of Papers

Authors are requested to submit their research paper using Times New Roman format in font size 10 (MS Word),and in two column format. The full-length papers of 4-6 pages should be mailed to jecrcracon2021@gmail.com. The paper should include an abstract (not exceeding 150 words) together with 4-6 Key words, figures, diagrams, tables, graphs and reference as prescribed in the format.

Important Dates

Last Date For	Date
Registration	21/06/2021
Submission For Manuscript	22/06/2021
Acceptance Of Notification	23/06/2021

Registration Fees

Category	Amount
Research Scholars/ Faculty (outside)	RS. 900
Faculty/Students (JECRC)	RS. 200
Industry Persons	RS. 1000

Contact

Ms. Ritambhara - +91 94725 12757
Mr. Vikas Sharma - +91 94610 60635

Address for Correspondence

HOD ECE
Jaipur Engineering College & Research Centre,
Shri Ram Ki Nangal, Via Sitapura RIICO,
Opp. EPIP Gate, Tonk Road,
Jaipur- 302022 (Rajasthan)

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JECRC RACON 2021

3rd National Conference

On

Recent Advancement in Communication, Optoelectronics & Nanotechnology

RACON-2021

(June 26-27, 2021)

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.....
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3rd National Conference on Recent Trends and Smart Technologies in Electrical Engineering (RTSTEE)

June 28, 2021

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(In Capital Letters)

2. Title of Paper:

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3. Organization: .....

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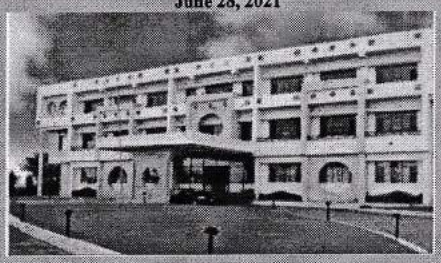
3rd National Conference

On

Recent Trends and Smart Technologies in Electrical Engineering

(RTSTEE-2021)

June 28, 2021



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About JECRC Foundation

JECRC Foundation is one of the leading educational groups in North India for nurturing the essence of growth in education. Some of its best education group, with institutes for engineering, management and pure & applied sciences are:

- Jaipur Engineering College & Research Centre (JECRC)
- JECRC University

About Jaipur Engineering College and Research Centre (JECRC)

The JECRC Engineering College was the first venture of the JECRC foundation in the league of the best colleges for B. Tech in Rajasthan. This institute has been set up in the year 2000. The JECRC has a well-qualified and experienced faculty; excellent management and infrastructure that ensure academic excellence and overall development of its students. The JECRC is the 'most preferred choice amongst the aspiring students for B. Tech. Programs. This is evident from the recent trends witnessed during the RPET and AIEEE/JEE counselling. The institute has well-equipped laboratories, library and hostel facilities for girls and boys. The institute with its rich faculty resources has strived to provide value added high quality education with practical skills to provide all round professional competence.

About EE Departments

Electrical Engineering (EE) is one of the major engineering department of JECRC. The EE Dept. includes number of laboratories with a diversified variety of equipment. In order to cope up with the requirement of industries, the departments also have laboratories with latest technologies. Students have an open access in the laboratories, to understand as well as apply their knowledge to explore their engineering skills. The departments have team of highly motivated and dedicated faculty members to the cause of academics and striving to do the best in the interest of the college and the students. Most of the faculty members are actively involved in research work and regularly publish their research papers in Journals and Conferences.

About Conference

RTSTEE-2021 is a one day conference organized to provide a platform to the researchers to present their researches. Its motive is to address the recent innovative ideas and smart solutions to enhance the knowledge domain in the field of electrical engineering. It is expected that researchers will bring new prospect for collaboration across disciplines and gain ideas facilitating novel concepts.

Objective of the Conference

- To provide an exceptional platform to the academicians, researchers and students.
- To meet and discuss the practical solutions, scientific results and methods in solving various problems with people who are actively involved in emerging research fields.
- To focus on the recent technological developments in all the areas of Electrical Engineering

Paper Submission Guidelines

The abstract of the paper should have times new roman font style, font size 10 with single spacing. It must include author(s) name, affiliation, and contact information followed by an abstract of not more than 200 words. The full paper will be submitted as per the standard IEEE template. The full paper should not have more than six pages. All registered papers will be included in conference proceeding having ISBN No. ISBN No.: 978-8-19-405434-4. The best papers selected in the conference are considered for publication in the UGC approved Journals.

Important Dates

Events	Dates
Last date for receiving full length paper	25/06/2021
Acceptance Notification	25/06/2021
Last date for camera ready paper	26/06/2021
Last date for registration	27/06/2021

Registration Fees Details

Category of Participant	Registration Fee
Research Scholar/Student	Rs. 200/-
Faculty	Rs. 250/-
Industry Person	Rs. 500/-
Participation Only	Rs. 100/-

Guidelines for submission of Paper

Authors are requested to submit their manuscript using Time New Roman with Font size 12pt in MS Word in IEEE format at conference.ee@jecrc.ac.in. Full length paper should not exceed more than six pages.

Payment Method

Participants should make their payment through net banking / DD/ cash payable at Jaipur Engineering College and Research Centre, Jaipur and send a copy of receipt on e-mail conference.ee@jecrc.ac.in before 28th June, 2021.

Online Payment Account Details

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Electrical power conversion	Control Systems
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Microprocessor and Microcontroller based technology	Microgrid

Paper is to be submitted at: conference.ee@jecrc.ac.in

Contact Persons:
Mr Gopal Tiwari : 8890750291
Mr Vishal Sharma : 7014904349

About JECRC Foundation

The National Society for Education Research and Development was set up and registered in the year 1999 in Jaipur with the major objective of providing quality education and research environment in Rajasthan. Keeping this objective in view the pioneers in the field of education implanted JECRC Foundation in the year 2000.With the remarkable success the foundation achieved within a short span of time, today it has three institutions that conducts UG, PG and Ph.D programs in several disciplines duly approved by the UGC and AICTE, Government of India with the st[illegible] strength exceeding 10000. The Foundation has an act[illegible] collaboration with several industries. Our alumni have been placed in industries of repute and have also been pursuing higher studies abroad at prestigious universities. The foundation has the legacy of nurturing the essence of growth in education with the prime focus being holistic development of the students, thus becoming the most preferred choice for students with a variety of academic pursuits.

About IT Department

The department of Information Technology was established in 2001. The department aims at developing the technical skills among students. To accomplish this we organized many events like Hackathon, Ideathon, SIP expo, and many different seminars and workshops to enhance the skills and overall personality of students. To enhance the entrepreneurship skills and research areas IT department has establishedexcellence in teaching and learning. The department not only focuses on technical skill but also provides them with areas with different educational opportunities and support groups which help in developing technical as well as non-technical awareness. The fundamental aim of department is to provide students with each and everyopportunity.

About Conference

3rdNCITSA is a conference to be held in JECRC. It aims at bringing together the researchers and practitioners from academia, industry and government to deliberate on the al[illegible]ms, systems, applied, and research aspects of digital ap[illegible]ions. National Conference "NCITSA-2021" is organized with a vision to address the various issues to promote the creation of intelligent solutions in future. It is expected that researchers will bring new prospects for collaboration across disciplines and gain ideas facilitating novel concepts. NCITSA-2021 is a premier conference, organized by the Department of Information Technology on May28th-29th, 2021 at JECRC, Jaipur.

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Mr. Manish Jain, Dy. Director, JECRC, Jaipur

Convener(s)

Dr. Smita Agrawal, Professor &Head, Dept. of IT, JECRC
Dr. Mithlesh Arya,Associate Professor,Dept. of IT, JECRC

Co-Convener(s)

Mohd. Rizwan Khan, Assistant Professor, Dept. of IT, JECRC

JECRC CONFERENCE NCITSA

3rdNational Conference On Information Technology & Security Applications (NCITSA-2021)

(May 28th- 29th, 2021)

Technically Supported By

IJAC ONLINE(UGC Approved)

Organized by

Department of Information Technology
Jaipur Engineering College and Research Centre, Jaipur
http://www.jecrcconference.in/ncitsa/

In Association with

JAC

Jaipur Engineering College and Research Centre
Shri Ram kiNangal, via Sitapura RIICO
Tonk Road, Jaipur-302 022, Rajasthan
Ph No. 0141-2770120, 2770232

Objective of the Conference

- To provide an exceptional platform to academicians, researchers and students to converse and share the ideas.
- To meet and discuss the practical solutions, scientific results and methods in solving various problems with people who are actively involved in emerging research fields.
- To focus on the recent technological developments in all the areas of Information Technology.

Conference Tracks

Track 1: Information Security
Track 2: Big Data
Track 3: Cloud Computing
Track 4: Soft Computing
Track 5: Virtual Communities and Social Networking
Track 6: Artificial Intelligence
Track 7: Computer applications
Track 8: Machine Learning, Modeling & Simulation

Guidelines for Paper Submission

Prospective authors are invited to submit manuscripts reporting original unpublished research and recent developments in the topics related to the conference. It is required that the manuscript follows the standard IEEE camera-ready format. Regular papers should present novel perspectives within the general scope of the conference. The conference only accepts full manuscripts with maximum 6 pages.

Submission of paper must be original and should not have been previously published or under consideration for publication. All papers will be sent for peer review and the corresponding author will be notified of the outcome of the review process. At least one of the authors of each accepted paper must register for the conference and present their paper in person at the conference. All submissions are to be done electronically through email ID of NCITSA-2021

Important Dates

Last Date for	Date
Submission of Manuscript	19/05/2021
Acceptance Notification	22/05/2021
Submission of Camera Ready Paper	25/05/2021
Registration	26/05/2021

Keynote Speakers

- **Dr. Jyoti Grover, Assistant Professor, CSE, MNIT Jaipur**
- **Dr. Ashish Sharma, Associate Professor, IIIT Kota**

Paper Publication Details

The submitted papers will go through a competitive review process and the accepted papers will be considered for oral presentation and published in the following journal:

- **IJAC Online [ISSN:0973-2861] – InternationalJournal Of Analysis and Computationhttp://www.ijaconline.com/**
- **Remaining paper will be published in conference proceeding by the ISBN NO: 978-81-940543-0-6**

Paper Submission Link:

EasyChair
The world for scientists

https://easychair.org/conferences/?conf=ncitsa21

OR

ncitsa@jecrc.ac.in

Online Payment Account Details

Participants should make their payment through Net Banking/DD/ Cash to payable at Jaipur and send to Organizing Secretary (NCITSA- 2021) JECRC, Jaipur on Following Details-

Bank Name: State Bank of India
Branch: Patrakar Colony, Mansarover, Jaipur
A/C No.:61007732783
IFSC Code: SBIN0032246

Contact Person (s)

Dr. Smita Agrawal, Convener NCITSA-9928023107
Dr. Mithlesh Arya, Convener NCITSA-9413942204

Address for Correspondence

Dr. V. K. Chandna, Principal
Jaipur Engineering College & Research Centre
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EPIP Gate, Tonk Road,
Jaipur- 302022 (Rajasthan)

Registration Fees

Category	Amount
Research Scholars/Students	INR 700/-
Author from India	INR 800/-
Author from other countries	$50
Attendee	INR 500/-

Participants should make their payment through online/ DD/ Cash, in favor of Jaipur Engineering College and Research Centre, payable at Jaipur and send to Organizing Secretary (NCITSA- 2021) JECRC, Jaipur.


JECRC
NURTURING TALENT
Department of Information Technology
IT
Department of Information Technology
Proudly Announces
IT
HACKATHON
4.0
on
28th JUNE 2021
in
Online Mode
with
NO REGISTRATION FEE
Contact:
Hitesh Harsh [9461661857]
Shivansh Khandelwal [9680589623]
Aishwary Goswami [9509825122]
Ujjwal [8209658878]
Faculty Coordinator
Mr. Naveen Kr. Kedia
Event Coordinator
IT Department
9413050976

JECRC Mail

Registrar, JECRC <registrar@jecrc.ac.in>

THANKS MESSAGE-IT HACKATHON 4.0

1 message

Naveen Kedia <naveenkedia.it@jecrc.ac.in> Wed, Jun 30, 2021 at 10:40 AM
To: "Registrar, JECRC" <registrar@jecrc.ac.in>

"Giving thanks is a key that opens a door to greater connectedness and greater participation in the life of the world. We must find time to stop and thank the people who make a difference in our lives."

On Behalf of the complete IT department and team of IT HACKATHON 4.0 we would like to thank you for being a part of this digital platform created here on 28th June 2021. We sincerely appreciate your time and effort in making our contest a success. Because of your support, the event went smoothly and was appreciated by everyone.

Proper planning, rigorous mentoring, hard work, team work and successful execution has finally made this event an exceptional hit. Inauguration of this 6 hours event was done by our honorable Chief Guest, Prof. R. K. Mangal, Registrar (JECRC).We were honored to have an enlightening message from Prof. Smita Agarwal, HOD (IT). We just bring it to your notice that this time the event was in online mode. We received applications from 60 teams and more than 120 participants.

Students coded and converted their innovative ideas into new developments. The judges and the mentors were there throughout the event to guide them & fertilize the raw brains of young talents with their experience. The Judges of the event was Mr. Kunj Bihari tiwari(Project Manager, Atishay Limited), Mr. Atul Modi(Sr. Developer, Mindtree technology), Mr. Vishal Sagtani(Assistant Professor, Government college, Nokha) and Mr. Manish Mathuria (Assistant Professor, PIET Jaipur). All Judges appreciated the efforts of the department towards nurturing the coding environment in the college.

The students bubbled with creativity and enthusiasm as they coded their innovation. After the first round of judging, finally ten teams were ready for the power judging round and further out of which we got our top three positions.

Thank you for your participation and support in making this event a grand accomplishment and sharing resources for better understanding and responding with compassion. We cannot forget to mention that we have learnt a lot from you all and we would try to implement the learning's in the next event. We would really appreciate your feedback and suggestions about the event so that we can make it more flourishing next year.

Last but not the least we would also like to thank our faculty members without whom this event wouldn't have been possible.

Once again thank you for your efforts and contribution of time in IT Hackathon 4.0 and we look forward to continuing this coding legacy in IT Hackathon 5.0.

--
Thanks & Regards
Naveen Kumar Kedia
Assistant Professor
Department of IT
JECRC-JAIPUR

Objective of Conference

As JECRC is a grown up organization with 71 startups to its credit. ICRITDME-2020 is aiming to promote students, research scholars and faculty members to present their preliminary ideas that may be transformed into a product/ startup.

This conference is being organized to bring researchers and experts from academia on a common platform to address the challenges and opportunities in the field of Engineering & Technology. The conference will provide an opportunity for paper presentation related to experimental and analytical research in the field of Mechanical Engineering.

About JECRC

The National Society for Education Research and Development (NSERD) was registered in the year 1999 in Jaipur with the major objective of providing quality education and research environment in Rajasthan. It established its first college, Jaipur Engineering College & Research Centre (JECRC) in Jaipur, in the year 2000. Encouraged by its splendid achievements and overwhelming public patronage.

The JECRC Foundation having 19 year of existence, amongst the most reputed educational groups in Higher and Technical Education in North India which has two large campuses with 10,000 students enrolled as on date in various courses alongside engineering courses. The major chunk of the admissions being routed through JEE examinations. The engineering colleges are approved by the AI[illegible] New Delhi and are affiliated to the Rajasthan Technical University, Kota.

JECRC has become the most sought after institutions for admissions as evident by the REAP admission. Patterns. The JECRC Foundation has now become a brand name of professional education in Rajasthan.

