NATIONAL BOARD OF ACCREDITATION

Compliance Report
(Tier – I/Tier – II)
PART- A: Institutional Information
(To be filled only once for all the programs under consideration)

A1. Name and Address of the College:- Jaipur Engineering College & Research Centre

City: - Jaipur | State: - Rajasthan

Pin Code: - 302022

Phone No (including STD Code):- 0141-2770232 | Fax – 0141-2770803

A2.Year of Establishment:- 2000

A3. First Approval Letter No.: F. No 765-66-01/NDEG/ET/2000 **Date:13.07.2000**

A4. Head of the Institution:-

Name - Prof. Vinay Kumar Chandna | Designation- Principal

Nature of appointment:- Regular | Phone No. -0141-2770120

Email ID- principal@jecrcmail.com | Mobile No- 9891406784

Fax No. - 0141-2770803

including STD Code

A5. Name and address of the affiliating University:- Rajasthan Technical University

City: Kota | Pin code. -324010

State:- Rajasthan | Email - vcofficertu@yahoo.co.in

Website: www.rtu.ac.in | Mobile No- - 0744-2473015(Dean Academic)

Phone No. 07442473001

including STD Code

A6. Type of Institution:-

Institution of the National Importance University | Autonomous

University | **Any Other (Affiliated College) Yes**

Deemed University

A7. Ownership Status:-

Central Government	Trust
State Government	Society
Government Aided	**Self Financing Yes**
Section 25 Company	
Any Other	

A8. Students Admissions (institute level considering all UG Program)

Item	**CAY 2020-21**	**CAYm1 2019-20**	**CAYm2 2018-19**	**Total**
Sanctioned Intake	990	990	990	2970
Number of Students admitted (Corresponding to Sanctioned Intake)	980	901	842	2723
% of Students admitted over last three assessment years (Total admitted/Sanctioned Intake)	98.98	91.01	85.05	91.68

A9. Details of the students actually admitted through Lateral Entry/Separate Division

Item	**CAY 2020-21**	**CAYm1 2019-20**	**CAYm2 2018-19**	**Total**
Number of Students admitted through Lateral Entry	55	18	40	113
Number of Students admitted through separate Division	NIL	NIL	NIL	NIL
Total Number of Students admitted in the Second Year	55	18	40	113

A10. Provide separate Information for each of the program(s) for which compliance is to be submitted:-

Name of the Department	Name of the Program being offered	Name of the Program to be Considered	Year of Start	Increase in Intake, If any	No. of Seats increased	Total No. of Seats	Year of Increase	AICTE Approval	Accreditation Status
ECE	B.E.	B.E.	2000	-	-	60	-	13.07.2000	-

	B.E.	B.E.		Yes	30	90	2004	25.06.2004	No
	B.E.	B.E.		Yes	30	120	2008	22.07.2008	No
	B. Tech.	B. Tech.		No	-	120	2009 (NBA Accreditation)	22.07.2008	Yes
	B. Tech.	B. Tech.		Yes	60	180	2011	01.09.2011	Yes
	B. Tech.	B. Tech.		Yes	60	240	2012	10.05.2012	No
	B. Tech.	B. Tech.		No	-	240	2018 (NBA Accreditation)	04.04.2018	Yes
	B. Tech.	B. Tech.		Yes (-)	-60	180	2020	31.07.2020	Yes
ME	B.E.	B.E.	2003	-	-	60	-	12.05.2003	-
	B. Tech.	B. Tech.		Yes	30	90	2009	23.08.2009	No
	B. Tech.	B. Tech.		Yes	90	180	2012	10.05.2012	No
	B. Tech.	B. Tech.		No	-	180	2018 (NBA Accreditation)	04.04.2018	Yes
	B. Tech.	B. Tech.		Yes (-)	-60	120	2020	31.07.2020	Yes

Write applicable One:

***Granted Provisional accreditation for two/three years for the period (Specify period) - **Yes**
*Granted accreditation for 5 / 6 Years for the period (Specify period)
*Not accredited (Specify visit dates, year)
*Withdrawn (Specify visit dates, year)
*Not eligible for accreditation
*Eligible but not applied

Part B- Program Information

B1. Name of the Program: Mechanical Engineering

B2. Faculty Information and Contributions

Please provide the list of faculty in the department according to the below format as Appendix I

S. No	Name	Pan No	Qualification	Area of Specialization	Designation	Date of Joining	Date on which Designated as Professor/Associate Professor	Currently Associated (Y/N)	Nature of Association (Regular/ Contract/ Adjunct)	If contractual mention Full time or Part time	Date of Leaving (in case Currently Associated is "No")
1	Dr. Mahendra Pratap Singh	AOPPS5028F	M.Tech/Ph.D	Mechanical Engineering	Professor	19-Aug-16		Y	Regular		NO
2	Dr. Fauzia Siddiqui	BHAPS1199C	M.Tech/Ph.D	Industrial	Professor	1-8-2018		Y	Regular		

				Engineering							NO
3	Dr. Bhuvnesh Bhardwaj	AONPB5285K	Phd	Manufacturing Systems Engineering	Associate Professor	14-Jul-15		Y	Regular		NO
4	Dr. Manish Shrivastava	ARUPS7035A	M.Tech/Phd (MBA)	Manufacturing Systems Engineering	Associate Professor	21-Jul-14	1-9-2018	Y	Regular		NO
5	Dr. Rishi Pareek	AYAPP6684K	M.Tech/Ph.D	Mechanical Engineering	Associate Professor	7-8-2018		Y	Regular		NO
6	Dr. Manmohan Siddh	BNPPS2864D	Ph.D	Production Engineering	Associate Professor	2-Jan-17		Y	Regular		NO
7	Mr. Manish Jain	AANPJ7357E	M.Tech	Manufacturing Systems	Assistant Professor	7-Aug-01		Y	Regular		

				Engineering							NO
8	Mr. Lalit Kumar Sharma	BQSPS 3044K	M.Tech	Manufacturing Systems Engineering	Assistant Professor	13-Aug-07		Y	Regular		NO
9	Mr. Rajendra Kumar Gupta	AGVPG 7205J	M.Tech	Manufacturing Systems Engineering	Assistant Professor	17/Sep/07		Y	Regular		NO
10	Mr. Kuldeep Sharma	BKOPS 5002H	M.Tech	Manufacturing Systems Engineering	Assistant Professor	25-Aug-06		Y	Regular		NO
11	Mr. Aashish Nagpal	AUYPN 8399M	M.Tech	Manufacturing Systems Engineering	Assistant Professor	16-Aug-10		Y	Regular		NO
12	Mr. Dayal Singh Rathore	ARZPR 1164L	M. Tech	Production Engineering	Assistant Professor	23-Jul-12		Y	Regular		

											NO
13	Mr. Hukam Chand Nagar	AXAPC7807L	M.Tech	Thermal Engineering	Assistant Professor	23-Jul-12		Y	Regular		NO
14	Mr. Akhil Vijay	AHJPV3272D	M.Tech	Production Engineering	Assistant Professor	24-Jul-12		Y	Regular		NO
15	Mr. Abhishek Kumar	BVBPK2936A	M.Tech	Manufacturing Systems Engineering	Assistant Professor	10-Aug-13		Y	Regular		NO
16	Mr. Satyendra Kumar	BSKPK2741R	M.Tech	Machine Design	Assistant Professor	16-Jul-14		Y	Regular		NO
17	Mr. Satyaprakash Saini	BJQPS8962K	M.Tech	Metallurgical and material Engineering	Assistant Professor	20-Jan-16		Y	Regular		NO

18	Mr. Shrikant Bansal	AZWPB3081B	M.Tech	Industrial Engineering	Assistant Professor	1-Aug-16		Y	Regular		NO
19	Mr. Tej bahadur Singh	CMQPS7636J	M.Tech	Mechanical Engineering	Assistant Professor	2-Jan-17		Y	Regular		NO
20	Mrs. Preeti P.Bodkhe	ATVPB1700A	M.Tech	Heat and Power Engineering	Assistant Professor	3-Jan-17		Y	Regular		NO
21	Mrs. Palak Jindal	AMHPN6656J	M.Tech	Production & Industrial Engineering	Assistant Professor	4-Jan-17		Y	Regular		NO
22	Mr. Hemant Bansal	APGPB2872J	M.Tech	Production Engineering	Assistant Professor	2-Jan-17		Y	Regular		NO
23	Mr. Akhilesh	CPSPP3593N	M.Tech	Industrial and Management	Assistant Professor	3-Jan-17		Y	Regular		

	Paliwal			Engineering							NO
24	Mr. Yogesh Dubey	AVGPD 6643R	M.Tech	Manufacturing Systems Engineering	Assistant Professor	8-Feb-17		Y	Regular		NO
25	Mr. Utpal Chakarvarti	AAHPC 5325R	M.Tech	Industrial Engineering	Assistant Professor	16-Feb-17		Y	Regular		NO
26	Mr. Ravi Yadav	CFUPR 3176R	M.Tech	Prodution Engineering	Assistant Professor	27-7-2012		Y	Regular		NO
27	Mr.Nitin Chhabra	AUEPC 0203F	M.Tech	Production Engineering	Assistant Professor	31/01/2014		Y	Regular		NO
28	Mr.Dilip Prajapati	AZBPP 5053C	M.Tech	Production Engineering	Assistant Professor	06-10-13		Y	Regular		NO
29	Mr.Jitendra Gupta	BEDPG 1771G	M.Tech	Production Engineering	Assistant Professor	3/25/2014		Y	Regular		NO

B.2.1. Student Faculty Ratio (No of Faculty as per the sanctioned intakes):-

(To be calculated at Department Level)

No. of UG Programs in the Department (n): 1

No. of PG Programs in the Department (m): NA

No. of Students in UG 2nd Year = 86

No. of Students in UG 3rd Year = 114

No. of Students in UG 4th Year = 188

No. of Students in PG 1st Year = NA

No. of Students in PG 2nd Year = NA

Student Faculty Ratio (SFR) = S / F

Year	**CAY 2020-21**	**CAY 2019-20**	**CAY 2018-19**
u1.1	86	114	138
u1.2	114	138	131
u1.3	138	131	138
UG1	**338**	**379**	**407**
u2.1	0	0	50
u2.2	0	50	57
U2.3	50	57	56
UG2	50	107	**163**
Total No. of Students in the Department **(S)**	**388**	**486**	**570**
No. of Faculty in the Department **(F)**	**26**	**28**	**33**
Student Faculty Ratio (SFR)	**14.92**	**17.35**	**17.27**
Average SFR	**16.51**		

B 2.2. Faculty Details of the Department (UG+PG):

S.No.	Designation	CAYm1 2019-20			CAYM 2020-21		
		With PhD.		Without PhD.	With PhD.		Without PhD.
		Regular	Contractual		Regular	Contractual	
1	Professor	2	0	0	2	0	0
2	Associate Professor	4	0	0	4	0	0
3	Assistant Professor	0	0	27	0	0	23
4	Total number of Faculty in the Department (UG+PG)	6	0	27	6	0	23

B2.3. Faculty Cadre Proportion

The reference Faculty cadre proportion is 1 (F1):2(F2);6(F3)

F1: Number of Professors required =1/9 x Number of Faculty required to comply with 20:1

Student-Faculty ratio based on No. of students (N) as per B2.1

F2: Number of Associate Professors required =2/9 x Number of Faculty required to comply with 20:1 Student-Faculty ratio based on No. of students (N) as per B2.1F3: Number of Assistant Professors required = 6/9 x Number of Faculty required to comply with 20:1 Student-Faculty ratio based on No. of students (N) as per B2.1

Year	Professors		Associate Professors		Assistant Professors	
	Required F1	Available	Required F2	Available	Required F3	Available
CAY *2020-21*	2.1	2	4.3	4	12.9	20
CAY *2019-20*	2.7	2	5.4	4	16.2	24
CAY *2018-19*	3.16	2	6.3	3	19	31
Average Numbers	2.65	2	5.33	3.66	16.03	25

B2.4. Faculty as participants in Faculty development/training activities/STTPs

Name of the faculty	Details of the participation(Faculty development /training activities/STTPs)		
	[2019-20]	[2018-19]	[2017-18]
Dr. M.P. Singh	6	1	4
Dr. Bhuvnesh Bhardwaj	3	1	2
Mr. Manish Jain	-	1	1
Mr. Lalit Kumar Sharma	2	3	5
Mr. Rajendra Kumar Gupta	1	1	1
Mr. Kuldeep Sharma	2	2	1
Mr. Aashish Nagpal	2	1	1
Mr. Nikhil Jain	-	0	3
Mr. Dayal Singh Rathore	1	1	1
Mr. Hukam Chand Nagar	2	1	1
Mr. Akhil Vijay	8	2	2
Mr. Ravi Yadav	4	2	2
Mr. Abhishek Kumar	1	1	2
Mr. Satyendra Kumar	2	1	1
Dr. Manish Shrivastava	1	1	2
Dr. Fauzia Siddiqui	5	1	-
Dr. Devesh Kumar	-	1	-
Dr. Rishi Pareek	2	1	-
Mr. Tejendra Singh	-	1	2
Mr. Tej Bahadur Singh	4	2	2
Mr. Yogesh Dubey	3	1	1
Mrs. Palak Jindal	2	1	1
Mr. Gaurav Jain	-	1	1
Mr. Shrikant Bansal	1	2	2
Mr. Hemant Bansal	1	2	2
Dr. Manmohan Siddh	2	1	1
Mr. Akhilesh Paliwal	1	1	1
Mrs. Priti Bodkhe	1	1	1
Mr. Shashank Shekhar	-	1	2
Mr. Satyaprakash Saini	1	1	1
Mr. Rohit Goyal	-	1	-
Mr. Ravindra Kumar	-	1	-

B2.5. Research and Development

Name of the faculty	Academic Research			
	Number of quality publication in refereed/SCI Journals ,citations ,Books/Book chapter etc.		Ph.D. guided/Ph.D. awarded during the assessment period while working in the institute	
	As provided in SAR	After evaluation (till the date of compliance report)	As provided in SAR	After evaluation (till the date of compliance report)
Dr. M. P . Singh	8	10		
Dr. Fauzia Siddiqui		7		
Dr. Bhuvnesh Bhardwaj	7	13	Award	
Dr. Devesh Kumar		2		Award
Dr. Manish Shrivastava				
Dr. Rishi Pareek		3		
Dr. Man Mohan Siddh	3	1		Award
Mr. Manish Jain	1			
Mr. Lalit Kumar Sharma		1		
Mr. Rajendra Kumar Gupta	1	1		
Mr. Kuldeep Sharma	1			
Mr. Aashish Nagpal				
Mr. Nikhil Jain		1		
Mr. Dayal Singh Rathore				
Mr. Hukam Chand Nagar				
Mr. Akhil Viay		1		
Mr. Abhishek Kumar		1		
Mr. Satyendra Kumar	3	3		
Mr. Satyaprakash Saini				
Mr. Gaurav Jain		1		
Mr. Shrikant Bansal				
Mrs. Preeti Bordke				
Mrs. Palak Jindal				
Mr. Hemant Bansal				
Mr. Akhilesh Paliwal				
Mr. Yogesh Dubey		2		
Mr. Utpal Chakarvati				
Mr. Tejendra Singh				
Mr. Shashank Shekhar Singh				
Mr. Tej Bahadur Singh		1		
Mr. Rohit Goyal				
Mr. Ravi Yadav				
Mr. Ravindra Kumar				
Mr. Neeraj Saini				
Mr. Nitin chhabra	1			
Mr.Dilip kumar Prajapati				
Mr. Veerendra Kumar				

B2.6. Sponsored Research/Consultancy

(B) Details as provided in the SAR previously

Name of the Faculty	Project Title	Project Type Research/ Consultancy	Funding Agency	Amount	Duration
Dr M.P.SINGH	**"Rural Technologies Business Incubations"**	**Research**	**Department of Science and Technology (DST), Rajasthan**	**2400000/-**	**3 YEAR**

(II) Details after evaluation (till the date of Compliance Report)

***(Applied)**

Name of the Faculty	*Project Title	Project Type Research/ Consultancy	Funding Agency	Amount	Duration
Mr. Manish Jain	Scientific Convention Enhancing learning for students of rural Rajasthan	**Research**	Stem India Demonstration Dissemination Popularization , DST	2569000/-	**1YEAR**

B.3. Students' Performance

Student Intake Table

Item (information to be provided cumulatively for all the shifts with explicit heading, wherever applicable)	**CAY 2020-21**	**CAYm1 2019-20**	**CAYm2 2018-19**	**CAYm3 2017-18**
Sanctioned intake of the program (N)	120	180	180	180
Total number of students admitted in first year minus number of students migrated to other programs/institutions, plus no. of students migrated to this program (N1)	60	76	122	125+50 = 175
Number of Students admitted in 2nd Year in the same batch via lateral entry (N2)		**10**	05	15
Separate division students, if applicable (N3)	NIL	NIL	NIL	NIL
Total number of students admitted in the program (N1 + N2 + N3)	60	86	127	190

Academic Performance Table

Year of entry	**N1 + N2 + N3 (As defined above)**	**Number of students who have successfully graduated**			
		I Year	**II Year**	**III Year**	**IV Year**
CAY(2020-21)	60				
CAYm1(2019-20)	86	62			
CAYm2(2018-19)	127	79	90		
CAYm3(2017-18)	190	58	108	129	
CAYm4 (LYG)(2016-17)	188	67	103	109	113
CAYm5 (LYGm1)(2015-16)	196	59	106	117	121
CAYm6 (LYGm2)(2014-15)	213	58	132	142	142

B3.1 Success rate without backlog in stipulated period

SI= (Number of students who graduated from the program without backlog in the stipulated period of course duration)/(Number of students admitted in the first year of that batch and admitted in 2nd year via lateral entry and separate division, if applicable)

Item	Latest Year of Graduation, LYG	Latest Year of Graduation minus 1, LYGm1	Latest Year of Graduation minus 2, LYGm2
Number of students admitted in the corresponding First Year + admitted in 2nd year via lateral entry and separate division, if applicable	184+4*=188	186+10*=196	208+5*=213
Number of students who have graduated without backlog in the stipulated period	71	65	66
Success Index (SI)	0.39	0.34	0.32
Average Success Index	0.35		

***left/not registered in university exam**

https://jecrcfoundation.com/jf-data/NBA/ME/2014-15-to-19-20-Pass-Table-B3.pdf

B3.2. Success rate with backlog in stipulated period of study

SI= (Number of students who graduated from the program with backlog in the stipulated period of course duration)/(Number of students admitted in the first year of that batch and admitted in 2nd year via lateral entry and separate division, if applicable)

Item	LYG (CAYm4)	LYGm1 (CAYm5)	LYG (CAYm6)
Number of students admitted in the corresponding First Year + admitted in 2nd year via lateral entry and separate division, if applicable	184+4*=188	186+10*=196	208+5*=213
Number of students who have graduated with backlog in the stipulated period	113	121	142
Success Index (SI)	0.60	0.62	0.67
Average Success Index	0.63		

***left/not registered in university exam**

https://jecrcfoundation.com/jf-data/NBA/ME/2014-15-to-19-20-Fail-Table-B3.2.pdf

B3.3 First Year Academic Performance

Academic Performance = (Mean of 1st Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks in First Year of all successful students/10) x (number of successful students/number of students appeared in the examination)

Successful students are those who are permitted to proceed to the second year.

Academic performance	**CAYm1 (2019-20)**	**CAYm2 (2018-19)**	**CAYm3 (2017-18)**
Mean of CGPA or Mean Percentage of all successful students (X)	5.78	5.87	6.72
Total no. of successful students (Y)	74	121	125
Total no. of students appeared in the examination (Z)	74	121	125
API = x* (Y/Z)	5.78	5.87	6.72
Average API = (AP1 + AP2 + AP3)/3	6.12		

B3.4. Academic Performance in Second Year

API = (Mean of 2nd Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in Second Year /10) x (number of successful students/number of successful students/number of students appeared in the examination)

Successful students are those who are permitted to proceed to the Third year.

Academic Performance	**CAYm1** (2019-20)	**CAYm2** (2018-19)	**CAYm3** (2017-18)
Mean of CGPA of Mean Percentage of all successful students (X)	6.85	5.65	6.25
Total no. of successful students (Y)	110	180	186
Total no. of students appeared in the examination (Z)	110	180	186
API = x* (Y/Z)	6.85	5.65	6.25
Average API = (AP1 = AP2 + AP3)/3	6.25		

https://jecrcfoundation.com/jf-data/NBA/ME/NBA-4.4-Performance-2-yr-Table-B3.4.pdf

B3.5. Academic Performance in Third Year

API = (Mean of 3rd Year Grade Point Average of all successful Students on a 10 point scale) or(Mean of the percentage of marks of all successful students in Third Year /10) x (number of successful students/number of successful students/number of students appeared in the examination)

Successful students are those who are permitted to proceed to the final year.

Academic Performance	**CAYm1** (2019-20)	**CAYm2** (2018-19)	**CAYm3** (2017-18)
Mean of CGPA or Mean Percentage of all successful students (X)	6.63	6.33	6.38
Total no. of successful students (Y)	180	185	189
Total no. of students appeared in the examination (Z)	180	185	189
API = x* (Y/Z)	6.63	6.33	6.38
Average API = (AP1 = AP2 + AP3)/3	6.45		

https://jecrcfoundation.com/jf-data/NBA/ME/NBA-4.3-Performance-3-yr-Table%20B3.5.pdf

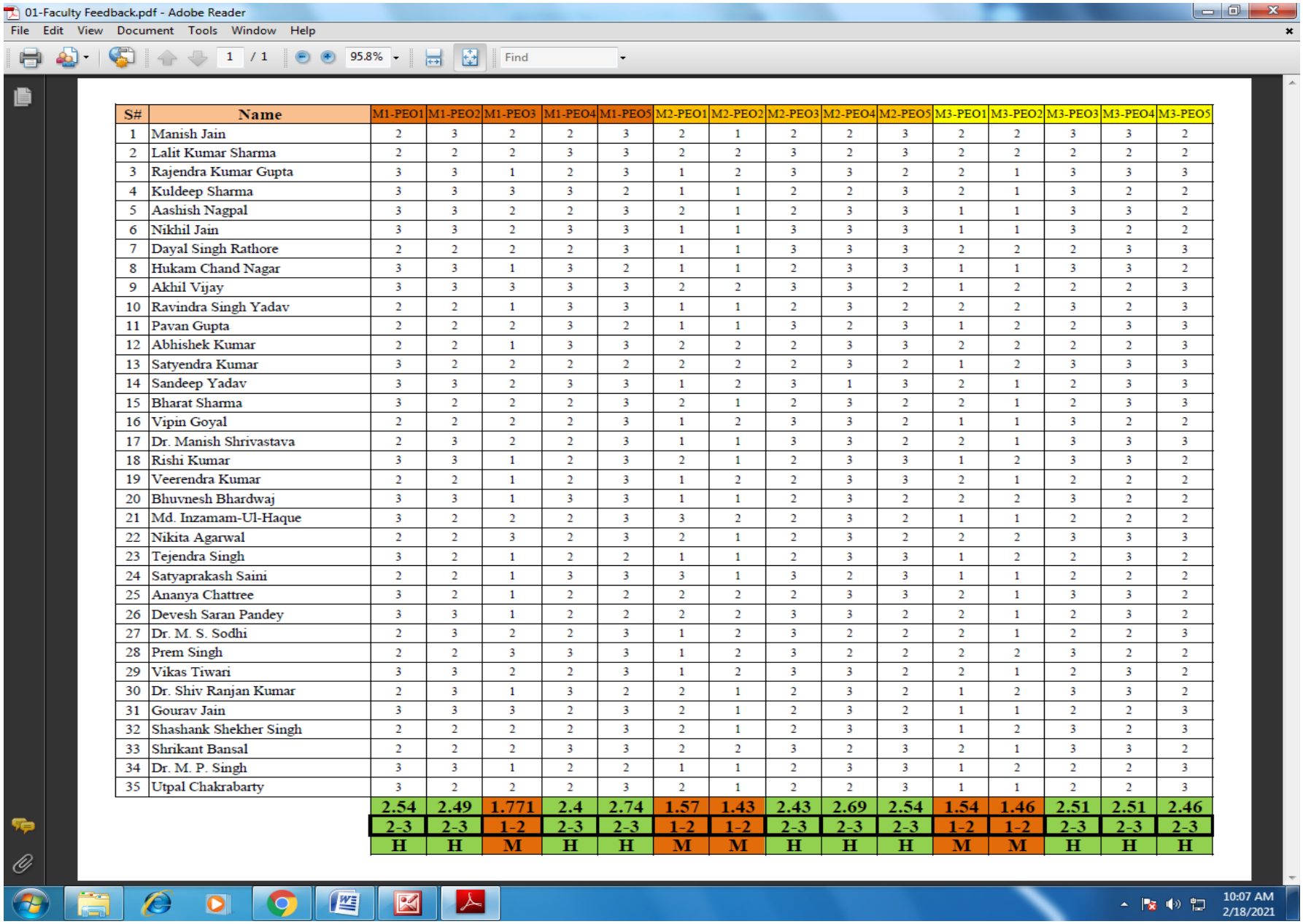
B3.6. Placement, Higher Studies and Entrepreneurship

Item	**CAYm1** (2019-20)	**CAYm2** (2018-19)	**CAYm3** (2017-18)
Total No. of Final Year Students (N)	185	189	209
No. of students placed in companies or Government Sector (x)	125	91	93
No. of students admitted to higher studies with valid qualifying scores (GATE or equivalent State or National Level Tests, GRE, GMAT	0	2	2
No. of students turned entrepreneur in engineering/technology (z)	0	0	2
x+ y + z =	**125**	**93**	**97**
Placement Index : (x + y + z)/N	0.68	0.49	0.46
Average placement = (P1 + P2 + P3)/3	0.54		

PART C. Criterion wise Compliance Status

<table>
<tr><th colspan="4">Criterion-1 Vision, Mission and Programme Educational Objectives</th></tr>
<tr><th>S. NO</th><th>CRITERIA</th><th>OBSERVATION MADE BY NBA</th><th>COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)</th></tr>
<tr><td>1.5</td><td>Establish consistency of PEOs with Mission of the Department</td><td>Justification of mapping is not clear.</td><td>1. Department has prepared PEOs and Mission mapping format and circulated to the Faculty members, industry experts, alumni etc.
2. Faculty members, industry experts, alumni etc. did the mapping and submitted to department for finalization.
3. Analysis of the mapping submitted by the stake holders is carried out and based on below mentioned criteria mapping is finalized.
<table>
<tr><th>Average mapping point given by stakeholders</th><th>Mapping finalization</th><th>Level of Relationship</th></tr>
<tr><td>m< 0.5</td><td>0</td><td>No</td></tr>
<tr><td>0.5≤ m≤1</td><td>1</td><td>Low</td></tr>
<tr><td>1< m ≤2</td><td>2</td><td>Medium</td></tr>
<tr><td>2< m ≤3</td><td>3</td><td>High</td></tr>
</table></td></tr>
</table>

S. No.	Resource Person	Feedback Link
1	Faculty Member	https://jecrcfoundation.com/jf-data/NBA/ME/Faculty-Feedback.pdf
2	Industry Expert	https://jecrcfoundation.com/jf-data/NBA/ME/Industry-Feedback.pdf
3	Alumni	https://jecrcfoundation.com/jf-data/NBA/ME/Alumni-Feedback.pdf



S#	Name	M1-PEO1	M1-PEO2	M1-PEO3	M1-PEO4	M1-PEO5	M2-PEO1	M2-PEO2	M2-PEO3	M2-PEO4	M2-PEO5	M3-PEO1	M3-PEO2	M3-PEO3	M3-PEO4	M3-PEO5
1	Manish Jain	2	3	2	2	3	2	1	2	2	3	2	2	3	3	2
2	Lalit Kumar Sharma	2	2	2	3	3	2	2	3	2	3	2	2	2	2	2
3	Rajendra Kumar Gupta	3	3	1	2	3	1	2	3	3	2	2	1	3	3	3
4	Kuldeep Sharma	3	3	3	3	2	1	1	2	2	3	2	1	3	2	2
5	Aashish Nagpal	3	3	2	2	3	2	1	2	3	3	1	1	3	3	2
6	Nikhil Jain	3	3	2	3	3	1	1	3	3	3	1	1	3	2	2
7	Dayal Singh Rathore	2	2	2	2	3	1	1	3	3	3	2	2	2	3	3
8	Hukam Chand Nagar	3	3	1	3	2	1	1	2	3	3	1	1	3	3	2
9	Akhil Vijay	3	3	3	3	3	2	2	3	3	2	1	2	2	2	3
10	Ravindra Singh Yadav	2	2	1	3	3	1	1	2	3	2	2	2	3	2	3
11	Pavan Gupta	2	2	2	3	2	1	1	3	2	3	1	2	2	3	3
12	Abhishek Kumar	2	2	1	3	3	2	2	2	3	3	2	2	2	2	3
13	Satyendra Kumar	3	2	2	2	2	2	2	2	3	2	1	2	3	3	3
14	Sandeep Yadav	3	3	2	3	3	1	2	3	1	3	2	1	2	3	3
15	Bharat Sharma	3	2	2	2	3	2	1	2	3	2	2	1	2	3	3
16	Vipin Goyal	2	2	2	2	3	1	2	3	3	2	1	1	3	2	2
17	Dr. Manish Shrivastava	2	3	2	2	3	1	1	3	3	2	2	1	3	3	3
18	Rishi Kumar	3	3	1	2	3	2	1	2	3	3	1	2	3	3	2
19	Veerendra Kumar	2	2	1	2	3	1	2	2	3	3	2	1	2	2	2
20	Bhuvnesh Bhardwaj	3	3	1	3	3	1	1	2	3	2	2	2	3	2	2
21	Md. Inzamam-Ul-Haque	3	2	2	2	3	3	2	2	3	2	1	1	2	2	2
22	Nikita Agarwal	2	2	3	2	3	2	1	2	3	2	2	2	3	3	3
23	Tejendra Singh	3	2	1	2	2	1	1	2	3	3	1	2	2	3	2
24	Satyaprakash Saini	2	2	1	3	3	3	1	3	2	3	1	1	2	2	2
25	Ananya Chattree	3	2	1	2	2	2	2	2	3	3	2	1	3	3	2
26	Devesh Saran Pandey	3	3	1	2	2	2	2	3	3	2	2	1	2	3	2
27	Dr. M. S. Sodhi	2	3	2	2	3	1	2	3	2	2	2	1	2	2	3
28	Prem Singh	2	2	3	3	3	1	2	3	2	2	2	2	3	2	2
29	Vikas Tiwari	3	3	2	2	3	1	2	3	3	2	2	1	2	3	2
30	Dr. Shiv Ranjan Kumar	2	3	1	3	2	2	1	2	3	2	1	2	3	3	2
31	Gourav Jain	3	3	3	2	3	2	1	2	3	2	1	1	2	2	3
32	Shashank Shekher Singh	2	2	2	2	3	2	1	2	3	3	1	2	3	2	3
33	Shrikant Bansal	2	2	2	3	3	2	2	3	2	3	2	1	3	3	2
34	Dr. M. P. Singh	3	3	1	2	2	1	1	2	3	3	1	2	2	2	3
35	Utpal Chakrabarty	3	2	2	2	3	2	1	2	2	3	1	1	2	2	3
		2.54	2.49	1.771	2.4	2.74	1.57	1.43	2.43	2.69	2.54	1.54	1.46	2.51	2.51	2.46
		2-3	2-3	1-2	2-3	2-3	1-2	1-2	2-3	2-3	2-3	1-2	1-2	2-3	2-3	2-3
		H	H	M	H	H	M	M	H	H	H	M	M	H	H	H

Jaipur Engineering College and Research Centre, Jaipur
Department of Mechanical Engineering
Mapping of PEOs and Mission
Evaluation Form

Mission ⇨ / PEOs ⇩	To impart highest quality technical knowledge to the learners to make them globally competitive mechanical engineers.	To provide the learners ethical guidelines along with excellent academic environment for a long productive career.	To promote industry-institute linkage.
1. To provide students with the fundamentals of Engineering Sciences with more emphasis in Mechanical Engineering by way of analyzing and exploiting engineering challenges.	M	M	M
2. To train students with good scientific and engineering knowledge so as to comprehend, analyze, design, and create novel products and solutions for the real life problems.	H	M	M
3. To inculcate professional and ethical attitude, effective communication skills, teamwork skills, multidisciplinary approach, entrepreneurial thinking and an ability to relate engineering issues with social issues.	M	M	H
4. To provide students with an academic environment aware of excellence, leadership, written ethical codes and guidelines, and the self-motivated life-long learning needed for a successful professional career.	M	M	H
5. To prepare students to excel in Industry and Higher education by Educating Students along with High moral values and Knowledge.	H	H	M

High – 3, Medium – 2, Low - 1

Name & Signature of (Faculty Member/Alumni/Industry Person) MANISH JAIN
JECRC JAIPUR

Designation & Organization (In case of Industry Person) / Passing Year (In case of Alumni)