Themes of ICRITDME-2020

- Renewable Energy
- E-manufacturing
- Green Manufacturing
- Lean Manufacturing
- Fracture Mechanics
- Nonconventional Machining
- Bio-materials
- Advance Materials
- Surface Engineering
- Nanotechnology
- CAD/CAM
- Agile & Additive Manufacturing
- Ergonomics
- CFD/ Thermal Analysis
- Optimization Techniques
- Micromachining
- Vibration
- Mechatronics
- Robotics
- Automation
- Sustainable Manufacturing
- Alternative Fuels
- Thermal Energy
- Virtual Manufacturing
- Internet of things
- Any other Related Area

Important Dates

Submission of full paper:	25th July, 2020
Confirmation of acceptance:	02nd Aug, 2020
Last date of Registration:	15th Aug, 2020

Registration Fee

Foreign Delegates	$ 50
Industrial Person	Rs. 2000/-
Employed Professional	Rs. 1500/-
Research Scholar	Rs. 1000/-
Participant	Rs. 500/-

Publications

Selected paper after review will be considered for publication in **Lecture notes in Mechanical Engineeing (SCOPUS)** with ISSN 2195-4356

Accommodation

Jaipur offers a range of accommodation to economy and luxury class hotels within 10 km from the Conference Venue. Delegates are requested to make their own arrangements for travel, boarding and lodging. If any assistance is required,

JECRC
JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

JECRC Foundation

3rd International Conference on Recent Innovations & Technological Development in Mechanical Engineering ICRITDME-2020

27th - 28th Aug, 2020

Organized by

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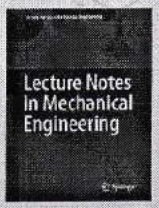

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Guideline for submission of paper

Authors are requested to submit their full length papers with in 6 pages using Time New Roman with font size 12pt in MS Word in IEEE format at following link.
https://easychair.org/conferences/?conf=icritdme2020

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BRANCH: Chaura Rasta, Jaipur

For Information and correspondence, please contact:

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Assistant Professor
Mob: +91-9413417182

Mr. Satyendra Kumar
Assistant Professor
Mob: +91-8955840411

Kindly send your query on:
icritdme@jecrc.ac.in

Scan for location

About JECRC Foundation

The National Society for Education Research and Development was set up and registered in the year 1999 in Jaipur with the major objective of providing quality education and research environment in Rajasthan. Keeping this objective in view the pioneers in the field of education implanted JECRC Foundation in the year 2000.With the remarkable success the foundation achieved within a short span of time, today it has three institutions that conducts UG, PG and PhD programs in several disciplines duly approved by the UGC and AICTE, Government of India with the student strength exceeding 10000. The Foundation has an active collaboration with several industries. Our alumni have been placed in industries of repute and have also been pursuing higher studies abroad at prestigious universities. The foundation has the legacy of nurturing the essence of growth in education with the prime focus being holistic development of the students, thus becoming the most preferred choice for students with a variety of academic pursuits.

About Department

Mechanical Engineering Department, JECRC Foundation is one of the oldest departments of the institute. The department has been on the pinnacle of all major achievements and developments in the field of various technologies over the past few years. The incorrigible focus is on developing fundamental and intellectual knowledge amongst the students through outcome based education. Through all these efforts, the main aim is to create such manpower which will be able to meet the current and future demands of the industries.

About Conference

5thNCFTME is a conference to be held in JECRC. NCFTME-2021 is aiming to promote students, research scholars and faculties' members to present their preliminary idea that may be transformed into a product/startup. This conference is being organized to bring researchers and experts from academia on a common platform to address the challenges and opportunities in the field of Science and Technology.

JECRC

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

5th National Conference
On
Futuristic Trends in Mechanical Engineering
NCFTME-2021
(June 22nd - 23rd, 2021)

Organized by

Department of Mechanical Engineering
Jaipur Engineering College and Research Centre,
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Shri Ram ki Nangal, via Sitapura RIICO
Tonk Road, Jaipur-302 022, Rajasthan
Phone No. 0141-2770120, 2770232

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Dr Bhuvnesh Bhardwaj

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Mr Akhilesh Paliwal
Mr Tej Bahadur Singh

THEMES of NCFTME-2021

- Industry 4.0 and its Applications
- Robotics
- Machine Design and Solid mechanics
- Composite Materials
- Mechanics & mechanism
- Automation
- Agile & Additive Manufacturing
- Renewable Energy
- Green Manufacturing

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IMPORTANT DATES

Last Date for	Date
Submission of Manuscript	**14/06/2021**
Acceptance Notification	**16/06/2021**
Submission of Camera Ready Paper	**19/06/2021**
Registration	**21/06/2021**

REGISTRATION FEES

Category	Amount
Students (Authors) & Participants	**INR 100/- Per group**
Industry Persons	**INR 500/-**
Faculty members	**INR 200/-**

Participants should make their payment through online/ DD/ Cash, in favor of Jaipur Engineering College and Research Centre, payable at Jaipur and send to Organizing Secretary (NCFTME- 2021) JECRC, Jaipur.

CONTACT PERSONS

Mr Akhilesh Paliwal (akhilesh.me@jecrc.ac.in, 9509502363)
Mr Tej Bahadur Singh (tejbahadur.me@jecrc.ac.in, 8742826624)

Jaipur Engineering C[illegible]nd Research Centre
Shri Ram Ki Nangal, Via Sitapura RIICO, Opp. EPIP Gate,
Tonk Road, Jaipur-302 022
Ph. No.0141-2770232, 2770120
Fax No.0141-2770803

FDP/Workshop Organised

S.No	Workshop/ FDP	No. of Days	No. of FDP/Workshop	Points
1	FDP	1 Day	1	1*1 = 1
2	FDP	5 Days	1	1*5 = 5
3	Workshop	1 Day	8	8*1 = 8
4	Workshop	2-4 Days	3	3*2 = 06
5	Workshop	5 Days and Above	9	9*5 = 45
Total			22	65

Points 40

30/6/22

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QIV

Session 2021-2022 (RTU)

Jaipur Engineering College and Research Centre, Jaipur

FDP Organized at JECRC (Point No. 20)

S. No.	Department	Topic	Type FDP/Workshop	Type (1-Day Workshop 2-4 Days Workshop 5 Days Workshop One Week or Above	Date	In association with	Experts
1	ME	How to reform & retool during Pandemic	FDP	1 Day	May 7,2021	SUSLENCE RESEARCH , DOHA,QAT	Dr Tauseef zia Siddiqui
2	IT	FDP on Quantam Computing, sponsored by TEQIP-III	FDP	5 Day	2nd to 6th March, 2021	RTU(ATU) TEQIP-III	Dr.Harish Sahu, Dr.Manissh Gupta ,Dr.

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Jaipur Engineering College and Research Centre, Jaipur

Workshop Organized at JECRC (Point No. 20)

S. No.	Department	Topic	Type FDP/Workshop	Type (1-Day Workshop 2-4 Days Workshop 5 Days Workshop One Week or Above	Date	In association with	Experts
1	ME	Mechanical CAD	Workshop	1 Day	May 20, 2021	CADD Centre	Sh. Jai Prakash Singh
2	ME	Rapid Prototyping by Additive Manufacturing	Workshop	1 Day	June 15,2021	Latashri 3D Creations	Sh. Ashish Varshney
3	CSE	Expert Industry Expert Talk on "Cloud GCP Console and	Workshop	1 Day	2nd March 2021	TEQIP III RTU	Er. Kalpit singh
4	CSE	Website Hacking & Bug Bounty	Workshop	1 Day	23rd to 23rd July 2020	CYBEROPS Infosec LLP, Jaipur	Mr. Shovik Dutta
5	CSE	Cyber Security	Workshop	1 Day	2nd Sep to 2nd Sep 2020	Police, Indore (M.P.)	Dr. Varun Kapoor(IPS), Additional Director
6	CSE	Adoption of IoT solutions to increase data collection for Data Analytics	Workshop	1 Day	23rd Dec to 23rd Dec 2020	Techienest Pvt. Ltd. Jaipur	Mr. Saurabh Bhardwaj Co-founder & CTO Techienest Pvt. Ltd. Jaipu
7	CSE	Workshop on Cyber Security	Workshop	1 Day	26th may to 26th may 2021	CYBEROPS Infosec LLP, Jaipur	Mr. Shovik Dutta
8	CSE	Workshop on Salesforce	Workshop	1 Day	29th may to 29th may 2021	Wipro Ltd. Jaipur	Mr. Hitesh Maharwal
9	CE	Workshop on Designing Software's in Civil Engineering	Workshop	2 Days	21-22 May 2021	CADD Centre, Raja Park, Jaipur	Mr. Abhijeet Ptankar

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10	CE	Workshop on Satellite Remote Sensing and GIS: Basic Concepts	Workshop	2 Days	31 May - 01 June 2021	NIIT University, Alwar	Dr. Thota Sivasankar (Ph.D – IIT Dhanbad)
11	Spiritual Research Cell	Thought Management and Leadership	Workshop	3 Days	28-30 September, 2020	TEQIP III RTU	Sister Shivani
12	ME	Electric Vehicle	Workshop	5 Days	April 27- May 01, 2021	BABA Automobiles	Sh. Nimesh Baba
13	Spiritual Research Cell	Stress and Anger Management	Workshop	5 Days	15-19 December, 2020	TEQIP III RTU	Mr. Suresh Oberoi
14	CSE	Workshop on Natural Language Processing using Python	Workshop	5 Days	01st -05th Sept, 2020	TEQIP III RTU	Mr. Nitin Arvind Shelke, Mr. Nikhil Verma, and
15	ECE	"Emerging Trends in Nanotechnology"(ETNT-2020)	Workshop	5 Days	23th Sep -27th 2021	RTU(ATU) TEQIP-III	Dr.Pankaj Sharma, Prof.G Singh.,
16	ECE	"Recent Trends in Circuits & Communications" (RTCC-2021)	Workshop	5 Days	19Feb 2021-23 Feb 2021	RTU(ATU) TEQIP-III	Dr. Mahesh H. Kolekar, Dr chandra Prakash
17	ECE	"Productivity Enhancement Trhough Mediation"	Workshop	5 Days	24th May 2021-28 th May 2021	AICTE ATAL Academy	Prof. Manpreet Singh Maana.
18	IT	Workshop on Data Structures and Competitive Programming	Workshop	5 Days	26 Aprl to 1May, 2021	Grass Solutions	Mr. Sachin Yadav
19	IT	Workshop on Cyber Security	Workshop	5 Days	18 June to 22 June	Zeetron Networks	Mr. Siddarth Sharma
20	ME	Solidworks and ANSYS Workbench	Workshop	6 Days	April 19-24, 2021	Cademate Jaipur	Sh. Ravi Kumar Swami

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JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

JECRC Foundation

Department Of Mechanical Engineering
Jaipur Engineering College & Research Centre, Jaipur
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Faculty Development Program (FDP)
ON
"HOW TO REFORM & RETOOL DURING THE PANDEMIC"
BY
SUSLENCE RESEARCH, DOHA, QATAR
7th MAY 2021 @ 10:00 AM

Resource Persons:

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Chief Consultant & Advisor-
Suslence Research and Stress
Management Expert

DR. TAUSEEF ZIA SIDDIQUI
Advisor - Suslence Research

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&

Department of Information Technology,

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Date : 2nd March to 6th March ,2021

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JECRC
Jaipur

For registration, kindly fill this form :

https://forms.gle/YtZJjoQNpwMNWBQx8

In association with

TEQIP-3

Technical Education Quality Improvement Programme

ADD IN THE

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

Department of Mechanical Engineering

In Association With

Cadd Centre Presents

One Day

Workshop

on

" MECHANICAL CAD "

20.06.2021

9:00 AM to 10:30 AM

AI PRAKASH SINGH
ADD Centre, Jaipur

Arpit Agrawal
Director

Prof. V. K. Chandna
Principal

Dr. M. P. Singh
HOD (ME)

Shrikant Bansal
Assistant Professo

Faculty Corrdinator
Shrikant Bansal
9413884331
shrikantbansal.me@jecrc.ac.in

Tudent Coordinators

unal Kumar

awandeep Singh Bagga

ertificate will be awarded to the participants who attend the worksh

L3D Just Limitless

NURTURING JECRC TALENT

JEERE
JAIPUR ENGINEERING COLL. AND RESEARCH CENTRE

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

Department of Mechanical Engineering

In Association With

Latashri 3D Creations Presents

One Day

Workshop

on

" RAPID PROTOTYPING BY ADDITIVE MANUFACTURING "

Ashish Varshney
CEO, Latashri 3D Creations

Schedule: 15.06.2021
9:00 AM to 10:30 AM

Student Coordinators
Shubham Tiwari
Shivanshu Puri Goswami

Faculty Coordinator
Akhilesh Paliwal
9509502365
akhilesh.me@jecrc.ac.in

E-Certificate will be awarded to the participants who attend the workshop

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

2nd March 2021

TEQIP-III(ATU) SPONSORED ONE DAY INDUSTRY EXPERT TALK ON

"Cloud GCP Console & AWS"

JOINTLY ORGANISED BY

Rajasthan Technical University, Kota
&
Jaipur Engineering College and Research Centre, Jaipur

11:00-12:00PM
02/03/21

Scan to Register

Link:
https://forms.gle/[illegible]

Resource Person

Er.Kalpit Singh
Founder, CEO
Pulchritudinous R&D,
Ex. Software Engineer, Microsoft

E-Certificate will be awarded to the participants who attend webinar.

Target Audience:
UG/PG/PhD Students, Researchers, Academicians, Industry Person

Platform: Google Meet

No Registration fee required

VISIT US @
https://jecrcfoundation.com/

Prof. R A Gupta
Hon'ble Vice Chancellor
RTU,Kota(Rajasthan)

Prof. V K Chandna
Principal
JECRC,Jaipur

JECRC FOUNDATION

AND RESEARCH CENTRE

Jaipur Engineering College and Research Centre, Jaipur
Department of Computer Science and Engineering

presents **WORKSHOP** on

" Cyber Security "

Mr. Shouvik Dutta

Software Engl, Cyber Security Analyst, Cyberop
Infosec LLP, Jaipureer, Synoriq PVT. Ltd.

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

TechieNest
Transforming Engineers to Technocrats

December 23rd,2020

Department of Computer Science & Engineering
Jaipur Engineering College and Research Centre, Jaipur

In Association With

Computer Society of India(CSI)

&

TechiNest Pvt. Ltd., Jaipur

Presents

Two hour Webinar on

"Adoption of IOT solutions to increase data collection for Data Analytics"

December 23,2020

Resource Person

Mr. Saurabh Bhardwaj
Co-Founder & CTO
TechieNest

TIMING
12:00 PM
ONWARDS

E-certificates will be awarded to the participants who attend the webinar.

***12:00 PM** onwards, December 23,2020*

Platform : ZOOM

Sh. Arpit Agarwal
Vice Chairperson
JECRC Foundation

Prof. (Dr.) V.K. Chandana
Principal
JECRC Foundation

Scan to Register

Dr. Sanjay Gour
HOD CSE
JECRC College

Mr. Kanishk Jain
Assistant Prof.
JECRC College

Mr. Ashish Ameria
Assistant Prof.
JECRC College

MODERATORS

JECRC
JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

2 SEPT 2020

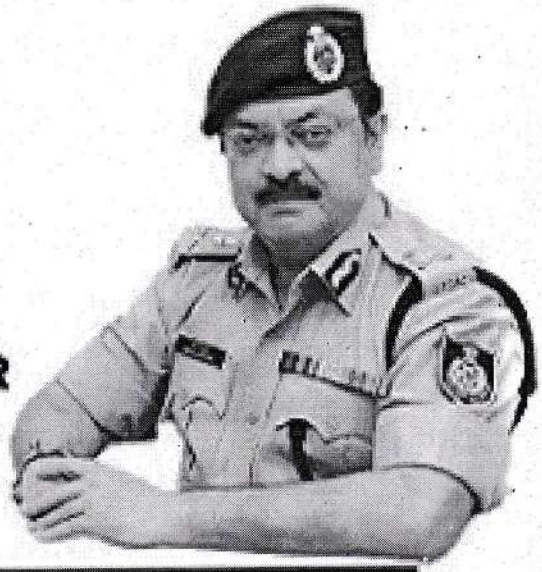
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE , JAIPUR

PRESENTS

ONE DAY WEBINAR ON

CYBER SECURITY

"SECURE
DIGITAL EXPERIENCE
FOR THE YOUTH"



KEYNOTE SPEAKER
DR. VARUN KAPOOR
(ADGP INDORE ZONE)

12:00 PM
ONWARDS

DESIGNED BY : GRAFIX STUDIO

E-CERTIFICATES WILL BE AWARDED TO THE PARTICIPANTS WHO ATTEND THE WEBINAR .