03-Industry Feedback.pdf - Adobe Reader

File Edit View Document Tools Window Help

S#	Name	Company	Email	Mobile	M1-PEO1	M1-PEO2	M1-PEO3	M1-PEO4	M1-PEO5	M2-PEO1	M2-PEO2	M2-PEO3	M2-PEO4	M2-PEO5	M3-PEO1	M3-PEO2	M3-PEO3	M3-PEO4	M3-PEO5
1	Aman Goyal	ACCENTURE	amangoyal.2mech17@gmail.com	8561068278	3	3	1	3	3	1	1	3	2	3	1	1	3	2	3
2	Aniket Kumar	PINNACLE	b2aniket007@gmail.com	8302465264	3	3	2	3	2	1	3	2	3	3	3	1	3	3	2
3	Anshul Chaudhary	PINNECLE	anshularyan18@gmail.com	9672720528	2	2	2	3	3	1	1	2	2	3	1	2	2	3	3
4	Anuj Bhandari	MAHINDRA AND MAHINDRA	anujbhandari94@gmail.com	9461384962	2	2	1	3	2	1	2	2	2	2	1	2	2	2	2
5	Anupesh Narayan	ACCENTURE	anupesh@gmail.com	9785277350	3	1	2	3	3	1	1	2	2	3	2	1	2	2	2
6	Anurag Agrawal	GVKI	agrawalanurag1993@gmail.com	9799989438	2	3	1	3	2	1	2	2	3	2	3	2	3	3	2
7	Arjun Sharma	ACCENTURE	arj7733@gmail.com	9782699773	3	3	3	3	3	2	2	2	3	2	1	2	3	2	2
8	Arvind Didel	PINNACLE	arvinddidelkp@gmail.com	9782250021	2	3	1	3	3	2	1	2	2	2	1	1	3	3	3
9	Ashesh Bansal	ACCENTURE	bansalashesh@gmail.com	9166454765	2	2	1	2	2	1	3	2	3	3	1	1	3	3	2
10	Atul Kumar Upadhyay	MINDIT	atul3877@gmail.com	7728909503	2	3	2	2	3	1	1	3	3	3	2	2	2	3	3
11	Aviral Jakar	ACCENTURE	aviraljakar@gmail.com	9782938400	3	2	1	2	3	2	1	3	3	2	1	2	3	2	3
12	Bhanu Prakash Aggarwal	ACCENTURE	bhanuagarwal59@gmail.com	8233779048	3	3	3	3	3	1	3	3	3	2	3	2	2	3	2
13	Deep Umesh Dwivedi	TCS, DUBAI ROBOTICS	deepumeshdwivedi.mech15@gmail.com	7597177316	3	3	1	3	2	1	2	3	3	3	3	2	1	3	3
14	Deepak Singh Kushwah	TCS	deepak14061994@gmail.com	7737294340	2	3	1	3	3	1	2	2	2	3	2	1	3	3	3
15	Diwanshu Wadhwani	PHONE SUPPORT	diwanshu14@gmail.com	8560022572	2	3	2	2	3	1	3	2	3	2	1	1	2	3	2
16	Garvit Gupta	PINNACLE	guptagarvit015@gmail.com	7737734819	2	3	2	2	2	2	1	1	2	3	1	1	2	2	2
17	Gaurav Khandelwal	GVKI	gaurav.khandelwal246@gmail.com	7737181584	3	3	2	2	2	1	1	2	2	3	1	2	2	3	3
18	Gyan Prakash	FEV	gyan6001@gmail.com	9166043297	2	2	2	3	3	2	2	2	3	3	2	2	2	3	3
19	Harshita Garg	ACCENTURE	harshitagarg309@gmail.com	8290109247	2	3	2	2	2	1	2	3	2	2	2	1	3	3	3
20	Irphan Khan Pathan	MINDIT	2515pathan@gmail.com	7877771934	3	3	1	3	3	3	2	3	3	2	1	2	2	3	3
21	Jai Singh	TCS	usingh55555@gmail.com	9461705782	3	3	1	2	3	3	3	2	3	3	3	1	2	3	2
22	Kartikeya Jain	GVKI,FACE	kartikeyajain2016@gmail.com	9799322260	3	2	2	2	3	1	2	3	3	2	1	2	3	2	2
23	Kunal Sharma	ACCENTURE	ks.kunal94@gmail.com	8058751779	3	3	1	2	2	2	3	3	3	2	2	2	1	3	3
24	Mayank Mittal	ACCENTURE	mayankmtt9@gmail.com	8003339743	2	3	1	3	2	2	1	2	3	3	2	1	3	3	2
25	Mohit Bansal	TCS	mbmohit6012@gmail.com	9549000825	2	3	2	1	3	2	1	2	3	2	1	2	2	2	2
26	Mragank Ohja	PINNACLE	mragank.ojha@gmail.com	9680719268	2	2	1	3	2	2	2	3	3	2	1	1	2	3	3
27	Mukesh Kumar	CAPITAL VIA	mukeshroy820@gmail.com	7740830804	2	3	3	2	3	2	1	2	2	2	1	2	2	3	2
28	Narottam Sain	ASSITANT ENGINEER, SHRI CEMENT,BEAWAR	narottamsain@gmail.com	8561094107	2	3	2	3	3	3	2	2	3	2	3	2	3	3	2
29	Naveen Kumar Gupta	TCS	naveengupta045@gmail.com	8562830665	2	3	1	2	3	1	2	2	3	3	2	2	2	1	3
30	Nikhilesh Sharma	TCS OFF CAMPUS	nikhileshdsa2010@gmail.com	9784616437	3	3	2	3	3	2	1	2	3	2	2	1	3	3	2
31	Prashant Jain	FACE, TATA MOTOR	pshtjain19@gmail.com	8290903683	3	3	2	2	2	2	3	3	3	2	1	2	2	2	3
32	Raj Kumar Bhadu	ACCENTURE	rajbhadu11@gmail.com	8107343711	2	3	2	3	3	1	1	2	3	3	2	3	3	3	2
33	Rakesh	PINNACLE	rakeshjyani123@gmail.com	9828164636	3	3	1	2	3	1	2	2	3	2	1	1	3	2	2
34	Rifatullah Khan	MINDIT	krifatullah@gmail.com	9024095770	2	2	1	3	3	1	1	3	2	2	2	2	2	1	3
35	Rohan Jain	MINDIT	jain.rohan951@gmail.com	9460472287	2	3	2	2	3	2	1	2	2	3	2	1	3	2	3
36	Ronak Jain	PINNACLE	ronakjain9988@gmail.com	9462700843	2	3	1	2	2	1	1	3	2	2	1	2	2	2	3
37	Rounak runwal	ACCENTURE	runwalisrounak@gmail.com	7742974810	3	3	1	2	2	1	2	3	2	3	1	1	2	2	3
38	Sandeep Kumar	PRICISION DESING ENGINEERING	kumar8888sandeep@gmail.com	9461536515	2	3	1	3	3	3	2	3	3	2	1	2	3	3	2
39	Sandeep Kumar Mali	FACE, PRICISION DESING ENGINEER	sainisandeep959@gmail.com	8502967736	2	2	1	2	2	2	3	2	3	3	2	1	2	3	3
40	Sanjay Kumar Sarraf	PRICISION DESING ENGINEERING	sanjay.sanju.bansal@gmail.com	9887309305	3	1	1	2	3	2	1	2	3	2	2	1	3	3	2
41	Sanwar Lal Gurjar	MINDIT	sanwarlal1136@gmail.com	9983679021	3	2	1	2	2	1	2	3	2	3	2	2	3	3	2
42	Saurabh Maheshwari	ACCENTURE	saurabhmaheshwari77@gmail.com	8233860200	2	2	2	3	2	1	3	2	3	3	2	1	2	3	3
43	Sawan Agarwal	PINNACLE	sawan.agarwalme@gmail.com	9462747750	3	2	3	3	3	3	1	2	2	3	2	2	3	3	2
44	Shikhar Saraswat	ACCENTURE	shikharsaraswat1994@gmail.com	8890161028	2	3	3	2	3	1	3	3	3	3	3	1	3	2	3
45	Shubham Agarwal	TCS	sashubham18@gmail.com	7891642657	3	3	2	2	3	2	1	2	3	3	1	1	2	2	3
46	Shubham Saxena	PINNACLE	shubhamsaxena004@gmail.com	9509944140	2	3	1	3	3	1	2	3	3	3	2	2	2	3	1
47	Suraj Bhat	PINNACLE	suraj.m.831@gmail.com	9887119602	3	1	2	3	3	3	3	3	3	2	1	2	3	3	3
48	Umesh Kumar Verma	MINDIT	umeshraj0894@gmail.com	9636898652	2	3	2	3	3	1	2	2	2	2	3	2	1	2	2
49	Vemu Sethi	FACE, TELEPERFORMANCE8	vemu.sethi@gmail.com	9549503999	2	2	3	3	3	2	3	2	2	2	2	2	3	3	2
50	Vishal Jain	ACCENTURE	vishjn26@gmail.com	9636013651	2	3	1	2	3	2	1	3	2	2	1	2	3	3	2
					2.42	2.62	1.64	2.5	2.66	1.6	1.84	2.38	2.62	2.48	1.7	1.6	2.42	2.6	2.46
					2-3	2-3	1-2	2-3	2-3	1-2	1-2	2-3	2-3	2-3	1-2	1-2	2-3	2-3	2-3
					H	H	M	H	H	M	M	H	H	H	M	M	H	H	H

10:12 AM
2/18/2021

Feedback from Industry Person on Mapping of Department PEOs with Department Missions

Name of the Industry Person *

Sawan Agarwal

Affiliation (e.g. Manager-Infosys) *

PINNACLE

Email ID *

sawan.agarwalme@gmail.com

Mobile Number *

9462747750

How strongly departmental mission M1 is related to PEOs? M1: To impart quality technical knowledge to the learners to make them globally competitive mechanical engineers. *

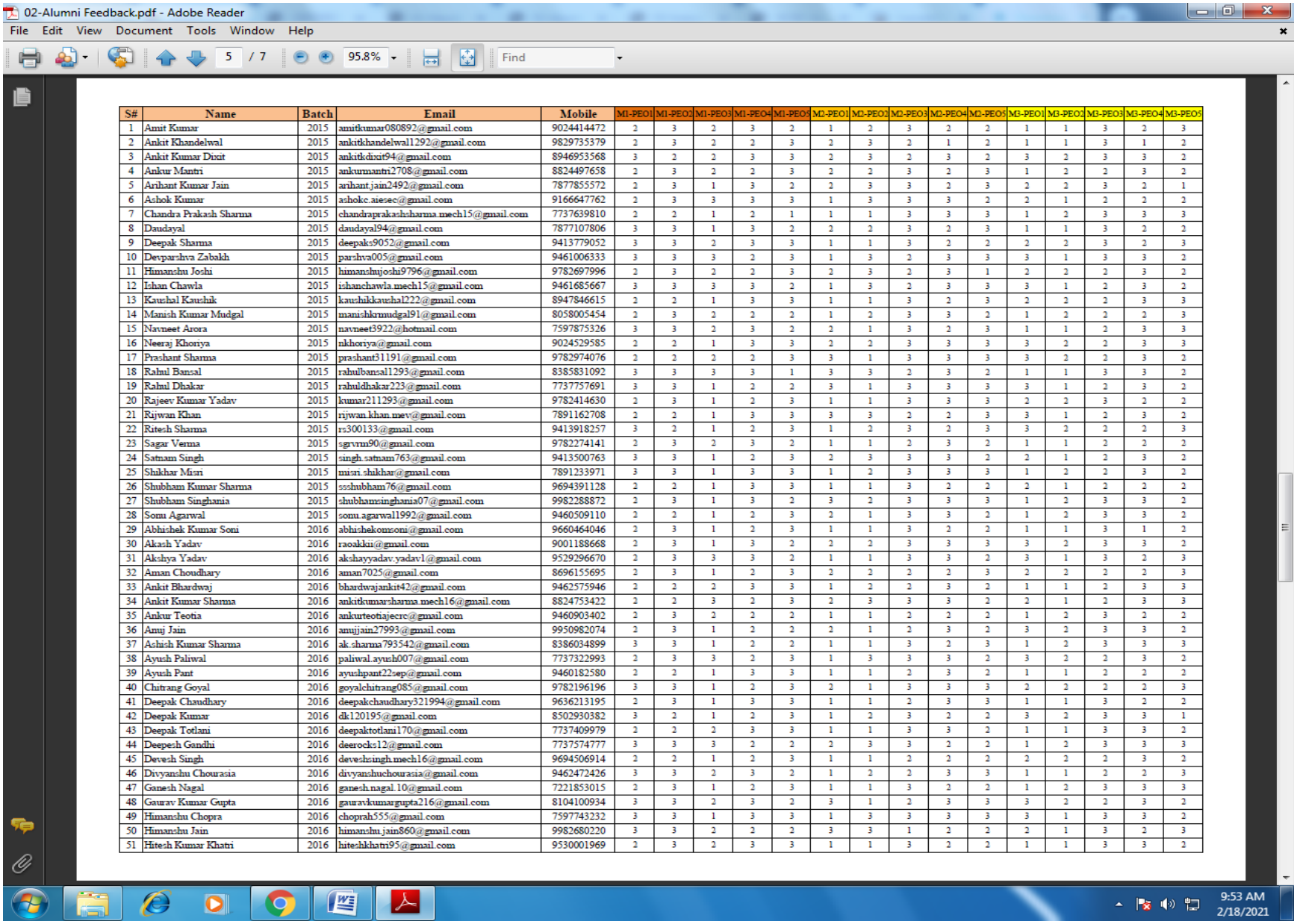
	High	Medium	Low
PEO1: To provide students with the fundamentals of Engineering Sciences with more emphasis in Mechanical Engineering by way of analyzing and exploiting engineering challenges.	◉	○	○
PEO2: To train students with good scientific and engineering knowledge so as to comprehend, analyze, design, and create novel products and solutions for the real life problems.	○	◉	○
PEO3: To inculcate professional and ethical attitude, effective communication skills, teamwork skills, multidisciplinary approach, entrepreneurial thinking and an ability to relate engineering issues with social issues.	◉	○	○
PEO4: To provide students with an academic environment aware of excellence, leadership, written ethical codes and guidelines, and the self-motivated life-long learning needed for a successful professional career.	◉	○	○
PEO5: To prepare students to excel in Industry and Higher education by Educating Students along with High moral values and Knowledge.	◉	○	○

How strongly departmental mission M2 is related to PEOs? M2: To provide the learners ethical guidelines along with excellent academic environment for a long productive career. *

	High	Medium	Low
PEO1: To provide students with the fundamentals of Engineering Sciences with more emphasis in Mechanical Engineering by way of analyzing and exploiting engineering challenges.	◉	○	○
PEO2: To train students with good scientific and engineering knowledge so as to comprehend, analyze, design, and create novel products and solutions for the real life problems.	○	○	◉
PEO3: To inculcate professional and ethical attitude, effective communication skills, teamwork skills, multidisciplinary approach, entrepreneurial thinking and an ability to relate engineering issues with social issues.	○	◉	○
PEO4: To provide students with an academic environment aware of excellence, leadership, written ethical codes and guidelines, and the self-motivated life-long learning needed for a successful professional career.	○	◉	○
PEO5: To prepare students to excel in Industry and Higher education by Educating Students along with High moral values and Knowledge.	◉	○	○

How strongly departmental mission M3 is related to PEOs? M3: To promote industry-institute relationship. *

	High	Medium	Low
PEO1: To provide students with the fundamentals of Engineering Sciences with more emphasis in Mechanical Engineering by way of analyzing and exploiting engineering challenges.	○	◉	○
PEO2: To train students with good scientific and engineering knowledge so as to comprehend, analyze, design, and create novel products and solutions for the real life problems.	○	◉	○
PEO3: To inculcate professional and ethical attitude, effective communication skills, teamwork skills, multidisciplinary approach, entrepreneurial thinking and an ability to relate engineering issues with social issues.	◉	○	○
PEO4: To provide students with an academic environment aware of excellence, leadership, written ethical codes and guidelines, and the self-motivated life-long learning needed for a successful professional career.	◉	○	○
PEO5: To prepare students to excel in Industry and Higher education by Educating Students along with High moral values and Knowledge.	○	◉	○



S#	Name	Batch	Email	Mobile	M1-PEO1	M1-PEO2	M1-PEO3	M1-PEO4	M1-PEO5	M2-PEO1	M2-PEO2	M2-PEO3	M2-PEO4	M2-PEO5	M3-PEO1	M3-PEO2	M3-PEO3	M3-PEO4	M3-PEO5
1	Amit Kumar	2015	amitkumar080892@gmail.com	9024414472	2	3	2	3	2	1	2	3	2	2	1	1	3	2	3
2	Ankit Khandelwal	2015	ankitkhandelwal1292@gmail.com	9829735379	2	3	2	2	3	2	3	2	1	2	1	1	3	1	2
3	Ankit Kumar Dixit	2015	ankitkdixit94@gmail.com	8946953568	3	2	2	3	3	2	3	2	3	2	3	2	3	3	2
4	Ankur Mantri	2015	ankurmantri2708@gmail.com	8824497658	2	3	2	2	3	2	2	3	2	3	1	2	2	3	2
5	Arihant Kumar Jain	2015	arihant.jain2492@gmail.com	7877855572	2	3	1	3	2	2	3	3	2	3	2	2	3	2	1
6	Ashok Kumar	2015	ashokc.aiesec@gmail.com	9166647762	2	3	3	3	3	1	3	3	3	2	2	1	2	2	2
7	Chandra Prakash Sharma	2015	chandraprakashsharma.mech15@gmail.com	7737639810	2	2	1	2	1	1	1	3	3	3	1	2	3	3	3
8	Daudayal	2015	daudayal94@gmail.com	7877107806	3	3	1	3	2	2	2	3	2	3	1	1	3	2	2
9	Deepak Sharma	2015	deepaks9052@gmail.com	9413779052	3	3	2	3	3	1	1	3	2	2	2	2	3	2	3
10	Devparshva Zabakh	2015	parshva005@gmail.com	9461006333	3	3	3	2	3	1	3	2	3	3	3	1	3	3	2
11	Himanshu Joshi	2015	himanshujoshi9796@gmail.com	9782697996	2	3	2	2	3	2	3	2	3	1	2	2	2	3	2
12	Ishan Chawla	2015	ishanchawla.mech15@gmail.com	9461685667	3	3	3	3	2	1	3	2	3	3	3	1	2	3	2
13	Kaushal Kaushik	2015	kaushikkaushal222@gmail.com	8947846615	2	2	1	3	3	1	1	3	2	3	2	2	2	3	3
14	Manish Kumar Mudgal	2015	manishkrmudgal91@gmail.com	8058005454	2	3	2	2	2	1	2	3	3	2	1	2	2	2	3
15	Navneet Arora	2015	navneet3922@hotmail.com	7597875326	3	3	2	3	2	2	1	3	2	3	1	1	2	3	3
16	Neeraj Khoriya	2015	nkhoriya@gmail.com	9024529585	2	2	1	3	3	2	2	3	3	3	3	2	2	3	3
17	Prashant Sharma	2015	prashant31191@gmail.com	9782974076	2	2	2	2	3	3	1	3	3	3	3	2	2	3	2
18	Rahul Bansal	2015	rahulbansal1293@gmail.com	8385831092	3	3	3	3	1	3	3	2	3	2	1	1	3	3	2
19	Rahul Dhakar	2015	rahuldhakar223@gmail.com	7737757691	3	3	1	2	2	3	1	3	3	3	3	1	2	3	2
20	Rajeev Kumar Yadav	2015	kumar211293@gmail.com	9782414630	2	3	1	2	3	1	1	3	3	3	2	2	3	2	2
21	Rijwan Khan	2015	rijwan.khan.mev@gmail.com	7891162708	2	2	1	3	3	3	3	2	2	3	3	1	2	3	2
22	Ritesh Sharma	2015	rs300133@gmail.com	9413918257	3	2	1	2	3	1	2	3	2	3	3	2	2	2	3
23	Sagar Verma	2015	sgrvrm90@gmail.com	9782274141	2	3	2	3	2	1	1	2	3	2	1	1	2	2	2
24	Satnam Singh	2015	singh.satnam763@gmail.com	9413500763	3	3	1	2	3	2	3	3	3	2	2	1	2	3	2
25	Shikhar Misri	2015	misri.shikhar@gmail.com	7891233971	3	3	1	3	3	1	2	3	3	3	1	2	2	3	2
26	Shubham Kumar Sharma	2015	ssshubham76@gmail.com	9694391128	2	2	1	3	3	1	1	3	2	2	2	1	2	2	2
27	Shubham Singhania	2015	shubhamsinghania07@gmail.com	9982288872	2	3	1	3	2	3	2	3	3	3	1	2	3	3	2
28	Sonu Agarwal	2015	sonu.agarwal1992@gmail.com	9460509110	2	2	1	2	3	2	1	3	3	2	1	2	3	3	2
29	Abhishek Kumar Soni	2016	abhishekomsoni@gmail.com	9660464046	2	3	1	2	3	1	1	3	2	2	1	1	3	1	2
30	Akash Yadav	2016	raoakku@gmail.com	9001188668	2	3	1	3	2	2	2	3	3	3	3	2	3	3	2
31	Akshya Yadav	2016	akshayyadav.yadav1@gmail.com	9529296670	2	3	3	3	2	1	1	3	3	2	3	1	3	2	3
32	Aman Choudhary	2016	aman7025@gmail.com	8696155695	2	3	1	2	3	2	2	2	2	3	2	2	2	2	3
33	Ankit Bhardwaj	2016	bhardwajankit42@gmail.com	9462575946	2	2	2	3	3	1	2	2	3	2	1	1	2	3	3
34	Ankit Kumar Sharma	2016	ankitkumarsharma.mech16@gmail.com	8824753422	2	2	3	2	3	2	3	3	3	2	2	1	2	3	3
35	Ankur Teotia	2016	ankurteotiajecrc@gmail.com	9460903402	2	3	2	2	2	1	1	2	2	2	1	2	3	2	2
36	Anuj Jain	2016	anujjain27993@gmail.com	9950982074	2	3	1	2	2	2	1	2	3	2	3	2	3	3	2
37	Ashish Kumar Sharma	2016	ak.sharma793542@gmail.com	8386034899	3	3	1	2	2	1	1	3	2	3	1	2	3	3	3
38	Ayush Paliwal	2016	paliwal.ayush007@gmail.com	7737322993	2	3	3	2	3	1	3	3	3	2	3	2	2	3	2
39	Ayush Pant	2016	ayushpant22sep@gmail.com	9460182580	2	2	1	3	3	1	1	2	3	2	1	1	2	2	2
40	Chitrang Goyal	2016	goyalchitrang085@gmail.com	9782196196	3	3	1	2	3	2	1	3	3	3	2	2	2	2	3
41	Deepak Chaudhary	2016	deepakchaudhary321994@gmail.com	9636213195	2	3	1	3	3	1	1	2	3	3	1	1	3	2	2
42	Deepak Kumar	2016	dk120195@gmail.com	8502930382	3	2	1	2	3	1	2	3	2	2	3	2	3	3	1
43	Deepak Totlani	2016	deepaktotlani170@gmail.com	7737409979	2	2	2	3	3	1	1	3	3	2	1	1	3	3	2
44	Deepesh Gandhi	2016	deerocks12@gmail.com	7737574777	3	3	3	2	2	2	3	3	2	2	1	2	3	3	3
45	Devesh Singh	2016	deveshsingh.mech16@gmail.com	9694506914	2	2	1	2	3	1	1	2	2	2	2	2	2	3	2
46	Divyanshu Chourasia	2016	divyanshuchourasia@gmail.com	9462472426	3	3	2	3	2	1	2	2	3	3	1	1	2	2	3
47	Ganesh Nagal	2016	ganesh.nagal.10@gmail.com	7221853015	2	3	1	2	3	1	1	3	2	2	1	2	3	3	3
48	Gaurav Kumar Gupta	2016	gauravkumargupta216@gmail.com	8104100934	3	3	2	3	2	3	1	2	3	3	3	2	2	3	2
49	Himanshu Chopra	2016	choprah555@gmail.com	7597743232	3	3	1	3	3	1	3	3	3	3	3	1	3	3	2
50	Himanshu Jain	2016	himanshu.jain860@gmail.com	9982680220	3	3	2	2	2	3	3	1	2	2	2	1	3	2	3
51	Hitesh Kumar Khatri	2016	hiteshkhatri95@gmail.com	9530001969	2	3	2	3	3	1	1	3	2	2	1	1	3	3	2

52	Kalal Pankajkumar Chhaganlal	2016	pankajkalal69@yahoo.com	9558998763	3	1	2	3	3	2	1	2	3	2	1	1	3	3	3
53	Khushboo Singh	2016	skhushboo193@gmail.com	9413086007	2	3	1	2	2	1	2	2	2	3	2	2	3	3	3
54	Manish Singh	2016	manishsingh220793@yahoo.in	8764358032	2	3	2	3	3	2	1	3	3	3	1	1	3	2	2
55	Mohit Saini	2016	mksaini994@gmail.com	9667602896	3	3	1	3	2	3	2	3	2	2	2	2	2	3	2
56	Mrinal Pratap Singh	2016	mrinalpratapsingh@gmail.com	9950836599	1	2	1	3	3	1	1	3	3	3	1	2	3	3	2
57	Neeraj Kumar	2016	neerajkumar13@live.in	9785202580	2	3	2	2	1	1	3	3	2	3	1	2	3	2	2
58	Nikhil Nama	2016	nikhil.nama31@gmail.com	8385096773	3	3	1	3	3	3	1	3	3	2	1	1	2	2	2
59	Nikhlesh Krishn Sharma	2016	krishna.987876@gmail.com	8947976550	2	3	1	2	3	2	1	2	3	2	1	1	3	3	3
60	Nitesh Paliwal	2016	niteshpaliwal95@gmail.com	8947091942	2	3	2	3	3	2	1	2	3	2	3	2	2	2	3
61	Prashant Sharma	2016	sharma.prashant48@gmail.com	7793019133	3	3	1	3	3	2	1	2	2	3	1	2	3	3	2
62	Praveen Kumar Gupta	2016	eng.praveenkrgupta@gmail.com	8824875807	2	2	1	2	2	3	2	2	2	2	3	1	2	3	2
63	Praveen Kumar Sharma	2016	sharmapk29@gmail.com	9602065449	2	3	1	3	3	2	2	3	3	2	2	1	3	2	2
64	Pritish Chandhok	2016	pritishchandhok1410@gmail.com	9166040434	2	3	2	2	3	2	1	3	3	2	2	2	2	3	3
65	Raghav Ojha	2016	raghavojha912@gmail.com	9468608293	3	3	2	3	3	1	1	2	2	3	1	1	2	2	3
66	Ramsinghani Heena Sunil Kumar	2016	ramsinghaniheena@gmail.com	9408457040	2	3	1	3	3	1	1	3	3	3	3	2	2	2	3
67	Ravi Prakash	2016	raviprakash335@gmail.com	9680786612	3	1	2	2	2	1	3	3	2	2	3	2	3	3	3
68	Rohan Kumar Sharma	2016	rohan13aug@yahoo.com	9024135346	2	3	2	3	2	1	2	2	3	3	2	2	2	3	3
69	Ronit Maheshwari	2016	ronitmaheshwari5151@yahoo.com	8562844099	2	3	3	3	3	2	2	2	3	3	1	1	3	3	3
70	Saurabh Kumar Bansal	2016	saurbansalabh@gmail.com	9660859384	3	3	1	3	3	3	3	3	3	1	2	1	2	3	2
71	Sharwan Kumar Jain	2016	sksk3021@gmail.com	7665210153	2	3	2	2	3	1	2	3	3	3	1	2	2	3	3
72	Shashi Ranjan Tiwary	2016	shahill.kumar00@gmail.com	9166277478	2	3	1	2	2	2	1	2	2	2	2	2	3	2	3
73	Shivam Joshi	2016	sshivamkjoshi123@gmail.com	7790886931	2	2	3	3	3	2	2	3	1	2	3	1	3	3	3
74	Shubham Kumar Sharma	2016	shubham.sharma75319@gmail.com	8769340009	3	3	3	3	3	1	3	2	2	2	1	1	3	3	2
75	Siddharth Singh	2016	siddharth0315@gmail.com	7791099485	3	3	2	3	3	1	1	3	3	2	1	3	3	2	3
76	Sumit Kumar	2016	sumit.kumar15990@gmail.com	9887145695	2	2	1	2	3	1	2	2	2	3	1	1	2	3	2
77	Sumit Kumar Gupta	2016	kumargupta04@gmail.com	9461307444	3	3	2	3	2	2	1	3	3	3	2	2	2	2	3
78	Sunil Gilra	2016	sunilgilra1@gmail.com	8963026409	3	2	3	3	2	1	1	2	3	3	3	2	3	3	3
79	Sunil Kumar Gupta	2016	sunilkumargupta561@gmail.com	8385897843	2	3	3	2	2	1	2	2	3	2	2	1	3	2	2
80	Sunil Kumar Morwal	2016	sunil.ultratech@gmail.com	9667470597	2	3	1	2	2	2	2	3	2	3	2	2	3	3	2
81	Sushil Kumar	2016	sushilverma793@gmail.com	8107079001	3	2	1	3	3	3	3	2	2	3	2	2	2	3	3
82	Tarun Chaturvedi	2016	e4evil.lucky@gmail.com	7891945515	3	2	1	3	2	1	3	3	3	3	2	1	3	2	3
83	Uttam Kumar	2016	choudharyuttam94@gmail.com	9782339648	2	3	2	3	3	1	1	2	2	3	1	1	3	2	3
84	Vaibhav Sharma	2016	vaibhavsharma994@gmail.com	9610757191	3	3	2	2	2	2	1	2	3	3	1	2	3	2	2
85	Vijay Bhambhani	2016	vijaybhambhani2@gmail.com	8764405876	3	2	3	2	2	2	1	2	3	3	1	2	2	2	2
86	Vijay Yadav	2016	vijayy930@gmail.com	9829503141	2	3	2	3	3	1	2	2	3	3	1	1	2	2	2
87	Vijayraj Singh Rathore	2016	vijayraj.rathore19@gmail.com	9462700399	2	3	1	2	3	2	2	3	2	2	3	1	2	3	3
88	Vikash Kumar Singh	2016	vikashaditya12345@gmail.com	9602630926	2	1	2	3	3	1	1	3	2	2	2	2	2	3	3
89	Vinod Saini	2016	vinodjaipur94@gmail.com	9166353942	3	3	2	3	2	1	1	2	3	3	1	2	3	3	3
90	Vishal Kaul	2016	kaulvishal28@gmail.com	9602591991	3	2	1	3	3	3	3	2	3	3	1	1	2	3	3
91	Vishal Sharma	2016	vishalsharma571993@gmail.com	9782665314	2	2	3	2	3	2	1	2	2	3	3	2	3	3	2
92	Vishal Sharma	2016	vishalrocks205@gmail.com	8947860091	2	3	2	2	2	2	2	2	3	3	1	2	2	3	3
93	Vitthal Gagrani	2016	vitalmaheshwari@gmail.com	8946908057	2	3	2	3	2	1	2	3	3	3	1	1	2	2	3
94	Abhisek Bhardwaj	2017	abhisekbharadwaj1996@gmail.com	7891328086	3	2	2	2	3	2	3	3	2	2	1	1	3	3	3
95	Abhishek Swami	2017	swamig3@gmail.com	8560087745	3	3	2	3	3	1	2	3	3	3	1	2	3	3	2
96	Aditya Singh Rajawat	2017	adityarajawat005@gmail.com	7792977123	3	2	1	3	2	2	2	2	2	2	1	2	2	2	2
97	Akansh Agarwal	2017	akanshagarwal0704@gmail.com	8385061291	3	3	1	2	3	1	1	2	3	3	2	1	3	3	3
98	Akshat Tiwari	2017	akshat.safi@yahoo.in	7727884775	2	2	1	2	3	1	1	2	2	2	1	2	3	3	3
99	Akshay Bhardwaj	2017	akshay.bhardwaj27@gmail.com	7742516864	2	2	2	3	2	3	1	3	3	2	3	1	2	3	2
100	Akshay Gupta	2017	akshaygupta9520@gmail.com	8233419239	2	2	2	2	3	3	2	3	2	3	1	1	3	2	1
101	Akshay Kumar Soni	2017	akshaysoni780@gmail.com	7665230936	3	3	1	2	3	1	3	2	3	2	1	1	3	3	2
102	Aman Gupta	2017	ag786786786@gmail.com	9929692878	2	3	1	3	3	3	1	3	3	2	3	1	2	3	2
103	Aman Vyas	2017	vyas.aman17@gmail.com	9468698208	3	3	2	3	2	2	2	2	2	3	1	1	2	2	2