SH. ARPIT AGARWAL
(VICE CHAIRPERSON JECRC FOUNDATION)

PROF. (DR.) V.K. CHANDNA
(PRINCIPAL, JECRC)

SCAN TO REGISTER

MODERATORS

DR. SANJAY GAUR
(PROFESSOR AND HOD, CSE JECRC)

DR. NILAM CHOUDHARY
(ASSOCIATE PROFESSOR,CSE , JECRC) (ASSISTANT PROFESSOR,CSE , JECRC)

MS. GEERIJA LAKHINA

JECRC Foundation

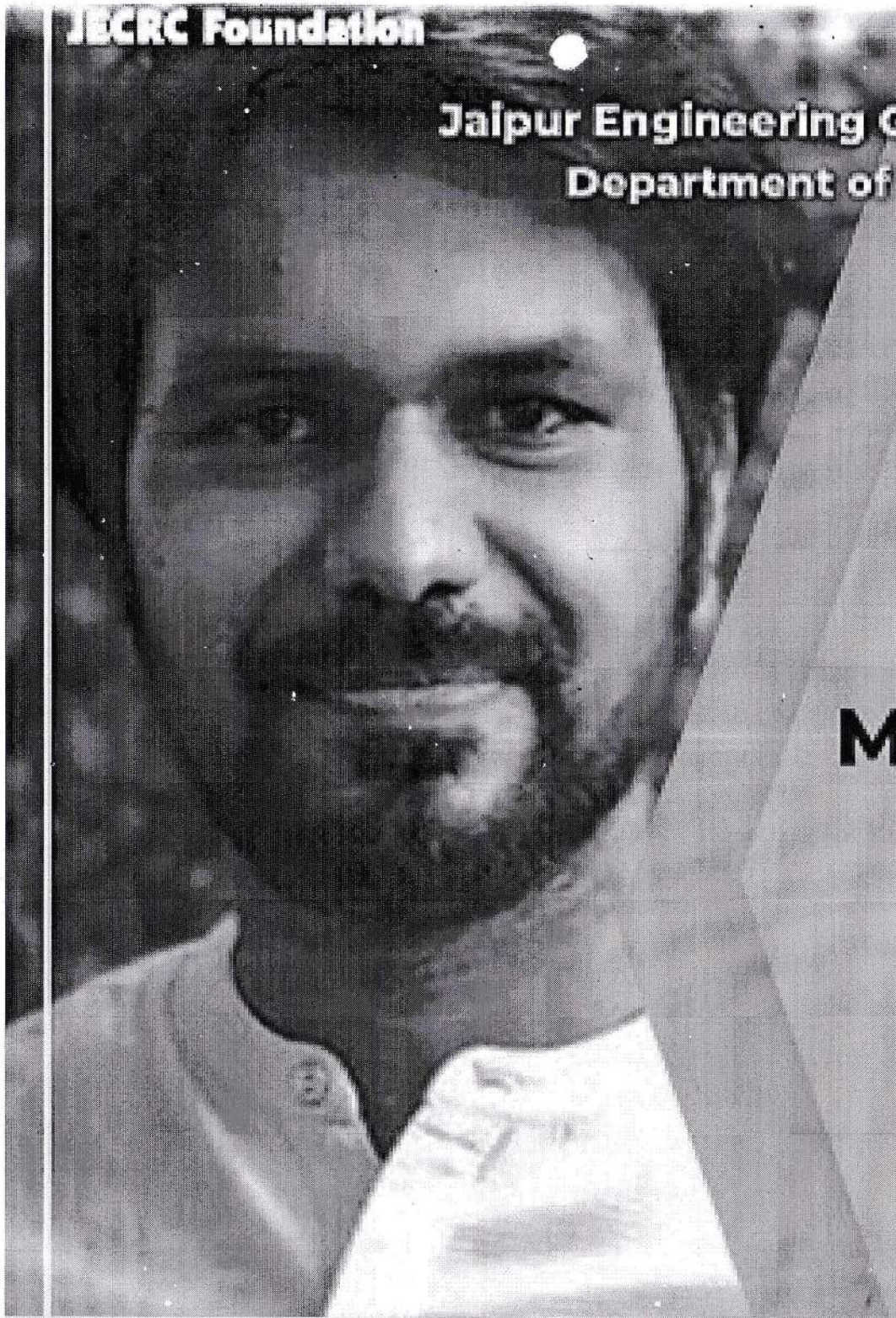
AND RESEARCH CENTRE

Jaipur Engineering College and Research Centre, Jaipur

Department of Computer Science and Engineering

presents **WORKSHOP** *on*

Salesforce CRM



ESTEEMED SPEAKER

Mr. Hitesh Maharwal

Senior Salesforce Consultant

Wipro Ltd

JECRC

CADD CENTRE

WORLD

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE
DEPARTMENT OF CIVIL ENGINEERING IN ASSOCIATION
WITH CADD CENTRE, RAJA PARK, JAIPUR PRESENTS

TWO DAYS WORKSHOP ON "DESIGN SOFTWARES IN CIVIL ENGINEERING"

21-22 MAY 2021 | 09:30AM – 11:30AM | GOOGLE MEET

E-certificate will be given to all the participants

REGISTRATION LINK : HTTPS://FORMS.GLE/LMZJGYSC39TPV4VQ8
MEETING URL : HTTPS://MEET.GOOGLE.COM/DWS-PFCP-KCY
FOR ANY QUERY CONTACT - +91 87418 13384 (NIDA KHANAM)

JAIPUR ENGINEERING COLLEGE
AND RESEARCH CENTRE

2 - DAY WORKSHOP

31 MAY - 1 JUN 2021

9:30 - 11:30 AM(IST)

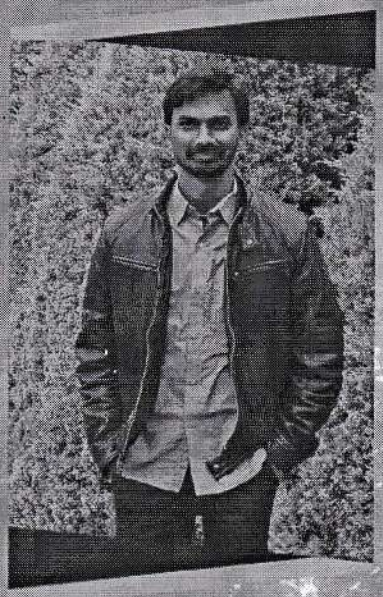
Department of Civil Engineering
Jaipur Engineering College and Research Centre, Jaipur

PRESENTS

2 - DAY WORKSHOP

ON

Satellite Remote Sensing and GIS: Basic Concepts and Its Applications



Dr. Thota Sivasankar
(Ph.D - IIT Dhanbad)
Assistant Professor,
Geographic Information Systems (GIS)
Coordinator, IIRS-ISRO Outreach Programme
NIIT University, Neemrana (Alwar)

Sh. Arpit Agarwal
Vice Chairperson
JECRC Foundation

Prof. V.K. Chandna
Principal
JECRC, Jaipur

Mr. Krishan Kumar Saini
Assistant Professor & HOD(CE)
JECRC, Jaipur

No Registration Fee

E-Certificates to all participants

Meeting link will be shared with registered participants

Scan for Registration

Contact Details :
Yogesh Kumar Agarwal : +91- 9261390542
Pradeep Kumar Jain : +91- 7976187520

Registration link :
https://forms.gle/ntatj
JMeuFfMoqHv7

JAIPUR ENGINEERING COLLEGE
AND RESEARCH CENTRE

presents

Sessions
on

THOUGHT MANAGEMENT
AND
LEADERSHIP

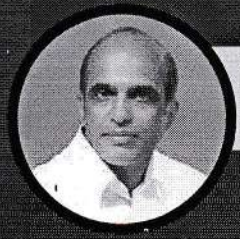
The Power of Positive Thoughts | Transforming Challenges into Opportunities | Meditation & Stress Management

28th - 30th September 2020

Sister Shivani
Globally Acclaimed
Spiritual Mentor
30th Sep 2020 (2:00 PM)

Sneh Desai
International Motivational
Speaker & Life Coach
29th Sep 2020 (2:00 PM)

Dr. Girish Patel
Renowned Clinical Psychologist



Dr. EV Swaminathan
Renowned Corporate Trainer and Consultant

Bala Kishore
VP Transformation,
Searce Technologies

BK EV Gireesh
Dynamic Trainer &
Counselor

Curator
Ms. Chitra
Call: +91 9252011765

Coordinator
Dr. Om Shankar Prajapati
Call: +91 7976221482

Please scan QR code for registration

CLICK HERE TO REGISTER

Zoom meeting ID and Password will be sent to all the registered participants

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE
Shri Ram Ki Nangal, Via-Vatika, Tonk Road, Jaipur
Phone: 0141-2770232, 2770120

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

DEPARTMENT OF MECHANICAL ENGINEERING

REPORT ON WORKSHOP (FIVE DAY WORKSHOP)

DATE: *27-04-2021 to 01-05-21*

Instructor

1. Nimesh Baba (Founder/Training Head)
2. Sunil Kumar (Baba Automobile Bangalore Center Head)
3. Satyendra Pal (Baba Automobiler Mumbai Center Head)

Affiliation: Baba Automobile Private Limited 19, Nand Vihar, Pratap Nagar, Jaipur (Raj.)

Topic: Online Workshop on Electric Vehicle

A five days online workshop on "Electric vehicle" was organized by Department of Mechanical Engineering (JECRC ,Jaipur) for the students of mechanical from *27-04-202 to 01-05-21.* Mr. Shrikant Bansal (Assistant Professor) and Mr. Lalit Kumar sharma (Assistant Professor) was the coordinators of this workshop.

Mr. Lalit Kumar sharma of mechanical department welcomed the resource person and participants and introduced the speaker Mr. Namish Baba with the participants in inauguration. Dr. M.P. singh (HOD,ME) and other faculties were also there.

The workshop was focused on various aspect related with electric vehicle.

- Revolution in Automobile Industries
- Working of Electric Vehicle
- Types of Electric Vehicles and Batteries
- Battery Electric Vehicle Working
- Hybrid Electric Vehicle Working
- Parallel Hybrid Electric Vehicle Working

All the speakers was very interactive with the fellows attending the workshop and gave detailed information about the ELECTRIC VEHICLE and mechanisms related to it. The total content delivered by trainers is as follow

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

JECRC Foundation

Department of Mechanical Engineering

Jaipur Engineering College and Research Centre, Jaipur

presents

Online Workshop for II & III year Mechanical Engineering students on

ELECTRIC VEHICLE

in association with

Baba Automobiles Pvt. Ltd., Jaipur.

27 April,21 - 01 May,21

- Introduction to EV
- Vehicle Mechanism
- Power Mechanism
- Live Demonstration of EV

For Registration/Query
Contact 9414203639

JECRCfoundation www.jecrcfoundation.com

BABA AUTOMOBILE PVT LTD

An ISO 9001: 2015 Certified Company

www.BabaAutomobile.com

Registered in MINISTRY OF MICRO, SMALL & MEDIUM ENTERPRISES

HRINTR2021ONL/TRNG/FR/0450

Certificate of Participant

This is to certify that Mr. **Pawandeep Singh Bagga** a II/III Year student B.Tech (Mechanical Engineering) from **Jaipur Engineering College and Research Center- Jaipur,** has successfully **Participated** in 1-week Online workshop on **Electric Vehicle** from **27-04-2021** to **01-05-2021** by our Company.

Our company provides effort to expose recent technologies and gain experience in real automobile working environment.

During the training period his work & conduct was found good. We wish him all the success in his future endeavors.

Thanking you

Yours Truly
Nimesh Baba
Director
Baba Automobiles
Email: babaautomobileworkshop@gmail.com
Phone: +91-8769405920

JAIPUR

Issued by

Baba Automobile **Baba Automobile Pvt. Ltd**

Verify this certificate in our website if you not get details so do not accept as an official from Baba Automobile

FDP COMMITTEE

CHIEF PATRON

Prof. (Dr.) R. A. Gupta
Honorable Vice-Chancellor, RTU, Kota

PATRON

Shri Arpit Agarwal

Vice Chairperson, JECRC, Jaipur

RTU (ATU) TEQIP-III COORDINATOR

Prof. (Dr.) Dhirendra Mathur

HOST INSTITUTE PRINCIPAL

Prof.(Dr.) V K Chandna

Jaipur Engineering College & Research Centre

RTU (ATU) TEQIP-III COMMITTEE

Dr. Harish Sharma	(Nodal Officer Academic)
Dr. S. D. Purohit	(Nodal Officer Finance)
Dr. D. K. Sambariya	(Nodal Officer Procurement)
Dr. B. D. Gidwani	(GATE Coordinator)

RTU EVENT COORDINATORS

Dr. B. D. Gidwani
RTU Kota
Contact: 9460119790;
Email: bgidwani@rtu.ac.in

HOST INSTITUTE COORDINATORS

Mr. Mukesh Agarwal	CEO, RTBI
Ms. Neha Bharti	RTBI, Executive
Dr. Vinita Mathur	Asst. Professor
Ms. Parul Tyagi	Asst. Professor
Dr. Anita Jain	Chief, Library
Dr. Kamlesh Meharwal	Librarian
Ms. Anima Sharma	Asst. Professor
Ms. Ritambhara	Asst. Professor
Ms. Richa Sharma	Asst. Professor

TEQIP-III Sponsored
One week
Faculty Development Programme on
"Stress and Anger Management"
15th – 19th December, 2020

Name: Mr./Ms./Dr.....

Designation: .....

Institute Name:.....

Institute Address:.....

.....

Affiliated to RTU:..... (Yes/No)

Mailing Address: .....

Mobile No.: .....

E-Mail Id: .....

Participant's Signature

REGISTRATION LINK

https://forms.gle/2QA86xDJBtdyBazL9

REGISTRATION FEE

No Registration Fee.
E—Certificates will be provided to the participants with more than 80% attendance.

ONLINE LINK TO JOIN

- Meeting link will be shared with all the registered participants
- In case of any query you may contact student coordinators:
  Ms. Aastha Agarwal +91- 6378415779
  Mr. Shashwat Jain +91- 7229917955

TEQIP-III SPONSORED

Faculty Development Programme

on

"Stress and Anger Management"

15th - 19th December, 2020

Coordinators

Dr. B. D. Gidwani
Asso. Professor,
Dept. of Mech. Engg.,
RTU, Kota
Contact No.: 9460119790
Email: bgidwani@rtu.ac.in

Ms. Chitra Khandelwal
Head Spiritual Cell
JECRC, Jaipur
Contact: 9252011765
Email: src@jecrc.ac.in

Organized by

RAJASTHAN TECHNICAL UNIVERSITY, KOTA

&

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE, JAIPUR

ABOUT TEQIP-III

The Project, third phase of Technical Education Quality Improvement Programme (referred to as TEQIP-III) is fully integrated with the Twelfth Five-year Plan objectives for Technical Education as a key component for improving the quality of Engineering Education in existing institutions with a special consideration for Low Income States and Special Category States and support to strengthen few affiliated technical universities to improve their policy, academic and management practices.

RAJASTHAN TECHNICAL UNIVERSITY

Rajasthan Technical University (RTU) is located in Kota in the state of Rajasthan. It was established in 2006 by the Government of Rajasthan. The university currently affiliates Engineering Colleges, B. Arch. Colleges, MCA Colleges, MBA Colleges, M. Tech. Colleges, Hotel Management and Catering Institutes.

The University aims to provide quality technical education which may help Rajasthan in its technical development and will boost technical environment in the country.

ABOUT JECRC

JECRC Foundation is a pioneer in higher education in the state of Rajasthan, established in the year of 2000, an AICTE approved and NBA accredited engineering college. Through establishments, JECRC Foundation achieved tremendous milestones in the field of engineering and research areas. JECRC Foundation is a very prominent name in technical institutions of North India, among top listed engineering colleges by the Rajasthan Technical University, Kota.

ABOUT EXPERTS

- **Mr. Suresh Oberoi**
  Speaker of Peace of Mind and Awakening Channels
- **BK Suraj**
  Sr. Rajyoga Faculty
- **Devi Chitralekha**
  Founder Gau Sevadhaam Hospital, Hodal, Haryana
- **Sis. Usha**
  Senior Raja Yoga Meditation teacher and a Management Trainer
- **Dr. EV Swaminathan**
  Teacher, Trainer, HR Consultant
- **Sis Chandrkala**
  Executive member Media Wing RERF
- **Prof. S. C. Gupta**
  Sr. Professor, SMS Medical College, Jaipur
- **Dr. Avdesh Sharma**
  Founder and Director, Mind Specialists
- **EV Girish**
  Teacher, Trainer, HR Consultant
- **Mr. Balakishore**
  Vice President Transformation (Searce Technologies)
- **Dr. Mohit Gupta**
  Cardiologist G B Pant Hospital Delhi

TOPICS OF THE FDP

- **Self-awareness for Stress Free Life**
- **Power of Subconscious Mind**
- **Meditation for Increasing Inner Stability**
- **How to Become Positive Personality**
- **Science of Happiness**
- **Overcoming Academic Stress**
- **Techniques of Concentration**
- **Digital Wellness**
- **Emotional Quotient**
- **Enjoy the Journey**
- **Mind Management**
- **Q & A with Sh. Suresh Oberoi**

OBJECTIVE OF THE FDP

- Know the power of thoughts in dealing with stress and anger
- Learn how to let go of inner pain
- Learn how to overcome the insecurities in life
- Discover the reasons behind anger and solutions to them
- Develop a range of practical tools to live a peaceful life
- Learn Meditation and Mind management
- Discover the effective use of digital gadgets

FDP SCHEDULE

Day-1 :December 15th, 2020

10:00 AM –11:30 AM	Inauguration
12:00 PM –1:30 PM	Session 1 : **EV Girish**
02:00 PM – 03:30PM	Session 2 : **Dr. Avdesh Sharma**

Day-2: December 16th, 2020

10:00 AM –11:30 AM	Session 1 : **BK Suraj**
12:00 PM –1:30 PM	Session 2 : **Sis. Usha**
02:00 PM – 03:30PM	Session 3: **EV Girish**

Day-3: December 17th, 2020

10:00 AM –11:30 AM	Session 1 : **Sis. Usha**
12:00 PM –1:30 PM	Session 2 : **Devi Chitralekha**
02:00 PM – 03:30PM	Session 3: **Dr. EV Swaminathan**

Day-4: December 18th, 2020

10:00 AM –11:30 AM	Session 1: **Dr. EV Swaminathan**
12:00 PM –1:30 PM	Session 2: **Dr. Mohit Gupta**
02:00 PM – 03:30PM	Session 3: **Prof. S. C. Gupta**

Day-5: December 19th, 2020

10:00 AM –11:30 AM	Session 1: **Sis Chandrkala**
12:00 PM –1:30 PM	Session 2: **Mr. Balakishore**
02:00 PM – 03:30PM	Session 3: **Mr. Suresh Oberoi**

TEQIP - III Sponsored Faculty Development Program on Natural Language Processing using Python

(04-09-2020 - 05-09-2020)

Eligibility

The course is open to all the Faculty Members of AICTE Approved Institutions, Research Scholars, and Persons Working in R&D organizations or industry. Number of participants for FDP are limited. All the sessions will be conducted online.

Registration and Fee Particulars

- There is no registration fee for faculty from AICTE approved Institutions form industry, Research Scholars.
- Registration for the program may be done by filling the registration form online.

Reg Link: https://docs.google.com/forms/d/e/1FAIpQLSeKO... viewform?usp=sf_link

Important Dates

Last date of receipt of applications	August 30, 2020
Intimation of selection by mail	August 31, 2020
FDP duration	September 1-5, 2020

Host Institute Coordinators

Dr. Vijeta Kumawat
Associate Professor, Dy. HoD
Department of Computer Science & Engineering
Mob: 9829178337
Email: vijetakumawat.cse@jecrc.ac.in

Dr. Abhishek Jain
Assistant Professor
Department of Computer Science & Engineering
Mob: [illegible]
Email: [illegible]

Jecrc Academic Committee

Dr. Mitha Chaudhary
Mr. Amit Mittal
Mr. Abhishek Dadi
Ms. Manju Vyas
Ms. Gaurav Lavania
Mr. Kaushik Jain
Mr. Aashish Ameeta
Mr. Rajan Jha
Mr. Sachin Gupta
Mr. Anoop Mathur
Ms. Amrita Sharma
Ms. Richa Sharma
Ms. Priyanka Mittal
Ms. Isma Maheshwari
Mr. Pradeep Kumar Sharma
Ms. Tanya Shruti
Mr. Sumit Chauhan
Ms. Ayusi Sharma
Mr. Sachin Garg
Ms. Swasti Singhal
Ms. Neha Jyotish
Ms. Anju Rajput
Mr. Tripti Das
Mr. Gajendra Sharma
Ms. Mitaksha
Ms. Yogesta Pulgaki

Resource Persons




Organized By :-

Rajasthan Technical University, Kota
&
Department of Computer Science Engineering

Jaipur Engineering College And Research Centre

ABOUT TEQIP-III

The project, third phase of Technical Education Quality Improvement Programme (referred to as TEQIP-III) is fully integrated with the Twelfth Five year Plan objectives for technical education as a key component for improving the quality of Engineering Education in existing institutions with a special consideration for Low Income States and Special Category States and support to strengthen few affiliated technical universities to improve their policy, academic and management practices.

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Rajasthan Technical University (RTU) is located in Kota in the state of Rajasthan. It was established in 2006 by the Government of Rajasthan. University currently affiliates about 123 Engineering Colleges, 48 Arch, 41 MCA Colleges, 81 MBA Colleges, 44 M.Tech. Colleges and 3 Hotel Management & Catering Institutes. The University aims to provide quality technical education which may help Rajasthan in its technical development and will boost technical environment in the country.

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

The National Society for Education Research and Development (NSERD) was set up and registered in the year 1999 in Jaipur with the major objective of providing quality education and research environment in Rajasthan. Keeping this objective in view the pioneers in the field of education inculcated JECRC Foundation in the year 2000. Encouraged by its splendid achievements and overwhelming public patronage.

The JECRC Foundation having 16 year of existence is among the most reputed educational groups in higher and technical Education in North India which has 2 large campuses with 10,000 students enrolled as on date in various courses alongside engineering courses, the major chunk of admissions being routed through JEE examinations. The engineering colleges are approved by the AICTE, New Delhi and are affiliated to the Rajasthan Technical University, Kota.

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

The department of Computer Science & Engineering was established in 2000. The department aims at developing the technical skills among students. To accomplish this, we organized many events like Hackathon, Ideathon, GIF expo, and many different seminars and workshops to enhance the skills and overall personality of students. To enhance the entrepreneurship skills and research areas, the department has established excellence in teaching and learning. The department not only focuses on technical skill but also provides them area of different educational opportunities.

NATURAL LANGUAGE PROCESSING WITH PYTHON

Natural Language Processing (NLP), the goal is to make computers understand the unstructured text and retrieve meaningful pieces of information from it. NLP is a subfield of artificial intelligence, in which its depth involves the interactions between computers and humans. It provides a practical introduction to programming for language processing. It guides the fundamentals of writing Python programs, working with corpora, categorizing text, analyzing linguistic structure, and more.

OBJECTIVE OF FDP

- The objective of the FDP is to provide hands on training in Natural Language Processing with Python. The topics were selected appropriately as per the RTU B.Tech. Curriculum. The FDP is targeted FOR faculty members, research scholars, industry persons and UG students.
- The FDP aim to provide an opportunity to enhance knowledge about the key concepts and latest advancements in field of Python. The participants will also be able to explore various opportunities and challenges in the field of python.

FACULTY DEVELOPMENT PROGRAM COMMITTEE

CHIEF PATRON

Prof. (Dr.) R. A. Gupta
Hon'ble Vice Chancellor, RTU Kota

PATRON

Mr. O. P. Agrawal
Chairman, JECRC Foundation

Mr. Amit Agrawal
Director, JECRC Foundation

Mr. Arpit Agrawal
Director, JECRC Foundation

CONVENOR

Prof. (Dr.) V. K. Chandna
Principal, JECRC Foundation

Dr. Sanjay Gaur
Professor & HoD, Computer Science & Engineering

RTU (ATU) TEQIP-III COORDINATOR

Prof. (Dr.) Dhirendra Mathur

RTU EVENT COORDINATOR

Dr. Seema Agrawal & Dr. Harish Sharma

RTU (ATU) TEQIP-III COMMITTEE

Dr. Harish Sharma (Nodal Officer)
Prof. D. K. Sambariya (Nodal Officer Procurement)
Dr. S. D. Purohit (Nodal Officer Finance)

Jaipur Engineering College & Research Centre
Department of Electronics & Communication Engineering

Date: 15.09.2020

From: ECE Dept.	To: Principal JECRC

NOTE SHEET

Subject: Approval for one week Workshop.

Department of Electronics & Communication Engineering wants to organize a week long TEQIP Sponsored Workshop on "*Recent Trends in Nanotechnology*" from 21st Sep, 2020 to 25th Sep, 2020 in the association with Rajasthan Technical University (RTU).

Topic: Recent Trends in Nanotechnology

Date: 21st Sep, 2020 - 25th Sep, 2020

Convener:

1) Dr. (Prof) Vinay Kumar Chandna, Principal JECRC
2) Dr. Sandeep Vyas, Program Coordinator ECE Dept. JECRC

Faculty Coordinator:

1) Ms Ritambhara, Assistant professor (ECE Dept.)
2) Ms.Yasusha Sharma, Assistant professor (ECE Dept.)

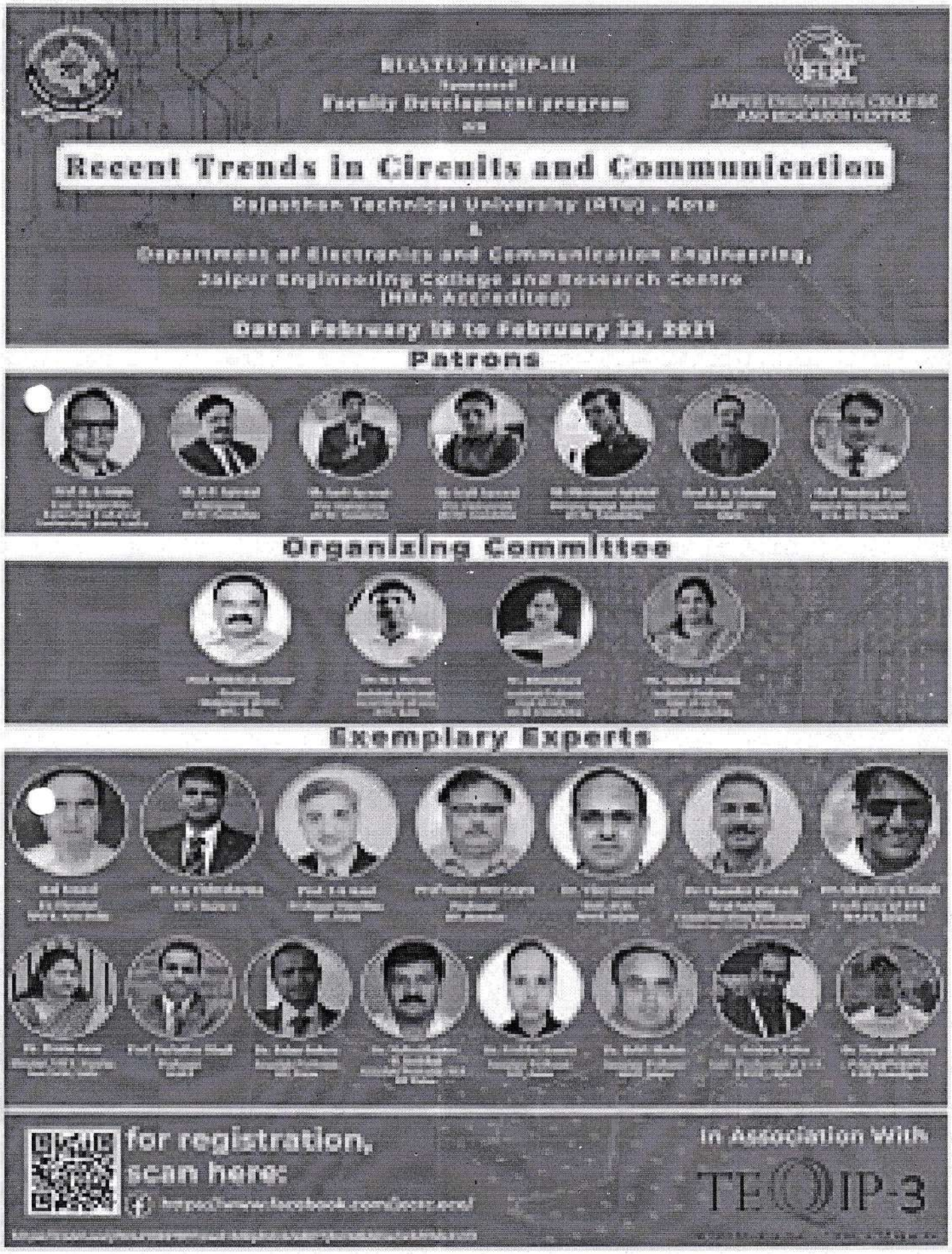
Annexure: TEQIP-3-RTU(ATU) Office Order

Submitted for your Kind Approval.

11/9
Dr. Sandeep Vyas
Program Coordinator ECE

Principal

IQAC


Faculty Development program
Recent Trends in Circuits and Communication
Rajasthan Technical University (RTU) , Kota
&
Department of Electronics and Communication Engineering,
Jaipur Engineering College and Research Centre
(NBA Accredited)
Patrons
Organising Committee
Exemplary Experts
for registration,
scan here:
In Association With
TEQIP-3

JAIPUR ENGINEERING COLLEGE
AND RESEARCH CENTRE

Ref. No. JECRC/2021/1413 Date: 04/March/2021

To,

The Director,
AICTE Training and Learning (ATAL) Academics,
All India Council for Technical Education, New Delhi.

Sub: Consent to organize online AICTE Training and Learning (ATAL) FDP at Jaipur Engineering College and Research Centre

Dear Sir,

I am pleased to consent to organize an **AICTE Training and Learning (ATAL) FDP** at our institute on **Productivity Enhancement through Meditation** from ***24/May/2021*** to ***28/May/2021***. The proposed FDP, if approved, will be coordinated by Dr. Vinita Mathur.

This is also confirmed that maximum 5 best proposals are being consented from this institute as maximum 5 proposals are allowed for a year.

Sincerely,

Prof. (Dr.) Vinay Kumar Chandna
PRINCIPAL

PRINCIPAL
Jaipur Engineering College &
Research Centre
Tonk Road, Jaipur-302022

DEPARTMENT OF INFORMATION TECHNOLOGY PRESENTS

ONE WEEK ONLINE WORKSHOP ON

(26th APRIL - 1st MAY)

DATA STRUCTURES AND COMPETITIVE PROGRAMMING

IN ASSOCIATION WITH GRRAS SOLUTIONS

SPEAKER

SACHIN YADAV

Data Scientist At
Grras Solutions, Jaipur

Get E-Certificates After Completion of Workshop

FACULTY COORDINATORS

MR. ROHIT CHABRA
MS. SHIKHA SRIVASTAVA

STUDENT COORDINATORS

MR. NIKHIL SONI (III YEAR)
MS. KHUSHBOO JAIN (III YEAR)