104	Amit Modi	2017	amitkumarmodi007@gmail.com	9636199279	2	2	1	3	3	2	3	3	2	2	1	1	3	3	2
105	Ankit Bhardwaj	2017	bhardwaj.yash9@gmail.com	7597859188	3	2	2	3	3	1	2	3	3	2	2	2	2	2	2
106	Anshuman Sisodia	2017	anshuman.sisodia.9@gmail.com	9684173983	3	3	2	2	3	2	3	3	3	2	2	2	3	3	3
107	Anuj Tiwari	2017	anujtiwari0607@gmail.com	9509506414	2	2	3	2	3	2	3	2	2	2	2	1	2	2	2
108	Arnim Vijay	2017	arnimofficial16@gmail.com	9672637601	3	3	1	3	3	2	1	3	3	3	1	1	3	3	3
109	Arun Yadav	2017	arunkumar.yadav32@gmail.com	9509328333	2	2	2	2	2	2	2	2	2	2	1	2	2	1	2
110	Ashutosh Kumar	2017	ashutosh.bodyguard@gmail.com	8233027040	3	3	2	2	3	1	1	2	2	2	1	2	3	2	3
111	Asutosh Jain	2017	ashutoshjain95@gmail.com	9587140483	3	3	3	2	3	1	2	2	2	3	2	1	3	2	2
112	Ayan Dutta	2017	ayan.dutta16@gmail.com	9694809353	2	2	2	3	3	1	1	2	2	2	1	1	3	2	3
113	Ayush Garg	2017	garg.ayush08071994@gmail.com	9982087331	3	2	2	3	2	2	1	2	3	2	1	2	3	2	2
114	Ayush Marotiya	2017	ayushmarotiya@gmail.com	8560006869	2	3	1	2	3	3	1	3	2	2	1	1	3	3	2
115	Bhanu Pratap Singh	2017	bhanupsingh.1993@gmail.com	9660668381	3	3	2	1	3	1	3	3	2	2	1	2	2	3	2
116	Chetan Prajapati	2017	prajapatichetan000@gmail.com	7737123752	2	2	3	3	3	2	2	3	3	2	2	2	1	3	3
117	Deepanshu Sharma	2017	deepanshusharma2112@gmail.com	8875038622	3	3	1	3	2	1	1	2	3	3	1	3	2	2	2
118	Devesh Khandelwal	2017	deveshkachwal@gmail.com	8058232448	2	3	3	2	3	1	1	3	2	3	1	2	2	3	2
119	Dheeraj Agarwal	2017	dimpy090895@gmail.com	8290268057	2	2	2	2	2	1	2	3	2	2	2	1	3	3	2
120	Dushyant Pareek	2017	dushyantpareek95@gmail.com	8890049267	3	3	2	2	3	3	2	3	3	3	2	1	2	3	3
121	Eshan Swami	2017	eshan16swami@gmail.com	7597068898	2	3	1	2	3	2	1	3	2	3	1	2	2	2	3
122	Gajendra Kumar Teli	2017	gk72834@gmail.com	7665747896	3	2	1	3	3	1	1	3	3	3	3	1	3	3	3
123	Garvit Dadhich	2017	dadhichgarvit@gmail.com	7597648866	2	2	1	3	3	2	1	2	2	3	3	1	3	3	2
124	Garvit Jain	2017	jaingarvit1996@gmail.com	7665997841	3	3	2	3	3	3	3	3	3	2	3	2	2	3	3
125	Gaurav Gupta	2017	gauravgpt472@gmail.com	8890280374	2	2	1	2	3	3	2	2	3	3	3	1	2	2	2
126	Gaurav Sahu	2017	gauravsahu2112@gmail.com	9784082601	2	3	2	3	3	1	1	3	3	2	2	1	3	3	2
127	Harsh Agarwal	2017	harsh.agarwalnew@gmail.com	8233596164	2	3	1	2	2	1	2	3	3	2	1	1	3	2	2
128	Harshvardhan Arya	2017	harsharya315@gmail.com	8875609149	3	3	3	3	3	3	2	2	3	3	1	2	3	3	3
129	Jitendra Kumar Sain	2017	hijitendrasain1996@gmail.com	7742101744	3	2	1	2	1	3	3	3	3	2	3	2	2	3	2
130	Keshav Goyal	2017	keshavgoyal102@gmail.com	7568215995	3	3	3	2	3	2	3	2	3	2	3	2	2	2	3
131	Manan Choudhary	2017	jain.manan56@yahoo.com	8963086223	3	3	2	3	2	1	2	3	2	3	2	2	3	3	2
132	Manish Arora	2017	aroramanish886@gmail.com	8963816233	2	3	1	2	3	2	1	3	3	3	1	2	3	3	3
133	Mridul Agrawal	2017	mridul4434@gmail.com	7891300303	2	3	3	3	3	1	2	3	2	2	2	1	3	3	2
134	Namit Misra	2017	namit.94@gmail.com	7793027668	3	2	1	2	3	1	2	3	2	2	1	1	3	2	2
135	Parth Mittal	2017	parth230994@gmail.com	9982382294	3	3	2	2	3	2	2	3	2	2	1	2	2	3	3
136	Pawan Kumar	2017	shuklapawan935@gmail.com	8696014481	3	2	1	3	2	3	1	3	2	2	3	1	3	3	2
137	Pradeep Kumar Attal	2017	pradeepattal01@gmail.com	9509966247	2	3	3	3	3	2	3	2	2	2	3	1	3	3	2
138	Pramod Kumar	2017	pramodyadav15121995@gmail.com	8947015039	3	3	2	2	3	2	1	3	3	3	3	2	2	2	2
139	Raghvendra Singh	2017	raghvendrasingh1995@gmail.com	8290448888	2	3	3	3	2	2	1	2	3	3	1	2	3	3	2
140	Rajchander Jain	2017	jainraja.raja@gmail.com	9782877619	3	2	1	3	2	2	3	3	2	3	3	1	3	2	2
141	Rakshit Trivedi	2017	mastertrivedi@gmail.com	9950107214	2	3	1	2	3	1	2	2	3	2	2	1	2	3	2
142	Ramnik Kaul	2017	259mishu@gmail.com	9782081114	2	2	2	2	3	1	1	3	3	3	1	2	3	3	3
143	Rishabh Gupta	2017	rishabitstar@gmail.com	9166706065	2	3	3	3	3	1	1	2	3	2	1	1	2	3	3
144	Rishil Gupta	2017	rishilgupta95@gmail.com	7597721747	3	3	2	3	3	2	1	3	1	3	1	1	3	2	3
145	Rohan Kapoor	2017	rkp0910@gmail.com	8952920031	1	2	1	2	3	1	1	2	3	3	1	2	3	3	3
146	Rohit Mehta	2017	rohitmehta355@gmail.com	9587462499	3	3	3	2	3	3	2	2	3	2	1	1	3	3	3
147	Shubham Gupta	2017	shubham1194@gmail.com	7793813237	2	3	1	3	3	3	1	3	3	3	2	2	2	2	1
148	Sourabh Gupta	2017	sourabhjuly25@gmail.com	7792827556	2	3	2	2	3	1	2	3	3	2	1	1	2	3	2
149	Sudhir Kumar	2017	sudhirroys@gmail.com	8559883095	3	3	3	3	2	1	3	3	3	3	2	1	2	3	3
150	Tarun Kumar Vyas	2017	tarunvyas123@gmail.com	9667712205	3	3	2	3	3	2	2	2	3	2	2	2	1	1	2
151	Vipin Yadav	2017	yadav.vipin03@gmail.com	8302228704	2	3	1	3	3	1	1	3	3	3	1	2	2	3	2
					2.42	2.65	1.74	2.53	2.64	1.69	1.77	2.57	2.56	2.48	1.74	1.52	2.52	2.59	2.4
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					H	H	M	H	H	M	M	H	H	H	M	M	H	H	H

Feedback from Alumni on Mapping of Department PEOs with Department Mission

Name of the Alumni *

Rishabh Gupta

Passing Year *

2017

Email ID *

rishabitstar@gmail.com

Mobile Number *

9166706065

How strongly departmental mission M1 is related to PEOs? M1: To impart quality technical knowledge to the learners to make them globally competitive mechanical engineers. *

	High	Medium	Low
PEO1: To provide students with the fundamentals of Engineering Sciences with more emphasis in Mechanical Engineering by way of analyzing and exploiting engineering challenges.	○	◉	○
PEO2: To train students with good scientific and engineering knowledge so as to comprehend, analyze, design, and create novel products and solutions for the real life problems.	◉	○	○
PEO3: To inculcate professional and ethical attitude, effective communication skills, teamwork skills, multidisciplinary approach, entrepreneurial thinking and an ability to relate engineering issues with social issues.	◉	○	○
PEO4: To provide students with an academic environment aware of excellence, leadership, written ethical codes and guidelines, and the self-motivated life-long learning needed for a successful professional career.	◉	○	○
PEO5: To prepare students to excel in Industry and Higher education by Educating Students along with High moral values and Knowledge.	◉	○	○

How strongly departmental mission M2 is related to PEOs? M2: To provide the learners ethical guidelines along with excellent academic environment for a long productive career. *

	High	Medium	Low
PEO1: To provide students with the fundamentals of Engineering Sciences with more emphasis in Mechanical Engineering by way of analyzing and exploiting engineering challenges.	○	○	◉
PEO2: To train students with good scientific and engineering knowledge so as to comprehend, analyze, design, and create novel products and solutions for the real life problems.	○	○	◉
PEO3: To inculcate professional and ethical attitude, effective communication skills, teamwork skills, multidisciplinary approach, entrepreneurial thinking and an ability to relate engineering issues with social issues.	○	◉	○
PEO4: To provide students with an academic environment aware of excellence, leadership, written ethical codes and guidelines, and the self-motivated life-long learning needed for a successful professional career.	◉	○	○
PEO5: To prepare students to excel in Industry and Higher education by Educating Students along with High moral values and Knowledge.	○	◉	○

<table>
<tr><th colspan="4">Criterion-2 Program Curriculum and Teaching- Learning Process</th></tr>
<tr><th>S. NO</th><th>CRITERIA</th><th>OBSERVATION MADE BY NBA</th><th>COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)</th></tr>
<tr><td>2.1.1</td><td>2.1.1 State the process to identify extent of compliance of the University Curriculum for attaining the Program Outcomes & Program Specific Outcomes (PSOs), mention the identified curricular gaps, if any</td><td>Gaps are not identified systematically and relevant& contemporary industry topics are not covered.</td><td>Gaps are identified systematically. Department regularly collects the feedback from industry experts, employers, placement cell, alumni etc. Collected feedbacks have been analyzed and discussed.
In discussion, department has identified contemporary industry topics that may be included in syllabus and communicated to RTU for necessary action. Based on gaps identified the department has included various topics to deliver to the students through various stakeholders and also included in the academic calendar.
Based on the delivery of contemporary issues through various means , feedback from the students, its relevance is also analyzed.
<table>
<tr><td>Feedback</td><td>Website link</td></tr>
<tr><td>Industry experts/ employers</td><td>https://jecrcfoundation.com/placement-recruiters
https://docs.google.com/forms/d/e/1FAIpQLSe1r06mFErIvLA94qt-Dtla07R12rDgiV7oWfhIUT_k6PctWg/viewform</td></tr>
<tr><td>Alumni</td><td>https://jecrcfoundation.com/alumni
https://forms.gle/hp5ei1GT7x8k314VA</td></tr>
</table>
Department has sent a letter related to curriculum gaps to affiliated university.</td></tr>
</table>

Delivery methods	Link
Add-on courses / workshops	https://jecrcfoundation.com/jf-data/ADDON/Differentaspect2019-20.pdf https://jecrcfoundation.com/jf-data/ADDON/3DPrinting2019-20.pdf https://jecrcfoundation.com/jf-data/ADDON/differentaspect2018-19.pdf https://jecrcfoundation.com/jf-data/ADDON/L3D2019-20.pdf https://jecrcfoundation.com/jf-data/ADDON/3Dprinting2018-19.pdf https://jecrcfoundation.com/jf-data/ADDON/automobileworkshop.pdf
Guest lectures by the industry person	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/Guest-Lectures-2019-20.pdf https://www.jecrcfoundation.com/pdf/webinar/Webinar-ME.pdf
Industrial visit s	https://jecrcfoundation.com/jf-data/NBA/ME/Industrial-Visit/Industrial-Visits-2019-20.pdf
Conferences	https://www.jecrcfoundation.com/pdf/confrence-reports/ME%202015-2020.pdf
Technical clubs/ activities	https://jecrcfoundation.com/jf-data/NBA/ME/MoonRider/Annual%20Report%202019-20.pdf https://jecrcfoundation.com/jf-data/NBA/ME/MoonRider/Annual-Report-2018-19.pdf

JAIPUR ENGINEERING COLLEGE
AND RESEARCH CENTRE

Ref. JECRC/2020/REG/082 28.../07/2020

To,

The Dean Academic Affairs,
Rajasthan Technical University,
Kota.

Subject: Regarding Curriculum gap in the syllabus of B.Tech. Engineering Courses

Dear Sir,

As per information received from the programs/departments of Jaipur Engineering College and Research Centre, the following are the curriculum gaps in the syllabus for your information please -

S. No.	Program/ department	Subject	Topic
1	Electronics & Communication Engineering	Digital System Design	Sequence Detectors, Hazards, Incompletely specified State Reduction
2		Computer Architecture	Layer Mechanisms of Interconnect network
3		Power Electronics	PEC Configurations for Battery Charger
4		Computer Network	Internet of Things
5		Information Theory and Coding	Probability Theory
6		Introduction to MEMS	Manufacturing of components and simulation practice
7		Microcontrollers and Embedded System	Programming and Interfacing of Advanced Microcontrollers with IOT enabled Devices
8	Mechanical Engineering	Manufacturing Technology	Application of artificial intelligent in manufacturing
9		Manufacturing/CIM/CAD/PDD	Multi-jet 3 D modelling
10		Micro and Nano Manufacturing	Design Requirement of Micro turning Machines
11		FEM	Lower–Upper decomposition method, introduction and difference between FDM, FVM, BEM.
12		Design of Machine Elements	Testing of different types of bearing
13		RAC & Automobile	Refrigeration accessories
14		Automobile Engineering /IC Engine	Challenges and opportunities of electric vehicles in India
15		Quality assurance	Industrial Internet of Things (IIoT) technology for quality assurance
16		PDL	Value engineering

contd 2/.

PRINCIPAL REGISTRAR
Jaipur Engineering College & Research Centre
Jaipur

JECRC

Jaipur Engineering college and research centre,
Shri Ram ki Nangal, via Sitapura RIICO Jaipur- 302 022

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE (JECRC)

Company name: FEV India Pvt. Ltd.	Designation: Head Human Resources
Name of HR: Anu Sethi	Mobile Number/ Email address: sethi@fev.com

Your feedback will help in academic / innovative activities at our institute(s)

Vision of Jaipur Engineering College and Research Centre	**Mission of Jaipur Engineering College and Research Centre**
To become a renowned centre of outcome based learning, and work towards academic, professional, cultural and social enrichment of the lives of individuals and communities.	**M1**: Focus on evaluation of learning outcomes and motivate students to inculcate research aptitude by project based learning. **M2**: Identify, based on informed perception of Indian, regional and global needs, areas of focus and provide platform to gain knowledge and solutions. **M3**: Offer opportunities for interaction between academia and industry. **M4**: Develop human potential to its fullest extent so that intellectually capable and imaginatively gifted leaders can emerge in a range of professions.

To what extent you think the students achieve

PO1: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems in Mechanical Engineering.
PO2: Problem analysis: Identify, formulate, research literature, and analyze complex Mechanical Engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO3: Design/development of solutions: Design solutions for complex Mechanical Engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO4: Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions in Mechanical Engineering.
PO5: Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex Mechanical Engineering activities with an understanding of the limitations.
PO6: The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional Mechanical Engineering practice.
PO7: Environment and sustainability: Understand the impact of the professional Mechanical Engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the Mechanical Engineering practice.
PO9: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings in Mechanical Engineering.
PO10: Communication: Communicate effectively on complex Mechanical Engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO11: Project management and finance: Demonstrate knowledge and understanding of the Mechanical Engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long

JECRC

Jaipur Engineering college and research centre.
Shri Ram ki Nangal, via Sitapura RIICO Jaipur- 302 022.

Parameters	5 (Very High)	4 (High)	3(Moderate)	2 (Low)	1 (Very Low)
Does our syllabus match with your industrial requirements			✓		
Technical abilities of our students		✓			
Analytical capabilities of our students		✓			
Would you like to visit JECRC again	✓				
Will you recommend JECRC to other companies	✓				
How would you rate our students already working in your company?		✓			
Hospitality	✓				
Overall experience at our institute	✓				

Any suggestions:

Student need to understand advance automotive technologies like. hybride technology and Electrical vehicles and Battery Management System.

Signature: aurathi
Date: 19/2/19

JECRC Mail

Hod Me <hod.me@jecrc.ac.in>

Improvement in Syllabus

Shefali<Shefali.cad@gmail.com> Tue, June 15, 2019 at 10:15 AM
To: <hod.me@jecrc.ac.in>

Dear Sir,

Greetings from CADD Center

We would like to thank you for the courtesies extended by you and your team during our visit to your Institute last week, regarding training and placement of students in our company

We have inculcated the very best of modern technology and new developments in the field of automobile in our products, which has enabled us to become one of the leading automobile company in the world.

During our interaction with your students overall we found that they were well equipped in their respective fields and subjects, however, they were lacking in their knowledge about the latest updates which are happening in the world of automobile engineering.

Therefore before we complete the process of recruitment, we would suggest that you may initiate and complete the following two activities with your students so that they are better equipped to handle the latest updates in the industry.

The first first topic is Vehicle Mechanics.:

1. To apply the knowledge of Material science manufacturing and design to implement the various concepts of vehicle mechanics.

2. To apply the knowledge of 3D printing technology in design and development of prototypes.

Hope you would find our suggestions in the right spirit and try to inculcate these new aspects in the students curriculum.

We look forward to coming again to your Institute for completion of the recruitment process

Alumni Feedback Form

Dear Alumni,
JECRC is privileged to have you as one of its utmost assets and its global representative. Thus, your inputs would be most valuable. We would really appreciate if you can spare some of your valuable time to fill up the following questionnaire. Your answers would help your Alma Mater in making further improvements.

Feedback rating range:
Excellent:(5) Very Good:(4) Good:((3) Satisfactory:(2) Needs improvement: (1)

Date: *

MM DD YYYY

09 / 17 / 2020

Academic Year: *

2019-20

Name *

Mohammed Saquib Khan

Year of Graduation: *

g. Working as part of a team *

1	2	3	4	5
○	○	○	○	◉

Suggestions:

How could our programs be improved? What specific comments do you have regarding the curriculum enrichment? *

The course should be designed to gain more Practical knowledge about Electrical vehicle

Any Suggestion (s) you would like to make regarding Department/College: *

A great Mechanical department, always with a helping hand and ready to help

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

Jaipur Engineering college and research centre,
Shri Ram ki Nangal, via Sitapura RIICO Jaipur- 302 022.

Alumni Feedback Form **Date:** 24-12-2018

Academic year: ~~2018-19~~

Feedback rating range:

Excellent:(5) Very Good:(4) Good:((3) Satisfactory:(2) Needs improvement: (1)

Dear Alumni,

JECRC is privileged to have you as one of its utmost assets and its global representative. Thus, your inputs would be most valuable. We would really appreciate if you can spare some of your valuable time to fill up the following questionnaire. Your answers would help your Alma Mater in making further improvements.

Name: Gaysan Dadheech
Year of Graduation: 2014
Branch: Mechanical
Name of the Company/Organisation: Hero Moto Corp.
Designation: Design and Development
Email: gaysan.dadheech@heromotocorp.com
Mobile number:

Vision of Jaipur Engineering College and Research Centre	**Mission of Jaipur Engineering College and Research Centre**
To become a renowned centre of outcome based learning, and work towards academic, professional, cultural and social enrichment of the lives of individuals and communities.	**M1**. Focus on evaluation of learning outcomes and motivate students to inculcate research aptitude by project based learning. **M2**. Identify, based on informed perception of Indian, regional and global needs, areas of focus and provide platform to gain knowledge and solutions. **M3**. Offer opportunities for interaction between academia and industry. **M4**. Develop human potential to its fullest extent so that intellectually capable and imaginatively gifted leaders can emerge in a range of professions.

Parameters	(5) Excellent	(4) Very Good	(3) Good	(2) Satisfactory	(1) Needs Improvement
1.To what extent you agree with the vision of JECRC	✓				
2.To what extent you agree with the Mission of JECRC		✓			
3.The extent to which the following abilities/skills were inculcated in you:		✓			
a. Technical abilities					
b. Communications Skills			✓		
c. Problem Solving Capacity	✓				
d. Ethical Values & Social Responsibility		✓			
e. Leadership Skills	✓				
f. Ability to develop practical solutions to work place problems using technology and workplace equipment			✓		
g. Working as part of a team	✓				

How could our programs be improved? What specific comments do you have regarding the curriculum enrichment?

Content about automotive Safety should be include. Also content should be in detail.

Any Suggestion (s) you would like to make regarding Department/College:

Some more lectures on topic should be conduct.

Date:

Signature

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

Jaipur Engineering college and research centre,
Shri Ram ki Nangal, via Sitapura RIICO Jaipur- 302 022.

Alumni Feedback Form **Date:** 12-11-2018

Academic year:---------- 2018-19

Feedback rating range:

Excellent:(5) Very Good:(4) Good:((3) Satisfactory:(2) Needs improvement: (1)

Dear Alumni,

JECRC is privileged to have you as one of its utmost assets and its global representative. Thus, your inputs would be most valuable. We would really appreciate if you can spare some of your valuable time to fill up the following questionnaire. Your answers would help your Alma Mater in making further improvements.

Name: Harish babel
Year of Graduation: 2010
Branch: Mechanical engineering
Name of the Company/Organisation: Daimler India commercial vehicle
Designation: Senior manager (R&D)
Email: babuharish@gmail.com
Mobile number: 9910467361

Vision of Jaipur Engineering College and Research Centre	**Mission of Jaipur Engineering College and Research Centre**
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Parameters	(5) Excellent	(4) Very Good	(3) Good	(2) Satisfactory	(1) Needs Improvement
1.To what extent you agree with the vision of JECRC	✓				
2.To what extent you agree with the Mission of JECRC		✓			
3.The extent to which the following abilities/skills were inculcated in you:					
a. Technical abilities		✓			
b. Communications Skills	✓				
c. Problem Solving Capacity			✓		
d. Ethical Values & Social Responsibility		✓			
e. Leadership Skills		✓			
f. Ability to develop practical solutions to work place problems using technology and workplace equipment			✓		
g. Working as part of a team		✓			

How could our programs be improved? What specific comments do you have regarding the curriculum enrichment?

There is no subject knowledge regarding concepts of electric vehicle so it should be included

Any Suggestion (s) you would like to make regarding Department/College:

Arrange some more training lectures on of new technology

Date: -

Harish

Signature

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE	**Jaipur Engineering college and research centre,** Shri Ram ki Nangal, via Sitapura RIICO Jaipur- 302 022.
Employer's Feedback Form	**Date:** 10-9-2018
Academic year: ~~2018~~-19	

Feedback rating range:

Excellent:(5) Very Good:(4) Good:((3) Satisfactory:(2) Needs improvement: (1)

Dear Employer,

Many graduates of our institute are already serving in your organization. We would be grateful if you can spare some of your valuable time to fill up this feedback form. It will help us to improve the Institute further and give you better employees in the future.

Name of the Company/Institute: CIPET JAIPUR

Name of the evaluating person with Designation: PRADEEP SAHU / HOD CAD, CAM, CSTS

Email:- cipetjprcad@gmail.com

Mobile number: 9672778952

Vision of Jaipur Engineering College and Research Centre	**Mission of Jaipur Engineering College and Research Centre**
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Parameters	(5)	(4)	(3)	(2)	(1)
Ability to demonstrate problem solving skills	✓				
Ability to work in team		✓			
Ability to demonstrate leadership and organization skills	✓		✓		
Ability to demonstrate professional ethics	✓				
Ability to learn		✓			
Ability to promote for social activity		✓			

How could our programs be further improved? What specific comments do you have regarding the curriculum enrichment?

Need some 3D tools also.

Any Suggestions:

Technical data should be improve.

Signature

Pradeep

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE	**Jaipur Engineering college and research centre,** Shri Ram ki Nangal, via Sitapura RIICO Jaipur- 302 022.
Employer's Feedback Form	**Date:** 8-10-2018
Academic year:-------- 2018-19	
Feedback rating range: **Excellent:(5) Very Good:(4) Good:((3) Satisfactory:(2) Needs improvement: (1)**	

Dear Employer,

Many graduates of our institute are already serving in your organization. We would be grateful if you can spare some of your valuable time to fill up this feedback form. It will help us to improve the Institute further and give you better employees in the future.

Name of the Company/Institute: BSDU

Name of the evaluating person with Designation: Binod Kumar Jha / Principal / School of Manufacturing Skills

Email: Principal.manufacturing@raj-bsdu.in

Mobile number: 9818866457

Vision of Jaipur Engineering College and Research Centre	**Mission of Jaipur Engineering College and Research Centre**
To become a renowned centre of outcome based learning, and work towards academic, professional, cultural and social enrichment of the lives of individuals and communities.	**M1.** Focus on evaluation of learning outcomes and motivate students to inculcate research aptitude by project based learning. **M2.** Identify, based on informed perception of Indian, regional and global needs, areas of focus and provide platform to gain knowledge and solutions. **M3.** Offer opportunities for interaction between academia and industry. **M4.** Develop human potential to its fullest extent so that intellectually capable and imaginatively gifted leaders can emerge in a range of professions.

Parameters	(5)	(4)	(3)	(2)	(1)
Ability to demonstrate problem solving skills	✓				
Ability to work in team	✓				
Ability to demonstrate leadership and organization skills		✓			
Ability to demonstrate professional ethics	✓				
Ability to learn	✓				
Ability to promote for social activity	✓				

How could our programs be further improved? What specific comments do you have regarding the curriculum enrichment?

Introduce more advanced manufacturing machines in your institute.

Any Suggestions:

Plan for more futuristic advance courses in your institute.

Signature

R.K Jha

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE	**Jaipur Engineering college and research centre,** Shri Ram ki Nangal, via Sitapura RIICO Jaipur- 302 022.

Employer's Feedback Form **Date:** 26-11-18

Academic year: ~~2018-19~~

Feedback rating range:

Excellent:(5) Very Good:(4) Good:((3) Satisfactory:(2) Needs improvement: (1)

Dear Employer,

Many graduates of our institute are already serving in your organization. We would be grateful if you can spare some of your valuable time to fill up this feedback form. It will help us to improve the Institute further and give you better employees in the future.

Name of the Company/Institute: Prime vision automission Solution

Name of the evaluating person with Designation: Bhawani Singh (Instructor)

Email: bhawani.pras@gmail.com

Mobile number: 8740006995

Vision of Jaipur Engineering College and Research Centre	**Mission of Jaipur Engineering College and Research Centre**
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Parameters	(5)	(4)	(3)	(2)	(1)
Ability to demonstrate problem solving skills		✓			
Ability to work in team	✓				
Ability to demonstrate leadership and organization skills		✓			
Ability to demonstrate professional ethics	✓				
Ability to learn	✓				
Ability to promote for social activity	✓				

How could our programs be further improved? What specific comments do you have regarding the curriculum enrichment?

Student can use IoT in ATV (All Terrain Vehicle)

Any Suggestions: Provide courses / guest lecture on IoT

Signature

Gap identified and Action Taken (2019-20)

	Subjects	Gap	Topics	Proposed plan		Action taken	Relevance to PO/PSO
1	Manufacturing technology/ Computer Integrated Manufacturing /Computer Aided Design/Product design and development/ Micro and Nano Manufacturing	Modern industrial production technologies	Multi-jet 3 D modelling	Guest Lecture	27/08/2019	Guest Lecture	PO1,PO2,PO3,PO4,PO5
			Manufacturing Through CAD: Robust Manufacturing	Guest Lecture	06/09/2019	Guest Lecture	PO1,PO2,PO3,PO4,PO5, PO11,PO12
			Deposition on 3-D Substrates.	Industrial Visit	12/09/2019	Industrial Visit	PO1,PO2,PO3,PO4,PO5, PO10
			3-D Printing	Workshop	6.1.2020	Workshop	PO1,PO2,PO3,PO4,PO5, PO7,PO8,PO10, PO11,
2	Computer Integrated Manufacturing / CAD/CAM/Design of machine element/ FEM/ Mechatronics/ Machining & Machine Tools	Use of IoT technology for computer-integrated manufacturing systems in industry	Advance CNC programming for cutter/nose radius compensation	Industrial Visit	18/01/2020	Industrial Visit	PO1,PO2,PO3,PO4,PO5, PO11
			Application of AutoCAD, CATIA, Solid works and ANSYS software in the Manufacturing Industries	Guest Lecture	25/01/2020	Guest Lecture	PO1,PO2,PO3,PO4,PO5, PO7,PO8,PO10, PO11
			LU decomposition method, introduction and difference between FDM ,FVM, BEM,	Guest Lecture	09/10/2019	Guest Lecture	PO1,PO2,PO3,PO4,PO5
			Use of the Internet of Things (IoT) in the control and operation of mechatronics systems especially in a manufacturing situation	Guest Lecture	04/09/2019	Guest Lecture	PO1,PO2,PO3,PO4,PO5, PO11,PO12
			Working of advance machine tools	Industrial Visit	17/01/2020	Industrial Visit	PO1,PO2,PO3,PO4,PO5,

							PO11
3	Fluid Mechanics/HT /PDL	Safety and modes of Gas Transportation	Transportation of Gas	Industrial Visit	03/10/2019	Industrial Visit	PO1,PO2,PO3,PO4,PO6,PO7,PO11
			Value engineering	Guest Lecture	30/5/2020	Guest lecture	PO1,PO2,PO3,PO4,PO7,PO8,PO10,PO11,
4	Design of Machine Elements	Design consideration and safety of machine elements	Design consideration during design of roller bearing and testing of different types of bearing	Guest Lecture	24/01/2020	Guest Lecture	PO1,PO2,PO3,PO4,PO5,PO7,PO8,PO10,PO11
5	Automobile Engg./IC Engine/ Manufacturing technology/ RAC	Electric and hybrid vehicles technologies.	Challenges and opportunities of electric vehicles in India	Guest Lecture	13/02/2020	Guest Lecture	PO1,PO2,PO3,PO4,PO5,PO10
			Application of artificial intelligent in manufacturing	Guest Lecture	20/6/2020	Guest Lecture	PO1,PO2,PO3,PO4,PO5,PO10
			Refrigeration accessories	Industrial Visit	30/1/2020	Industrial Visit	PO1,PO2,PO3,PO4,PO5,PO10
			Recent Advancement in Automobile Engineering& Latest Safety systems in automobile	Guest Lecture	03/03/2020	Guest Lecture	PO1,PO2,PO3,PO4,PO5,PO7,PO8,PO10,PO11
6	Micro and Nano Manufacturing	Advanced machining technologies	Design Requirement of Micro turning	Industrial Visit	30/09/2019	Industrial Visit	PO1,PO2,PO3,PO4,PO5,PO10,PO11
7	Product Development and Launching/Quality management	Sustainability in design and manufacturing	Sustainable manufacturing	Industrial Visit	16/01/2020	Industrial Visit	PO1,PO2,PO3,PO4,PO5,PO7,PO11,PO12
			Quality through design: Robust design	Industrial Visit	17/02/2020	Industrial Visit	PO1,PO2,PO3,PO4,PO5,PO8,PO10,PO11

<table>
<tr><th colspan="4">Criterion-2 Program Curriculum and Teaching- Learning Process</th></tr>
<tr><th>S. No</th><th>CRITERIA</th><th>OBSERVATION MADE BY NBA</th><th>COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)</th></tr>
<tr><td>2.1.2</td><td>2.1.2 State the delivery details of the content beyond the syllabus for the attainment of POs & PSOs</td><td>Delivery of topics beyond syllabus is minimal and random.</td><td>
1. The topics beyond syllabus are delivered through experiential learning and participative learning.
2. Delivery of number of topics beyond syllabus is shown below for various academic years.
<table>
<tr><td>Academic Year</td><td>2017-18</td><td>2018-19</td><td>2019-20</td></tr>
<tr><td>No. of activities</td><td>22</td><td>27</td><td>28</td></tr>
</table>
Content beyond syllabus is identified through various feedbacks of stake holders and included in the departmental academic calendar before the commencement of session.