CYBER SECURITY

5 DAYS ONLINE WORKSHOP
(18 - 22 JUNE 2021)

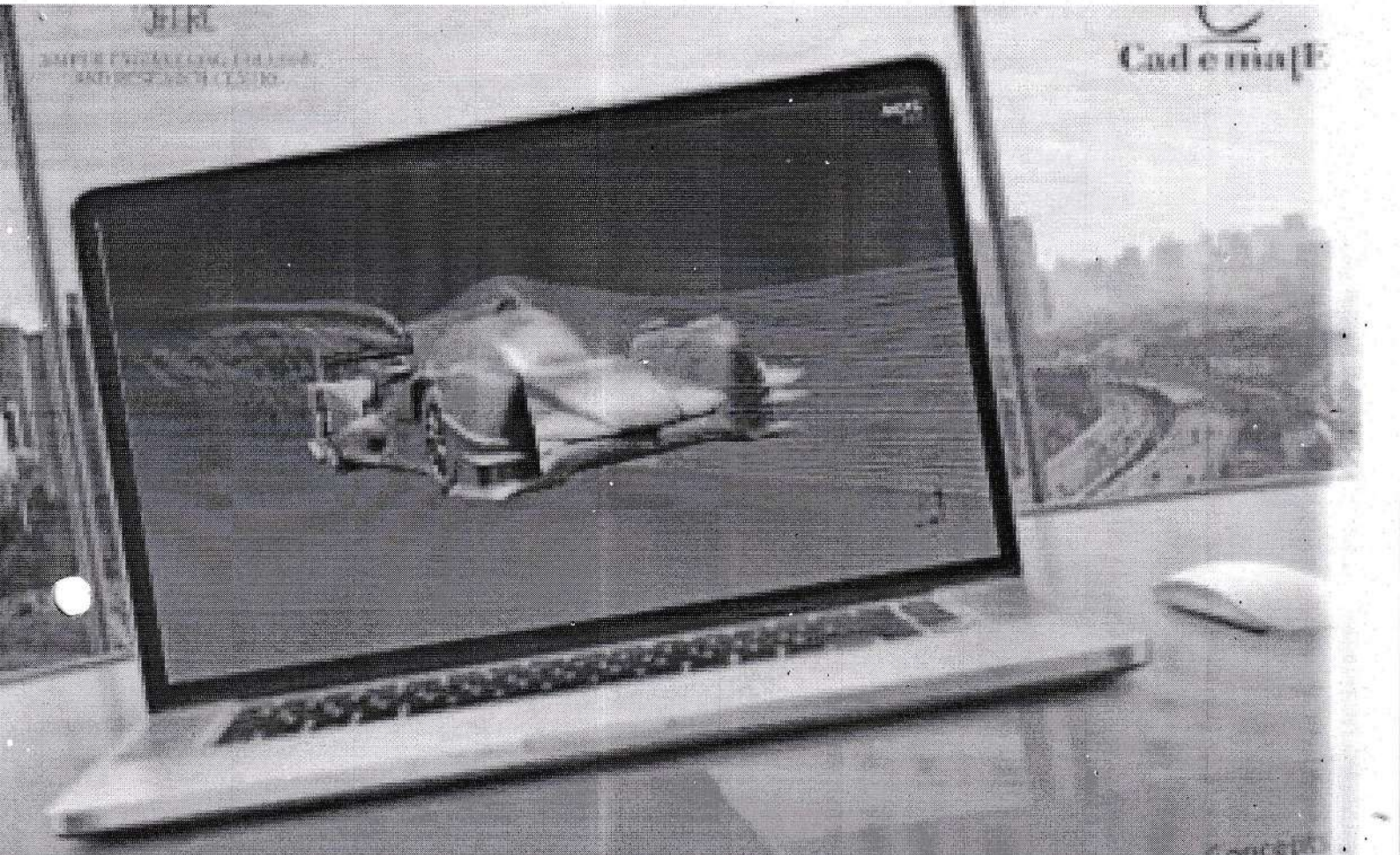
IN ASSOCIATION WITH ZEETRO NETWORKS

Mr. SIDDHARTH SHARMA
Security Engineer At
Zeetro Networks, Jaipur

Get E-Certificate After Completion of Workshop

FACULTY COORDINATORS

STUDENT COORDINATORS
Ms. Vedika Goyal (II Year)



ONLINE WORKSHOP ON ANSYS & SOLIDWORKS

[19 APR-24 APR 2021]

Aware about Design Concepts
Practical Work
CAD and CFD Modelling
Practical CFD oriented Projects
How to Master in CAD Skills
How to Master in CFD Skills
How to build Skills with studies

ORGANIZED BY :-

DEPARTMENT OF MECHANICAL ENGINEERING JECRC,JAIPUR

CADEMATE TRAINING & TECHNICAL SERVICES PRIVATE LIMITED, JAIPUR

(limited seats)

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Jaipur Engineering College and Research Centre

Shri Ram Ki Nangal, Via Sitapura RIICO, Opp. EPIP Gate,
Tonk Road, Jaipur-302 022
Ph. No.0141-2770232, 2770120
Fax No.0141-2770803

FDP/Workshop Attended by the Faculty

S. No	Type of FDP/Workshop/ STTP	No. of Days	No. of FDP/Workshop/ STTP	Points
1	FDP	1 Days	2	2*1 = 2
2	FDP	2-4 Days	21	21*2 = 42
3	FDP	5 Days or Above	161	161*5 = 805
4	Workshop	1 Days	2	2*1 = 2
5	Workshop	2-4 Days	2	2*2 = 4
6	Workshop	5 Days or Above	9	9*5 = 45
7	STTP	5 Days or Above	6	6*5 = 30
Total			203	930

Link for all proofs of FDP/Workshop Attended by the Faculty

https://jecrcfoundation.com/jf-data/qiv/fdp/workshops-attendend-by-faculty.pdf

Points 40

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QIV

Session 2021-2022 (RTU)

Jaipur Engineering College and Research Centre, Jaipur

FDPAttended by the Faculty Members (Point No. 21)

S.No	Name of Faculty	Department	Type Workshop/ FDPs	Type 1-Days Workshop 2-4 Days Workshop 5 Days Workshop One Week or Above	Title	Organizer	Sponsered agency	Date	Year
1	Neha agrawal	EE	FDP	1 Day	How to Reform & Retool During the Pandemic	JECRC		7-May-21	2021
2	Gopal Tiwari	EE	FDP	1 Day	Certificate of FDP On "How to Reform & Retool During the Pandemic	JECRC		07 May, 2021.	2021
3	Manoj Pathak	Physics	FDP	2 Days	"Recent Trends in Material Science and Engineering (RTMSE-2020)"	Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur	RTU	20/8/2020 to 21/8/2020	2020
4	Dr. Rajkumar	Physics	FDP	2 Days	"Recent Trends in Material Science and Engineering (RTMSE-2020)"	Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur	RTU	20/8/2020 to 21/8/2020	2020
5	Dr.Sudhir Kumar Dixit	Physics	FDP	2 Days	"Recent Trends in Material Science and Engineering (RTMSE-2020)"	Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur	RTU	20/8/2020 to 21/8/2020	2020
6	Vipra Bohara	ECE	FDP	2 days	Supply Chain Management and Essence of Vendor Developtment	RTU Kota & SMCET	TEQIP-III	6-7 Feb 2021	2021
7	Priya Gupta	Information Technology	FDP	2 days	Trends and Application in Machine Learning and Deep Learning	PCE Jaipur	RTU Kota	4/9/2020 to 5/9/2020	2020
8	Mohd. Rizwan Khan	Information Technology	FDP	2 days	Management Capacity Building	Jaipur Institute Of Technology	RTU Kota	23rd Feb to 24th Feb,2021	2021
9	Mr Tej Bahadur Singh	Mechanical	FDP	2 Days	Recent advances in Renewable energytechnologies for Sustainablr Development	Jaipur Engineering College	RTU,KOTA	21/08/2020-22/08/2020	2020

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10	Neha agrawal	EE	FDP	3 DAY	Perspectives on the past,present and future of advance materials	Tontadarva college of engineering gadag,karnataka		26.08.2020 to 28.08.2020	2020
11	Ritu Soni	EE	FDP	3 days	Artificial intelligence and machine learning using python	RTU Kota & Anand international college and engg.		10/09/2020 - 12/09/2020	2020
12	Kanishk Jain	CSE	FDP	3 Days	Artificial Intelligence and Machine Learning using Python	Anand International College of Engineering	RTU TEQIP-III	10/09/2020 to 12/09/2020	2020
13	Anoop Kumar Mehta	CSE	FDP	3 Days	Outcome Based Education	JECRC,Jaipur	Inpods India Pvt. Ltd	19/8/2020 to 21/8/2020	2020
14	Abhishek Dixit	CSE	FDP	3 Days	Outcome Based Education	JECRC,Jaipur	Inpods India Pvt. Ltd	19/8/2020 to 21/8/2020	2020
15	Ms Garima Garg	CSE	FDP	3 Days	Outcomes Based Education	JECRC, Jaipur	Inpods India Pvt. Ltd	19/8/2020 to 21/8/2020	2020
16	Ms.Kusum Yadav	Information Technology	FDP	3 Days	"ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING USING PYTHON"	Anand International College of Engineering,Jaipur	RTU (ATU) TEQIP-III	10th – 12th Sept. 2020.	2020
17	Mr.Piyush Gautam	Information Technology	FDP	3 Days	"ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING USING PYTHON"	Anand International College of Engineering,Jaipur	RTU (ATU) TEQIP-III	10th – 12th Sept. 2020.	2020
18	Jay Shankar Sharma	Information Technology	FDP	3 Days	"ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING USING PYTHON"	Anand International College of Engineering,Jaipur	RTU (ATU) TEQIP-III	10th – 12th Sept. 2020.	2020
19	Dr M P Singh	Mechanical	FDP	3 Days	E-Vehicle in India	SKIT,Jaipur	TEQIP-III	02/09/2020-04/09-2020	2020
20	Mr Tej Bahadur Singh	Mechanical	FDP	3 Days	Research Areas in Energy Audit and conservation	Vellore Institute of Tecnology,Chennai	IAEMP	24/08/2020-26/08/2020	2020
21	Ankur Gangwar	ECE	FDP	3 days	Emerging Trends in Organic Electronics	SKIT, Jaipur	RTU TEQIP-III	27/7/20 to 29/7/20	2020
22	Dr A S Shekhawat	Mathematics	FDP international	3 days	Research methodology and scientific tools	BK Birla institute of engineering and technology	BIET , Pilani	13-15 April 2021	2021
23	Yazusha Sharma	ECE	FDP	4 days	Recent Trends in Circuit & Communication	JECRC, Jaipur	TEQIP-III	14-18 SEP 2020	2020

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24	Shweta Saxena	IT	FDP	5 Days	Online workshop on Universal Human Value on the theme"Inculcating Universal Human Values in Technical Education""	ALL INDIA COUNCIL FOR TECHNICAL EDUCATION	ALL INDIA COUNCIL FOR TECHNICAL EDUCATION	19/08/2020 to 23/08/2020	2020
25	Dr Sunil Kumar Srivastava	Mathema tics	FDP	5 Days	Entrepreneurship Development	yagyavalkya institute of technology	RTU	01-05 Feb 2021	2021
26	Dr Sunil Kumar Srivastava	Mathema tics	FDP	5 Days	computational modeling in mathematics	PCE Jaipur	RTU Kota	08-12 Feb 2021	2021
27	Dr. Barkha Shrivastava	Chemsitr y	FDP	5 days	Universal Human Value	ALL INDIA COUNCIL FOR TECHNICAL EDUCATION	AICTE	10-14th Aug., 2020	2020
28	Ms. Rekha Vijay	Chemsitr y	FDP	5 days	Universal Human Value	ALL INDIA COUNCIL FOR TECHNICAL EDUCATION	AICTE	10-14th Aug., 2020	2020
29	Dr. Ruchi Mathur	Mathema tics	FDP	5 days	Universal Human Value	ALL INDIA COUNCIL FOR TECHNICAL EDUCATION	AICTE	10-14th Aug., 2020	2020
30	Dr Sarita Poonia	Mathema tics	FDP	5 days	UHV	VIT	RTU Kota	22 to 26 Dec 2020	2020
31	Dr TRIPATI GUPTA	Mathema tics	FDP	5 Days	"Inculcating Universal Human Values in Technical Education"	AICTE	AICTE	28/09/2020-2/10/2020	2020
32	Dr.Umesh Kumar Pareek	Mathema tics	FDP	5 Days	"Inculcating Universal Human Values in Technical Education"	AICTE	AICTE	12/10/2020-16/10/2020	2020
33	Dr.Umesh Kumar Pareek	Mathema tics	FDP	5 Days	Online Orientation Training Programme for Mentors	AICTE	AICTE	29/06/2020-04/07/2020	2020
34	Dr Sunil Kumar Srivastava	Mathema tics	FDP	5 days	Design of experiments using taguchi technique	regional college for engineering and technology	RTU KOTA	26-30 Jan 2021	2021
35	Dr Sunil Kumar Srivastava	Mathema tics	FDP	5 days	MATLAB for engineering and scientific computation s	BK Birla institute of engineering and technology	RTU Kota	22-26 Feb 2021	2021
36	Dr Sunil Kumar Srivastava	Mathema tics	FDP	5 days	quantum computing	JECRC	RTU	02-06 March 2021	2021
37	Dr.Vishal Saxena	Mathema tics	FDP	5 Days	Applications of Optimization Techniques in science and Engineering	BK Birla institute of engineering and technology	RTU Kota	23-27 Aug.2021	2021
38	Dr.Vishal Saxena	Mathema tics	FDP	5 Days	Entrepreneurship Development	Yagyavalkya institute of technology	RTU	01-05 Feb 2021	2021

39	Dr.Vishal Saxena	Mathematics	FDP	5 Days	"Emerging Trends in Nanotechnology(ETNT-2020)"	Jaipur Engineering College & Research Centre	RTU	21/9/2020 to 25/9/2020	2020
40	Dr.Vishal Saxena	Mathematics	FDP	5 Days	Technology and innovation in math Education	Anand International College of Engineering,Jaipur	RTU	14/9/2020 to 18/9/2020	2020
41	Dr.Vishal Saxena	Mathematics	FDP	5 Days	Applications of Mathematical Sciences in Engineering and technology	Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur	RTU	23/9/2020 to 27/9/2020	2020
42	Dr. Ram Kishan Mangal	Physics	FDP	5 Days	Incorporating Universal Human Values in Technical Education	ALL INDIA COUNCIL FOR TECHNICAL EDUCATION	AICTE	24-28May 2021	2021
43	Sonali Chadha	EE	FDP	5 DAYS	UHV	AICTE	AICTE, New Delhi	22-12-20-26-12-20	2020
44	Sonali Chadha	EE	FDP	5 DAYS	Demystifying electric vehicle	Manipal University,jaipur		14-18 Sept 20	2020
45	Sonali Chadha	EE	FDP	5 DAYS	IPR and need for collaborative research to deal with pandemic	MNIT	MNIT Jaipur	13-17 JULY 20	2020
46	Shailendra Shrivastava	EE	FDP	5 DAYS	"Recent Trends in Circuits and Communication (RTCC)"	ECE Department		19.02.2021 to 23.02.2021	2021
47	Shailendra Shrivastava	EE	FDP	5 DAYS	"Green Energy:The Energy of Future (GEEF-2020)"	SKIT,Jaipur		07.09.2020 to 11.09.2020	2020
48	Gopal Tiwari	EE	FDP	5 DAYS	"Data Sciences"	ATAL	ATAL, AICTE	2020-8-24 to 2020-8-28	2020
49	Gopal Tiwari	EE	FDP	5 DAYS	UHV	AICTE	AICTE, New Delhi	23-27, July 2020	2020
50	Dr Prerak Bhardwaj	EE	FDP	5 DAYS	IPR and Need for Collaborative Research to deal with Pandemics like Covid-19	MNIT Jaipur	MNIT Jaipur	13th Jul – 17th Jul 2020	2020
51	Dr Prerak Bhardwaj	EE	FDP	5 DAYS	Real Time Applications of Opal-RT for power Electronics, Smart Grid and Microgrid	VIT Chennai		03rd Aug –07th Aug 2020	2020
52	Dr Prerak Bhardwaj	EE	FDP	5 DAYS	Energy Engineering	ATAL Academy	ATAL, AICTE	05th Feb – 09th Feb 2021	2021

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53	Neha agrawal	EE	FDP	5 DAYS	IPR and need for collaborative research to deal with pandemic	MNIT		13-17 july 20	2020
54	Neha agrawal	EE	FDP	5 DAYS	A One Week National Level Faculty Development Programme on Current Research Trends in Power Systems and Power Electronics	VIGNAN'S NIRULA		20th – 25th July 2020.	2020
55	Neha agrawal	EE	FDP	5 DAYS	Inculcating Universal Human Values in Technical Education	ALL INDIA COUNCIL FOR TECHNICAL EDUCATION	AICTE, New Delhi	28 July – 1 August, 2020	2020
56	Neha agrawal	EE	FDP	5 DAYS	Technolgy and innovation in math education	ANAND INTERNATIONAL COLLAGE OF ENGINEERING	TEQIP -3	14-18 sept.2020	2020
57	Neha agrawal	EE	FDP	5 DAYS	Android Application Development	"Vivekananda Institute of Technology, Jaipur	TEQIP -3	17/12/2020 to 21/12/2020	2020
58	Neha agrawal	EE	FDP	5 DAYS	Advancements in Green and Sustainable Energy	"Vivekananda Institute of Technology, Jaipur	TEQIP -3	26/12/2020 to 30/12/2020	2020
59	Vishal Sharma	EE	FDP	5 DAYS	"Energy Storage"	KALLAM HARANADHAREDDY INSTITUTE OF TECHNOLOGY.		7/9/2020-11/9/2020	2020
60	Vishal Sharma	EE	FDP	5 DAYS	"Recent Advances in Material Science and Research Ethics"	Madan Mohan Malaviya University of Technology Gorakhpur		21/9/2020-25/9/2020	2020
61	Ritu Soni	EE	FDP	5 DAYS	Recent trends in circuits and communication (RTCC)	Department of ECE, JECRC Jaipur jointly organised by RTU Kota		19/02/2021 - 23/02/2021	2021
62	Sunil Kumar Sharma	EE	FDP	5 DAYS	UHV	MHRD and AICTE		12/10/20 - 16/10/20	2020
63	L.Senthil	EE	FDP	5 DAYS	Deep Learning	LnB Powered by Techienest Pvt Ltd		17-21 jan 2021	2021
64	Ms Chitra Khandelwal	Spiritual Research Cell	FDP	5 Days	Incorporating Universal Human Values in Technical Education	AICTE	AICTE	23/07/2020-27/07/2020	2020
65	Richa Sharma	CSE	FDP	5 Days	Artificial Intelligence	IMCC	ATAL Academy	2/11/2020-6/11/2020	2020

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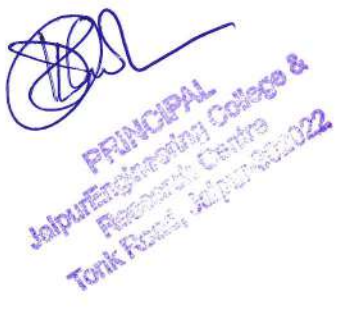
66	Manju Vyas	CSE	FDP	5 days	Statistical Learning-Based Internet of Things	Anand International College of Engineering, Jaipur	RTU TEQIP-II	10/3/2021-14/03/2021	2021
67	Anima Sharma	CSE	FDP	5 Days	Artificial Intelligence	IMCC	ATAL Academy	2/11/2020-6/11/2020	2020
68	Mr. Rajan Kumar Jha	CSE	FDP	5 Days	Quantum Computing	JECRC, Jaipur	RTU TEQIP-III	2nd March-6th March 2021	2021
69	Tanya Shruti	CSE	FDP	5 Days	Quantum Computing	JECRC, Jaipur	RTU TEQIP-III	2nd March-6th March 2021	2021
70	Abhishek Jain	CSE	FDP	5 Days	UNIVERSAL HUMAN VALUES	NIT Patna	NIT Patna	23rd to 27th November, 2020	2020
71	B.Umamaheswari	CSE	FDP	5 Days	Quantum Computing	JECRC, Jaipur	RTU TEQIP-III	2nd March-6th March 2021	2021
72	Neha Solanki	CSE	FDP	5 Days	Quantum Computing	JECRC, Jaipur	RTU TEQIP-III	2nd March-6th March 2021	2021
73	Dr. Nilam Choudhary	CSE	FDP	5 days	Universal Human Values	AICTE		8-12 Feb. 2021	2021
74	Sachin Gupta	CSE	FDP	5 Days	Cyber Security and Cyber Forensics	Poornima College of Engineering	RTU TEQIP-III	1. 21/09/2020 to 25/09/2020	2020
75	Ashish Ameria	CSE	FDP	5 Days	Data Analytic Techniques for Research & Innovation & their Advancements	VIT,Jaipur	RTU TEQIP-III	29/08/2020 to 2/09/2020	2020
76	Geerija lavania	CSE	FDP	5 Days	Recent Advancement in Machine Learning and Artificial Intelligence	Poornima College of Engineering, Jaipur	TEQIP-III sponsored RTU	16th to 21st March, 2021	2021
77	Pradeep Kr. Sharma	CSE	FDP	5 Days	DATA ANALYTIC TECHNIQUES FOR RESEARCH & INNOVATION & THEIR ADVANCEMENTS	VIVEKANANDA INSTITUTE OF TECHNOLOGY, JAIPUR	TEQIP-III FDP RTU	29/08/2020 to02/09/2020	2020
78	Suniti Chouhan	CSE	FDP	5 Days	Quantum Computing	JECRC, Jaipur	RTU TEQIP-III	2nd March-6th March 2021	2021
79	Mr Amit Mithal	CSE	FDP	5 Days	Quantum Computing	RTU, Kota and JECRC, Jaipur	TEQIP-III	02/03/2021 to 06/03/2021	2021



80	Mr Neeraj Prakash Shrivastava	CSE	FDP	5 Days	Quantum Computing	JECRC, Jaipur	RTU TEQIP-III	2nd March-6th March 2021	2021
81	Ms Priyanka Mitra	CSE	FDP	5 Days	Quantum Computing	JECRC, Jaipur	RTU TEQIP-III	2nd March-6th March 2021	2021
82	Sweety Singhal	CSE	FDP	5 Days	Quantum Computing	JECRC, Jaipur	RTU TEQIP-III	2nd March-6th March 2021	2021
83	Ms. Priya Jyotiyana	CSE	FDP	5 Days	Quantum Computing	JECRC,Jaipur	RTU TEQIP-III	02/03/2021 to 06/03/2021	2021
84	Ms.Punita Panwar	CSE	FDP	5 Days	Quantum Computing	JECRC,Jaipur	RTU TEQIP-III	02/03/2021 to 06/03/2021	2021
85	Abhilasha	CSE	FDP	5 Days	Recent Advancement in Machine Learning and Artificial Intelligence	Poornima College of Engineering, Jaipur	TEQIP-III sponsored RTU	16th to 21st March, 2021	2021
86	Mr. Krishan Kumar Saini	Civil Engineering	FDP	5 Days	HPC Applications in CAE for Multi-Disciplinary Design Optimization	Indian Institute of Technology, Kharagpur	AICTE, New Delhi	08 - 12 Feb 2021	2021
87	Mr. Indrajeet Panchariya	Civil Engineering	FDP	5 Days	Universal Human Value	ALL INDIA COUNCIL FOR TECHNICAL EDUCATION	ALL INDIA COUNCIL FOR TECHNICAL EDUCATION	10 - 14 May 2021	2021
88	Mr. Sumit Saini	Civil Engineering	FDP	5 Days	Universal Human Value	ALL INDIA COUNCIL FOR TECHNICAL EDUCATION	ALL INDIA COUNCIL FOR TECHNICAL EDUCATION	10 - 14 May 2021	2021
89	Mr. Narendra Sipani	Civil Engineering	FDP	5 Days	Universal Human Value	ALL INDIA COUNCIL FOR TECHNICAL EDUCATION	ALL INDIA COUNCIL FOR TECHNICAL EDUCATION	03 - 07 May 2021	2021
90	Mr. Abhinav Agarwal	Civil Engineering	FDP	5 Days	Universal Human Value	ALL INDIA COUNCIL FOR TECHNICAL EDUCATION	ALL INDIA COUNCIL FOR TECHNICAL EDUCATION	19 - 23 April 2021	2021
91	Ms. Swarnima	Civil Engineering	FDP	5 Days	Universal Human Value	ALL INDIA COUNCIL FOR TECHNICAL EDUCATION	ALL INDIA COUNCIL FOR TECHNICAL EDUCATION	19 - 23 April 2021	2021
92	Ashish Kulshrestha	ECE	FDP	5 Days	Exposure & Rejuvenation of Technologies in changed Era of the World	RKGIT, Gaziabad		6-10 July	2020

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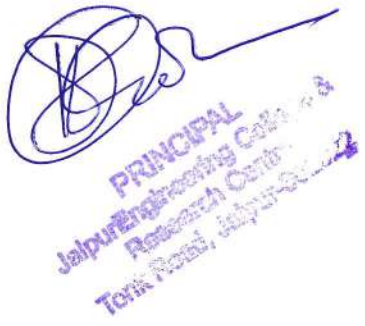
93	Mangilal	ECE	FDP	5 Days	Recent Trends in Circuits and Communication	JECRC	RTU, Kota	19-23 Feb	2021
94	Deepak Sankhala	ECE	FDP	5 Days	"Embedded Systems and IoT (ESI-2020) "	Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur	RTU, Kota	4/08/2020 to 08/08/2020	2020
95	Dr. Parul Tyagi	ECE	FDP	5 Days	Productivity Enhancement through Meditation	JECRC, JAIPUR	ATAL ,AICTE	24-28 May	2021
96	Dr. Jaiverdhan	ECE	FDP	5 Days	Recent Trends in Circuits and Communication	RTU and JECRC Jaipur	TEQIP-III	19-23 Feb	2021
97	Dr. Vinita Mathur	ECE	FDP	5 Days	Productivity Enhancement through Meditation	JECRC, JAIPUR	ATAL ,AICTE	24-28 May	2021
98	Dr. Girraj Sharma	ECE	FDP	5 Days	Inculcating Universal Human Values in technical Education	AICTE	AICTE	12-16 Oct. 2020	2020
99	Rakesh Kardam	ECE	FDP	5 Days	"Emerging Trends in Nanotechnology (ETNT-2020)"	RTU and JECRC Jaipur	TEQIP-III	21-25, September	2020
100	Dr. Sandeep Vyas	ECE	FDP	5 Days	Productivity Enhancement through Meditation	JECRC, JAIPUR	ATAL ,AICTE	24-28 May	2021
101	Jai Prakash Mishra	ECE	FDP	5 Days	Online FDP on "Internet of Things (IoT)	SRI RAMAKRISHNA MISSION VIDYALAYA COLLEGE OF ARTS AND SCIENCE	ATAL ,AICTE	2-6 Nov 2020	2020
102	Nishi	ECE	FDP	5 Days	Character building through moral values and ethics	S.S.Jain Subodh PG College,Jaipur		6-10 april	2021
103	Ritu Vyas	ECE	FDP	5 Days	"Emerging Trends in Nanotechnology (ETNT-2020)"	RTU and JECRC Jaipur	TEQIP-III	21-25, September	2020
04	Priya Gupta	IT	FDP	5 Days	Employability Skills for Engineering Graduates	Jaipur Institute Of Technology	RTU Kota	7/9/2020 to 11/9/2020	2020
105	Priya Gupta	IT	FDP	5 Days	Natural Language Processing using Python	JECRC	RTU Kota	1/9/2020 to 5/9/2020	2020
106	Priya Gupta	IT	FDP	5 Days	Quantum computing	JECRC	RTU Kota	2/3/2021 to 6/3/2021	2021
107	Mohd. Rizwan Khan	IT	FDP	5 days	Employability Skills for Engineering Graduates	Jaipur Institute Of Technology	RTU Kota	7/9/2020 to 11/9/2020	2020
108	Mohd. Rizwan Khan	IT	FDP	5 days	Machine Learning and its Significance	Jaipur Institute Of Technology	RTU Kota	27/01/2021 to 31/01/2021	2021

109	Mohd. Rizwan Khan	IT	FDP	5 Days	Quantum computing	JECRC	RTU Kota	2/3/2021 to 6/3/2021	2021
110	Ms.Kusum Yadav	IT	FDP	5 Days	Quantum Computing	JECRC,JAIPUR	TEQIP-III RTU, Kota	2/3/2021 to 6/3/2021	2021
111	Ms.Kusum Yadav	IT	FDP	5 Days	Natural Language Processing using Python	JECRC,JAIPUR	TEQIP-III RTU, Kota	1/9/2020 to 5/9/2020	2020
112	Ms.Kusum Yadav	IT	FDP	5 Days	Online workshop on Universal Human Value on the theme"Inculcating Universal Human Values in Technical Education""	ALL INDIA COUNCIL FOR TECHNICAL EDUCATION	ALL INDIA COUNCIL FOR TECHNICAL EDUCATION	05/08/2020 to 09/08/2020	2020
113	Ms.Kusum Yadav	IT	FDP	5 Days	Matlabs and its application	Shree Digamber Institute of Technology, Dausa (Raj.)	TEQIP-III RTU, Kota	22/02/2021 to 26/02/2021	2021
114	Ms.Kusum Yadav	IT	FDP	5 Days	Five Days Online FDP on "Statistical Learning-Based Internet of Things (IoT)"	Anand International College of Engineering,Jaipur	RTU (ATU) TEQIP-III	10th-14th March, 2021	2021
115	Ms.Kusum Yadav	IT	FDP	5 Days	"Recent Trends in Circuits and Communication (RTCC)"	JECRC,JAIPUR	TEQIP-III RTU, Kota	February 19-23, 2021	2021
116	Mr.Piyush Gautam	IT	FDP	5 Days	Quantum Computing	Jaipur Engineering College & Research Centre	TEQIP-III RTU, Kota	2/3/2021 to 6/3/2021	2021
117	Mr.Piyush Gautam	IT	FDP	5 Days	Natural Language Processing using Python	JECRC,JAIPUR	TEQIP-III RTU, Kota	1/9/2020 to 5/9/2020	2020
18	Mr.Piyush Gautam	IT	FDP	5 Days	Five Days Online FDP on "Statistical Learning-Based Internet of Things (IoT)"	Anand International College of Engineering,Jaipur	RTU (ATU) TEQIP-III	10th-14th March, 2021	2021
119	Mr.Piyush Gautam	IT	FDP	5 Days	Five Days Online FDP on "Software Testing"	Anand International College of Engineering,Jaipur	RTU (ATU) TEQIP-III	01/02/2021 to 5/02/2021	2021
120	Ms.Shikha Shrivastava	IT	FDP	5 Days	Quantum Computing	JECRC, JAIPUR	TEQIP-III RTU, Kota	2/3/2021 to 6/3/2021	2021



121	Ms.Shikha Shrivastava	IT	FDP	5 Days	Online workshop on Universal Human Value on the theme"Inculcating Universal Human Values in Technical Education""	ALL INDIA COUNCIL FOR TECHNICAL EDUCATION	ALL INDIA COUNCIL FOR TECHNICAL EDUCATION	09/07/2020 to 13/07/2020	2020
122	Ms.Shikha Shrivastava	IT	FDP	5 Days	Five Days Online FDP on "Statistical Learning-Based Internet of Things (IoT)"	Anand International College of Engineering,Jaipur	RTU (ATU) TEQIP-III	10th-14th March, 2021	2021
123	Ms.Shikha Shrivastava	IT	FDP	5 Days	Five Days Online FDP on "Software Testing"	Anand International College of Engineering,Jaipur	RTU (ATU) TEQIP-III	01/02/2021 to 5/02/2021	2021
124	Dr. Mithlesh Arya	IT	FDP	5 Days	Quantum Computing	JECRC, Jaipur	RTU Kota	2/3/2021 to 6/3/2021	2021
125	Deepika Bansal	IT	FDP	5 Days	Quantum computing	JECRC	RTU Kota	2/3/2021 to 6/3/2021	2021
126	Deepika Bansal	IT	FDP	5 days	Employability Skills for Engineering Graduates	Jaipur Institute Of Technology	RTU Kota	7/9/2020 to 11/9/2020	2020
127	Deepika Bansal	IT	FDP	5 days	Statical Learning based IoT	Anand College of Engineering Jaipur	RTU(ATU)TEQIP-III	10/3/21 to 14/3/21	2021
128	Deepika Bansal	IT	FDP	5 days	IoT based smart manufacturing in 2030	JIET, Jodhpur	RTU Kota	18/1/21 to 22/1/21	2021
129	Preeti Sharma	IT	FDP	5 Days	Quantum computing	JECRC	RTU Kota	2/3/2021 to 6/3/2021	2021
130	Rohit Chhabra	IT	FDP	5 Days	Quantum computing	JECRC	RTU Kota	2/3/2021 to 6/3/2021	2021
131	Shweta Saxena	IT	FDP	5 Days	Quantum computing	JECRC	RTU Kota	2/3/2021 to 6/3/2021	2021
132	Shweta Saxena	IT	FDP	5 days	Employability Skills for Engineering Graduates	Jaipur Institute Of Technology	RTU Kota	7/9/2020 to 11/9/2020	2020
133	Jay Shankar Sharma	IT	FDP	5 Days	Quantum Computing	Jaipur Engineering College & Research Centre	TEQIP-III RTU, Kota	2/3/2021 to 6/3/2021	2021
134	Jay Shankar Sharma	IT	FDP	5 Days	Matlabs and its application	Shree Digamber Institute of Technology, Dausa (Raj.)	TEQIP-III RTU, Kota	22/02/2021 to 26/02/2021	2021