These are the modes of delivery of topics beyond syllabus.
<table>
<tr><td>Delivery methods</td><td>Link</td></tr>
<tr><td>Add-on courses / workshops</td><td>https://jecrcfoundation.com/jf-data/ADDON/Differentaspect2019-20.pdf

https://jecrcfoundation.com/jf-data/ADDON/3DPrinting2019-20.pdf

https://jecrcfoundation.com/jf-data/ADDON/differentaspect2018-19.pdf

https://jecrcfoundation.com/jf-data/ADDON/L3D2019-20.pdf

https://jecrcfoundation.com/jf-data/ADDON/3Dprinting2018-19.pdf

https://jecrcfoundation.com/jf-data/ADDON/automobileworkshop.pdf</td></tr>
<tr><td>Guest lectures by the industry person</td><td>https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/Guest-Lectures-2019-20.pdf

https://www.jecrcfoundation.com/pdf/webinar/Webinar-ME.pdf</td></tr>
<tr><td>Industria</td><td>https://jecrcfoundation.com/jf-</td></tr>
</table>
</td></tr>
</table>

			l visit s	data/NBA/ME/Industrial-Visit/Industrial-Visits-2019-20.pdf
			Conferences	https://www.jecrcfoundation.com/pdf/conference-reports/ME%202015-2020.pdf
			Technical clubs/ activities	https://jecrcfoundation.com/jf-data/NBA/ME/MoonRider/Annual%20Report%202019-20.pdf https://jecrcfoundation.com/jf-data/NBA/ME/MoonRider/Annual-Report-2018-19.pdf

Gap identified and Action Taken (2019-20)

	Subjects	Gap	Topics	Proposed plan		Action taken	Relevance to PO/PSO
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			Manufacturing Through CAD: Robust Manufacturing	Guest Lecture	06/09/2019	Guest Lecture	PO1,PO2,PO3,PO4,PO5, PO11,PO12
			Deposition on 3-D Substrates.	Industrial Visit	12/09/2019	Industrial Visit	PO1,PO2,PO3,PO4,PO5, PO10
			3-D Printing	Workshop	6.1.2020	Workshop	PO1,PO2,PO3,PO4,PO5, PO7,PO8,PO10, PO11,
2	Computer Integrated Manufacturing / CAD/CAM/Design of machine element/ FEM/ Mechatronics/ Machining & Machine Tools	Use of IoT technology for computer-integrated manufacturing systems in industry	Advance CNC programming for cutter/nose radius compensation	Industrial Visit	18/01/2020	Industrial Visit	PO1,PO2,PO3,PO4,PO5, PO11
			Application of AutoCAD, CATIA, Solid works and ANSYS software in the Manufacturing Industries	Guest Lecture	25/01/2020	Guest Lecture	PO1,PO2,PO3,PO4,PO5, PO7,PO8,PO10, PO11
			LU decomposition method, introduction and difference between	Guest Lecture	09/10/2019	Guest Lecture	PO1,PO2,PO3,PO4,PO5

			FDM ,FVM, BEM,				
			Use of the Internet of Things (IoT) in the control and operation of mechatronics systems especially in a manufacturing situation	Guest Lecture	04/09/2019	Guest Lecture	PO1,PO2,PO3,PO4,PO5, PO11,PO12
			Working of advance machine tools	Industrial Visit	17/01/2020	Industrial Visit	PO1,PO2,PO3,PO4,PO5, PO11
3	Fluid Mechanics/HT /PDL	Safety and modes of Gas Transportation	Transportation of Gas	Industrial Visit	03/10/2019	Industrial Visit	PO1,PO2,PO3,PO4,PO6, PO7,PO11
			Value engineering	Guest Lecture	30/5/2020	Guest lecture	PO1,PO2,PO3,PO4,PO7, PO8,PO10,PO11
4	Design of Machine Elements	Design consideration and safety of machine elements	Design consideration during design of roller bearing and testing of different types of bearing	Guest Lecture	24/01/2020	Guest Lecture	PO1,PO2,PO3,PO4,PO5, PO7,PO8,PO10, PO11
5	Automobile Engg./IC Engine/ Manufacturing technology/ RAC	Electric and hybrid vehicles technologies.	Challenges and opportunities of electric vehicles in India	Guest Lecture	13/02/2020	Guest Lecture	PO1,PO2,PO3,PO4,PO5, PO10
			Application of artificial intelligent in manufacturing	Guest Lecture	20/6/2020	Guest Lecture	PO1,PO2,PO3,PO4,PO5, PO10
			Refrigeration accessories	Industrial Visit	30/1/2020	Industrial Visit	PO1,PO2,PO3,PO4,PO5, PO10
			Recent Advancement in Automobile Engineering& Latest Safety systems in automobile	Guest Lecture	03/03/2020	Guest Lecture	PO1,PO2,PO3,PO4,PO5, PO7,PO8,PO10, PO11
6	Micro and Nano Manufacturing	Advanced machining	Design Requirement of	Industrial Visit	30/09/2019	Industrial Visit	PO1,PO2,PO3,P

		technologies	Micro turning				O4,PO5, PO10,PO11
7	Product Development and Launching/Quality management	Sustainability in design and manufacturing	Sustainable manufacturing	Industrial Visit	16/01/2020	Industrial Visit	PO1,PO2,PO3,PO4,PO5, PO7,PO11,PO12
			Quality through design: Robust design	Industrial Visit	17/02/2020	Industrial Visit	PO1,PO2,PO3,PO4,PO5, PO8,PO10,PO11

Criterion-2 Program Curriculum and Teaching- Learning Process			
S. No	**CRITERIA**	**OBSERVATION MADE BY NBA**	**COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)**
2.2.1	**2.2.1Describe the Process followed to improve quality of Teaching Learning**	Feedback process exists but no follow up action taken after analysis.	Institute regularly collect and analyse feedback from students and other stakeholders on various issues. After analysing the feedbacks corrective actions are taken. Action taken reports are shared with the stakeholders. Feedback forms, Mechanism and action taken reports are also available on the institute websites. **https://jecrcfoundation.com/iqac/feedback-forms** **https://www.jecrcfoundation.com/pdf/iqac-feedback/1.4.2-Feedback%20Mechanism.pdf** **https://jecrcfoundation.com/iqac/action-taken-report**

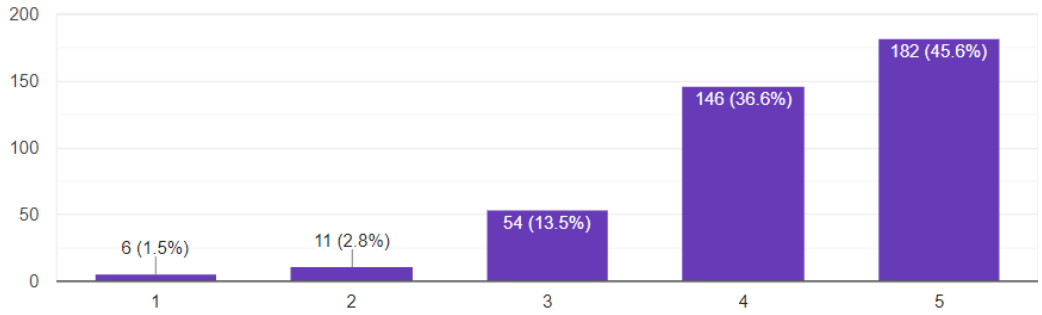
List and link of feedback forms

S. No	Types of Feedbacks	Link Of Feedbacks
1	Student's Curriculum Feedback Form	https://forms.gle/zf81BNcSCnUtcc2J7
2	Students Feedback On Teaching Learning	https://forms.gle/bmeUV44GyKTkkzay7
3	Students Extra-Curricular Feedback Form	https://forms.gle/FdzxwxoZZEW99usv9
4	Parent's Feedback Form	https://forms.gle/RiwFvop6a5NHqpyG7
5	Student's Facility Feedback Form	https://forms.gle/GhxvQUNrRyGSUsBQA
6	Student's Hostel Facility Feedback Form	https://forms.gle/xeHNUd4dixmNuF2B9
7	Student's Feedback(Transport Facility) Form	https://forms.gle/Y8gAnoQmg9hoTbeJ8
8	General Feedback Form	https://forms.gle/fEwp5T1zbGS2xpvK7
9	Student's Course Outcome Feedback Form	https://forms.gle/GnxSy4NCVzotjtKBA
10	Student's Program Exit Feedback Form	https://forms.gle/kV4f2nXJvFqJEzaPA
11	Employee Feedback Form	https://forms.gle/fHumzaPAYSrkQBds8
12	Industrial Training Feedback Form	https://forms.gle/AhmpicDXssa3QWkr9

Students feedback - Teaching learning Final

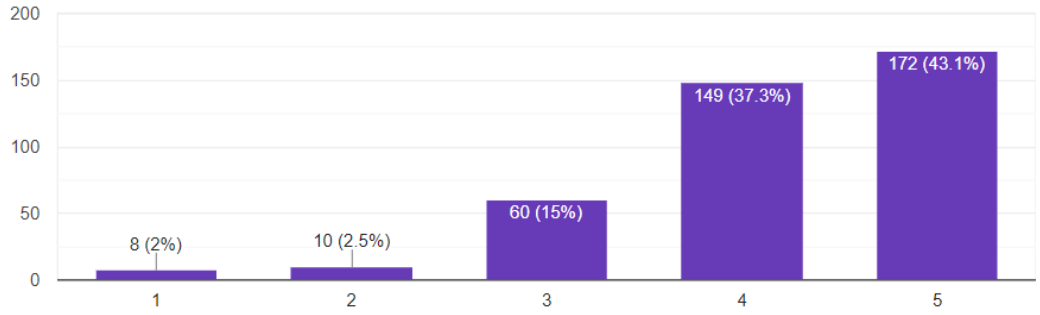
To what extent the teacher discusses course outcomes and program outcomes in the class.

399 responses



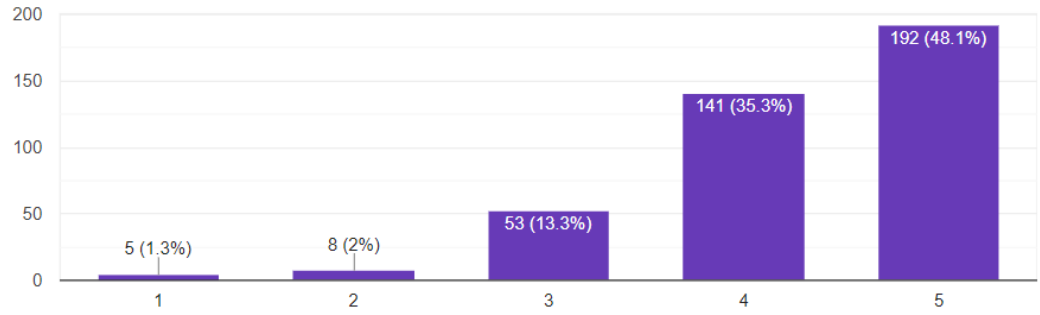
To what extent the teacher encourages participation and discussion in class.

399 responses



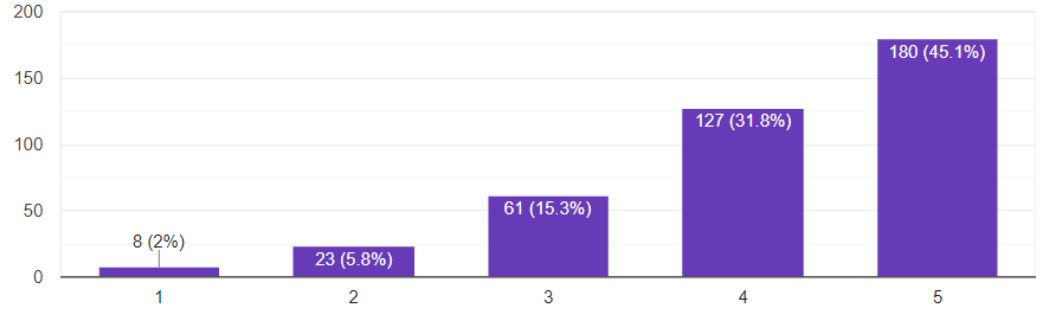
To what extent teacher maintains regularity and punctuality in class.

399 responses



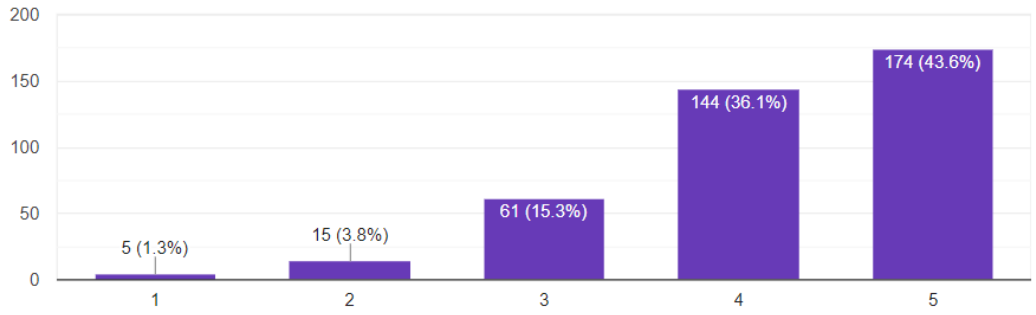
To what extent the teacher motivates students for participation in extracurricular activities

399 responses



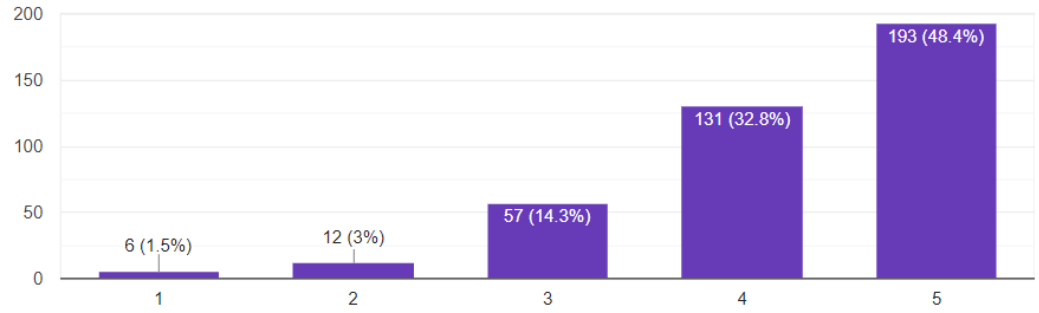
To what extent the teacher provides mentoring for academic and non-academic matters

399 responses



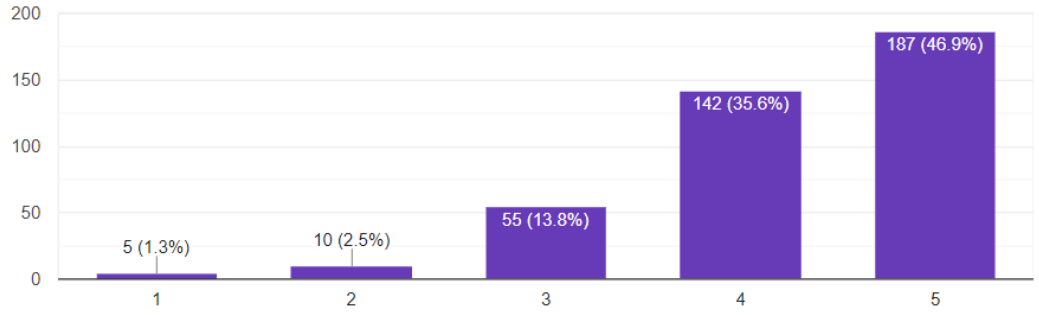
To what extent faculties deliver online lecture and e-notes through Google Classroom.

399 responses



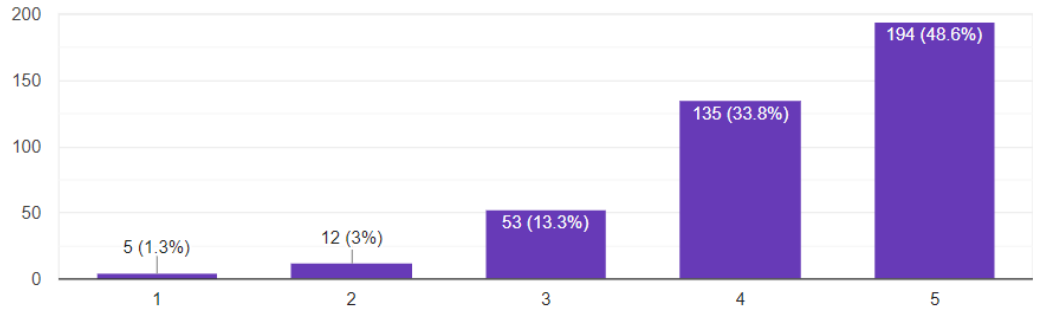
To what extent the faculties provide the assignments and discussion related to problem solving approach.

399 responses



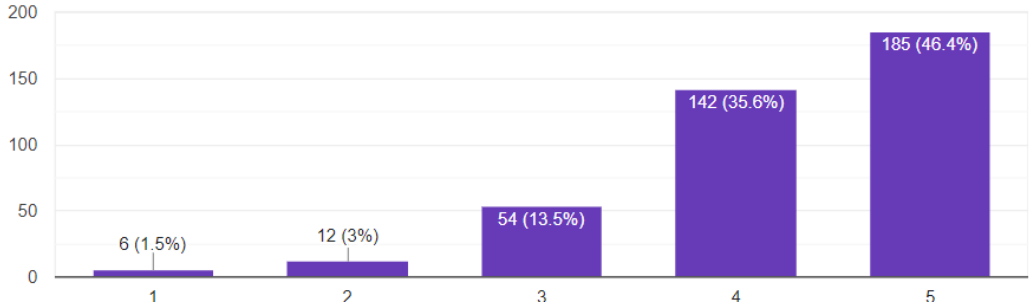
To what extent faculties provide notes/ppt /e-materials through online platform.

399 responses



To what extent grievances related issues are addressed.

399 responses



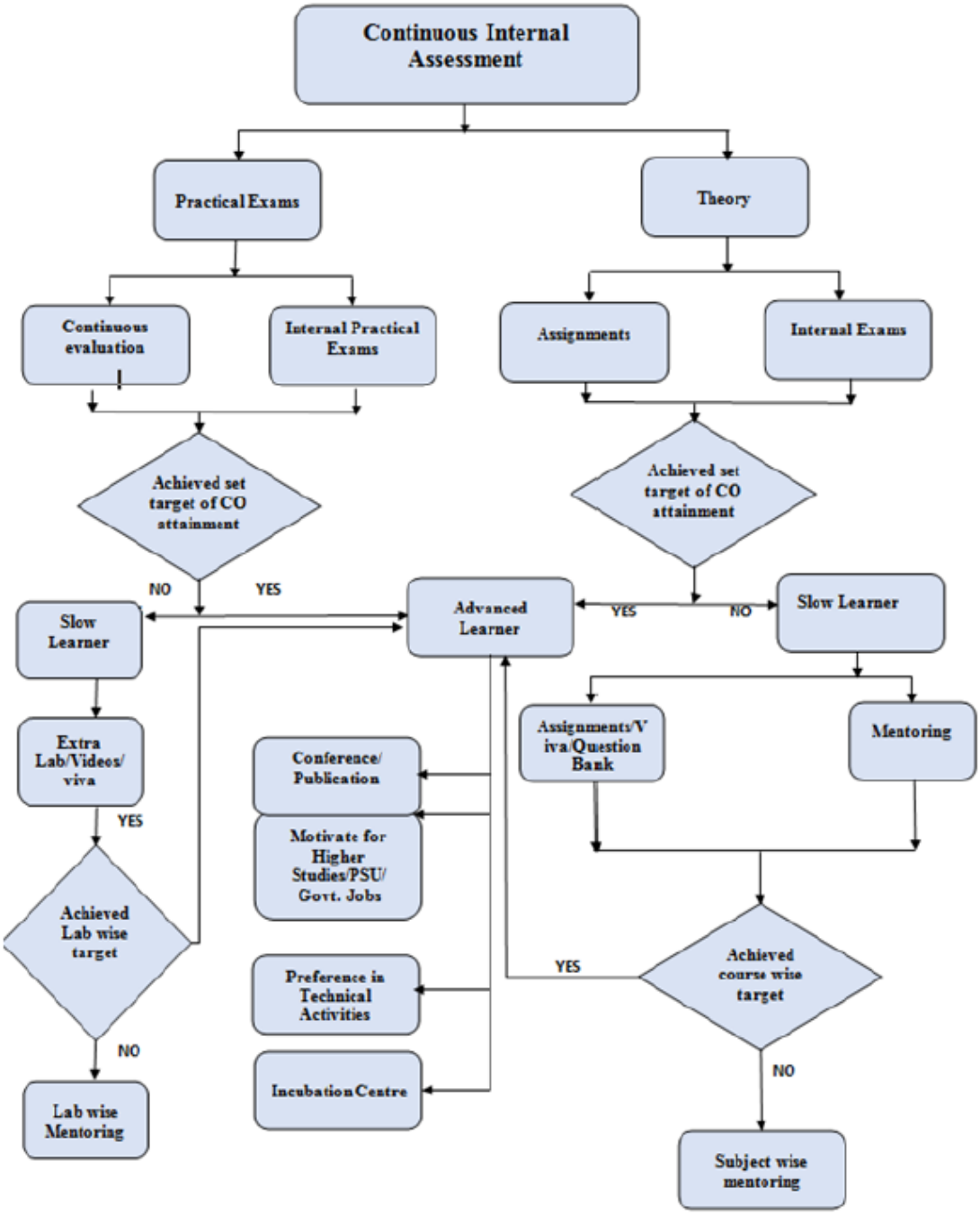
Student's Teaching learning Feedback forms received from students and summary as follows

Parameters	Responses		Action taken
	≥60	<60	
To what extent the teacher discusses course outcomes and program outcomes in the class.	95.74%	4.26%	The students appreciate the efforts made by faculty members regarding the discussion of COs & POs. Few students required more discussion regarding the same. HOD advised to all faculty members to increase the frequency of discussion of COs &Pos in classroom.
To what extent the teacher encourages participation and discussion in class.	95.5	4.5	The faculty members encourage innovative participation of students to make active discussions in classroom teaching. HOD advised to all faculty members to increase the participation and discussion in class. Also increase the involvement of slow learners in discussion.
To what extent teacher maintains regularity and punctuality in class.	96.74	3.26	The students appreciated the regularity and punctuality of faculty members in classroom. HoD advised to faculty members regarding regularity and punctuality in class.
To what extent the teacher motivates students for participation in extracurricular activities.	92.23	7.77	The students appreciate the efforts made by the faculty members. Also, faculty members are advised to motivate the students to make maximum involvement in extracurricular activities. Also, HoD insured the students that there will be no loss related to academic during the time period of the participation in extracurricular activities.
To what extent the teacher provides mentoring for academic and non-academic matters	95.0	5.0	The students appreciated the faculty members. HoD advised to mentors to increase the frequency of active mentoring sessions, especially for slow learners.
To what extent faculty members deliver online lecture and e-notes through google classroom	95.5	4.5	The students appreciate the efforts made by the faculty members. HoD advised the faculty members to upload advanced study materials like GATE, IES etc materials, lecture videos, lab experiments videos.
To what extent the faculties provide the assignments and discussion related to problem	96.24	3.76	Almost all faculties provide the quality assignment to the students. HOD advised to faculty members to enhance the difficulty level of assignments by incorporate complex problems. Also

solving approach			provide last year GATE, IES etc questions in assignments for fast learners and provide extra discussion time for slow learners.
To what extent faculties provide notes/ppt /e-materials through online platform.	95.74	4.26	The students appreciate the efforts made by the faculty members. HoD advised the faculty members to upload advanced study materials, lecture videos, lab experiments videos/ NPTEL/ Swayam/ Swayam Prabha links to students.
To What extent grievances related issues are addressed	95.5	4.5	The students appreciate the efforts made by the department. Almost all the grievances are addressed. HOD instructed all faculty members to address all grievances related issues of students at time.

Mech... JECRC, Jaipur

Criterion-2 Program Curriculum and Teaching- Learning Process			
S. NO	**CRITERIA**	**OBSERVATION MADE BY NBA**	**COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)**
2.2.2	**2.2.2 Quality of internal semester question papers, assignments and evaluation**	Evaluation of internal examination papers needs greater attention. Quality of question papers and assignments, evaluation is not up to the mark.	• The departmental moderation committee maintains the quality of question papers in discussion with faculty members. All questions in the question paper are mapped with course outcomes and thus identification of slow learner and fast learner is carried out based on predefined targets. • Grievance forms related to evaluation of answer script is provided to the students and necessary actions are taken within stipulated time to resolve any grievance. • The question paper for each subject is divided into different sections as per RTU guidelines. While finalizing the question paper previous university exam papers, GATE, IES, PSU, other competitive exams question papers are taken into consideration. • Faculty members also provide assignment/question bank having question of previous year question papers/GATE/PSU question paper to all students. • All the necessary corrective measures are thus approved by IQAC. (https://jecrcfoundation.com/student-assessment-guidelines) https://www.jecrcfoundation.com/Student-Grievance-Mechanism



Flow chart to find out slow learners and advanced learners in all the departments of the institute

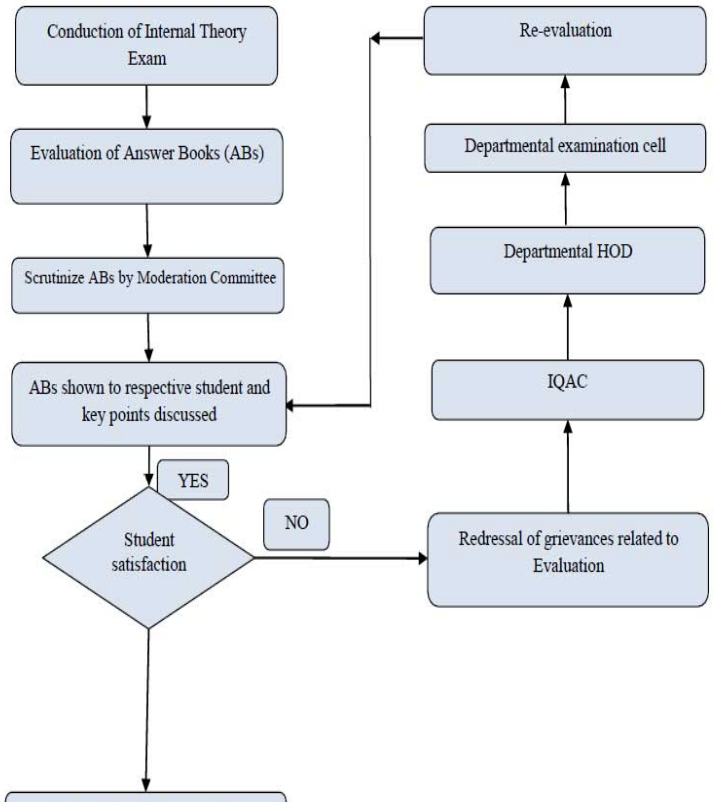
jecrcfoundation.com/Student-Grievance-Mechanism

Apps Getting Started Imported From Fire...

bout Us Placements IQAC Departments Research Extension Events & Activities Student's Corner Faculty Corner Gallery SAR NAAC Co Us

Offline Students Grievance Form

Internal examination related grievance handling mechanism:



JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

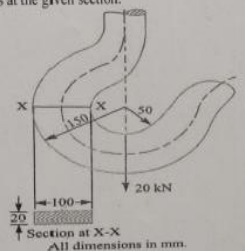
JECRC Campus, Shri Ram Ki Nangal, Via-Vatika, Jaipur

MTT-II (SET-A)

Academic Year: 2020-2021(ODD Semester)

Course	:	**B.Tech.**	**Date**	:	**21/11/2020**
Semester/ Section	:	**5-A/B**	**Time Duration**	:	**1:30 hour**
Subject & Subject Code	:	**DME-I (5ME4-04)**	**Max. Marks**	:	**40**

Course Outcomes	
CO3	To estimate the stresses and strains induced in different m/c element subjected to torsion and bending.
CO4	To design threaded fasteners.

Q. No.	CO	Questions	Marks
		PART- A: Attempt All Questions (5x2 = 10Marks)	
1.	CO3	Elucidate nipping in laminated spring?	2
2.	CO3	Demystify the utility of the center bolt and rebound clip in a leaf springs?	2
3.	CO3	Illuminate the circumstances in which hollow shafts are preferred over solid shafts?	2
4.	CO4	Explicate winker bach formula in curved beam.	2
5.	CO4	Illustrate three practical applications of curved beam.	2
		PART-B: Attempt ANY THREE Questions (3x5 = 15Marks)	
1.	CO3	Compare the weight, strength and stiffness of a hollow shaft of the same external diameter as that of solid shaft. The inside diameter of the hollow shaft being 1/3 the external diameter. Both of the shafts have the same material and length.	5
2.	CO3	Design a leaf spring for the following specifications: Total load=140kN; number of springs supported the load= 4; maximum number of leaves=10;span of spring=1000mm; Permissible deflection= 80mm. Take young modulus E=200 kN/mm^2 and allowable stress in spring material as 600MPa.	5
3.	CO3	A steel solid shaft transmitting 15 kW at 200 r.p.m. is supported on two bearings 750 mm apart and has two gears keyed to it. The pinion having 30 teeth of 5 mm module is located 100 mm to the left of the right hand bearing and delivers power horizontally to the right. The gear having 100 teeth of 5 mm module is located 150 mm to the right of the left hand bearing and receives power in a vertical direction from below. Using an allowable stress of 54 MPa in shear, determine the diameter of the shaft.	5
4.	CO3	Explicate nipping in a leaf spring? Discuss its role. List the materials commonly used for the manufacture of the leaf springs.	5
		PART-C: Attempt ANY THREE Question (3x5 = 15Marks)	
1.	CO4	Design and draw a protective type of cast iron flange coupling for a steel shaft transmitting 15 kW at 200 rpm and having an allowable shear stress of 40 MPa. The working stress in the bolts should not exceed 30 MPa. Assume that same material is used for shaft and key and that the crushing stress is twice the value of its shear stress. The maximum torque is 25% greater than the full load torque. The shear stress for the cast iron is 14 MPa.	5
2.	CO4	The crane hook carries a load of 20 kN as shown in figure below. The section at X-X is rectangular whose horizontal side is 100 mm. Find the stresses in the inner and outer fibers at the given section.  	5
3.	CO4	Explicate classification of keys. Draw neat sketches of different types of keys and state their applications.	5
4.	CO4	Elucidate the design procedure of Bushed-pin Flexible coupling.	5

17/11/20

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

JECRC Campus, Shri Ram Ki Nangal, Via-Vatika, Jaipur

MTT - II

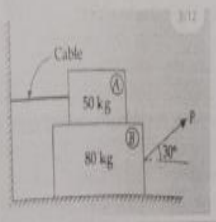
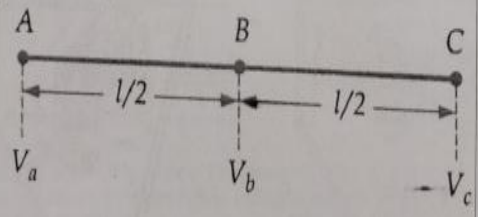
Academic Year 2020-21 (ODD Semester)

Course	:	**B.Tech.**	**Date**	:	2/12/2020
Semester/ Section	:	III (SET –A)	**Time Duration**	:	1.5 Hour
Subject & Subject Code	:	Engineering Mechanics (3ME3-04)	**Max. Marks**	:	40

Course Outcomes	
CO1	Students will be able to describe fundamental laws of forces, FBD, Trusses and virtual work.
CO2	Students will be able to identify problem associated with Centre of gravity and Moment of Inertia and lifting machines.
CO3	Students will be able to understand the basic concept of Friction with belt and rope drive.
CO4	Students will be able to describe the laws of motion, kinematics of rigid bodies,work,energy and power.

Q. No.	**CO**	**Questions**	**Marks**
PART- A: Attempt All Questions (5x2 = 10Marks)			
1.	CO3	Describe the term Coefficient of friction.	2
2.	CO3	Illustrate the concept of limiting friction with the help of neat diagram.	2
3.	CO3	Differentiate between static and kinetic friction.	2
4.	CO4	State the projectile motion.	2
5.	CO4	State D'alembert's principle.	2

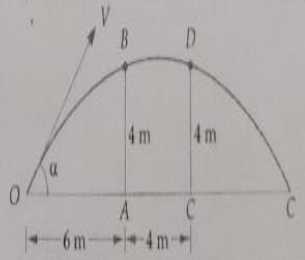
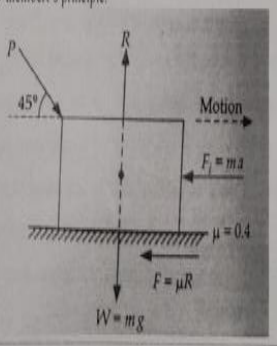
PART-B: Attempt ANY THREE Questions (3x5 = 15Marks)

1.	CO3	Setup the following expression for the flat belt drive = Where T_1 and T_2 are the tension on tight and slack side of belt. And is angle of contact and is the coefficient of friction between belt and pulley rim.	5
2.	CO3	Two blocks A and B weighing 50kg and 80kg respectively are in the equilibrium in the position shown in the fig. Calculate the force P required to move the lower block B and tension in the cable .take coefficient of friction at all contact surfaces to be 0.3 . 	5
3.	CO4	A particle moves with uniform acceleration along a straight line ABC. The speeds of the particle at positions A and C are 5 cm/s and 25 cm/s respectively. If the point B lies midway between A and C, find out the ratio of times taken by the particle to travel 	5
4.	CO4	Two adjacent guns having the muzzle velocity of 400 m/s fire simultaneously at angles α_1 and α_2 for the same target at a range 4800m. Calculate the time difference between the hits. Assume gravitational acceleration g=9.80 m/s².	5

PART-C: Attempt ANY THREE Question (3x5 = 15Marks)

1.	CO3	Show that for maximum power transmission, the centrifugal tension should not exceed one third of total tension.	5
2.	CO3	A ladder 5m long and weighting 300N is placed against a vertical wall with its lower end 2.5m from the wall. A man weighing 750N climbs the ladder and sits at its top. To avoid slipping of ladder, its bottom is held by a string tied to the wall. If the coefficient of friction for both the contact surfaces is 0.2, calculate the tension induced in the string?	5

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE
JECRC Campus, Shri Ram Ki Nangal, Via-Vatika, Jaipur

3.	CO4	A jet water discharging from a nozzle hits a vertical screen placed at a distance of 6m from the nozzle at a height of 4m. When the screen is shifted 4m away from its initial position, the jet hits the screen again at the same point. Determine the angle and velocity with which the jet issues from the nozzle. 	5
4.	CO4	A block of mass 50 kg, resting on a horizontal plane, is required to be given an acceleration of 2m/s towards right by applying a push P at an angle of 45 degree with the horizontal. Assuming that coefficient of friction between the block and plane is 0.4, work-out the magnitude of push P. Obtain your solution by applying D'alembert's principle. 	5

Set-2

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

JECRC Campus, Shri Ram Ki Nangal, Via-Vatika,Jaipur

MTT-I

Academic Year-2020-21(ODD Semester)

Course	:	**B.Tech.**	**Date**	:	20/11/2020
Semester/ Section	:	V(A & B)	**Time Duration**	:	1.30 Hr
Subject& Subject Code	:	Heat Transfer(5ME4-02)	**Max. Marks**	:	40

Course Outcomes	
CO1	To understand the basic concept of mode of heat transfer.
CO2	To apply non-dimensional numbers to evaluate and validate heat transfer parameters.
CO3	To analyze the complex problems of heat transfer with proper boundary conditions.