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135	Jay Shankar Sharma	IT	FDP	5 Days	Five Days Online FDP on "Statistical Learning-Based Internet of Things (IoT)"	Anand International College of Engineering,Jaipur	RTU (ATU) TEQIP-III	10th-14th March, 2021	2021
136	Jay Shankar Sharma	IT	FDP	5 Days	"Recent Trends in Circuits and Communication (RTCC)"	JECRC,JAIPUR	TEQIP-III RTU, Kota	February 19-23, 2021	2021
137	Jay Shankar Sharma	IT	FDP	5 Days	Five Days Online FDP on "Software Testing"	Anand International College of Engineering,Jaipur	RTU (ATU) TEQIP-III	1/02/2020 - 5/2/2020	2021
138	Jay Shankar Sharma	IT	FDP	5 Days	Five Days Online FDP on "Salesforce Trailhead"	Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur	RTU (ATU) TEQIP-III	16/09/2020 to 20/09/2020	2020
139	Mr Tej Bahadur Singh	ME	FDP	5 Days	Universal Human Value	AICTE	AICTE	12/10/2020-16/10/2020	2020
140	Dr.Bhuvnesh Bhardwaj	ME	FDP	5 Days	"Inculcating Universal Human Values in Technical Education"	AICTE	AICTE	12/10/2020-16/10/2020	2020
141	Mr.Kuldeep Sharma	ME	FDP	5 Days	"Inculcating Universal Human Values in Technical Education"	AICTE	AICTE	12/10/2020-16/10/2020	2020
142	Dr. Fauzia Siddiqui	ME	FDP	5 Days	"Inculcating Universal Human Values in Technical Education"	AICTE	AICTE	12/10/2020-16/10/2020	2020
143	Dr. Rishi Pareek	ME	FDP	5 Days	"Inculcating Universal Human Values in Technical Education"	AICTE	AICTE	5/08/2020-9/08/2020	2020
144	Dr. Man Mohan Siddh	ME	FDP	5 Days	"Inculcating Universal Human Values in Technical Education"	AICTE	AICTE	9/07/2020-13/07/2020	2020
145	Mr Lalit Kr.Sharma	ME	FDP	5 Days	"Inculcating Universal Human Values in Technical Education"	AICTE	AICTE	23/07/2020-27/07/2020	2020
146	Mr Rajendra Kr.Gupta	ME	FDP	5 Days	"Inculcating Universal Human Values in Technical Education"	AICTE	AICTE	28/09/2020-2/10/2020	2020
147	Mr Aashish Nagpal	ME	FDP	5 Days	"Inculcating Universal Human Values in Technical Education"	AICTE	AICTE	28/09/2020-2/10/2020	2020
148	Mr Dayal Singh Rathore	ME	FDP	5 Days	"Inculcating Universal Human Values in Technical Education"	AICTE	AICTE	23/07/2020-27/07/2020	2020
149	Mr Hukam Chand	ME	FDP	5 Days	"Inculcating Universal Human Values in Technical Education"	AICTE	AICTE	28/09/2020-2/10/2020	2020
150	Mr Akhil Vijay	ME	FDP	5 Days	"Inculcating Universal Human Values in Technical Education"	AICTE	AICTE	12/10/2020-16/10/2020	2020

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151	Mr Dilip Kumar Prajapati	ME	FDP	5 Days	"Inculcating Universal Human Values in Technical Education"	AICTE	AICTE	5/08/2020-9/08/2020	2020
152	Mr Ravi Yadav	ME	FDP	5 Days	"Inculcating Universal Human Values in Technical Education"	AICTE	AICTE	12/10/2020-16/10/2020	2020
153	Mr Abhishek Kumar	ME	FDP	5 Days	"Inculcating Universal Human Values in Technical Education"	AICTE	AICTE	12/10/2020-16/10/2020	2020
154	Mr Nitin Chhabra	ME	FDP	5 Days	"Inculcating Universal Human Values in Technical Education"	AICTE	AICTE	5/08/2020-9/08/2020	2020
155	Mr Jitendra Kr.Gupta	ME	FDP	5 Days	"Inculcating Universal Human Values in Technical Education"	AICTE	AICTE	28/09/2020-2/10/2020	2020
156	Mr Satyendra Kumar	ME	FDP	5 Days	"Inculcating Universal Human Values in Technical Education"	AICTE	AICTE	12/10/2020-16/10/2020	2020
157	Mr Satya Prakash Saini	ME	FDP	5 Days	"Inculcating Universal Human Values in Technical Education"	AICTE	AICTE	23/07/2020-27/07/2020	2020
158	Mr Shrikant Bansal	ME	FDP	5 Days	"Inculcating Universal Human Values in Technical Education"	AICTE	AICTE	12/10/2020-16/10/2020	2020
159	Mr Hemant Bansal	ME	FDP	5 Days	"Inculcating Universal Human Values in Technical Education"	AICTE	AICTE	12/10/2020-16/10/2020	2020
160	Mr Akhilesh Paliwal	ME	FDP	5 Days	"Inculcating Universal Human Values in Technical Education"	AICTE	AICTE	23/07/2020-27/07/2020	2020
161	Ms. Palak Jindal	ME	FDP	5 Days	"Inculcating Universal Human Values in Technical Education"	AICTE	AICTE	12/10/2020-16/10/2020	2020
162	Mr Yogesh dubey	ME	FDP	5 Days	"Inculcating Universal Human Values in Technical Education"	AICTE	AICTE	12/10/2020-16/10/2020	2020
163	Lokesh Sharma.	ECE	FDP	5 days.	Universal Human Value on the theme of "including universal human value in technical education	AICTE	AICTE	12 -16 Oct.	2020
164	Sudarshan Kumar Jain	ECE	FDP	5 days.	Productivity Enhancement through Meditation	JECRC, JAIPUR	ATAL ,AICTE	24-28 May	2021
165	Mr Tej Bahadur Singh	ME	FDP	5Days	Advanced Optimization Techniques for research Problem Solveing	Mahatama Gandhi Institute of technology, Telangana	Mahatama Gandhi Institute of technology,Telangana	04/08/2020-08/08/2020	2020
166	Dr. Vijeta Kumawat	CSE	FDP	6 Days	Quantum Computing	JECRC, Jaipur	RTU TEQIP-III	2nd March-6th March 2022	2021
167	Ms. Pratibha	CSE	FDP	6 Days	Machine Learning & Data Science	Arya Institute of Engineering and Technology, Jaipur	RTU TEQIP-III	14/12/2020 to 18/12/2020	2020

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168	Dr M P Singh	ME	FDP	6 Days	Electric Research Trends in Manufacturing	PCE,Jaipur	AICTE-AQIS	15-03/2021-20/05/2021	2021
169	Sonali Chadha	EE	FDP	Above one week	Research current trends in power systems	Vignana Nirula institute of tech and science for wome,ap		20-25 Jul20	2020
170	Neha agrawal	EE	FDP	Above one week	ICT Tools for Teaching, Learning Process and Institute	MNIT	MNIT Jaipur	10th - 21st August, 2020	2020
171	Neha agrawal	EE	FDP	Above one week	Python Programming	MNIT	MNIT Jaipur	7-18 sept 2020	2020
172	Dr A S Shekhawat	Mathematics	FDP	Above one week	Entrepreneurship	TMU Moradabad	DST, Government of India, New Delhi	28 April to 08 may 2021	2021
173	Dr Santosh Kumar Singh	ECE	FDP	Above one week	Data Science	E&ICT Academy, IIT Kanpur	E&ICT Academy, IIT Kanpur	15-27 Feb 2021	2021
174	Mr. Yogesh Kumar Agarwal	CE	FDP	Above one week	The Challenges in Strengthening Clean Technology Entrepreneurship	Malviya National Institute of Technology, Jaipur	DST, Government of India, New Delhi	25 Jan - 05 Feb 2021	2021
175	Mr. Jitesh Kumar Jain	CE	FDP	Above one week	The Challenges in Strengthening Clean Technology Entrepreneurship	Malviya National Institute of Technology, Jaipur	DST, Government of India, New Delhi	25 Jan - 05 Feb 2021	2021
176	Mr. Pradeep Kumar Jain	CE	FDP	Above one week	The Challenges in Strengthening Clean Technology Entrepreneurship	Malviya National Institute of Technology, Jaipur	DST, Government of India, New Delhi	25 Jan - 05 Feb 2021	2021
177	Dr M P Singh	ME	FDP	Above one week	Additive Technologies in Metallurgy & Mechanical engineering	South Ural University	Coursera	26/05/2021-10/06/2021	2021
178	Dr M P Singh	ME	FDP	Above one week	Artificial Intelligence	University of Colorado Boulder	Coursera	28/06/2020-21/07/2020	2020
179	Dr M P Singh	ME	FDP	Above one week	Digital Manufacturing	University at Buffalo and the state University of New York	Coursera	26/06/2020-07/07/2020	2020
180	Dr M P Singh	ME	FDP	Above one week	Intelligent Machining	University at Buffalo and the state University of New York	Coursera	26/06/2020-04/07/2020	2020
181	Dr M P Singh	ME	FDP	Above one week	Work smarter, not harder	University of california	Coursera	26/06/2020-07/07/2020	2020
182	Dr Prerak Bhardwaj	EE	FDP	One week	Current Research Trends in Power Systems and Power Electronics	Vignan's Nirula, Guntur, AP		20th Jul – 25th Jul 2020	2020
183	Dr M P Singh	ME	FDP	One Week	Emtrepreneurial Mentoring Skills	JECRC,Jaipur	TEQIP-III	21/09/2020-26/09/2020	2020
184	Dr M P Singh	ME	FDP	One Week	Design Aspects and Industry 4.0	University College of engineering& Technology ,Bikaner	TEQIP-III	10/09/2020-14/09/2020	2020

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Jaipur Engineering College and Research Centre, Jaipur

Workshop Attended by the Faculty Members (Point No. 21)

S. No	Name of Faculty	Department	Type Workshop/ FDPs	Type 1-Days Workshop 2-4 Days Workshop 5 Days Workshop One Week or Above	Title	Organizer	Sponsered agency	Date	Year
1	Dr. Mithlesh Arya	IT	Workshop	1 Day	Quality & Standards of Teacher Education	JECRC University	Vidhya Bharti uchha Siksha Sansthan	20/2/2021	2021
2	Mr Tej Bahadur Singh	ME	Workshop	1 Day	Recent advancement in Science and technology in India	Vikrant institute of technologyand management ,Gwalior	Vigyan Prasar	7/9/2020	2020
3	Dr.S.S.Manaktala	ECE	Workshop	2 Days	DMIT and Mid Brain Activation	MindTech International	MindTech International	22-23 APRIL	2020
4	Dr Prerak Bhardwaj	EE	Workshop	4 DAYS	Train the Trainers on Examination Reforms	BVB College, Hubballi	NPIU, TEQIP - 3	04th Dec - 07th Dec 2020	2020
5	Dr Prerak Bhardwaj	EE	Workshop	5 DAYS	Inculcating Universal Human Values in technical education	AICTE, New Delhi	AICTE, New Delhi	09th Jul – 13th Jul 2020	2020
6	L.Senthil	EE	Workshop	5 DAYS	Embedded systems using ATmelstudio and Kiel	LnB Powered by Techienest Pvt Ltd		8-12 augest 2020	2020
7	Dr. Ajay Kumar Singh Yadav	ECE	Workshop	5 Days	MIMO and beam forcing antennas for wireless and satellite application	IEEE Delhi Section APS Chapter-Jaipur & IEEE young professional	IEEE	26-30 April 2021	2021
8	Ritu Soni	EE	Workshop	Above one week	Application of MATLAB tools	RTU Kota & Kautilya institute of tech. and engineering.		26/12/2020 - 30/12/2020	2020
9	Jay Shankar Sharma	IT	Workshop	one week	One Week Workshop On "Cloud Computing & It's Application"	Compucom Institute of Technology & Management, Jaipur	RTU (ATU) TEQIP-III	14/09/2020 to 20/09/2020	2020
10	L.Senthil	EE	Internship	30 days	Matlab Simulink	APSSDC and Pantech Prolabs India Pvt Ltd.		Nov 23 to Dec 22 2020	2020
11	L.Senthil	EE	Training	Above one week	Embedded Systems using Proteus 8	LnB Powered by Techienest Pvt Ltd		5-19 july 2020	2020
12	Neha agrawal	EE	Webinar	30 DAYS	Matlab Mater class 2020	Pantech prolabs pvt ltd.		1sept to 30 sept 2020	2020
13	L.Senthil	EE	Webinar	Above one week	Ai MAster Class	APSSDC and Pantech Prolabs India Pvt Ltd.		5-14 oct 2020	2020

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STTP Attended by the Faculty Members (Point No. 21)

S.No	Name of Faculty	Department	Type Workshop/ FDPs	Type 1-Days Workshop 2-4 Days Workshop 5 Days Workshop One Week or Above	Title	Organizer	Sponsered agency	Date	Year
1	Sonali Chadha	EE	STTP	5 DAYS	Character Building through Moral Values and Ethics (Phase-II)	Subodh PG College, Jaipur		April 5-10, 2021.	2020-21
2	Sameeksha Chaudhary	ECE	STTP	5 Days	Character building through moral values and ethics	S.S.Jain Subodh PG College,Jaipur		6-10 april	2021
3	Mamta Rani	ECE	STTP	5 Days	Character building through moral values and ethics	S.S.Jain Subodh PG College,Jaipur		6-10 april	2021
4	Anju Rajput	ECE	STTP	Above one week	VLSI DIGITAL IC DESIGN LABORATORY PRIMER	Entuple Technologies	Entuple Technologies	7-Dec-20 to 16-Jan-2021	2021
5	Ritu Soni	EE	STTP	Above one week	Character building through moral values and ethics	S.S Jain Subodh P.G. college Jaipur		05/04/2021 - 10/04/2021	2020-21
6	Dr Prerak Bhardwaj	EE	STTP	One week	The role of Smart Grids on Loss Reduction and Rural Electification	New Horizon College of Engineering, Bangalore	AICTE, New Delhi	04th Jan - 09th Jan 2021	2020-21

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Department of Mechanical Engineering

JECRC
JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

Certificate of Participation

This is to Certify that

Neha Agrawal

Jaipur Engineering College & Research Centre, Jaipur

has attended the FDP on **"How to Reform & Retool During the Pandemic"** Organised by Department of Mechanical Engineering, Jaipur Engineering College & Research Centre, Jaipur on 07 May, 2021.

Dr. M. P. Singh
HOD (ME), Jecrc, Jaipur

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Department of Mechanical Engineering

JECRC
JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

Certificate of Participation

This is to Certify that

Gopal Tiwari

Jaipur Engineering College & Research Centre, Jaipur

has attended the FDP on **"How to Reform & Retool During the Pandemic"** Organised by Department of Mechanical Engineering, Jaipur Engineering College & Research Centre, Jaipur on 07 May, 2021.

Dr. M. P. Singh
HOD (ME), Jecrc, Jaipur

Two Days TEQIP-III Sponsored Faculty Development Programme

on

RECENT ADVANCES IN RENEWABLE ENERGY TECHNOLOGIES FOR SUSTAINABLE DEVELOPMENT

Organised By

Rajasthan Technical University, Kota

Jaipur Engineering College, Kukas, Jaipur

Certificate

Ref No. RTU/TEQIP-III/F(56)/2020-21/4892-97

This is to certify that Dr. /Mr. /Ms. **"Tej Bahadur Singh"** of **"Jaipur Engineering College and Research Center"** has participated in the Two Days Faculty Development Programme on **"RECENT ADVANCES IN RENEWABLE ENERGY TECHNOLOGIES FOR SUSTAINABLE DEVELOPMENT "** held from 21/08/2020 to 22/08/2020 at Jaipur Engineering College.

Coordinator (RTU, Kota)	Coordinator (JEC, Kukas, Jaipur)	Principal (JEC, Kukas, Jaipur)

SVSKK's

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Mundaragi Road, Gadag – 582101 Karnataka, India
Recognized by AICTE-New Delhi, Affiliated to VTU-Belagavi, Accredited by NBA (ME, CV, EEE)

Department of Basic Science and R&D Center

Three Days National Level Online Faculty Development Programme

Certificate of Participation

This certificate is presented to

NEHA AGRAWAL

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTER

for active participation in three days National Level Online Faculty Development Programme on "PERSPECTIVES ON THE PAST, PRESENT AND FUTURE OF ADVANCED MATERIALS", organized by the Department of Basic Science and R&D Center, Tontadarya College of Engineering, Gadag, Karnataka, India from 26.08.2020 to 28.08.2020

Convener	HOD	Dean R&D	Principal
Prof. Madhu K N	Prof. Sunilgouda S Patil	Dr. V T Magalad	Dr. M M Awati

3 Days TEQIP-III Sponsored Faculty Development Programme
on
"Artificial Intelligence and Machine Learning Using Python"

Organised By
Rajasthan Technical University, Kota
ANAND INTERNATIONAL COLLEGE OF ENGINEERING

Certificate

Ref No.: Anand-ICE/2020/4MHZU8-CE002141

This is to certify that **RITU SONI**

of Jaipur engineering college and research center,Jaipur has participated in the three days Faculty Development Programme on **"Artificial Intelligence and Machine Learning Using Python"** held from 10/09/2020 to 12/09/2020 at Anand International College of Engineering.