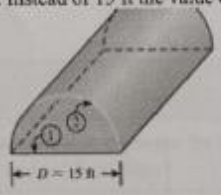
Q. No.	CO	Questions	Marks
		PART- A: Attempt All Questions (5x2 = 10Marks)	
1.	CO1	Enumerate under what circumstances can one expect radiation heat transfer to be significant?	02
2.	CO1	Discuss the driving force for (a) heat transfer (b) electric current flow and (c) fluid flow?	02
3.	CO2	How LMTD is differs from NTU method.	02
4.	CO2	Identify the mode of heat transfer in which heat transfer coefficient usually higher: natural convection or forced convection?	02
5.	CO1	Enumerate the physical significance of the Nusselt number?	02
		PART-B: Attempt ANY THREE Question (3x5 = 15Marks)	
1.	CO2	In a counter flow heat exchanger, hot fluid enters at 60°C and cold fluid leaves at 30°C. Mass flow rate of the hot fluid is 1 kg/s and that of the cold fluid is 2 kg/s. Specific heat of the hot fluid is 10 kJ/kgK and that of the cold fluid is 5 kJ/kgK. The Log Mean Temperature Difference (LMTD) for the heat exchanger in °C is	05
2.	CO2	A designer chooses the values of fluid flow ranges and specific heats in such a manner that the heat capacities of the two fluids are equal. A hot fluid enters the counter flow heat exchanger at 100°C and leaves at 60°C. The cold fluid enters the heat exchanger at 40°C. The mean temperature difference between the two fluids is	05
3.	CO3	Consider a person whose exposed surface area is 1.9 m^2, emissivity is 0.85, and surface temperature is 30°C. Determine the rate of heat loss from that person by radiation in a	05

		large room whose walls are at a temperature of (a) 300 K and (b) 280 K	
4.	CO3	Established the expression for the effectiveness of parallel heat exchanger by NTU method.	05

PART-C: Attempt ANY THREE Questions (3x5 = 15Marks)

1.	CO3	Crude oil at 22℃ enters a 20-cm-diameter pipe with an average velocity of 20 cm/s. The average pipe wall temperature is 2℃. Crude oil properties are as given below. Calculate the rate of heat transfer and pipe length if the crude oil outlet temperature is 20℃.	05

T ℃	ρ kg/m³	k W/m-K	μ mPa-s	c_p kJ/kg-K
2.0	900	0.145	60.0	1.80
22.0	890	0.145	20.0	1.90

2.	CO3	A furnace is shaped like a long semi cylindrical duct of diameter D = 5 m. The base and the dome of the furnace have emissivities of 0.5 and 0.9 and are maintained at uniform temperatures of 350 and 1000 K, respectively. Determine the net rate of radiation heat transfer from the dome to the base surface per unit length during steady operation. [Note: Instead of 15 ft the value of D is 5m] 	05
3.	CO3	A double pipe parallel flow H.E. use oil (cp = 1.88 kJ/kg.K) at an initial temperature of 205°C to heat water, flowing at 225kg/hr from 16°C to 44°C. The oil flow rate is 270 kg/hr. a) what is the heat transfer area required for an overall heat transfer coefficient of 340 W/m2 .K. b) Determine the number of transfer unit (NTU). c) Calculate the effectiveness of the H.E.	05
4.	CO3	In a counter-flow heat exchanger, the hot fluid is cooled from 110°C to 80°C by a cold fluid which gets heated from 30°C to 60°C. LMTD for the heat exchanger is	05

MTT-II

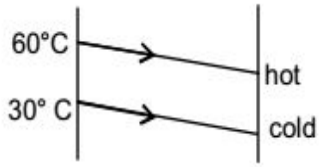
Academic Year-2020-21(ODD Semester)

Course	**:**	**B.Tech.**	**Date**	**:**	20/11/2020
Semester/ Section	**:**	V(A & B)	**Time Duration**	**:**	1.30 Hr
Subject& Subject Code	**:**	Heat Transfer(5ME4-02)	**Max. Marks**	**:**	40

Course Outcomes	
CO1	To understand the basic concept of mode of heat transfer.
CO2	To apply non-dimensional numbers to evaluate and validate heat transfer parameters.
CO3	To analyze the complex problems of heat transfer with proper boundary conditions.
CO4	To discuss the concept of radiation and impact on the global environment.

Q. No.	**CO**	**Questions**	**Marks**
PART- A: Attempt All Questions (5x2 = 10Marks)			
1.	**CO4**	Under what circumstances can one expect radiation heat transfer to be significant? **Solution:**Radiation heat transfer becomes important at high temperatures (above 1000 K) and after collapse of materials, when some structures are in direct view with hot debris located below.	02
2.	**CO1**	What is the driving force for (a) heat transfer (b) electric current flow and (c) fluid flow? **Solution:**The temperature difference is the driving force for heat transfer, just as the voltage difference is the driving force for electric current flow and pressure	02

		difference is the driving force for fluid flow	
3.	**CO3**	How LMTD is differs from NTU method. **Solution:**The LMTD method is convenient for determining the overall heat transfer coefficient based on the measured inlet and outlet fluid temperatures. The ε-NTU method is more convenient for prediction of the outlet fluid temperatures if the heat transfer coefficient and the inlet temperatures are known.	02
4.	**CO1**	In which mode of heat transfer is the heat transfer coefficient usually higher: natural convection or forced convection? **Solution:**Typically heat transfer under forced convection conditions is higher than natural convection for the same fluid.	02
5.	**CO2**	What is the physical significance of the Nusselt number? How is it defined? **Solution:**Nusselt number is required to find 'h' which is convective heat transfer coefficient. The *physical* interpretation of Nusselt number is the enhancement of heat transfer due to convection over conduction alone. If Nu=1, then, than your fluid is stationary and all heat transfer is by conduction. With Nu>1, the fluid motion enhances heat transfer by **advection.** $$Nu = \frac{Q_{conv}}{Q_{cond}} = \frac{h\Delta T}{k\frac{\Delta T}{L}} = \frac{hL}{k}$$	02
PART-B: Attempt ANY THREE Question (3x5 = 15Marks)			
1.	**CO3**	In a counter flow heat exchanger, hot fluid enters at 60°C and cold fluid leaves at 30°C. Mass flow rate of the hot fluid is 1 kg/s and that of the cold fluid is 2 kg/s. Specific heat of the hot fluid is 10 kJ/kgK and that of the cold fluid is 5 kJ/kgK. The Log Mean Temperature Difference (LMTD) for the heat exchanger in °C is **Solution:**	05

		Heat capacity of hot fluid = 1 × 10 = 10 kJ/ k – s Heat capacity of cold fluid = 2 × 5 = 10 kJ/ k – s Since heat capacity is same, so LMTD is difference of temperature at either end i.e. LMTD = 60° – 30° = 30° C  	
2.	**CO3**	A designer chooses the values of fluid flow ranges and specific heats in such a manner that the heat capacities of the two fluids are equal. A hot fluid enters the counter flow heat exchanger at 100°C and leaves at 60°C. The cold fluid enters the heat exchanger at 40°C. The mean temperature difference between the two fluids is **Solution:** tm = mean temperature difference between the two fluids for counter flow heat exchanger, tm = th1-tc2 = th2-tc1. tm = th2-tc1 = 60-40 = 20.	05
3.	**CO4**	Consider a person whose exposed surface area is 1.9 m^2, emissivity is 0.85, and surface temperature is 30°C. Determine the rate of heat loss from that person by radiation in a large room whose walls are at a temperature of (a) 300 K and (b) 280 K **Solution:** **(a)** $\dot{Q} = \varepsilon\sigma A\left(T_s^4 - T_w^4\right)$ $= 0.5 * 5.67 * 10^{-8} * 1.7 * \left(305^4 - 300^4\right) = 26.7\ \mathrm{W}$ **(b)** $\dot{Q} = \varepsilon\sigma A\left(T_s^4 - T_w^4\right)$ $= 0.5 * 5.67 * 10^{-8} * 1.7 * \left(305^4 - 280^4\right) = 120.83\ \mathrm{W}$	05
4.	**CO3**	Derive the expression for the effectiveness of heat exchanger by NTU method	05

Solution:.

If more than one of the inlet and outlet temperature of the heat exchanger is unknown, LMTD may be obtained by trial and errors solution. Another approach introduce the definition of heat exchanger effectiveness (Є), which is a dimensionless with ranging between 0 to1.

$$\epsilon = \frac{q_{act}}{q_{max}}$$

Where, q_{max} is the maximum possible heat transfer for the exchanger. The maximum value could be attained if one of the fluids were to undergo a temperature change equal to the maximum temperature difference present in the exchanger, which is the difference in the entering temperatures for the hot and cold fluids.

Let C = mCp

$$q_{act} = C_h(Th_i - Th_o) = Cc(Tc_o - Tc_i)$$

The maximum possible heat transfer when the fluid of small C undergoes the maximum temperature difference available

$$q_{max} = C_{min}(Th_i - Tc_i)$$
$$q_{act} = \varepsilon\, C_{min}(Th_i - Tc_i)$$

For parallel flow H.E with combining the last three equations, we get two expressions for effectiveness

$$\epsilon = \frac{C_h(Th_i - Th_o)}{C_{min}(Th_i - Tc_i)} = \frac{Cc(Tc_o - Tc_i)}{C_{min}(Th_i - Tc_i)}$$

For $C_h < Cc$: $\epsilon_h = \frac{Th_i - Th_o}{Th_i - Tc_i}$

For $C_h > Cc$: $\epsilon_c = \frac{Tc_o - Tc_i}{Th_i - Tc_i}$

Using the following equation,

$$\ln\frac{Th_o - Tc_o}{Th_i - Tc_i} = -UA(\frac{1}{C_h} + \frac{1}{Cc})$$

We get

$$\frac{Th_o - Tc_o}{Th_i - Tc_i} = \exp\left[-\frac{UA}{C_h}\left(1+\frac{C_h}{Cc}\right)\right]$$

From energy balance,

$$Tc_o = Tc_i + \frac{C_h}{Cc}(Th_i - Th_o)$$

By using the last two equations, we obtained

$$\epsilon_h = \frac{1-\exp[(-UA/C_h)(1+(C_h/Cc)]}{1+(C_h/Cc)}$$

and

$$\epsilon_c = \frac{1-\exp[(-UA/Cc)(1+(Cc/C_h)]}{1+(Cc/C_h)}$$

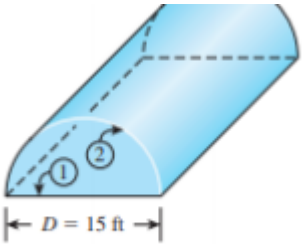
The last two equations may be written as

$$\epsilon = \frac{1-\exp[(-UA/C_{\min})(1+C_{\min}/C_{\max})]}{1+C_{\min}/C_{\max}}$$

The terms *UA/Cmin* is called the number of transfer units (NTU) since it is indicative of the size of the heat exchanger, i.e

$$NTU = \frac{UA}{C_{\min}}$$

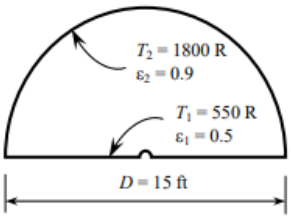
PART-C: Attempt ANY THREE Questions (3x5 = 15Marks)

1.	**CO4**	A furnace is shaped like a long semi cylindrical duct of diameter D = 5 m. The base and the dome of the furnace have emissivities of 0.5 and 0.9 and are maintained at uniform temperatures of 350 and 1000 K, respectively. Determine the net rate of radiation heat transfer from the dome to the base surface per unit length during steady operation. [Note: Instead of 15 ft the value of D is 5m]  **Solution:**	05

The base and the dome of a long semicylindrical duct are maintained at uniform temperatures. The net rate of radiation heat transfer from the dome to the base surface is to be determined.

Assumptions **1** Steady operating conditions exist **2** The surfaces are opaque, diffuse, and gray. **3** Convection heat transfer is not considered.

Properties The emissivities of surfaces are given to be $\varepsilon_1 = 0.5$ and $\varepsilon_2 = 0.9$.



Analysis The view factor from the base to the dome is first determined from

$$F_{11} = 0 \ \text{(flat surface)}$$
$$F_{11} + F_{12} = 1 \rightarrow F_{12} = 1 \ \text{(summation rule)}$$

The net rate of radiation heat transfer from dome to the base surface can be determined from

$$\dot{Q}_{21} = -\dot{Q}_{12} = -\frac{\sigma(T_1^4 - T_2^4)}{\frac{1-\varepsilon_1}{A_1\varepsilon_1} + \frac{1}{A_1 F_{12}} + \frac{1-\varepsilon_2}{A_2\varepsilon_2}} = -\frac{(0.1714\times10^{-8}\ \text{Btu/h.ft}^2\cdot\text{R}^4)[(550\ \text{R})^4 - (1800\ \text{R})^4]}{\frac{1-0.5}{(15\ \text{ft}^2)(0.5)} + \frac{1}{(15\ \text{ft}^2)(1)} + \frac{1-0.9}{\left[\frac{\pi(15\ \text{ft})(1\ \text{ft})}{2}\right](0.9)}}$$

$$= \mathbf{1.311\times10^6\ Btu/h}$$

The positive sign indicates that the net heat transfer is from the dome to the base surface, as expected.

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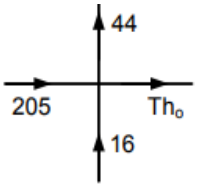
3. **CO3**

A double pipe parallel flow H.E. use oil (cp = 1.88 kJ/kg.K) at an initial temperature of 205°C to heat water, flowing at 225kg/hr from 16°C to 44°C. The oil flow rate is 270 kg/hr. a) what is the heat transfer area required for an overall heat transfer coefficient of 340 W/m2 .K. b) Determine the number of transfer unit (NTU). c) Calculate the effectiveness of the H.E.

05

Solution:



$$(mcp\Delta T)_{oil} = (mcp\Delta T)_{water}$$
$$cp_{water} = 4.18 kJ/kg.K$$
$$\therefore\ 270\times1.88\times(205 - Th_o) = 225\times4.18\times(44-16)$$
$$\Rightarrow Th_o = 153°C$$
$$\therefore \Delta T_1 = 205 - 16 = 189°C, \Delta T_2 = 153 - 44 = 109°C,$$
$$\therefore \Delta TLM = \frac{189 - 109}{\ln\frac{189}{109}} = 145.4°C$$

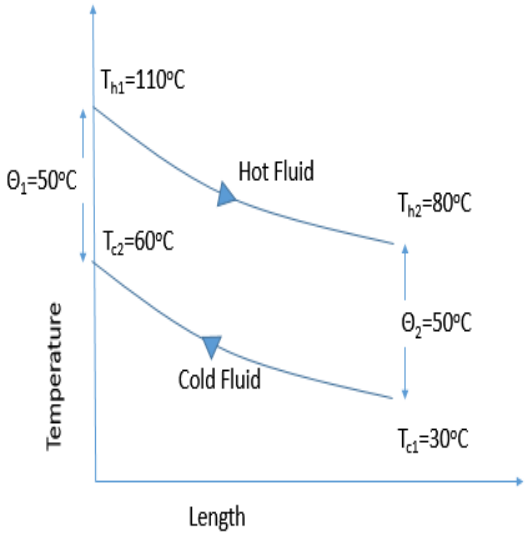
a) $A = q / U\cdot\Delta TLM = m_w cp_w \Delta T_w = 0.148 m^2$

b) $(mcp)_{water} = 225\times4.18 = 9.405\times10^5\ J/hr.K,\ (mcp)_{oil} = 270\times1.88 = 5.076\times10^5\ J/hr.K$

$\therefore Cmin = 5.076\times10^5\ J/hr.K = 141 W/K$

$NTU = UA/C\min = 340\times0.148/141 = 0.36$

c) $$\epsilon = \frac{1 - \exp[(-UA/C_{\min})(1 + C_{\min}/C_{\max})]}{1 + C_{\min}/C_{\max}} = 28\%$$

4.	**CO3**	In a counter-flow heat exchanger, the hot fluid is cooled from 110°C to 80°C by a cold fluid which gets heated from 30°C to 60°C. LMTD for the heat exchanger is **Solution:**  $LMTD = \frac{(110-60)-(80-30)}{\ln \frac{110-60}{80-30}} = \frac{0}{0}$ In such cases the temperature difference of Hot and cold fluid are same and (0/0) condition is formed. So the answer is the temperature difference of Hot and Cold fluid i.e. in this case it is 50° C	05

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Assignment-I

Sub: - HT **Code**: 5ME4-02

CO1 To understand the basic concept of mode of heat transfer.
CO2 To apply non-dimensional numbers to evaluate and validate heat transfer parameters
CO3 To analyze the complex problems of heat transfer with proper boundary conditions
CO4- To discuss the radiation phenomenon and impact on global environment

CO1

Q1- Derivation for cylindrical Cartesian Coordinates for heat conduction equation.

Q2-A 30 cm thick layer wall of 5 m ×3 m size is made of red brick (K=0.3W/m-deg).It is covered on both sides by layers of plaster,2 cm thick (K=0.6 W/m-deg).the wall has a window

size of 1 m× 2 m. The window door is made of 12mm thick glass(K=1.2 W/m-deg).If the inner and outer surface temperatures are 15 and 40^0C ,make calculations for the rate of heat flow through the wall.

Q3-What is critical thickness of insulation? Explain its importance in heat transfer

Q4-Explain Newtons law of cooling

Q5-Derive General 3-Dimensoinal conduction equation for Cylindrical coordinates.

Q6-A 2 mm diameter wire with 0.8 mm thick layer of insulation (k=0.15 W/m-deg is used in a certain electric heating application. The insulated surface is exposed to atmosphere withh= 40 W/m2deg.What percentage change in heat transfer rate would occur if critical thickness of insulation is used?It may assume that the temperature difference between surface of wire and surrounding air remains unchanged?

Q7-Explain the modes of heat transfer with examples of conduction, convection, radiation.

Q8--Derive General 3-Dimensoinal conduction equation for Spherical coordinates.

Q9-A copper rod 0.5 cm diameter and 50 cm long protrudes from a wall maintained at a temperature of 500^{o}C. The surrounding temperature is 30^{o}C. Convective heat transfer coefficient is 40 W/m^{2}K and thermal conductivity of material is 300 W/mK. Determine:

Total heat transfer rate from rod

Temperature of the rod at 20 cm from wall

Q10- Explain Fin with its different types.

PREVIOUS YEAR GATE/IES QUESTIONS

Q11-For a given heat flow and for the same thickness, the temperature drop across the material will be maximum for

(a) Copper (b) Steel (c) Glass-wool(d) Refractory brick

Q12-A steel ball of mass 1kg and specific heat 0.4 kJ/kg is at a temperature of 60°C. It is dropped into 1kg water at 20°C. The final steady state temperature of water is: [GATE-1998]

(a) 23.5°C (b) 300°C (c) 35°C (d) 40°C

Q13-A steel ball of mass 1kg and specific heat 0.4 kJ/kg is at a temperature of 60°C. It is dropped into 1kg water at 20°C. The final steady state temperature of water is: [GATE-1998]

(a) 23.5°C (b) 300°C (c) 35°C (d) 40°C

Q14-In descending order of magnitude, the thermal conductivity of

a. Pure iron, [GATE-2001]
b. Liquid water,
c. Saturated water vapour, and
d. Pure aluminium can be arranged as

Q15-A copper block and an air mass block having similar dimensions are subjected to symmetrical heat transfer from one face of each block. The other face of the block will be reaching to the same temperature at a rate: [IES-2006]

(a) Faster in air block
(b) Faster in copper block
(c) Equal in air as well as copper block
(d) Cannot be predicted with the given information

Q16-A plane wall is 25 cm thick with an area of 1 m2, and has a thermal conductivity of 0.5 W/mK. If a temperature difference of 60°C is imposed across it, what is the heat flow? [IES-2005]

(a) 120W (b) 140W (c) 160W (d) 180W

Q17-Which one of the following expresses the thermal diffusivity of a substance in terms of thermal conductivity (k), mass density (ρ) and specific heat (c)? [IES-2006]

(a) k2 ρc (b) 1/ρkc (c) k/ρc (d) ρc/k2

Q18-A furnace is made of a red brick wall of thickness 0.5 m and conductivity 0.7 W/mK. For the same heat loss and temperature drop, this can be replaced by a layer of diatomite earth of conductivity 0.14 W/mK and thickness [IES-1993]

(a) 0.05 m (b) 0.1 m (c) 0.2 m (d) 0.5 m

CO3/Q19-A stainless steel tube (ks = 19 W/mK) of 2 cm ID and 5 cm OD is insulated with 3 cm thick asbestos (ka = 0.2 W/mK). If the temperature difference between the innermost and outermost surfaces is 600°C, the heat transfer rate per unit length is: [GATE-2004]

(a) 0.94 W/m (b) 9.44 W/m (c) 944.72 W/m (d) 9447.21 W/m

CO3/Q20-A composite wall of a furnace has 3 layers of equal thickness having thermal conductivities in the ratio of 1:2:4. What will be the temperature drop ratio across the three respective layers? [IES-2009]

(a) 1:2:4 (b) 4:2:1 (c) 1:1:1 (d) log4:log2:log1

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Assignment-II

Sub: - HT **Code**: 5ME4-02

CO1 To understand the basic concept of mode of heat transfer.
CO2 To apply non-dimensional numbers to evaluate and validate heat transfer parameters
CO3 To analyze the complex problems of heat transfer with proper boundary conditions

CO1

Q1- Illustrate Fin efficiency and its effectiveness.

Q2- Explain the significance of Velocity and thermal boundary layers.

Q3-Explain Fin with its different types.

Q4-Derive an expression for general differential equation of fin.

Q5- A copper rod 0.5 cm diameter and 50 cm long protrudes from a wall maintained at a temperature of 500^{o}C. The surrounding temperature is 30^{o}C. Convective heat transfer coefficient is 40 W/m^{2}K and thermal conductivity of material is 300 W/mK. Determine:
Total heat transfer rate from rod
Temperature of the rod at 20 cm from wall

CO2

Q6- Write empirical relation of flow over a flat plate for turbulent flow.

Q7-Explain Newton's law of cooling for convection.

CO3

Q8-Air at 20^{o}C flows over a flat surface maintained at 80^{o}C. Estimate the value of local heat transfer coefficient if the local heat flow at a point was measured as 1250 W/m^{2}. Proceed to calculate the temperature gradient at the surface and the temperature at a distance of 0.6mm from the surface. Take thermal conductivity of air as 0.028W/m-deg

Q9-Air at 2 bar pressure and 200oC temperature gets heated as it flows through 2.5cm diameter tube with a velocity of 10m/s. A constant heat flux condition is maintained at the wall and wall temperature is 20oC above the air temperature all along the length of the tube. Make calculations for the heat transfer per unit length of the tube. Also determine the increase in bulk temperature over a 3 meter length of the tube.

Q10-Explain Hydrodynamic Boundary Layer with appropriate diagram

GATE/IES QUESTIONS

CO1

Q11-A fin has 5mm diameter and 100 mm length. The thermal conductivity of fin material is 400 Wm−1K−1. One end of the fin is maintained at 130ºC and its remaining surface is exposed to ambient air at 30ºC. If the convective heat transfer coefficient is 40 Wm^{2}K^{1,} the heat loss (in W)from the fin is: [GATE-2010]

(a) 0.08 (b) 5.0 (c) 7.0 (d) 7.8

Q12-From a metallic wall at 100°C, a metallic rod protrudes to the ambient air. The temperatures at the tip will be minimum when the rod is made of: [IES-1992]

(a) Aluminium (b) Steel (d) Copper (d) Silver

Q13-On heat transfer surface, fins are provided [IES-2010]
(a) To increase temperature gradient so as to enhance heat transfer
(b) To increase turbulence in flow for enhancing heat transfer
(c) To increase surface are to promote the rate of heat transfer
(d) To decrease the pressure drop of the fluid

Q14- Which one of the following is correct? [IES-2008]
The effectiveness of a fin will be maximum in an environment with
(a) Free convection (b) Forced convection
(c) Radiation (d) Convection and radiation

Q15- Fins are made as thin as possible to: [IES-2010]
(a) Reduce the total weight
(b) Accommodate more number of fins
(c) Increase the width for the same profile area
(d) Improve flow of coolant around the fin

CO2

Q16-Usually fins are provided to increase the rate of heat transfer. But fins also act as Insulation. Which one of the following non-dimensional numbers decides this factor? [IES-2007]
(a) Eckert number (b) Biot number
(c) Fourier number (d) Peclet number

Q17- Extended surfaces are used to increase the rate of heat transfer. When the convective heat transfer coefficient h = mk, the addition of extended surface will: [IES-2010]
(a) Increase the rate of heat transfer
(b) Decrease the rate of heat transfer
(c) Not increase the rate of heat transfer
(d) Increase the rate of heat transfer when the length of the fin is very large

Q18- The properties of mercury at 300 K are: density = 13529 kg/m3, specific heat at constant pressure = 0.1393 kJ/kg-K, dynamic viscosity = 0.1523 ×10-2 N.s/m2 and thermal conductivity = 8.540 W/mK. The Prandtl numberof the mercury at 300 K is: [GATE-2002]
0.0248 (b) 2.48 (c) 24.8 (d) 248

CO3

Q19- If velocity of water inside a smooth tube is doubled, and then turbulent flow heat transfer coefficient between the water and the tube will:
(a) Remain unchanged [GATE-1999]
(b) Increase to double its value
(c) Increase but will not reach double its value
(d) Increase to more than double its value

Q20- Air at 20°C blows over a hot plate of 50 × 60 cm made of carbon steel maintained at 220°C. The convective heat transfer coefficient is 25 W/m^2K. What will be the heat loss from the plate? [IES-2009]
1500W (b) 2500 W (c) 3000 W (d) 4000 W

Q21- Which one of the following non-dimensional numbers is used for transition from laminar to turbulent flow in free convection? [IES-2007]
(a) Reynolds number (b) Grashof number
(c) Peclet number (d) Rayleigh number

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Assignment-III

Sub: - HT **Code**: 5ME4-02

CO1 To understand the basic concept of mode of heat transfer.
CO2 To apply non-dimensional numbers to evaluate and validate heat transfer parameters
CO3 **To analyze the complex problems of heat transfer with proper boundary conditions environment.**

CO2

Q1- What is natural convection? Explain its different mechanism with suitable example.

Q2- Explain Biot Number with its significances.

Q3-What is grashof number and how it is useful in natural convective heat transfer?

Q4- What is vaporization? Discuss effects of various parameters on vaporization.

Q5-Discuss the physical significance of the Nusselt number?

Q6-Explain the non -dimensional parameters used in the analysis of forced convection

Q7-Air at 2 bar pressure and 200oC temperature gets heated as it flows through 2.5cm diameter tube with a velocity of 10m/s. A constant heat flux condition is maintained at the wall and wall temperature is 20^{o}C above the air temperature all along the length of the tube. Make calculations for the heat transfer per unit length of the tube. Also determine the increase in bulk temperature over a 3 meter length of the tube.

Q8-Discuss the Boundary conditions

Q9-Engine oil at $60\ ^{0}$C flows over the upper surface of a 5-m-long flat plate whose Temperature is $20\ ^{0}$ C with a velocity of 2 m/s shows in following fig. Determine the total drag force and the rate of heat transfer per unit width of the entire plate.

Q-10 Explain slip and no slip conditions

GATE/IES QUESTIONS

Q11-pipe and vertical flat plate for same height and fluid are equal. What is/are the possible reasons for this? [IES-2008]

1. Same height 2. Both vertical 3. Same fluid 4. Same fluid flow pattern

Select the correct answer using the code given below:

(a) 1 only (b) 1 and 2 (c) 3 and 4 (d) 4 only

Q12- Free convection flow depends on all of the following EXCEPT [IES-1992]

(a) Density (b) Coefficient of viscosity (c) Gravitational force (d) Velocity

Q13-The average Nusselt number in laminar natural convection from a vertical wall at 180°C with still air at 20°C is found to be 48. If the wall temperature becomes 30°C, all other parameters remaining same, the average Nusselt number will be: [IES-2002]

(a) 8 (b) 16 (c) 24 (d) 32

Q14-Consider the following statements: [IES-1997]If a surface is pock-marked with a number of cavities, then as compared to a smooth surface.

1. Radiation will increase 2. Nucleate boiling will increase3. Conduction will increase 4. Convection will increase

Of these statements:

(a) 1, 2 and 3 are correct (b) 1, 2 and 4 are correct(c) 1, 3 and 4 are correct (d) 2, 3 and 4 are correct

Q15- The ratio of energy transferred by convection to that by conduction is called [IES-1992]

(a) Stanton number (b) Nusselt number(c) Biot number (d) Preclet number

Q16- When all the conditions are identical, in the case of flow through pipes with heat transfer, the velocity profiles will be identical for: [IES-1997]

(a) Liquid heating and liquid cooling (b) Gas heating and gas cooling(c) Liquid heating and gas cooling (d) Heating and cooling of any fluid

Q17- When a liquid flows through a tube with sub-cooled or saturated boiling, what is the process known? [IES-2009]

(a) Pool boiling (b) Bulk boiling(c) Convection boiling (d) Forced convection boiling

Q18-Drop wise condensation usually occurs on [IES-1992]

(a) Glazed surface (b) Smooth surface (c) Oily surface (d) Coated surface

Q19-When a liquid flows through a tube with sub-cooled or saturated boiling, what is the process known? [IES-2009]

(a) Pool boiling (b) Bulk boiling(c) Convection boiling (d) Forced convection boiling

Q20-For laminar flow over a flat plate, the local heat transfer coefficient 'hx'varies as x-1/2, where x is the distance from the leading edge (x = 0) of the plate. The ratio of the average coefficient 'ha' between the leading edge and some location 'A' at x = x on the plate to the local heat transfer coefficient 'hx' at A is: [IES-1999]

(a) 1 (b) 2 (c) 4 (d) 8

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Assignment-IV

Sub: - HT **Code**: 5ME4-02

CO1 To understand the basic concept of mode of heat transfer.
CO2 To apply non-dimensional numbers to evaluate and validate heat transfer parameters
CO3 To analyze the complex problems of heat transfer with proper boundary conditions environment.

CO3

Q1- Derive an derivation of LMTD for a parallel flow heat exchanger.

Q2- Sketch the temperature –length curves for a counter flow and parallel flow heat exchanger for the cases when i) Cc>Ch ii)Cc=Ch iii) Cc< Ch. A counter flow exchanger of surface area 8 m^2 is to be used to heat a process liquid by using a high temperature water available from another part of the plant. If the overall coefficient of heat transfer is 450W/m^2K. Find the exit temperatures of the process liquid and water stream from the data given below:

	Hot fluid (water)	cold fluid (process liquid)
Inlet temp(K)	365	300
Mass flow rate kg/s	1.0	3.0
Specific heat KJ/KgK	4.2	2.1

Q3-Differentiate between LMTD & NTU method.

Q4-In a counter flow heat exchanger, hot fluid enters at 60°C and cold fluid leaves at 30°C. Mass flow rate of the hot fluid is 1 kg/s and that of the cold fluid is 2 kg/s. Specific heat of the hot fluid is 10 kJ/kgK and that of the cold fluid is 5 kJ/kgK. The Log Mean Temperature Difference (LMTD) for the heat exchanger in °C .

Q5-A designer chooses the values of fluid flow ranges and specific heats in such a manner that the heat capacities of the two fluids are equal. A hot fluid enters the counter flow heat exchanger at 100°C and leaves at 60°C. The cold fluid enters the heat exchanger at 40°C. The mean temperature difference between the two fluids is

Q6-A double pipe parallel flow H.E. use oil (cp = 1.88 kJ/kg.K) at an initial temperature of 205°C to heat water, flowing at 225kg/hr from 16°C to 44°C. The oil flow rate is 270 kg/hr. a) what is the heat transfer area required for an overall heat transfer coefficient of 340 W/m2 .K. b) Determine the number of transfer unit (NTU). c) Calculate the effectiveness of the H.E.

Q7-In a counter-flow heat exchanger, the hot fluid is cooled from 110°C to 80°C by a cold fluid which gets heated from 30°C to 60°C.Compute LMTD for the heat exchanger .

Q8-Established the expression for the effectiveness of counter flow heat exchanger by NTU method.

Q9-Hot water at 80°C enters the tube of two shell pass, eight tubes pass H.E at the rate 0.375 kg/s heating helium from 20°C. The overall heat transfer coefficient is 155 W/m2K and the exchanger area is 10 m2. If the water exits at 44°C, determine the exit temperature of the helium and its mass flow rate.

Q10-Classify Heat exchanger with examples.

GATE/IES QUESTIONS

Q11-In a counter flow heat exchanger, for the hot fluid the heat capacity = 2kJ/kg K,
mass flow rate = 5 kg/s, inlet temperature = 150°C, outlet temperature = 100°C.
For the cold fluid, heat capacity = 4 kJ/kg K, mass flow rate = 10 kg/s, inlet temperature = 20°C.
Neglecting heat transfer to the surroundings, the outlet temperature of the cold fluid in °C is:
[GATE-2003]

(a) 7.5 (b) 32.5 (c) 45.5 (d) 70.0

Q12- In a condenser, water enters at 30°C and flows at the rate 1500 kg/hr.The condensing steam is at a temperature of 120°C and cooling water leaves the condenser at 80°C. Specific heat of water is 4.187 kJ/kg K. If the overall heat transfer coefficient is 2000 W/m2K, then heat transfer
area is: [GATE-2004]

(a) 0.707 m2 (b) 7.07 m2 (c) 70.7 m2 (d) 141.4 m2

Q13- The logarithmic mean temperature difference (LMTD) of a counter flow heat exchanger is 20°C. The cold fluid enters at 20°C and the hot fluid enters at 100°C. Mass fl0w rate of the cold fluid is twice that of the hot fluid. Specific heat at constant pressure of the hot fluid is twice that of the cold fluid. The exit temperature of the cold fluid [GATE-2008]

(a) 40°C (b) is 60°C (c) is 80°C (d) Cannot be determined

Q14- In a counter flow heat exchanger, hot fluid enters at 60°C and cold fluid leaves at 30°C. Mass flow rate of the hot fluid is 1 kg/s and that of the cold fluid is 2 kg/s. Specific heat of the hot fluid is 10 kJ/kgK and that of the cold fluid is 5 kJ/kgK. The Log Mean Temperature Difference (LMTD) for the heat exchanger in °C is: [GATE-2007]

(a) 15 (b) 30 (c) 35 (d) 45

Q15- Hot oil is cooled from 80 to 50°C in an oil cooler which uses air as the coolant. The air temperature rises from 30 to 40°C. The designer uses a LMTD value of 26°C. The type of heat exchanger is: [GATE-2005]

(a) Parallel flow (b) Double pipe (c) Counter flow (d) Cross flow

Q16- For the same inlet and outlet temperatures of hot and cold fluids, the
Log Mean Temperature Difference (LMTD) is: [GATE-2002]
(a) Greater for parallel flow heat exchanger than for counter flow heat exchanger.
(b) Greater for counter flow heat exchanger than for parallel flow heat exchanger.
(c) Same for both parallel and counter flow heat exchangers.
(d) Dependent on the properties of the fluids.

Q17- Air enters a counter flow heat exchanger at 70°C and leaves at 40°C.
Water enters at 30°C and leaves at 50°C. The LMTD in degree C is:
[GATE-2000]
(a)5.65 (b) 4.43 (c) 19.52 (d) 20.17

Q18- Air can be best heated by steam in a heat exchanger of [IES-2006]
(a) Plate type
(b) Double pipe type with fins on steam side
(c)Double pipe type with fins on air side
(d) Shell and tube type

Q19- For a balanced counter-flow heat exchanger, the temperature profiles of the two fluids are:
[IES-2010]
(a) Parallel and non-linear (b) Parallel and linear
(c) Linear but non-parallel (d) Divergent from one another

Q20- In a heat exchanger, the hot liquid enters with a temperature of 180ºC and leaves at 160ºC. The cooling fluid enters at 30ºC and leaves at 110ºC. The capacity ratio of the heat exchanger is:
[IES-2010]
(a) 0.25 (b) 0.40 (c) 0.50 (d) 0.55

JECRC, JAIPUR

Department of Mechanical Engineering

Assignment-V

Sub: - HT **Code**: 5ME1A

CO1 To understand the basic concept of mode of heat transfer.

CO4To discuss the radiation phenomenon and impact on global environment

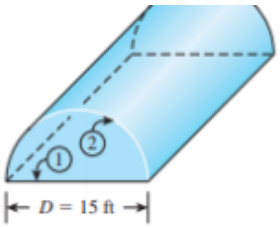
.

CO4

Q1- Explain plank distribution law

Q2- The sun emits maximum radiation at wavelength is 0.52 μm. Assuming the sun emits to be a black body, calculate the surface temperature of the sun's surface at that temperature .Also determine the maximum monochromatic emissive power of the sun's surface.

Q3-A furnace is shaped like a long semi cylindrical duct of diameter D = 5 m. The base and the dome of the furnace have emissivities of 0.5 and 0.9 and are maintained at uniform temperatures of 350 and 1000 K, respectively. Determine the net rate of radiation heat transfer from the dome to the base surface per unit length during steady operation. [Note: Instead of 15 ft the value of D is 5m]



Q4-A gray body (ε=0.8) emits the same amount of heat as a black body at 1075 K. Find out the required temperature of the gray body.

If a black body at 1000 K and a gray body at 1250 K emit the same amount of radiation, what should be the emissivity of the gray body?

Q5-What is shape factor? Discuss the roll of it for thermal resistance, thermal conductivity and heat transfer

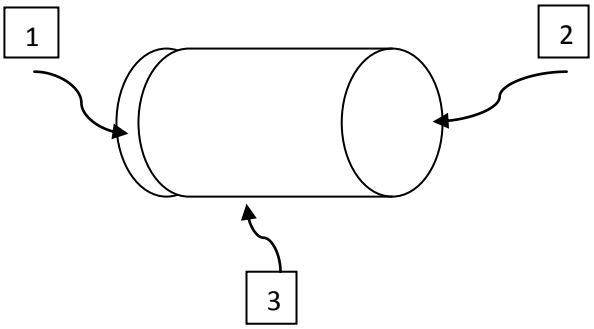
Q6- explain wave theory and max-well theory

Q7-Illustrate Stefan –Boltzmann law.

Q8-Eplain absorptivity, reflectivity, transmitivity.

Q9- Explain black body ,gray body, white body with example.

Q10- Consider a thin hollow cylinder of 8cm diameter and 10cm length. If the radiant shape factor of the circular surface of this cylinder is 0.172, make calculations for the shape factor of the curved surface of the cylinder with respect to itself.



GATE/IES QUESTIONS

CO4

Q11-In radiative heat transfer, a gray surface is one [GATE-1997]
(a) Which appears gray to the eye
(b) Whose emissivity is independent of wavelength?
(c) Which has reflectivity equal to zero.
(d) Which appears equally bright from all directions

Q12- The irradiation (in kW/m2) for the upper plate (plate 1) is: [GATE-2009]
(a) 2.5 (b) 3.6 (c) 17.0 (d) 19.5

Q13-If plate 1 is also a diffuse and gray surface with an emissivity value of 0.8, the net radiation heat exchange (in kW/m2) between plate 1 and plate 2 is: [GATE-2009]
(a) 17.0 (b) 19.5 (c) 23.0 (d) 31.7

Q14-The shape factors with themselves of two infinity long black body concentric cylinders with a diameter ratio of 3 are…… for the inner and…… for the outer. [GATE-1994]
(a) 0, 2/3 (b) 0, 1/3 (c) 1, 1/9 (d) 1, 1/3

Q15-What is the value of the view factor for two inclined flat plates having common edge of equal width, and with an angle of 20 degrees?[GATE-2002]
(a) 0.83 (b) 1.17 (c) 0.66 (d) 1.34

Q16-A solid cylinder (surface 2) is located at the centre of a hollow sphere (surface 1). The diameter of the sphere is 1 m, while the cylinder has a diameter and length of 0.5 m each. The radiation configuration factor F11 is: [GATE-2005]
(a) 0.375 (b) 0.625 (c) 0.75 (d) 1

Q17-Fraction of radiative energy leaving one surface that strikes the other surface is called [IES-2003]
(a) Radiative flux (b) Emissive power of the first surface
(c) View factor (d) Re-radiation flux

Q18- Which one of the following modes of heat transfer would take place predominantly, from boiler furnace to water wall? [IES-1993]
(a) Convection (b) Conduction
(c) Radiation (d) Conduction and convection

Q19- If the temperature of a solid state changes from 27°C to 627°C, then emissive power changes which rate [IES-1999; 2006]
(a) 6 : 1 (b) 9 : 1 (c) 27 : 1 (d) 81: 1

Q20-What is the basic equation of thermal radiation from which all other equations of radiation can be derived? [IES-2007]
(a) Stefan-Boltzmann equation (b) Planck's equation
(c) Wien's equation (d) Rayleigh-Jeans formula

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE
Department of Mechanical Engineering

COURSE : B.Tech. SEMESTER- IV SECTION A/B
SUBJECT : Theory of Machines CODE : 4ME4-07
TIME: 1½ hours MTT- I (SESSION: 2019-20) MM: 40

COURSE OUTCOMES

CO1: Determine velocity and acceleration of various planar mechanisms using the concept of link, pair, and mechanism.

CO2: Demonstrate the working of clutches and brakes.

Instructions: Attempt all sections

SECTION –A

Attempt all questions (2 mark each) **[2×5]**

Q1/CO1 Explain the term kinematic link.

Q2/CO1 Differentiate between a machine and a structure.

Q3/CO1 Explain different kinds of kinematic pairs.

Q4/CO2 Define the brakes and dynamometer.

Q5/CO2 Discuses laws of friction.

SECTION – B

Q1(a)/CO1 Discuss the kinematic pair in detail. **[8]**

Q1(b)/CO1 Sketch and explain any two inversions of a single slider crank chain. **[7]**

OR

Q1/CO1 A mechanism, as shown in figure, has the following dimensions:
OA = 200 mm; AB = 1.5 m; BC = 600 mm; CD = 500 mm and BE = 400 mm. Locate all the instantaneous centres.
If crank OA rotates uniformly at 120 r.p.m. clockwise, find 1. the velocity of B, C and D, 2. the angular velocity of the links AB, BC and CD. **[15]**

SECTION – C

Q2(a)/CO2 Derive from first principles an expression for the effort required to raise a load with a screw jack taking friction into consideration. **[8]**

Q2(b)/CO2 Explain working principle of single plate clutch with neat sketch. **[7]**

OR

Q2(a)/CO2 A body, resting on a rough horizontal plane required a pull of 180 N inclined at 30° to the plane just to move it. It was found that a push of 220 N inclined at 30° to the plane jus moved the body. Determine the weight of the body and the coefficient of friction. **[15]**

Set-2

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE
Department of Mechanical Engineering

COURSE : B.Tech. SEMESTER- IV SECTION A/B
SUBJECT : Theory of Machines CODE : 4ME4-07
TIME: 1½ hours MTT- I (SESSION: 2019-20) MM: 40

COURSE OUTCOMES

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Attempt all questions (2 mark each) [2×5]

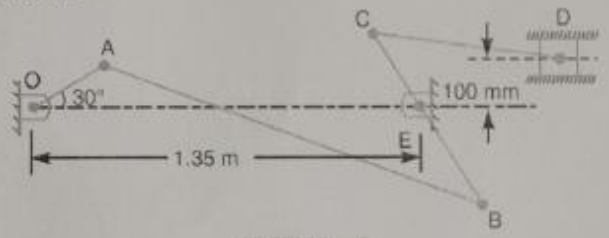
Q1/CO1 Describe the term kinematic link.
Q2/CO1 Differentiate between a machine and a structure.
Q3/CO1 Explain different kinds of kinematic pairs.
Q4/CO2 Define the brakes and dynamometer.
Q5/CO2 Illustrate laws of friction.

SECTION – B

Q1(a)/CO1 Illustrate the kinematic pair in detail. [8]
Q1(b)/CO1 Explain with neat sketch any two inversions of a single slider crank chain. [7]

OR

Q1/CO1 A mechanism, as shown in figure, has the following dimensions:
OA = 200 mm; AB = 1.5 m; BC = 600 mm; CD = 500 mm and BE = 400 mm. Locate all the instantaneous centres.
If crank OA rotates uniformly at 120 r.p.m. clockwise, find 1. the velocity of B, C and D, 2. the angular velocity of the links AB, BC and CD. [15]



SECTION – C

Q2(a)/CO2 Derive from first principles an expression for the effort required to raise a load with a screw jack taking friction into consideration. [8]

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JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

(Affiliated to Rajasthan Technical University, Kota)

AWARD LIST (2019-20) [MTT-I]

Class: II B. Tech. IV Semester Branch: Mechanical Engineering

Subject & Code: Theory of Machines [4ME4-07] Faculty: Abhishek Kumar

S. No.	RTU Roll No.	Name of student	Marks CO1 (MM 21)	Marks CO2 (MM 19)	Target Achieved CO1 (Y/N)	Target Achieved CO2 (Y/N)
1		AAKASH GARG	12	13	N	Y
2		AARYANSH PANDEY	14	11	Y	N
3		AASIM ALI	16	9	Y	N
4		ABHISHEK HADA	10	15	N	Y
5		ABHISHEK JADON	13	12	Y	Y
6		ABHISHEK KUMAR	21	10	Y	N
7		ABHISHEK SHARMA	12	13	N	Y
8		ABHISHEK SHARMA	16	19	Y	Y
9		AJAY MEERWAL	20	8	Y	N
10		AKASH SINGHAL	13	12	Y	Y
11		AKSHAT CHATURVEDI	12	13	N	Y
12		AKSHAT JAIN	10	15	N	Y
13		AKSHAT MANGAL	10	10	N	N
14		AMAN KHAN	11	14	N	Y
15		AMBAR SHUKLA	20	8	Y	N
16		AMIT MAHUR	20	10	Y	N
17		ANIKET MAHESHWARI	12	13	N	Y
18		ANKUR SHARMA	13	12	Y	Y
19		ANURAG BARMAN	20	5	Y	N
20		ARUN RAJ SINGH NARUKA	AB	AB	Y	Y
21		ARVIND SINGH GORA	10	6	N	N
22		ARYAMAN KHADOLIYA	9	16	N	Y
23		ARYAN BAHETI	15	10	Y	N
24		ASHUTOSH BARWAL	14	11	Y	N
25		ASHUTOSH SINGH JAT	12	13	N	Y
26		ASHUTOSH YADAV	20	8	Y	N
27		ASIF ALI	10	8	N	N
28		BADAL SINGH SHEKHAWAT	19	9	Y	N

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE
Department of Mechanical Engineering

Theory of Machines (GATE/IES)

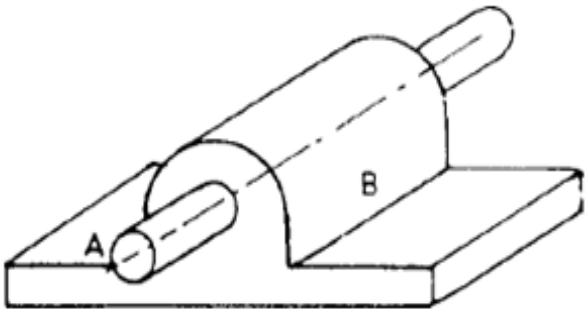
1. Match List I with List II and select the correct answer **[IES-2002]**

List I (Kinematic pairs)	List II (Practical example)
A. Sliding pair	1. A road roller rolling over the ground
B. Revolute pair	2. Crank shaft in a journal bearing in an engine
C. Rolling pair	3. Ball and socket joint
D. Spherical pair	4. Piston and cylinder
	5. Nut and screw

	A	B	C	D		A	B	C	D
(a)	5	2	4	3	(b)	4	3	1	2
(c)	5	3	4	2	(d)	4	2	1	3

1. Ans. (d)

2. A round bar A passes through the cylindrical hole in B as shown in the given figure. Which one of the following statements is correct in this regard?



(a) The two links shown form a kinematic pair.
(b) The pair is completely constrained.
(c) The pair has incomplete constraint.
(d) The pair is successfully constrained. **[IES-1995]**

2. Ans. (b)

3. Consider the following statements **[IAS 1994; IES-2000]**

1. A round bar in a round hole form a turning pair.
2. A square bar in a square hole forms a sliding pair.
3. A vertical shaft in a footstep bearing forms a successful constraint.

Of these statements
(a) 1 and 2 are correct
(b) 2 and 3 are correct
(c) 1 and 3 are correct
(d) 1, 2 and 3 are correct

3. Ans. (b)

4. Match List-I with List-II and select the correct answer using the codes given below the Lists: **[IES-1999]**

List-I	List-II
A. 4 links, 4 turning pairs	1. Complete constraint
B. 3 links, 3 turning pairs	2. Successful constraint
C. 5 links, 5 turning pairs	3. Rigid frame
D. Footstep bearing	4. Incomplete constraint

Code:	A	B	C	D		A	B	C	D
(a)	3	1	4	2	(b)	1	3	2	4
(c)	3	1	2	4	(d)	1	3	4	2

4. Ans. (d) 4 links and 4 turning pairs satisfy the equation $L = \frac{3}{2}(j + 2)$; It is case of Complete constraint. 3 links and 3 turning pairs form rigid frame. Foot step bearing results in successful constraint and 5 links and 5 turning pairs provide incomplete constraint.

5. The connection between the piston and cylinder in a Reciprocating engine corresponding to
(a) completely constrained kinematic pair
(b) incompletely constrained kinematic pair
(c) successfully constrained kinematic pair (d) single link **[IAS 1994]**
5. Ans. (c)

6. Match the items in columns I and II **[GATE-2006]**

Column I	Column II
P. Higher kinematic pair	1. Grubler's equation
Q. Lower kinematic pair	2. Line contact
R. Quick return mechanism	3. Euler's equation
S. Mobility of a linkage	4. Planer
	5. Shaper
	6. Surface contact

(a) P-2, Q-6, R-4, S-3 (b) P-6, Q-2, R-4, S-1
(c) P-6, Q-2, R-5, S-3 (d) P-2, Q-6, R-5, S-1
6. Ans. (d)

7. The minimum number of links in a single degree-of-freedom planar mechanism with both higher and lower kinematic pairs is **[GATE-2002]**
(a) 2 (b) 3 (c) 4 (d) 5
7. Ans. (c)

8. Consider the following statements: **[IES-2005]**
1. The degree of freedom for lower kinematic pairs is always equal to one.
2. A ball-and-socket joint has 3 degrees of freedom and is a higher kinematic pair
3. Oldham's coupling mechanism has two prismatic pairs and two revolute pairs.

Which of the statements given above is/are correct?
(a) 1, 2 and 3 (b) 1 only (c) 2 and 3 (d) 3 only
8. Ans. (a)

9. Which of the following are examples of forced closed kinematic pairs?
1. Cam and roller mechanism 2. Door closing mechanism **[IES-2003]**
3. Slider-crank mechanism 4. Automotive clutch operating mechanism
Select the correct answer using the codes given below:
Codes:
(a) 1, 2 and 4 (b) 1 and 3 (c) 2, 3 and 4 (d) 1, 2, 3 and 4
9. Ans. (a)

Questions Bank

4ME4-07: THEORY OF MACHINES

CO1

Q1. In a pin jointed four bar mechanism ABCD. AB=300 mm, BC=CD=360 mm, and AD=600 mm. The angle BAD=60^0. The crank AB rotates uniformly at 100 rpm. Locate all the instantaneous centers and find the angular velocity of BC.

Q2. In a four bar chain ABCD, AD is fixed and is 150 mm long. The crank AB is 40 mm long and rotates at 120 rpm clockwise, while the link CD=80 mm oscillates about D. BC and AD are of equal length. Find the angular velocity of the link CD when angle BAD=60^0.

Q3. The crank of a slider crank mechanism rotates clockwise at a constant speed of 300 rpm. The crank is 150 mm and the connecting rod is 600 mm long. Determine: 1. Linear velocity and acceleration of the midpoint of the connecting rod, and 2. Angular velocity and angular acceleration of the connecting rod, at a crank angle of 45^0 from the inner dead centre position.

Q4. Explain coriolis component.

Q5. Drive a relation for minimum frictional torque for flat pivotal bearing in case of

a) Uniform pressure

b) Uniform wear?

Q6. Explain friction and also give classification of friction.

Q7. Find out minimum effort required to move a body up on a rough inclined plane.

Q8. An effort of 1500 N is required to just move a certain body up an inclined plane of angle 12^0, force acting parallel to the plane. If the angle of inclination is increased to 15^0, then the effort required is 1720 N. find the weight of the body and the coefficient of friction.

Q9. Draw a labeled diagram of screw jack and also find out an expression for torque required to lift the load by a screw jack.

Q10. Drive a relation for minimum frictional torque for conical clutch in case of

a) Uniform pressure

b) Uniform wear?

Q11. What do you understand by a clutch and explain various types of clutches.

Q12. Determine the maximum, minimum and average pressure in plate clutch when the axial force is 4 KN. The inside radius of the contact surface is 50 mm and the outside radius is 100 mm. assume uniform wear.

Q13. An engine developing 45 KW at 100 rpm is fitted with a cone clutch built inside the flywheel. The cone has a face angle of 12.5^0 and a maximum mean diameter of 500 mm. the coefficient of friction is 0.2 . the normal pressure on the clutch face is not to exceed 0.1 N/mm^2.

Determine: 1. The axial spring force necessary to engage the clutch,

2. The face width required.

Q14. What do you understand by centrifugal clutch, explain with diagram and find out an expression for torque transmitted by centrifugal clutch.

CO2

Q1. Derive a relation for braking torque for a differential band brake.

Q2. Derive a relation for braking torque required for a single shoe brake in all the three cases.

Q3. A band brake acts on the $3/4^{th}$ of circumference of a drum of 450 mm diameter which is keyed to the shaft. The band brake provides a braking torque of 225 N-m. one end of the band is attached to a fulcrum pin of the lever and the other end to a pin 100 mm from the fulcrum. If the operating force is applied at 500 mm from the fulcrum and the coefficient of friction is 0.25, find the operating force when the drum rotates in 1) anticlockwise direction 2) clockwise direction.

Q4. A car moving on level road at a speed of 50 km/hr has a wheel base of 2.8 meters, distance of C.G from ground level 600 mm, and the distance of C.G from rear wheel 1.2 meters. Find the distance travelled by the car before coming to rest when brakes are applied,

1) To the rear wheels
2) To the front wheels
3) To all the four wheels
4) The coefficient of friction is 0.6.

Q5. Explain dynamometer, how it is different from the brake and give classifications of the dynamometer.

CO3

Q1. Classify all types of gears with diagram?

Q2. Explain the terminology of gears with diagram?

Q3. Prove law of gearing?

Q4. Derive a relation for length of path of contact?

Q5. Derive a relation for velocity of sliding?

Q6. Explain tooth profile of gears?

Q7. Derive relation for minimum no of teeth's on wheel and pinion to avoid interference?

Q8.A pinion having 30 teeth's drives a gear having 80 teeth. The profile of the gear is involutes with 20 pressure angle, 12 mm module and 10 mm addendum. Find the length of the path of the contact, arc of the contact and contact ratio.

Q9. A pair of involutes spur gear with 16 pressure angle and pitch of the module is 6mm is in mesh . The no of teeth on pinion is 16 and its rotational speed is 240 rpm. When the gear ratio is 1.75, find in order that the interference is just avoided; 1.the addenda on pinion and gear wheel; 2. The length of path of contact; 3. The max velocity of sliding of teeth on either side of the pitch point.

Q10. Explain gyroscopic couple in brief?

Q11. Explain with diagram

(a)plane of spinning

(b) Plane of precision

(c) Axis of active gyroscopic couple

(d) Plane of active gyroscopic couple

Q12. Explain the effect of gyroscopic couple on an aero plane

Q13. Explain the effect of gyroscopic couple on a naval ship during steering?

Q14. The mass of the turbine rotor of the ship is 20 tones and has a radii of gyration of .60 m. its speed is 2000 r.p.m. the ship pitches 6 above and 6 below the horizontal position . a complete oscillation takes 30 sec and the motion is simple harmonic .determine the following:

1. Max gyroscopic couple

2. Max angular acceleration of the ship during pitching 3. the direction in bow will tend to turn when rising , if the rotation of the rotor is clockwise when looking from the left .

Q15. Explain the effect of gyroscopic couple on a naval ship during pitching ?

Q16. Derive a relation for effect of gyroscopic couple and centrifugal couple on a four wheeler ?

Q17. A four wheel trolley car of mass 2500 Kg runs on rails , which are 1.5 m apart and travel around a curve of 30 m radius at 24 Km/h . the rails are at the same level. Each wheel of the trolley 0.75 m in diameter and each of the two axles is driven by a motor running in the direction opposite to that of wheels at a speed of five times the speed of rotation of the wheels. The moment of inertia of each wheel with gear and wheels is 18 Kg-m2. Each motor with shaft and gear pinion has moment of inertia of 12Kg-m2. The centre of gravity of the car is 0.9 m above the rail level. Determine the vertical force exerted by each wheels on the rails taking into consideration the centrifugal and gyroscopic effects. State the centrifugal and gyroscopic effects on the trolley.

Q18. Explain the effect of gyroscopic couple on two wheeler taking a turn?

Q19. Find the angle of inclination with respect to the vertical of the two wheeler negotiating the turn. given : combined mass of the vehicle with its rider 250 Kg-m2 ; moment of inertia of the engine flywheel 0.3 Kg-m2 ; moment of inertias of each road wheels 1 Kg-m2 ; speed of engine

flywheel 5 times that of road wheels and in the same direction ; height of the centre of gravity of the rider with vehicle 0.6 m ; two wheeler speed 90 Km/h ; wheel radius 300 mm ; radius of the turn 50m .

CO4

Q1. Draw a cam and follower arrangement. classify followers with their applications.

Q2. Draw displacement, velocity and acceleration diagram for a motion with uniform velocity.

Q3. A cam is to give the following motion to a knife edge follower:

1. Outstroke during 120^0 of the cam rotation; 2. Dwell for the next 30^0 of cam rotation; 3.Return stroke during next 60^0 of cam rotation, and 4.Dwell for the remaining 150^0 of the cam rotation. The stroke of the follower is 50 mm and the minimum radius of the cam is 50 mm. The follower moves with uniform acceleration and uniform retardation during both the outstroke and return strokes. Draw the profile of the cam when the axis of the follower passes through the axis of the cam shaft.

Q4. Draw displacement, velocity and acceleration diagram for a motion with uniform acceleration and uniform retardation.

Q5.A cam is to give the following motion to a knife edge follower:

1. Outstroke during 60^0 of the cam rotation; 2. Dwell for the next 30^0 cam rotation;

3.Return stroke during next 60^0 of cam rotation, and 4.Dwell for the remaining 210^0 of the cam rotation.

The stroke of the follower is 40 mm and the minimum radius of the cam is 50 mm.The follower oves with uniform velocity during both the outstroke and return strokes. Draw the profile of the cam when the axis of the follower passes through the axis of the cam shaft.

Q6. Draw displacement, velocity and acceleration diagram for a motion with cycloidal motion.

Q7. A cam is to give the following motion to a knife edge follower:

1. Outstroke during 90^0 of the cam rotation; 2. Dwell for the next 30^0 of cam rotation; 3.Return stroke during next 60^0 of cam rotation, and 4.Dwell for the remaining 180^0 of the cam rotation. The stroke of the follower is 40 mm and the minimum radius of the cam is 50 mm. The follower moves with simple harmonic motion during both the outstroke and return strokes. Draw the profile of the cam when the axis of the follower passes through the axis of the cam shaft.

Q8. Draw displacement, velocity and acceleration diagram for a motion with simple harmonic motion.

Q9. Explain balancing with its advantages and disadvantages?

Q10. Classify types of balancing explain them with neat diagram?

Q11. Four masses m1, m2, m3 and m4 are 200Kg, 300Kg, 240Kg and 260Kg respectively. The corresponding radii of rotation are .2m,.15m,.25m and .3m respectively and the angles between

successive masses are 45,75, and 135 . Find the position and magnitude of their balance masses required, if its radius of rotation is .2m.

Q12. A shaft carries four masses A, B, C and D of magnitude 200 Kg , 300 Kg , 400 Kg and 200Kg respectively and revolving at radii 80 mm,70 mm, 60 mm and 80 mm in planes measured from A at 300 mm, 400mm and 700mm. the angles between the cranks measured anticlockwise are A to B 45, B to C 70, and C to D 120. The balancing masses are to be placed in planes X and Y. the distance between the planes A and X is 100 mm, between X and Y is 400 mm and between Y and D is 200 mm. if the balancing masses revolve at a radius of 100 mm, find their magnitude and angular positions.

Q13. A, B, C, and D are four masses carried by a rotating shaft at radii 100, 125,200 and 150mm respectively. The planes in which the masses revolve are spaced 600 mm apart and the masses of B, C and D are 10Kg, 5Kg, 5Kg and 4Kg respectively. Find the required mass of A and the relative angular setting of the four masses so that the shaft can be in complete balance.

Q14. Explain balancing of reciprocating masses?

Q15. Drive a relation for primary unbalanced force of reciprocating masses

Q16. Derive a relation for secondary unbalanced force of reciprocating masses?

Q17. Explain “swaying couple” and “hammer blow”?

Q18. The three crank of three cylinder locomotive are all on the same axle and are set at 120. The pitch of the cylinder is 1 meter and the stroke of the each piston is .6m. The reciprocating masses are 300 Kg for inside cylinder and 260 Kg for each outside cylinder and the planes of the rotation of the balance masses are .8 from the inside crank.

If 40% of the reciprocating parts are to be balanced, find:

1. The magnitude and the position of the balancing masses required at a radius of .6 m;
2. The hammer blow per wheel when the axle makes 6 r.p.s

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

EXAMINATION ANSWER BOOK

(To be filled in by the candidates)

Name of the Candidate: Ankur Mittal
Class: Btech VIII[th] sem, MECH (A1)
Roll No.: 12
Subject & Paper: Power Generation
Day & Date: Tuesday, 25-02-20
Session: 2019-20
Supplementary Used (Nos.):
Signature of Candidate: Ankur
Signature of Invigilator:

N.B. Candidates Should fill in the above particulars before they begin to write their answers.

Use blank space below for starting your answer.

For the use of Examiner

Q.No.	Marks	
1.	06	04
2.	06	07
3.	04	07
4.		
5.		
6.		
7.		
8.	16+18 = 34/40	
Total		

Examiner's Signature

verified

Part-A

Ans 1) Reheating in thermal power plant means the steam is heated again to become superheat after being passed from turbine. 02

Ans 2) Thermal efficiency of steam power plant

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

EXAMINATION ANSWER BOOK

CO1 = 14
CO2 = 13
CO3 = 22
CO4 = 07

(To be filled in by the candidates)

Name of the Candidate: LOKESH KUMAR DUBEY
Class: 7th Sem, Mechanical, Section 'A'
Roll No.: 53
Subject & Paper: MNM
Day & Date: Wednesday, 23/10/2019
Session: 2019 - 2020
Supplementary Used (Nos.):
Signature of Candidate: Lokesh
Signature of Invigilator:

N.B. Candidates Should fill in the above particulars before they begin to write their answers.

Use blank space below for starting your answer.

For the use of Examiner

Q.No.	Marks
1.	7+7 = 14
2.	6+7 = 13
3.	~~6+4 = 10~~ 6+6 = 12
4.	6+4 = 10
5.	3+4 = 07
6.	
7.	
8.	~~54/80~~
Total	56/80

Examiner's Signature

(14)

UNIT - 1

Q1 ⇒ Ans 1 → Micro - cutting tools →

→ Micro - cutting tools are the tools which is ~~helpful~~ helpful in machining of workpiece at micro - level (10-6 scale).