Coordinator
RTU, Kota

Coordinator
Anand-ICE

Principal
Anand-ICE

3 Days TEQIP-III Sponsored Faculty Development Programme
on
"Artificial Intelligence and Machine Learning Using Python"

Organised By
Rajasthan Technical University, Kota
ANAND INTERNATIONAL COLLEGE OF ENGINEERING

Certificate

Ref No.: Anand-ICE/2020/4MHZU8-CE002062

This is to certify that **Kanishk Jain**

of JECRC has participated in the three days Faculty Development Programme on **"Artificial Intelligence and Machine Learning Using Python"** held from 10/09/2020 to 12/09/2020 at Anand International College of Engineering.

Coordinator
RTU, Kota

Coordinator
Anand-ICE

Principal
Anand-ICE

CERTIFICATE

PROUDLY PRESENTED TO

Abhishek Dixit

FDP - Outcomes-based Education

Aug 19, 2020	*InPods Ed-tech*
Date of Completion	Organizer

CERTIFICATE

PROUDLY PRESENTED TO

Garima Garg

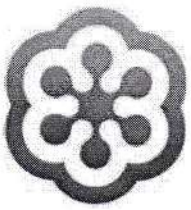
FDP - Outcomes-based Education

Aug 20, 2020

Date of Completion

InPods Ed-tech

Organizer



RTU (ATU) TEQIP-III Sponsored Faculty Development Programme

on

OPPORTUNITIES AND CHALLENGES OF E-VEHICLES IN INDIA

Organised By

Rajasthan Technical University, Kota

&

Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur

Certificate of Participation

Ref. No: RTU/TEQIP-III/(56)/2020-21/4923-29

This is to certify that **Dr. Mahendra Pratap Singh** has participated in three days Faculty Development Programme on "Opportunities and Challenges of E-Vehicles in India" held from 02/09/2020 to 04/09/2020 at Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur.

Mr. Sawan Singh Coordinator RTU, Kota	Dr. Ashish Nayyar Coordinator SKIT, Jaipur	Dr. Ramesh Kumar Pachar Principal SKIT, Jaipur

VIT

Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)
CHENNAI

IAEMP

CERTIFICATE OF PARTICIPATION

This is to certify that Dr./Prof./Mr./Ms. MR. TEJ BAHADUR SINGH of JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE, JAIPUR has participated in the Faculty Development Program on "Research Areas in Energy Audit and Conservation" organized by IAEMP student chapter and the School of Electrical Engineering (SELECT), Vellore Institute of Technology (VIT), Chennai from 24th to 26th August 2020.

Dr. K. Jamuna
IAEMP
Coordinator

Dr. S. Angalaeswari
IAEMP
Coordinator

Dr. A. Peer Fathima
Professor & Dean/SELECT

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- *Ranked top among Private Engineering Institutions by MHRD, GoI for 4 years in a row(NIRF-2016 to 2019)*
- *Ranked No.1 Private Institution for Innovation - ARIIA 2019 by GoI*
- *In the Top 550 of the QS World University Ranking by Subject in 3 subjects: CSAIS, EEE and Chemistry*
- *The first University in India to get 4-STAR rating from QS*
- *Recipient of Diamond Rating from QS-I Gauge in 2018*

TEQIP - III

5 Days TEQIP-III Sponsored FDP
On
"Recent Trends in Circuits and Communication (RTCC)"
Jointly Organized By
Rajasthan Technical University, Kota
&
Jaipur Engineering College and Research Centre, Jaipur

Certificate of participation

This is to certify

SHAILENDRA SHRIVASTAVA of ***JECRC***

has attended 5 days FDP on *"Recent Trends in Circuits and Communication (RTCC)"* held from February 19-23, 2021 in the Department of Electronics & Communication Engineering, Jaipur Engineering College & Research Center.

5/3/2021

Prof. V K Chandna	Prof. Mithilesh Kumar	Prof. R. S. Meena	Prof. Sandeep Vyas
Convener	RTU Coordinator	RTU Coordinator	Convener
RTCC-2021	RTCC-2021	RTCC-2021	RTCC-2021

5 Days TEQIP-III Sponsored Faculty Development Programme
on
"Technology and Innovation in Math Education"

Organised By
Rajasthan Technical University, Kota
ANAND INTERNATIONAL COLLEGE OF ENGINEERING

Certificate

TEQIP III

Ref No.: Anand-ICE/2020/4MHZU8-CE002201

This is to certify that **NEHA AGRAWAL** of

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTER has participated in the five days Faculty Development Programme on **"Technology and Innovation in Math Education"** held from 14/09/2020 to 18/09/2020 at Anand International College of Engineering.

Coordinator
RTU, Kota

Coordinator
Anand-ICE

Principal
Anand-ICE

TEQIP - III

5 Days TEQIP-III Sponsored FDP
On
"Recent Trends in Circuits and Communication (RTCC)"
Jointly Organized By

Rajasthan Technical University, Kota

&

Jaipur Engineering College and Research Centre, Jaipur

Certificate of participation

This is to certify

RITU SONI of ***JECRC Jaipur***

has attended 5 days FDP on *"Recent Trends in Circuits and Communication (RTCC)"* held from February 19-23, 2021 in the Department of Electronics & Communication Engineering, Jaipur Engineering College & Research Center.

5/3/2021			
Prof. V K Chandna	**Prof. Mithilesh Kumar**	**Prof. R. S. Meena**	**Prof. Sandeep Vyas**
Convener	**RTU Coordinator**	**RTU Coordinator**	**Convener**
RTCC-2021	**RTCC-2021**	**RTCC-2021**	**RTCC-2021**

TEQIP-III Sponsored Five Days
Faculty Development Programme
on

Quantum Computing

Organised By
Rajasthan Technical University, Kota
&
Jaipur Engineering College and Research Centre, Jaipur

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

Certificate

Ref No. RTU/TEQIP-III/F(56)/2020-21/6905-13

This is to certify that Dr./Mr./Ms. Mr. Rajan Kumar Jha of JECRC, Jaipur has participated in the Five Days Faculty Development Programme on "Quantum Computing" held from 02/03/2021 to 06/03/2021 at Jaipur Engineering College and Research Centre, Jaipur.

Dr. Harish Sharma	Dr. Smita Agrawal	Prof. V.K. Chandna
DP Coordinator, RTU Kota	FDP Coordinator, JECRC, Jaipur	Principal, JECRC, Jaipur

TEQIP-III Sponsored Five Days
Faculty Development Programme
on

Quantum Computing

Organised By

Rajasthan Technical University, Kota
&
Jaipur Engineering College and Research Centre, Jaipur

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

Certificate

Ref No. RTU/TEQIP-III/F(56)/2020-21/6905-13

This is to certify that Dr./Mr./Ms. Ms. Tanya Shruti of JECRC, Jaipur has participated in the Five Days Faculty Development Programme on "Quantum Computing" held from 02/03/2021 to 06/03/2021 at Jaipur Engineering College and Research Centre, Jaipur.

Dr. Harish Sharma	Dr. Smita Agrawal	Prof. V.K. Chandna
FDP Coordinator, RTU Kota	FDP Coordinator, JECRC, Jaipur	Principal, JECRC, Jaipur

TEQIP-III Sponsored Five Days
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JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

Certificate

Ref No. RTU/TEQIP-III/F(56)/2020-21/6905-13

This is to certify that Dr./Mr./Ms. Ms. B.Umamaheswari of JECRC, Jaipur has participated in the Five Days Faculty Development Programme on "Quantum Computing" held from 02/03/2021 to 06/03/2021 at Jaipur Engineering College and Research Centre, Jaipur.

Dr. Harish Sharma	Dr. Smita Agrawal	Prof. V.K. Chandna
DP Coordinator, RTU Kota	FDP Coordinator, JECRC, Jaipur	Principal, JECRC, Jaipur

TEQIP-III Sponsored Five Days
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Jaipur Engineering College and Research Centre, Jaipur

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

Certificate

Ref No. RTU/TEQIP-III/F(56)/2020-21/6905-13

This is to certify that Dr./Mr./Ms. Ms. Neha Solanki of JECRC, Jaipur has participated in the Five Days Faculty Development Programme on "Quantum Computing" held from 02/03/2021 to 06/03/2021 at Jaipur Engineering College and Research Centre, Jaipur.

Dr. Harish Sharma	Dr. Smita Agrawal	Prof. V.K. Chandna
FDP Coordinator, RTU Kota	FDP Coordinator, JECRC, Jaipur	Principal, JECRC, Jaipur

One Week TEQIP-III Sponsored Faculty Development Programme

on

Recent Advancement in Machine Learning and Artificial Intelligence

Organised By

Rajasthan Technical University, Kota

Poornima College of Engineering, Jaipur

Certificate

Ref No. / 51 /2021

This is to certify that Ms. ABHILASHA of Jaipur engineering college and research centre has participated in the One Week Faculty Development Programme on "Recent Advancement in Machine Learning and Artificial Intelligence" held from 16/03/2021 to 20/03/2021.

Dr. Harish Sharma Coordinator RTU, Kota	Nimish Arvind Coordinator PCE, Jaipur	Dr. Mahesh M. Bundele Director/ Principal PCE, Jaipur

F.No AICTE/FDP-SI/OnlineWorkshop/217/66077

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

NELSON MANDELA MARG, VASANT KUNJ, NEW DELHI

Certificate of Participation

This is to certify that Mr. Indrajeet Panchariya from JECRC Jaipur, Jaipur has participated and successfully completed the 5-day online FDP on the theme "Inculcating Universal Human Values in Technical Education" organized by All India Council for Technical Education(AICTE) from 10 May, 2021 to 14 May, 2021.

Dr. Rajneesh Arora
Chairman
National Coordination Committee for Induction Program

Prof. Rajive Kumar
Member Secretary, AICTE

RTU (ATU)-TEQIP-III

Sponsored

FACULTY DEVELOPMENT PROGRAMME ON

ENTREPRENEURIAL MENTORING SKILLS

Rajasthan Technical University, Kota · Jaipur Engineering College and Research Centre, Jaipur · (Rural Technology Business Incubator)

CERTIFICATE

REF. NO.: [illegible]

This is to certify that **Dr. M.P Singh** has participated in the Faculty Developement Programme (Online) "**Entrepreneurial Mentoring Skills**" during **21st-26th September 2020** organized by **Rajasthan Technical University, Kota & Jaipur Engineering College and Research Centre, Jaipur.**

Prof. Vinay Kumar Chandna

Dr. Om Shankar Prajapati

Mr. Mukesh Agarwal

University College of Engineering and Technology, Bikaner
(Constituent College of Bikaner Technical University, Bikaner)

TEQIP-3

Certificate of Participation

is hereby awarded to

Dr. Mahendra Pratap Singh

Jaipur Engineering college and Research Centre Jaipur

has participated in the One Week Online Faculty Development Program on "**Design Aspects and Industry 4.0**" Organized by Department of Mechanical Engineering, **University College of Engineering & Technology, Bikaner** from **10th-14th September 2020** under TEQIP-III.

Certificate ID: UCET/Mech./IIA1/20

Mr. Nahal Singh
Convener

Mr. P. S. Sandhu
Convener

Dr. K. K. Ojha
Head/Convener

Dr. Y.N. Singh
Principal

This is e-certificate, for any verification you may contact Department of Mechanical Engineering, University College of Engineering and Technology Bikaner

F.No AICTE/FDP-SI/OnlineWorkshop/218/30757

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

NELSON MANDELA MARG, VASANT KUNJ, NEW DELHI

Certificate of Participation

This is to certify that Mr. Gopal Tiwari from Jaipur Engineering College and Research Centre, Jaipur has participated and successfully completed the online workshop on Universal Human Value on the theme "Inculcating Universal Human Values in Technical Education" during 23-27, July 2020 as organized by All India Council for Technical Education(AICTE).

Dr. Rajneesh Arora
Chairman
National Coordination Committee for Induction Program

Prof. Rajive Kumar
Member Secretary, AICTE

F.No AICTE/FDP-SI/OnlineWorkshop/210/29731

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

NELSON MANDELA MARG, VASANT KUNJ, NEW DELHI

Certificate of Participation

This is to certify that Mrs. Neha Agrawal from JECRC Foundation, Jaipur has participated and successfully completed the online workshop on Universal Human Value on the theme "Inculcating Universal Human Values in Technical Education" during 28 July – 1 August, 2020 as organized by All India Council for Technical Education(AICTE).

Dr. Rajneesh Arora
Chairman
National Coordination Committee for Induction Program

Prof. Rajive Kumar
Member Secretary, AICTE

F.No AICTE/FDP-SI/OnlineWorkshop/218/2020

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

NELSON MANDELA MARG, VASANT KUNJ, NEW DELHI

Certificate of Participation

This is to certify that Mr. Lalit Kumar Sharma from Jaipur Engineering College and Research Centre, Jaipur has participated and successfully completed the online workshop on Universal Human Value on the theme "Inculcating Universal Human Values in Technical Education" during 23-27th July 2020 as organized by All India Council for Technical Education(AICTE).

Dr. Rajneesh Arora
Chairman
National Coordination Committee for Induction Program

Prof. Rajive Kumar
Member Secretary, AICTE

F.No AICTE/FDP-5/Online-Workshop/217/41674

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

NELSON MANDELA MARG, VASANT KUNJ, NEW DELHI

Certificate of Participation

This is to certify that Mr. Aashish Nagpal from JECRC, Jaipur has participated and successfully completed the online workshop on Universal Human Value on the theme "Inculcating Universal Human Values in Technical Education" during 28 September — 2 October, 2020 as organized by All India Council for Technical Education(AICTE).

Dr. Rajneesh Arora
Chairman
National Coordination Committee for Induction Program

Prof. Rajive Kumar
Member Secretary, AICTE

F.No AICTE/FDP-SI/OnlineWorkshop/218/30890

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

NELSON MANDELA MARG, VASANT KUNJ, NEW DELHI

Certificate of Participation

This is to certify that Mr. Satya Prakash Saini from JECRC Jaipur, Jaipur has participated and successfully completed the online workshop on Universal Human Value on the theme "Inculcating Universal Human Values in Technical Education" during 23-27, July 2020 as organized by All India Council for Technical Education(AICTE).

Dr. Rajneesh Arora
Chairman
National Coordination Committee for Induction Program

Prof. Rajive Kumar
Member Secretary, AICTE

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

NELSON MANDELA MARG, VASANT KUNJ, NEW DELHI

Certificate of Participation

This is to certify that Mr. Yogesh Dubey from Jaipur Engineering College and Research Centre, Jaipur has participated and successfully completed the online workshop on Universal Human Value on the theme "Inculcating Universal Human Values in Technical Education" during 12-16 October, 2020 as organized by All India Council for Technical Education(AICTE).

Dr. Rajneesh Arora
Chairman
National Coordination Committee for Induction Program

Prof. Rajive Kumar
Member Secretary, AICTE

F.No AICTE/FDP-SI/OnlineWorkshop/217/26966

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

NELSON MANDELA MARG, VASANT KUNJ, NEW DELHI

Certificate of Participation

This is to certify that Dr. Prerak Bhardwaj from Jaipur Engineering College And Research Centre, Jaipur has participated and successfully completed the online workshop on Universal Human Value on the theme "Inculcating Universal Human Values in Technical Education" during 9-13, July 2020 as organized by All India Council for Technical Education(AICTE).

Dr. Rajneesh Arora
Chairman
National Coordination Committee for Induction Program

Prof. Rajive Kumar
Member Secretary, AICTE

TEQUIP-III Sponsored One Week Workshop

On

Application of MATLab Tools

Organized by

Rajasthan Technical University, Kota &
Kautilya Institute of Technology & Engineering

Certificate of Appreciation

Ref. No.: RTU/TEQIP-III/F(56)/2019-20/5588-94

This is to certify that Ritu Soni of JECRC Jaipur has delivered a talk as a resource person in the Workshop program on "Application of MATLab Tools" sponsored by TEQIP-II, RTU, Kota and organize by Kautilya Institute of Technology & Engineering, Jaipur during December 26th – 30th, 2020.

Coordinator RTU, Kota	**Coordinator** RTU, Kota	**Organizing Secretary** KITE, Jaipur	**Principal & Coordinator** KITE, Jaipur