Criterion-2 Program Curriculum and Teaching- Learning Process			
S. NO	**CRITERIA**	**OBSERVATION MADE BY NBA**	**COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)**
2.2.3	**2.2.3. Quality of student projects**	Rubrics is established but not followed for evaluation and monitoring of projects and projects quality is not good.	To ensure the quality and monitoring of projects, department analyse continuous evaluation and progress through Project assessment Committee. The committee comprises of senior faculty members in the department. Based on the rubrics student projects are evaluated and continuous monitoring is done by the concerned faculty mentor of the project. • Progress report presentation followed by viva-voce has been carried out twice in a semester in front of Project assessment committee for review of the progress and suggestions thereafter. • A presentation followed by viva voce is also carried out at the end of semester also in front of the external examiner and other students. • Some students apply their project ideas for patent. • All the students are motivated to write a research paper on their project and present the same during the national conference of the department organized every year. A due credit is also given to the student for the same. External experts from industry and eminent institution are invited during the presentation for expert comments. • All the papers in the form of conference proceeding is also maintained in the department and also uploaded on website as link given below. • All the project titles are mapped with all the Program outcomes (POs) and Program specific outcomes (PSOs) for evaluation of POs and PSOs attainment as per rubric. https://www.jecrcfoundation.com/mechanical-engineering/projects https://jecrcfoundation.com/jf-data/NBA/ME/Project/Project-2018-19.pdf https://jecrcfoundation.com/jf-data/NBA/ME/Project/Project-2019-20.pdf

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTER , JAIPUR

DEPARTMENT OF MECHANICAL ENGINEERING

B. Tech VIII Sem Section A

Project Session 2018-19

S. No	I	II	III	IV	Title of project	Project Guide
I-A	Mohsin Khan	Rawat Sandeep	Manish Rajoriya	Tushar Gupta	Designing of an All Terrain Vehicle	Mr. Kuldeep Sharma
II-A	Hemant singh Chauhan	Arjun singh deora	Abhijeet	Abhishek Saini	R C PLANE	Mr. Tejendra Singh
III-A	Mayank sharma	Jay kant joshi	Kashish jain	Aman sharma	Solar Powered Hacksaw	Dr. M.P. Singh
IV-A	Harshil Pandit	Bhanu prakash gupta	Mihir panchal	Abhishek singh	Go Kart Design	Dr. Rishi Pareek
V-A	Ashish Prajapat	Akash saini	Arpit Khandelwal	Kaptan singh	Pneumatic Bumper with Air Bag system	Mr. Bhuvnesh Bharadwaj
VI-A	Gaurav Kumar Gupta	Harish Sharma	Jitendra Mohan Sharma	Hemant Singh Sisodiya	Rocker Boggie	Mr. Lalit Kumar Sharma
VII-A	Mohit Agrawal	Alankar singh	Anang Patidar	Madhusudan Saini	Electric Car	Mr. Kuldeep Sharma
VIII-A	Chandra prakash fulwani	Bhuvnesh Kumar Yadav	Hemant Mahala	Akashay kumar	GO-KART Transmission	Dr. Rishi Pareek
IX-A	Devesh lala	Anirudh singh chouhan	Devendra pratap yadav	Ashutosh Dadhich	GO-KART Fabrication	Dr. Rishi Pareek
X-A	Abhishek Kumar	Parul Yadav	Amit Goyal	Giriraj Yadav	Fabrication of ATV	Mr. Kuldeep Sharma
XI-A	Aditya jain	Pranjal srivastav			Transmission of an ATV	Mr. Kuldeep Sharma

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE , JAIPUR

DEPARTMENT OF MECHANICAL ENGINEERING

B. Tech VIII Sem Section C

Project Session 2018-19

S. No	I	II	III	IV	Title of project	Project Guide
I-C	VIKAS JAIN	VIKAS KHANDELWAL	Jaideep mahendra	AJAY JADAM	GO KART Calculation	Mr Aashish Nagpal
II-C	PURU PRADHUMN SEN	DHRUV RAJ PUROHIT	DIVYANK RATHI	NEERAJ YADAV	Gearless tramsmission using elbow mechanism	Dr. Bhuvnesh Bharadwaj
III-C	MANISH SAIN	KAUSHAL PRASAD LODHI	ALOK PATEL	MANISH KUMAR	ATV Suspension System	Mr. Kuldeep sharma
IV-C	Yogesh Pandey	Aditya Agrawal	Aayush Kr Agrawal	Nikhil Dhakad	Physical And Mechanical Behaviour of Banana And Carbon fibre Hybrid	Mr. Tejendra singh
V-C	Pratyush Bhardwaj	Prince Kumar Sharma	Neeraj Parashar	Saurabh Singh Rajput	Spider Leg Mechanism	Mr. Tejendra singh
VI-C	Manish Jain	Aditya Kumar Jha	Sudhanshu Ranjan	Nitin Khanna	Multipurpose Wheel Chair Convertible to Bed	Dr. Bhuvnesh Bharadwaj
VII-C	Krishan Kant Gupta	Jitendra Nath	Lavish Nankani	Zishan Ahmad	Quadcoter	Mr Tej Bahadur
VIII-C	Suraj Prajapati	Vikram Dangi	Neeraj Meena	Sunil Kumar Hawas	Tradel Driven Drill Press	Mr. Akhilesh Paliwal
IX-C	Piyush Pursnani	Pawan Kumar Suthar	Aditya Upadhyay	Anuj Tiwari	Advance Digital Cutting & Notching Machine	Mr. Akhilesh Paliwal
XI-C	Abhishek Parashar	Arpit Kumar Jain	Jatin Kaushik	Navin Kumar	Effect of Waste Vegetable Oil on Machining Of Hastelly C22	Mr. Nikhil Jain
XII-C	HARSH MANTRI	NAMAN VIJAYVARGIYA	DEEPAK JUDANI	SHUBHAM PRAJAPATI	Go KART DESIGN	Mr. Aashish Nagpal
XIII-C	DEEPAK CHOUDHARY	SHUBHAM WADHWA	ADITYA AGARWAL	GOVIND SAINI	GO KART Manufacturing	Mr. Aashish Nagpal

DEPARTMENT OF MECHANICAL ENGINEERING

B. Tech VIII Sem Section B

Project Session 2018-19

S. No	I	II	III	IV	Title of project	Project Guide
I-B	Pankaj Maharishi	Tarun Chechi	Pankshit Pareek	Yadunandan Gautam	Blood Donation App Designing	Dr. Manish Srivastava
II-B	Sourabh Gupta	Shubham Sinha	Avins Naveen Anand	Md. Shahbaz Akhter	Fabrication of Control Line Aeromodel	Mr. Satyendra Kumar
III-B	Mohit Sharma	Nikhil Gupta	Piyush Gupta	Rahul Sharma	Automatic Motor Bike Stand Slider	Mr. Aashish Nagpal
IV-B	Kuldeep Soni	Umang Kapoor	Raghunandan Sharma	Vibhav Khandelwal	Fabrication of Hybrid Cycle	DR. Bhuvnesh Bhardwaj
V-B	Mohit Nagpal	Himanshu Bansal	Pankaj Dayma	Ram Sukhwal	Designing & Manufacturing of GO Green Self Cool Bottle	DR. Bhuvnesh Bhardwaj
VI-B	Rajat Shrivastav	Yash Sharma	Ashutosh Derashri	Himank Dave	Heat Recovery System in Vapour Compression Refrigeration System	Dr. M.P.Singh
VII-B	Yagyesh Sharma	Mohit Chandani (A)	Niyoshuddin Shekh		Night Vision Through Solar Plate	Dr. Bhuvnesh Bharadwaj

Jaipur Engineering College and Research Centre, Jaipur

Department of Mechanical Engineering

Date: - 07/09/2019

Notice

It is informed to all B.Tech VII semester students that they have to present their Minor / Major project Title in form of PPT as per below given format and schedule. It will be decided at the time of presentation whether the title chosen is feasible to continue as project or not. Presence of respective project supervisor is mandatory at the time of presentation.

Presentation schedule

Section	Date	Venue
A	16-09-2019	BT-07
B	17-09-2019	BT-07
C	18-09-2019	BT-07

Presentation content:

Title
Novelty
Project outcome
Approximate budget
Time schedule

Note : No group is allowed without project registration form duly signed by respective project supervisor

Mr. Akhilesh Paliwal
(Project Coordinator)

Dr. Bhuvnesh Bharadwaj
(Project Coordinator)

Dr. Rishi Pareek
(Project Coordinator)
(Section C)

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE , JAIPUR

DEPARTMENT OF MECHANICAL ENGINEERING

B.Tech VII Sem (A) Section (2019-20)

S. No.	Roll No.	Team Members	Title of project	Project Guide	Evaluation (10)					Relevance with PO'S	Remarks
					Use fullness of the project (3)	Safety (2)	Ethics & Communication (2)	Project Management (3)	Total (10)		
A-1	47-A	KOMAL KUMAR	DUAL SIDE WATER PUMPING SYSTEM BY USING SCOTCH YOKE MECHANISM	Mr. Abhishek Kumar	2	1	2	2	7	PO1, PO2, PO3, PO5, PO6, PO8, PO9, PO11, PO12	ACCEPT
	9-A	AMIT KUMAR TINKAR									
	61-A	MOHD ASIF KHAN									
A-2	13-A	ANSHUMAN PACHOLI	PROTOTYPE OF ABRASIVE JET MACHINE FOR METAL CUTTING PURPOSE	Mr. Srikant Bansal	2	1	2	2	7	PO1, PO2, PO3, PO6, PO8, PO9, PO11, PO12	ACCEPT
	36-A	MANISH KHATRI									
	15-A	ARCHIT MISHRA									
	16-A	ARPIT CHOUDHARY									
A-3	17-A	ARPIT KASLIWAL	KINETIC ENERGY RECOVERY SYSTEM	Mr. Abhishek Kumar	2	1	1	2	6	PO1, PO2, PO3, PO5, PO6, PO8, PO9, PO11, PO12	ACCEPT
	6-A	AJAY SHARMA									
	25-A	CHIRAG TALWAR									
	12-A	ANKUR MITTAL									
	1-C	ABHISHEK JAIN									
A-4	11-A	ANKIT KUMAWAT	MULTI DIRECTIONAL WIND MILL (HYBRID)	Mr. Tej Bahadur	2	1	2	1	6	PO1, PO2, PO3, PO6, PO8, PO9, PO11, PO12	ACCEPT
	18-A	ASHOK KUMAR SAINI									
	19-A	ASHUTOSH MEWARA									
	20-A	AUGUSTIN JOY MARKER									
	21-A	BAL KISHAN DHAKER									
A-5	23-A	BHARAT KHANDELWAL	SANITARY WARE DESIGNING WITH FFF TECHNOLOGY	Mrs. Priti Bodkhe	1	2	1	2	6	PO1, PO2, PO3, PO6, PO8, PO9, PO11, PO12	ACCEPT
	8-A	AKASH AGRAWAL									
	10-A	ANIL KUMAR SAINI									
	42-A	JASWANT SINGH GEHLOT									
	40-A	HIMANSHU SHARMA									
A-6	24-A	CHIRAG MAHESHWARI	IMPLEMENTATION OF AUTOMATION AND A.I IN WORKSHOP	Mr. Kuldeep Sharma	2	1	2	1	6	PO1, PO2, PO3, PO5, PO6, PO8, PO9, PO11, PO12	ACCEPT
A-7	39-A	HIMANSHU MAHIPAL	DESIGN AND FABRICATION OF PAPER SHREDDER	Dr. Fauzia Siddique	2	1	2	2	7	PO1, PO2, PO3, PO6, PO8, PO9, PO11, PO12	ACCEPT
	41-A	HIMANSHU SINGHAL									
	45-A	KEVAL NAGAR									
	33-A	HIMANSHU JAIN									
	1-A	ABHISHEK GUPTA									
	3-A	ABHISHEK RAJPUT									
A-8	37-A	MANISH SHARMA	DRYLIN OR LINEAR BALL BEARING TESTING AND FIND THE LEAST TORRIENCE	Mr. Akhilesh Paliwal	1	2	1	2	6	PO1, PO2, PO3, PO5, PO6, PO8, PO9, PO11, PO12	ACCEPT
	5-A	ADITYA SANADHYA									
	32-A	DINESH SUTHAR									
	51-A	LALIT PAREEK									
A-9	53-A	MANISH GANGWAR	SOLATR VEGITABLE DRYER	Mrs. Priti Bodkhe	2	2	1	2	7	PO1, PO2, PO3, PO6, PO8, PO9, PO11, PO12	ACCEPT
	53-A	LOKESH KUMAR DUBEY									
	52-A	LOKESH DHYAWANA MEENA									
	58-A	MAYUR SEN									
	72-A	RAHUL KHANDELWAL									
A-10	60-A	MOHAMMED SAQUIB KHAN	DESIGN, FABRICATION AND TESTING OF HIGH EFFICIENCY DOMESTIC GAS BURNER	Dr. Rishi Pareek	2	1	2	2	7	PO1, PO2, PO3, PO6, PO8, PO9, PO11, PO12	ACCEPT
	64-A	NEEL RAJ KAUSHIK									
	49-A	LAKSHY ZAVERI									
	81-B	RISHABH DUTT SHARMA									
A-11	67-A	PANKAJ JANGID	INBULT HYDRAULIC VEHICLE LIFTING JACK	Mr. Kuldeep Sharma	2	1	1	2	6	PO1, PO2, PO3, PO5, PO6, PO8, PO9, PO11, PO12	ACCEPT
	68-A	PANKAJ KUMAR CHAHAR									
	70-A	POONAM KUMARI									
	75-B	RAJAT GUPTA									
	54-A	LOVEKESH GUPTA									
A-12	82-B	ROHIT GEHLOT	DESIGN, FABRICATION AND TESTING OF LOW COST SOLAR STILL	Dr. Rishi Pareek	2	1	2	2	7	PO1, PO2, PO3, PO6, PO8, PO9, PO11, PO12	ACCEPT
	26-A	DARSHAN BAID									
	71-A	PRASIT JAIN									
	124-B	AMAN MAHESHWARI									
	29-A	DEVANSH SHARMA									
A-13	33-A	DIVIK MATHUR	ADJUSTABLE SHELVES AND FOLDING BAR REFRIGERATOR	Mr. Kuldeep Sharma	2	2	1	2	7	PO1, PO2, PO3, PO5, PO6, PO8, PO9, PO11, PO12	ACCEPT
	31-A	DHEERAJ VERMA									
	56-A	HIMANSHU CHHAPARWAL									
	105-B	SUBHAM AGARWAL									
	30-A	LAKSHYARAJ SINGH RATHORE									
A-14	66-A	OM PRAKASH	FUSED DEPOSITION MODELING (FDM) FILAMENT TEST AND FABRICATION OF 9 MODELS BY 3D PRINTING	Mr. Aashish Nagpal	2	1	1	2	6	PO1, PO2, PO3, PO6, PO8, PO9, PO11, PO12	ACCEPT
	115-B	VIKASH KUMAR									
	38-A	HIMANSHU JAIN									
	65-A	NEHAL SHAMS									
	78-B	RAMUMESH CHOUDHARY									

Project Coordinator

HOD

(A-1)

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE (JECRC) JAIPUR

MECHANICAL ENGINEERING DEPARTMENT

MINOR / MOJOR PROJECT REGISTRATION FORM 2017-2021

1. Team members:

Roll No.	Name of student	Signature
47-A	KOMAL KUMAR	
81-A	Md. ASif khan	
9-A	AMIT KUMAR TINKAR	

2. Title of project: Scotch yoke - Mechanism for (dual water Pump cycle)

3. Type of Project: Fabrication/Design/Experimental/Theoritical/Industrial/Industrial case study/IndustrialSurvey/IndustrialManagement/Productivity/Robotics/Software and Other (specify)
4. Date of commencement: 6/08/17
5. Planned Duration: 7 months
6. Brief Summary of Project: (attach extra sheet if required)

This is a Kinematic mechanism to improve the volumetric efficiency of pump through scotchyoke Mechanism.

7. Expected benefits: efficiency will increase
8. Name of supervisor: ABhishek KUMAR

I agree to be supervisor of the projects

(Signature of the Supervisor)

Project coordinator

Jaipur Engineering college & Research Centre
Department of Mechanical Engineering
Project Progress Report

Group No: A-8 Year: 19-20
Project Title: Acrylin & linear Ball bearig testing & find the clear tolerance on 3D printer

Group Member's Name:

1	16EJCME055	Lalit Pareek
2	16EJCME005	Aditya Sanadhya
3	16EJCME096	Dinesh Suthar
4	16EJCME061	Manish Sharma

Name of Guide: Mr. Akhilesh Paliwal

Sr.No.	Date	Work Done	Signature of Student	Signature of Guide
1	16 Aug 2019	Literature Survey Studied more than 15 Research Papers.	Lalit Pareek Dinesh Suthar Manish Sharma	
2	09 Sept 2019	Problem Definition and Objectives Identify the problem the existing system.	Lalit Pareek Dinesh Suthar Manish Sharma	
3	20 Oct 2019	Overall Methodology Chart • Understanding Identification inspection	Lalit Pareek Dinesh Suthar Manish Sharma	
4	1 Nov 2019	Material Availiability and Procurement (mfg. project)/Identification of design procedure (Design Project) etc. material Purchased	Lalit Pareek Dinesh Suthar Manish Sharma	
5	3 feb 2020	50% project complition 3-D Printer classes taken by all four students	Lalit Pareek Dinesh Suthar Manish Sharma	
6	14/feb/2020	Fabrication/ Design and analysis/ data processing, etc. All students started Printing the Prototype the same	Lalit Pareek Dinesh Suthar Manish Sharma	
7	2/03/2020	Testing/ Data Interpretation/Results and conclusion Students Completed Project and finding final Conclusion	Lalit Pareek Dinesh Suthar Manish Sharma	
8	12/03/2020	Thesis/Report Writing 70% Project Report done some changes need.	Lalit Pareek Dinesh Suthar Manish Sharma	

Jaipur Engineering College and Research Centre, Jaipur

Department of Mechanical Engineering

Date: - 7/11/2019

Notice

This is informing to all B.Tech VII semester students that they have to present their minor project presentation for final internal assessment and Submit your synopsis in spiral binding duly signed by your guide at given schedule.

Presentation schedule

Group Number	Date	Venue
A1 to A14	3-12-2019	BT-07
B1 to B 13	4-12-2019	BT-07
C1 to C15	5-12-2019	BT-07

Every group should prepare synopsis of your concerned project which includes following points:

1. Contents
2. Literature review (at least 8 research/review papers of recent previous years)
3. Problem definition and objective. (Times new Roman, 12 font size with 1.5 line spacing and Justify)
4. Cost estimation of project in proper format.

NOTE: Submit synopsis in spiral binding.

Mr. Akhilesh Paliwal
(Project Coordinator)
(Section A)

Dr. Bhuvnesh Bharadwaj
(Project Coordinator)
(Section B)

Dr. Rishi Pareek
(Project Coordinator)
(Section C)

jecrcfoundation.com/mechanical-engineering/projects

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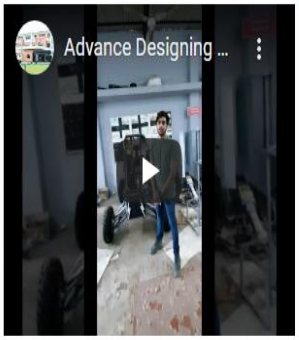
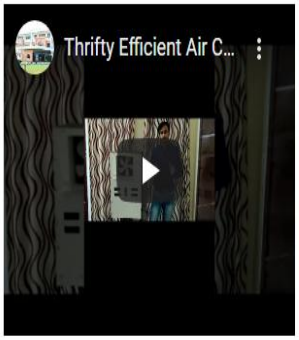
Some Projects





Verispire **Invention Disclosure Form**

Section A: Inventor Details

1. INVENTOR DETAILS

a. First Inventor

Name: Dr. Rishi Pareek — Mobile No.: 7340340111
Email: rishi.pareek@outlook.com — Nationality: Indian
Address: JECRC Foundation, Jaipur

b. Second Inventor

Name: Mohammed Saquib Khan — Mobile No.: 7073907831
Email: mohammedsaquibkhan@gmail.com — Nationality: Indian
Address: JECRC Foundation, Jaipur

c. Third Inventor

Name: RishabhDutt Sharma — Mobile No.: 9462511671
Email: rishabhdsharma@gmail.com — Nationality: Indian
Address: JECRC Foundation, Jaipur

d. Fourth Inventor

Name: Neelraj Kaushik — Mobile No.: 9079793800
Email: neilkaushik193@gmail.com — Nationality: Indian
Address: JECRC Foundation, Jaipur

e. Fifth Inventor

Name: LakshyZaveri — Mobile No.: 9783008890
Email: lakshyzaveri98@gmail.com — Nationality: Indian
Address: JECRC Foundation, Jaipur

2. IP support services you wish for us to fulfill (Please specify the services needed in the space provided for one of multiple choices or simply write SELECT in block letters next to the service needed):-

- Patentability Search _____ **SELECT**_____
- Provisional Patent Application _____ **SELECT**_____
- Non-Provisional PatentApplication _____
- Trademark _____
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ISST Journal of Mechanical Engineering, Vol. 10 No. 1-2, (January - December 2019), p.p. 36-41
ISSN 0976-7371 © Intellectuals Society for Socio-Techno Welfare

MS Received from RITDME-2018 held on 6-7 April, 2018 at JECRC, Jaipur

ANALYSIS AND CHARACTERISTICS OF BLENDED WING BODY AIRCRAFT

Anirudh Jain*, Mudit Garg and Lalit Kumar Sharma
Department of Mechanical Engineering, Jaipur Engineering College and Research Centre,
Jaipur-302022, Rajasthan, India
Email : anirudhjain548@gmail.com, muditgarg76@gmail.com, lalitkumarsharma.me@jecrc.ac.in

Received on: 10.Apr.2018

Accepted on : 29.Mar.2019

ABSTRACT

This paper puts forward a design idea for blended wing body (BWB). The study will focus on the aerodynamic characteristics such as Mach number and pressure variation over the body with the help of mechanical software tools, from these results we can find the aerodynamic efficiency(lift force to drag force ratio) so that we can compare the performance characteristics with conventional aircraft. Because aerodynamic design is carried out under the constraints of BWB design requirements, the design configuration fulfils the demands for interior layout and provides a solid foundation for continuous work.

Keywords: *Blended Wing Body, Solidworks, Flow Simulation*

INTRODUCTION TO CONCEPT OF BWB

A Blended wing body (BWB or *Hybrid Wing Body*, HWB) is a fixed-wing aircraft having no clear dividing line between the wings and the main body of the craft. The form is composed of distinct wing and body structures, though the wings are smoothly blended into the body, unlike a flying wing which has no distinct fuselage. A BWB design may or may not be tailless.

Blended Wing Body (BWB) aircrafts differ from usual commercial designs (tube and wings (TAW)) in the idea that the main body of the aircraft could (and should) help in the lift effort of the whole structure. This design derived from the flying wing appeared as an answer to NASA's 1988's prerogative to propose a new revolutionary long range transport aircraft [3]. This concept, with more extensive

Furthermore, due to the intuitive position of the engines on this configuration (over the fuselage), this design should allow for less noise propagation in consideration to the ground observer, making this aircraft more suitable for in-city airports.

LITERATURE REVIEW

LI Peifeng, ZHANG Binqian, CHEN Yingchun, YUAN Changsheng, LIN Yu (2011) extrapolate Aerodynamics Design Methodology for Blended Wing Body Transport aiming design methodology to design 300-passenger BWB configuration which concludes BWB configuration achieves high lift to drag ratio (improvement is 2) and pitch trim at cruise condition, fulfils positive zero lift pitching moment and static stability design requirements, and has

ISST Journal of Mechanical Engineering, Vol. 10 No. 1-2, (January - December 2019), p.p. 21-24
ISSN 0976-7371 © Intellectuals Society for Socio-Techno Welfare

MS Received from RITDME-2018 held on 6-7 April, 2018 at JECRC, Jaipur

RECENT ADVANCEMENT IN DIAMOND COATED CUTTING TOOLS

Bharat Agarwal*, Javed Khan, and Abhishek Kumar
Department of Mechanical Engineering, Jaipur Engineering College and Research Centre,
Jaipur-302022, Rajasthan, India
Email : iambharat1810@gmail.com, zavedkhan137@gmail.com

Received on: 10.Apr.2018

Accepted on : 29.Mar.2019

ABSTRACT

Diamond coating tools have been increasingly used for machining advanced materials and cutting tools applications. A technology named Chemical Vapor Deposition (CVD) is developed to produce diamond coatings which consist of nano-diamond crystals embedded into a hard amorphous diamond-like carbon matrix. It can be classified into nanocrystalline diamond (NCD) and microcrystalline diamond (MCD). This paper considers analysis of the properties and performance of the diamond coated tools such as cutting performance, cutting edge, cutting force wear performance, residual stresses, etc.

Keywords: Chemical Vapor Deposition (CVD), Nanocrystalline diamond (NCD), microcrystalline diamond, Diamond coated tools.

1. LITERATURE REVIEW

The study done by Maneesh Chandran, ET. Al. reports us about the wear performance of diamond coated WC-Co cutting tools with a CrN interlayer by machining Al-Si Alloys. They studied the wear performance by using turning tests and impact tests. After combining the studies of turning and impact tests, they concluded that diamond coatings on WC-10%Co tools with a CrN interlayer are better tools for machining of Al-Si alloys and other high impact applications.

Ravikumar Dumpala, Et. Al. studied about the wear

The study did by both Jamal Sheikh-Ahmad and Parikshit Chipalkati reports us about the effect of cutting edge geometry on Thermal Stresses and Failure of Diamond Coated tools. Finite element analysis and simulation of thermally induced residual stresses was conducted using a transient thermo-mechanical coupled solver. It was found that the above propertiesdepends on the nose radii, cutting edge and film thickness.

Ramasubramanian Kannan, Et.Al. studied about the nanocrystalline diamond coated tool performance in machining of LM6 Aluminium alloy. They showed the

<table>
<tr><td colspan="4">Criterion-2 Program Curriculum and Teaching- Learning Process</td></tr>
<tr><td><u>S. NO</u></td><td>CRITERIA</td><td><u>OBSERVATION MADE BY NBA</u></td><td><u>COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)</u></td></tr>
<tr><td>2.2.4</td><td>2.2.4 Initiatives related to industry interaction</td><td>No industry supported laboratories seen.

Impact analysis of institute industry interaction is very minimal and no action is taken for impact analysis.</td><td>1. Department has two Industry supported laboratories viz. Automobile research laboratory (Equipment worth rupees 50 Lakh is provided by the Baba Automobile Pvt. Limited) and Machine design laboratory (related software are provided by CADD centre, Jaipur). (https://jecrcfoundation.com/jecrc-foundation-mou-with-industry)
2. Various training and activities are carried out through these laboratories for skill enhancement for students.
3. These laboratories are also utilized by the students during their project work and for analysis purpose for writing research papers.
4. Students also visit various industries after the end of fourth and Sixth semester for mandatory industrial training of forty five days is also serving as industry institute interaction.
5. Various industries do visit for campus recruitment for mechanical engineering students and also provide feedbacks to the department on various issues.
6. Some of the industrial visits and technical talks are the outcome of industry -institute relationship and are included as content beyond syllabus for knowledge enhancement. In the academic year 2018-19 and 2019-20, department has carried out below mentioned industrial visits.
7. Department signed MOU with Bharatiya Skill University for training on advanced machines.

<table><tr><td></td><td>2018-19</td><td>2019-20</td></tr><tr><td>Industrial visits</td><td>5</td><td>8</td></tr></table>
8. Department collects the feedback from the students and necessary actions are taken.
9. Skill enhancement of the students is also</td></tr>
</table>

carried out through FACE academy and it is mandatory for all pre final year students.

Feedback	Link
Industrial visit	https://jecrcfoundation.com/jf-data/NBA/ME/Industrial-Visit/Industrial-Visits-2019-20.pdf
Expert lectures	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/Guest-Lectures-2019-20.pdf

Memorandum of Understanding

Between

Baba Automobile Pvt. Ltd., Jaipur

And

JECRC Foundation, Jaipur

This Memorandum of Understanding (MOU) sets the terms and understanding between Baba Automobile Pvt. Ltd. and JECRC Foundation for provision of Automobile Center of Excellence at JECRC College, Jaipur Raj.

This MOU will be applicable to arrange the facilities to students of B.Tech and Diploma Mechanical, Electrical, Automobile (All year) to participate in Automobile Training/Internship.

The above goals will be accomplished by undertaking the following activities:

1. That Baba Automobile Pvt. Ltd. will arrange all the facilities to conduct automobile training for all students of B.Tech & Diploma, Mechanical, Electrical (All year) students. Details of engines which will be available for training are as follows are mentioned in tabular form:
2. That all apparatus, engines, tools, shall be arranged by Baba Automobile in the premises of JECRC College to provide in depth knowledge of above engines.
3. That the training duration will be throughout the year as per time table provided by head of department [mech] irrespective of the time.
4. That the lab space and Cabin space for Automobile faculties will be provided by JECRC College.
5. That an ISO certified certificate or any other study material will be provided by Baba Automobile on the completion of training.
6. Maintenance cost of all components will be bear by Baba automobile.
7. Some Sunday and holiday will be utilized for training on mutual consent.

List of 2- wheeler Engines

2-Wheeler Engines	4- Wheeler Engines
1. Bajaj Pulsar-220 cc engine.	8. Hero Honda passion.
2. Honda Shine Engine.	9. Bajaj Discover Engine.
3. Hero Splendor Engine.	10. Bajaj Platina.
4. LML Freedom 150 cc engine.	11. Tvs Sport Engine.
5. Tvs Apache Engine.	12. Tvs Victor Engine.
6. Honda Activa Automatic CVT Engine.	13. Honda Unicorn Engine.
7. Scooty Engine.	14. Automatic CVT Engine.

List of 4-wheeler Engines

4-Wheeler Engines	4- Wheeler Engines
1. AUDI V-6 Petrol Engine	8. MARUTI SUZUKI 3-CYLINDER PETROL ENGINE.
2. AUDI V -6 Diesel Engine	9. Maruti Suzuki 4-cylinder Petrol Engine.
3. MERCEDES BENZ CME/RE	10. Hyundai Verna CRDI Engine.
4. BMW AUTOMATIC TRANSMISSION.	11. Tata Indigo Car Engine.
5. AUDI SEMI AUTOMATIC TRANSMISSION.	12. Toyota diesel Engine.
6. TATA SAFARI DIESEL ENGINE.	13. Hyundai Car Diesel Engine.
7. MAHINDRA SCORPIO DIESEL ENGINE.	14. Skoda Car Engine.
15. TATA Truck 18. wheeler Start Engine.	16. Tata Truck Engine For Practical.

List Start Car, Bike, Scooty.

- Tvs Victor one Start Bike.
- LML Freedom one Start Bike.
- Hero/Honda/Bajaj one Start Bike.
- Honda Activa one start Scooty.
- MERCEDES BENZ CAR for Practical & Overhauling.

List of Tool, Machines, Accessories.

- Welding Machine.
- Grinding machine.
- Cutting Machine.
- Drilling Machine.
- Open Spanners 50 Nos.
- Close Spanner 50 – Nos.
- Audi Engine Special Tools.
- Mercedes Engine Special Tools.
- Automatic Transmission Special Tools.
- 4 – Wheeler Differential System.
- Power Steering/ ELECTRICAL STEERING System.

Details of training Centre Equipments / Cars / Engine and Auxiliaries

FOUR- WHEELER CAR SECTION (Rs. 11 - Lakhs)

1. MERCEDES BENZ Working car for Practical or Scanning Purpose. **(Rs. 8 -lakhs)**
2. TATA SAFARI / SEDAN Car for Practical Session. **(3 lakhs)**

FOUR- WHEELER ENGINE SECTION (Rs. 14 Lakhs)

3. AUDI- V-6 Twin Turbocharged Diesel Engine **(2.5 lakhs)**
4. AUDI- V-6 Twin Turbocharged Petrol Engine**. (2.5 lakhs)**
5. MERCEDES Engine **(3 lakhs)**
6. BMW Automatic Transmission **(1.5 lakhs)**
7. Maruti Suzuki 4- Cylinder Diesel Engine. **(1 -lakh)**
8. Tata Safari Diesel Engine **(1 lakh)**
9. Tata Indigo Diesel Engine. **(75,000)**
10. Honda City Diesel Engine. **(75,000)**
11 Skoda Car Engine. **(1 lakh)**

FOUR- WHEELER TRANSMISSION SECTION. (5 -lakh)

12. Front Wheel Drive AUDI Automatic transmission. **(1.5 lakhs)**
13. Rear Wheel Drive MERCEDES Automatic Transmission. **(1.5 lakhs)**
14. Maruti Suzuki 5 Speed Manual Transmission. **(1 -lakh)**
15.Honda Rear Wheel Drive Manual transmission. **(1 -lakh)**

FOUR- WHEELER STEERING SYSTEM SECTION . (2 -lakh)

16. Manual Steering Sytem with Rack Pinion Arrangement. **(45,000)**
17. power Steering system with Rack Pinion Arrangement. **(45,000)**
18. Maruti Suzuki cars ELECTRIC Steering System **(55,000)**
19. Toyota cars ELECTRIC Steering System **(55,000)**

FOUR- WHEELER DIFFERENTIAL SYSTEM SECTION .(4 lakhs)

20. Maruti Suzuki Rear Wheel Drive Differential System. **(45,000)**
21. Tata Cars front Wheel Drive Differential System. **(55,000)**
22. MERCEDES BENZ INDEPENDENT Limited Slip Advanced Differential. **(1.5 lakhs)**
23 .Electric Vehicle Differential system with Electric Motors. **(1.5 lakhs)**

FOUR- WHEELER BRAKING & SUSPENSION SYSTEM SECTION.(4 lakhs)

24. Front Wheel DUAL DISK Braking System **(40,000)**
25. Rear Wheel DRUM Braking System **(40,000)**
26. MERCEDES BENZ Brake Vacuum Booster **(70,000)**
27. MERCEDES BENZ ABS (Anti Braking System Unit) **(1.5 lakhs)**
28. AUDI E-B-D (Equal Braking Distribution) System**. (1 lakh)**

FOUR- WHEELER AIR BAG & OTHER AUXILIARIES SYSTEM SECTION. (4.15 Lakhs)

29. MERCEDES BENZ Steering Air Bag System **(1-lakh)**
30. MERCEDES BENZ Side Windows Air Bag System **(50,000)**
31. Car Engine Self Starter Motor for Engine Starting **(35000)**
32. Car Engine Alternator System for Battery Charging**.(35000)**
35. Air Filter Units**.(10,000)**
36. Carburetor Systems**.(10.000)**
37. Fuel Injector Systems. **(75000)**
38. and Some Other Auxiliaries systems. **(1 lakh)**

TWO - WHEELER CAR SECTION (6.7 Lakhs)

39 .BAJAJ Pulsar-220 CC Engine (30,000)
40. TVS Apache 180 CC Engine. (30,000)
41. LML Freedom 125 CC Engine. (30,000)
42. HONDA Eterno Engine. (30,000)
43. TVS Victor 150 CC Engine. (30,000)
44. HONDA Activa 110 CC Engine (30,000)
45. HONDA Shine 125 CC Engine (30,000)
46. BAJAJ Discover 150 CC Engine (30,000)
47. TVS MAX 100 2 Stroke. (30,000)
48. Rajdoot 2 stroke. (30,000)
50. START BIKE FOR PRACTICAL SESSION (30,000)
51.START SCOOTY FOR PRACTICAL SESSION (30,000)
52. ELECTRIC WORKING 2-Wheeler for Electric Vehicle Development Training. (30,000)
53. Wiring System. (40,000)
54. Suspension System. (20,000)
55. Carburetion Systems. (20,000)
56. FI Systems. (20,000)
57. Sensors Systems. (60,000)
58. Self-starting and Charging System. (20,000)
59. Tuning of 2- wheelers. (40,000)
60. and Other all Systems of 2- wheeler. (60,000)

- Electromagnetic Suspension Model
- BS-II, BS-6 System
- ECU Systems With Testing Booting by Laptops
- S-ECU for Electrical Engg. Students.
- Disk Brake System.
- Drum Brake System.
- OBD/MFI System.
- Air bag system

Financial Terms & Conditions

- **A security amount of Rs 5 lakh given to Baba Automobile.**
- **security amount 5 Lakh pay at the time of signing MOU (by cheque/NEFT/RTGS in favour of ramesh babu automobile pvt ltd or babu automobile)**
- **The duration of lab installation shall be maximum 30 days after signing MOU.**
- **Security amount 5 lakhs refund to jecrc college at the End of MOU without any depreciation.**
- **20% Amount of total fee received by outside students shall be share of JECRC & will be transferred to JECRC etc at the end of month and rest 80 % share will be of Baba Automobile.**

The MOU is at will may be modified by mutual consent of authorized officials from Babu Automobile and JECRC. This MOU shall become effective upon signature by the authorized officials from Babu automobile and JECRC and will remain in effect for minimum one year and can be further extended by mutual consent.

In the absence of mutual agreement by the authorized officials from Baba Automobile and JECRC, this MOU shall end after provision of training.

Requirements

1. Space for Engines
2. Faculty Sitting Area/office.
3. Suitable Furniture for Engines
4. Space for Tools
5. Light Facility
6. Blazer, boarding, Dev arranged by college.

Contact Information:

Baba Automobile Pvt. Ltd.
Mr. Nitesh Baba
Director

Pratap Nagar, Jaipur, Rajasthan
Contact: +91-8769465908

JECRC Foundation Jaipur
Dr. V. K. Chandna
Principal JECRC

Contact: 9314406784

Dated: 5/12/2022

Mr. Nitesh Baba
(Director, Baba Automobile Pvt. Ltd.)

Mr. Dr. V. K. Chandna
(.....(JECRC Foundation, Jaipur)

Counter Signed By:
Kartik Mukati (Training Head)

Counter Signed By:
.....(MAHESH JAIN.....)

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (MOU) entered on 30th Oct.-2017.
By and Between

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

Objective of the program:

In today's world, CAD-CAM has become an indispensable skill required to make every professional employable and productive in the work place. The objective of the training program is:

- To train the students of JECRC Jaipur at their college campus for CAD and 3D printing by "CADD CENTRE"
- To train the students of JECRC Jaipur on the concepts and soft tools of CAD – CAM, as per the industrial / corporate requirements.
- To facilitate them to excel in their workplace.
- To bridge the skill gap between the individuals and the industry.

Course Fees and Training Program Detail:-

As per annexure 1

COURSEWARE

CADD Centre's Curriculum & Product development (CPD) team develops the courseware. Each book is conceived, prepared and printed after a thorough research on industry specific courses. The team consists of engineers, industry experts who are involved in the development of courseware. The course material is developed specially

for instructor-lead training as well as self-study material. The CPD team reviews the curriculum and updates as needed. Every student who enrolls for a course is provided with a reference manual which is of World Class Standards, comprehensive in coverage and with a nice layout that pleases the eyes!

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.

CADD Centre through its Raja Park, Jaipur Shall Provide

- The proprietary and internationally acclaimed CADD Centre 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.
- CADD Centre will provide "Certificate of Association" between CADD Centre with JECRC Jaipur.
- Permit JECRC Jaipur to use CADD Centre logo as the Skill Development Partner.

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 30th Oct. 2017.

For: **JECRC, Jaipur**

Name: **Dr. Vinay Kumar Chandna**
Designation: Principal
Date: 30th Oct. 2017

for: **MULTI CAD SOLUTION (CADD CENTRE).**

Name: **Mr. RAJEEV BHARGAVA**
Designation: **Centre Head**
Date: 30th Oct. 2017

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

31/8/19

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

BHARTIYA SKILL DEVELOPMENT UNIVERSITY, JAIPUR

SCHOOL OF MANUFACTURING SKILLS

JAIPUR ENGINEERING COLLEGE & RESEARCH CENTRE JAIPUR (JECRC) represented by its B.V.K. Chaudhary ----,

WHEREAS:

A) The BSDU is engaged in providing skills training in various faculties based on Swiss Dual System of Skills Training. The BSDU awards certificates, diplomas, advance diplomas and B. Voc. Degrees to students after 10+2 schooling. It also awards M. Voc. And Ph.D. Degrees to the Candidates. BSDU has a flexible program and students can enter/exit at any time. The whole curriculum has been aligned to UGC/AICTE/NSDC/Sector councils.

B) The JECRC is an engineering college approved by AICTE & affiliated to Rajasthan Technical University, Kota focused on undergraduate and graduate programs, and research.

C) Both the institutions intend to cooperate and focus their efforts on cooperation within areas of Training, Education, Research and Development.

D) Both the institutions being legal entities in themselves desire to sign this MOU for advancing their mutual interests.

NOW THEREFORE, IN COSIDERATION OF THE MUTUAL PROMISES SET FORTH IN THIS MOU, BOTH THE INSTITUTIONS HERE AGREE AS FOLLOWS:

CLAUSE 1

CO-OPERATION

1. Both the institutions are united by common interests and objectives, and they shall establish channels of communication and co-operation that will promote and advance their respective operation within the institutions and its related wings. The Parties shall keep each other informed of potential opportunities and shall share all information that may be relevant to secure additional opportunities for one another.
2. The co-operation between BSDU and JECRC will facilitate effective utilization of the intellectual capabilities of the both Parties providing significant inputs to them in developing suitable teaching/ training systems, keeping in mind the needs of each other.
3. The general terms of co-operation shall be governed by this MOU. Both shall cooperate with each and shall, as promptly as is reasonably practical, enter into all relevant agreements, deeds and documents (the 'Definitive Documents') as may be required to give effect to the actions contemplated in terms of this MOU. The term of Definitive Documents shall be mutually decided between the Parties, Along with the Definitive Documents. This MOU shall represent the entire understanding as to the subject matter hereof and shall supersede any prior understanding between the Parties on the subject matter hereof.

10/12/2020

MEMORANDUM OF UNDERSTANDING
GETTING ASSOCIATED FOR INTELLECTUAL PROPERTY ACTIVITIES WITH JECRCCOLLEGE

This Memorandum of Understanding (MoU) is made on this Tuesday, the 24th day of December 2019 by and between

JECRC College having its main campus address asPlot No. IS-2036 to IS-2039 Ramchandrapura Industrial Area Jaipur, Sitapura, Vidhani, Rajasthan 303905(hereinafter referred to as **'JECRCCollege'**, which expression shall include their subsidiaries, branch offices, associations, administrator, legal heirs, group institutions, etc.).

AND

Verispire Inc., a California, (USA) registered companythrough its Indian entity Verispire Technologies pvt. Ltd. (herein after referred to as 'Verispire') having its offices at C-25, Second Floor, Sector 8, Noida, Uttar Pradesh 201301, which expression shall include their subsidiaries, branch offices, associations, administrator, legal heirs, etc.

1. BACKGROUND:

1.1. Verispire is an intellectual property consulting company engaged in creating valuable business assets for our clients by safeguarding their intellectual property. We provide the best in class and wide array of intellectual property consulting services to our clients worldwide.

1.2. JECRC College has its campus in Jaipur, the capital city of Rajasthan and the famous tourist and business city in north-western India. The 32-acre JU campus combines unique classical architecture and thoughtful layout and landscaping to create a perfect learning ecosystem. JECRC College is driven by the spirit of innovation-led research. This is spelt out in infrastructure as well as practices.

1.3. Verispire also conducts hands-on workshops, lecture series and seminars to educate and train the in-house personnel of companies, educational institutions, government and semi-government bodies towards aspects of creation, management and commercialization of IP.

1.4. Whereas, JECRC COLLEGE is desirous of getting associated with Verispire for Developing Innovation and Research initiatives or streamlining existing IP process, if any with the following primary objectives:

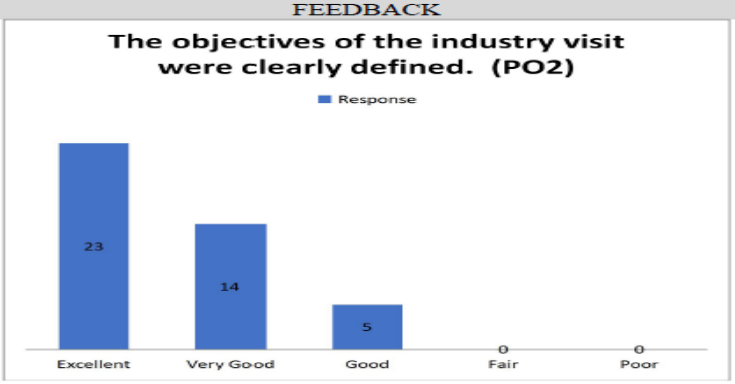
1.4.1. **Facilitate in developing IPCurate Labs with all the activities mentioned in the proposal and mutually agreed (Annexure A)**
1.4.2. Facilitate patent searching, drafting and patent filing.
1.4.3. Facilitate in patent prosecution cycle
1.4.4. **Provide complete IP management**
1.4.5. Encourage creativity and innovation.
1.4.6. Provide other IP filings (Trademark, Design, Copyright, etc), the time taken to do each task mentioned clearly in Annexure C

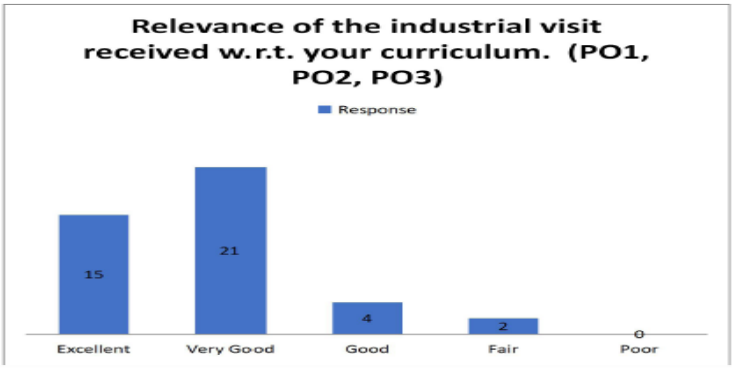
24/12/19

PRINCIPAL
College &

Batch: II Year [3B] **30-09-2019**

FEEDBACK



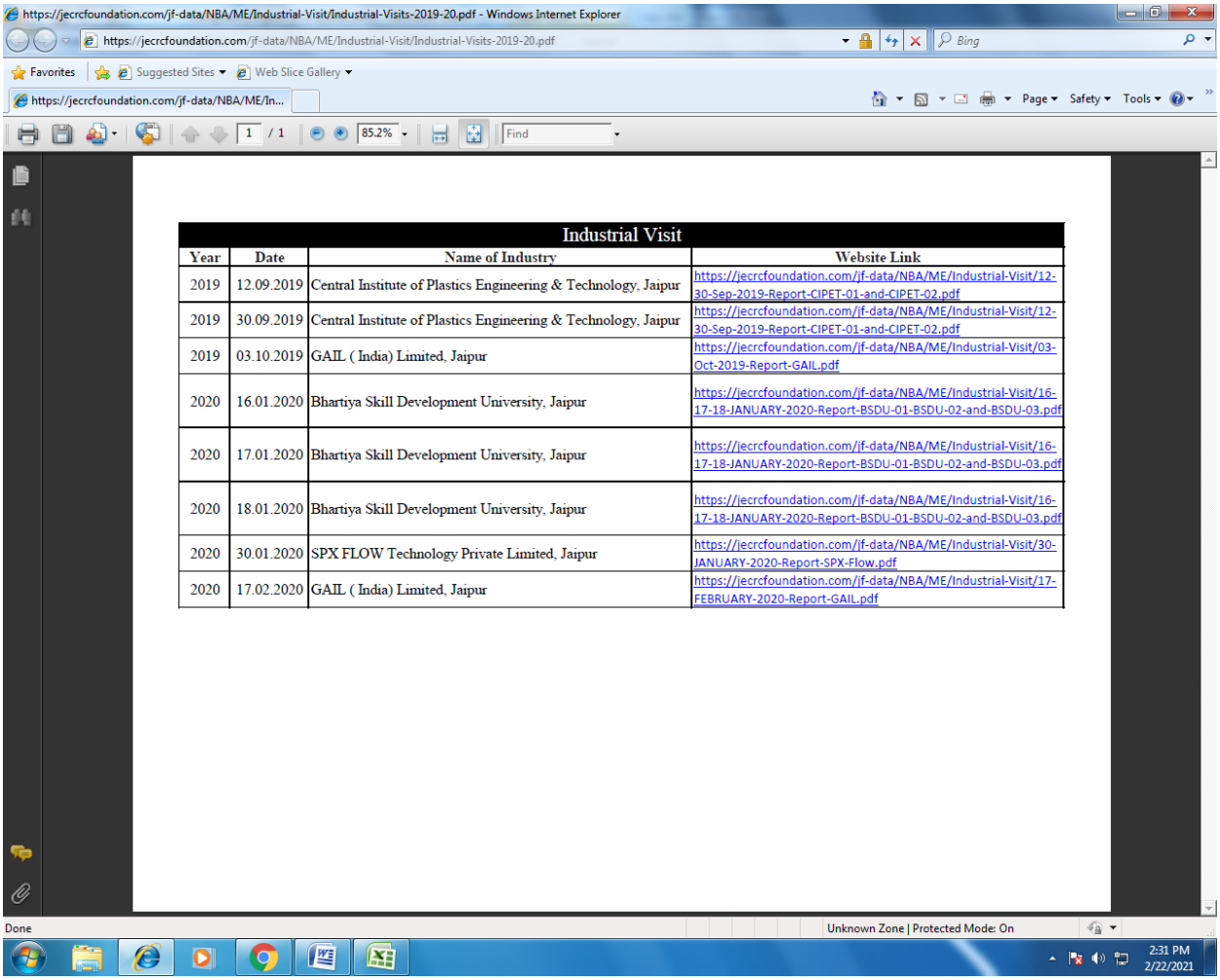


<table>
<tr><th colspan="4">Criterion-2 Program Curriculum and Teaching- Learning Process</th></tr>
<tr><th>S. No</th><th>CRITERIA</th><th>OBSERVATION MADE BY NBA</th><th>COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)</th></tr>
<tr><td>2.2.5</td><td>2.2.5. Initiatives related to industry internship/summer training</td><td>Only few tours and trainings are organised for students. Impact analysis and feedback lack desired seriousness.</td><td>Department increased Industry institution relationship by organised of industrial visits, training and different activities for students in 2018-19 and 2019-20 academic years.
<table>
<tr><th>Event</th><th>No. of Students</th></tr>
<tr><td>Participation project based learning(technical events)</td><td>8</td></tr>
<tr><td>Mandatory Industrial training after third year to all students for 45 Days</td><td>349</td></tr>
<tr><td>Mandatory industrial training of 15 Days after first Year and 45 days after second year</td><td>447</td></tr>
<tr><td>Industrial training to students through Internshala</td><td>14</td></tr>
<tr><td>Certificate courses by the students through Coursera</td><td>115</td></tr>
<tr><td>Analytical skill enhancement through FACE academy</td><td>318</td></tr>
<tr><td>industrial visits</td><td>13
(No. of industries visit)</td></tr>
<tr><td>Technical workshops through CADD centre and Baba automobile</td><td>6
(No. of workshops)</td></tr>
</table>
<table>
<tr><th>Event</th><th>Feedback link</th></tr>
<tr><td>Industrial visit</td><td>https://jecrcfoundation.com/jf-data/NBA/ME/Industrial-Visit/Industrial-Visits-2019-20.pdf</td></tr>
<tr><td>in-house training</td><td>https://jecrcfoundation.com/jf-data/ADDON/Differentaspect2019-20.pdf

https://jecrcfoundation.com/jf-data/ADDON/3DPrinting2019-20.pdf

https://jecrcfoundation.com/jf-data/ADDON/differentaspect2018-</td></tr>
</table></td></tr>
</table>

				19.pdf https://jecrcfoundation.com/jf-data/ADDON/L3D2019-20.pdf https://jecrcfoundation.com/jf-data/ADDON/3Dprinting2018-19.pdf https://jecrcfoundation.com/jf-data/ADDON/automobileworkshop.pdf



https://jecrcfoundation.com/jf-data/NBA/ME/Industrial-Visit/Industrial-Visits-2019-20.pdf - Windows Internet Explorer

https://jecrcfoundation.com/jf-data/NBA/ME/Industrial-Visit/Industrial-Visits-2019-20.pdf

Industrial Visit

Year	Date	Name of Industry	Website Link
2019	12.09.2019	Central Institute of Plastics Engineering & Technology, Jaipur	https://jecrcfoundation.com/jf-data/NBA/ME/Industrial-Visit/12-30-Sep-2019-Report-CIPET-01-and-CIPET-02.pdf
2019	30.09.2019	Central Institute of Plastics Engineering & Technology, Jaipur	https://jecrcfoundation.com/jf-data/NBA/ME/Industrial-Visit/12-30-Sep-2019-Report-CIPET-01-and-CIPET-02.pdf
2019	03.10.2019	GAIL (India) Limited, Jaipur	https://jecrcfoundation.com/jf-data/NBA/ME/Industrial-Visit/03-Oct-2019-Report-GAIL.pdf
2020	16.01.2020	Bhartiya Skill Development University, Jaipur	https://jecrcfoundation.com/jf-data/NBA/ME/Industrial-Visit/16-17-18-JANUARY-2020-Report-BSDU-01-BSDU-02-and-BSDU-03.pdf
2020	17.01.2020	Bhartiya Skill Development University, Jaipur	https://jecrcfoundation.com/jf-data/NBA/ME/Industrial-Visit/16-17-18-JANUARY-2020-Report-BSDU-01-BSDU-02-and-BSDU-03.pdf
2020	18.01.2020	Bhartiya Skill Development University, Jaipur	https://jecrcfoundation.com/jf-data/NBA/ME/Industrial-Visit/16-17-18-JANUARY-2020-Report-BSDU-01-BSDU-02-and-BSDU-03.pdf
2020	30.01.2020	SPX FLOW Technology Private Limited, Jaipur	https://jecrcfoundation.com/jf-data/NBA/ME/Industrial-Visit/30-JANUARY-2020-Report-SPX-Flow.pdf
2020	17.02.2020	GAIL (India) Limited, Jaipur	https://jecrcfoundation.com/jf-data/NBA/ME/Industrial-Visit/17-FEBRUARY-2020-Report-GAIL.pdf

Done

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2/22/2021

UNIVERSITY OF MICHIGAN

COURSE CERTIFICATE

06/18/2020

prabhat agarwal

has successfully completed

Introduction to Thermodynamics: Transferring Energy from Here to There

an online non-credit course authorized by University of Michigan and offered through Coursera

Arthur F. Thurnau Professor,
Mechanical Engineering, Aerospace Engineering

EDUCATION FOR EVERYONE · coursera · COURSE CERTIFICATE

Verify at coursera.org/verify/HKRVDXK8KQBN
Coursera has confirmed the identity of this individual and their participation in the course.

INTERNSHALA TRAININGS

Certificate of Training

Bhanu Pratap Singh Kuntal

has successfully completed a six weeks online training on **Web Development** from 5th May, 2020 to 16th June, 2020. The training consisted of HTML & CSS, Bootstrap, SQL and PHP modules. In the final assessment, Bhanu Pratap scored 65% marks. We wish Bhanu Pratap all the best for the future.

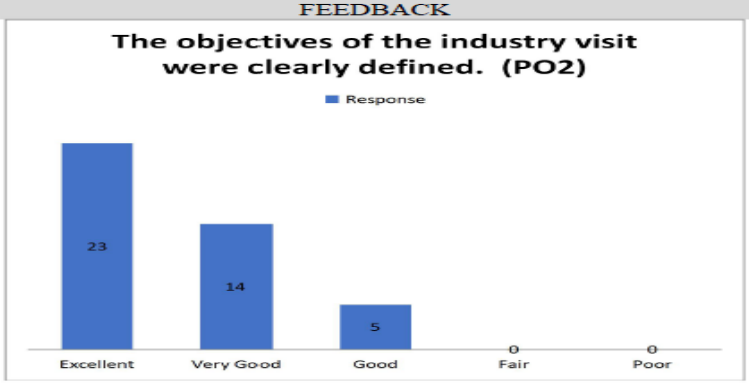
Sarvesh Agrawal
Founder & CEO, Internshala

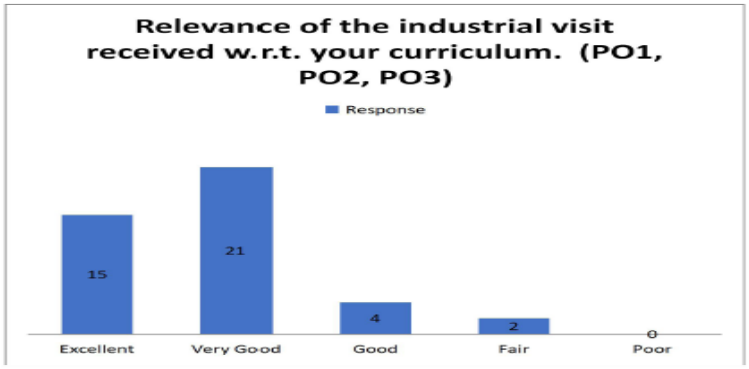
Date of certification: 2020-05-31 Certificate no. : BC0383C5-4015-27C0-0E0D-0333CBCEB781

For certificate authentication, please visit https://trainings.internshala.com/verify_certificate

Batch: II Year [3B] **30-09-2019**

FEEDBACK





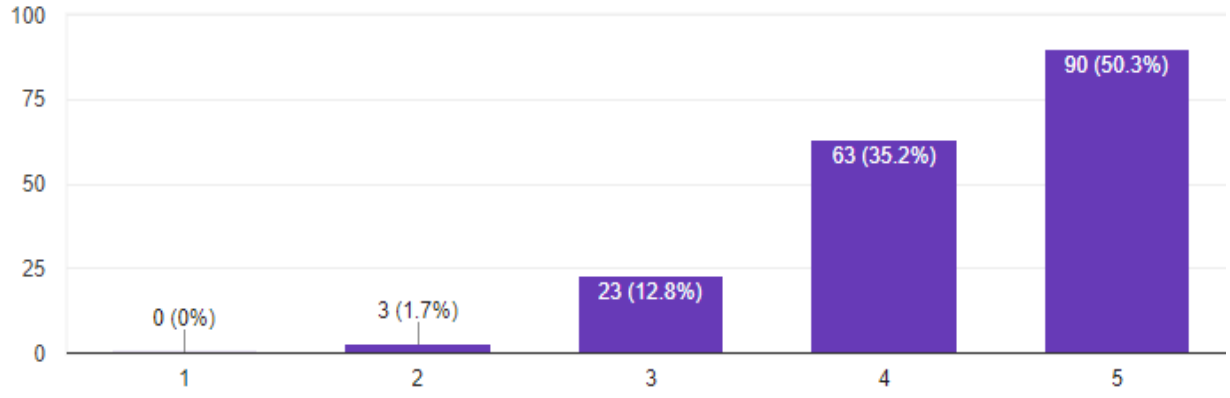
Impact/Learning Experience of the student from the Training/ Internship

179 responses

Good
Very good
I have learned auto cad 2d and 3d
Excellent
To understand the degree system
Learnt about designing
Basic Knowledge of AutoCAD and Python
It was a great experience about intelligent machines and concept of wind energy and wind turbines
In this training if learned about CARLA software and fusion 360. I also learned about different safety measures used in automotive industry. also how to make decision trees for automatically vehicles.

Level of opportunity given for you to work on real time problem or practical problem or on the day to day activities of the organization.

179 responses



<table>
<tr><td colspan="4">Criterion-3 Course Outcomes and Program Outcomes
3.1 Establish the correlation between the courses and the POs & PSOs</td></tr>
<tr><td>S. NO</td><td>CRITERIA</td><td>OBSERVATION MADE BY NBA</td><td>COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)</td></tr>
<tr><td>3.1.2</td><td>3.1.2 CO-PO/PSOs matrices of courses selected in 3.1.1 (six matrices)</td><td>CO-PO/PSO matrices show lack of understanding.

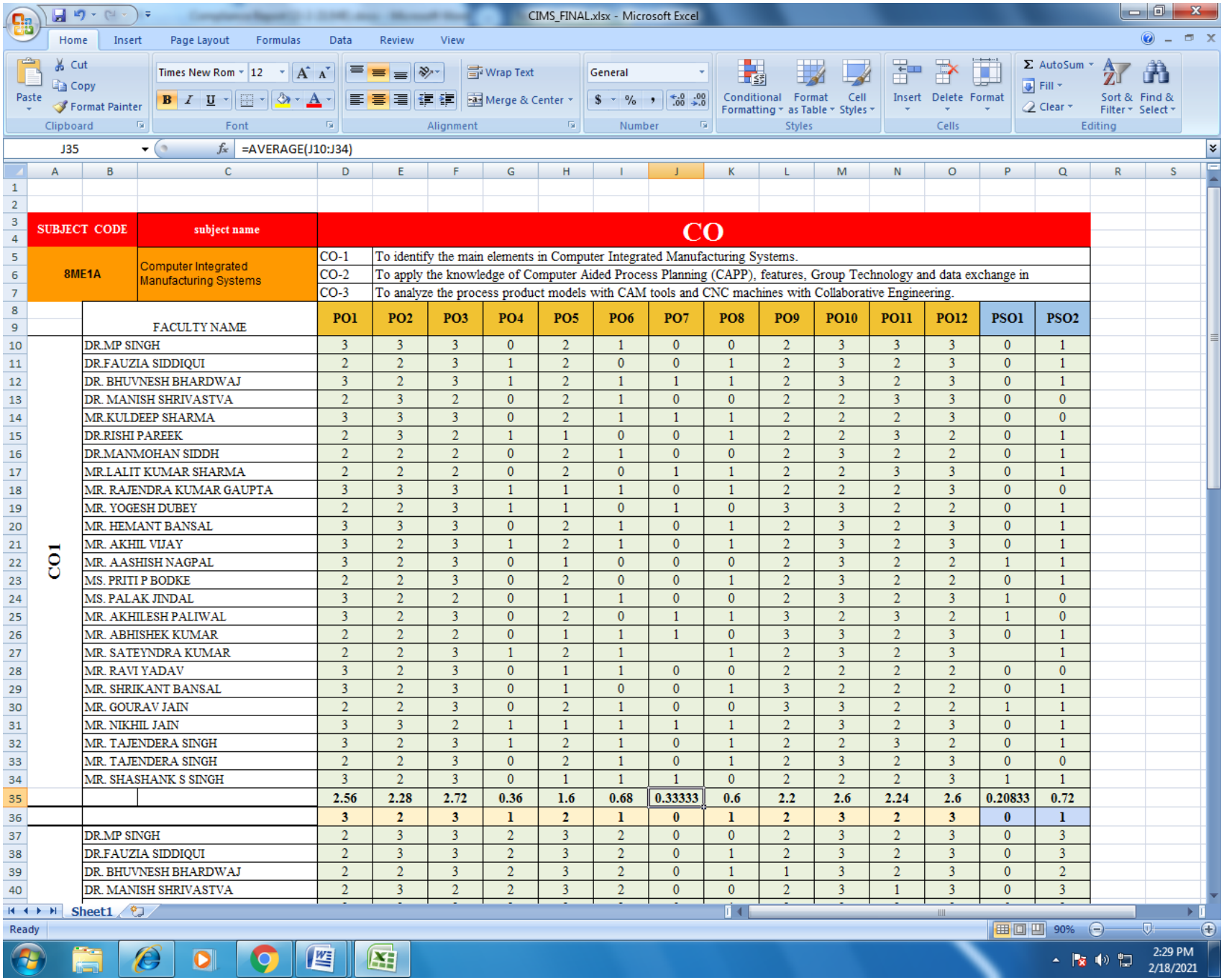
On the other hand in the attainment tables of PO, some PO against different subjects has no weightage.</td><td>1. Workshops and FDP on OBE are conducted for faculty members by Rajasthan Technical university in association with NBA and through NITTTR , Chandigarh.
2. Department has provided a sheet containing COs of all subjects and POs/PSOs to all faculty members for preparing relationship of CO-PO/PSO matrices and ask them to map COs with all POs/PSOs. After that department calculated average mapping and assign final mapping according to below mentioned criteria.
<table>
<tr><td>Average mapping (m)</td><td>Value given</td><td>Level of Relationship</td></tr>
<tr><td>m< 0.5</td><td>0</td><td>No</td></tr>
<tr><td>0.5≤ m≤1</td><td>1</td><td>Low</td></tr>
<tr><td>1< m ≤2</td><td>2</td><td>Medium</td></tr>
<tr><td>2< m ≤3</td><td>3</td><td>High</td></tr>
</table>
3. Each faculty member maintains a course file that includes vision, mission, course outcomes, relationship between CO-PO-PSO, evaluation of COs, identification of slow learner and fast learner, internal question paper mapped with COs, solution of question paper with step marking, assignment to weak students, information about student’s performance etc., reflects the understanding of faculty members.
4. Weightage of knowledge of OBE is also included in the yearly appraisal form of faculty members.
5. IQAC ensures the knowledge about OBE to faculty members through interactions</td></tr>
<tr><td>3.1.3</td><td>3.1.3 Program level Course PO/PSOs matrix of ALL</td><td>Almost all CO-PO/ PSO matrices, programme level course-PO/PSO matrices show lack of understanding.</td><td>1.Workshops and FDP on OBE are conducted for faculty members through NITTTR ,Chandigarh and Rajasthan Technical university in association with NBA
2. Department has provided a sheet containing COs of all subjects and POs/PSOs to all faculty members for preparing relationship of CO-PO/PSO matrices and ask them to map COs with all POs/PSOs. After that department calculated average mapping and assign final mapping according to below mentioned criteria.</td></tr>
</table>

courses including first year courses

Average mapping (m)	Value given	Level of Relationship
m< 0.5	0	**No**
0.5≤ m≤1	1	**Low**
1< m ≤2	2	**Medium**
2< m ≤3	3	**High**

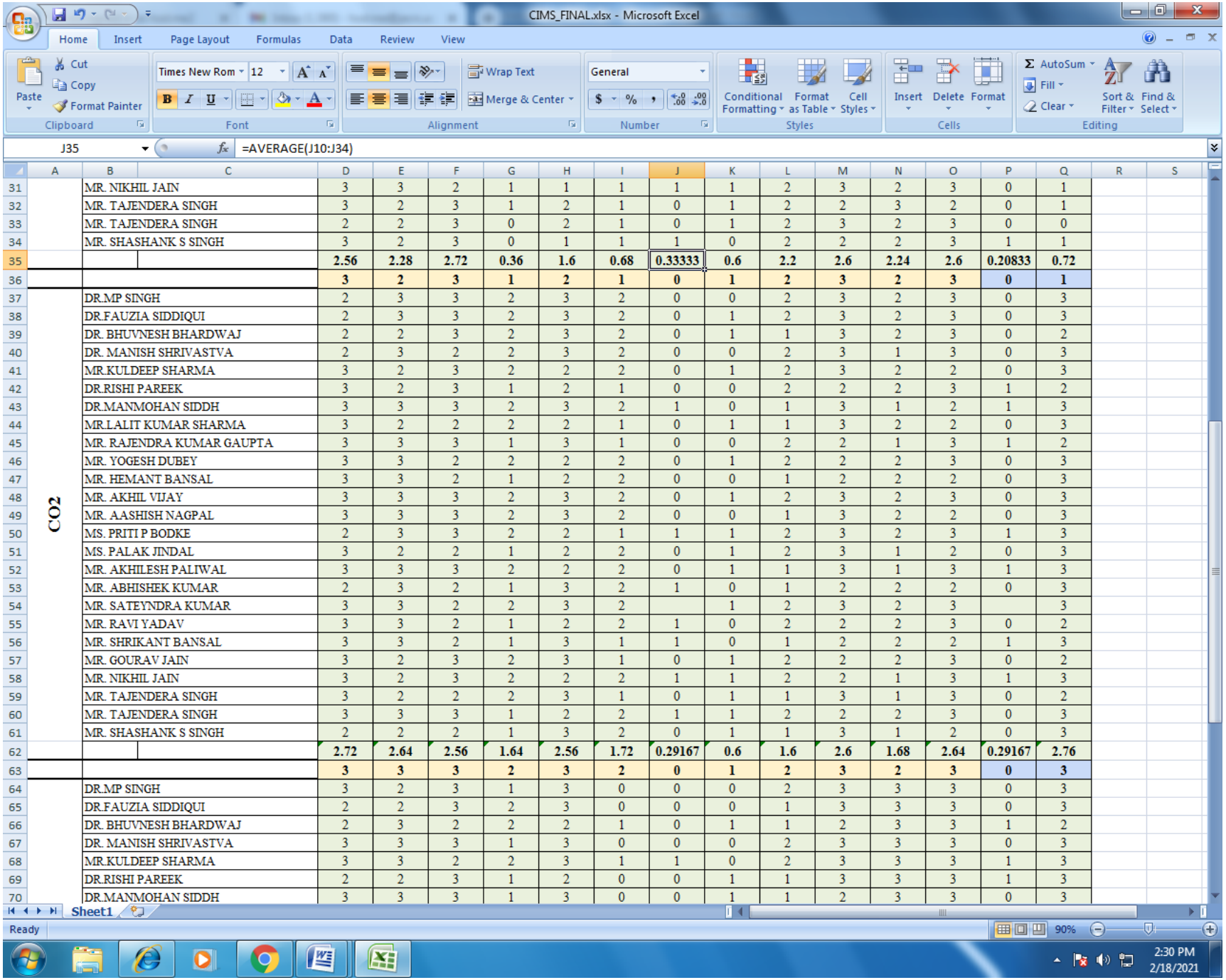
3. Each faculty member maintains a course file that includes vision ,mission, course outcomes, relationship between CO-PO-PSO, evaluation of COs ,identification of slow learner and fast learner, internal question paper mapped with COs, solution of question paper with step marking, assignment to weak students, information about student's performance etc., reflects the understanding of faculty members
4. Weightage of knowledge of OBE is also included in the yearly appraisal form of faculty members
5. IQAC ensures the knowledge about OBE to faculty members through interactions

(https://jecrcfoundation.com/jff/me/CO-PO%20Mapping.pdf)

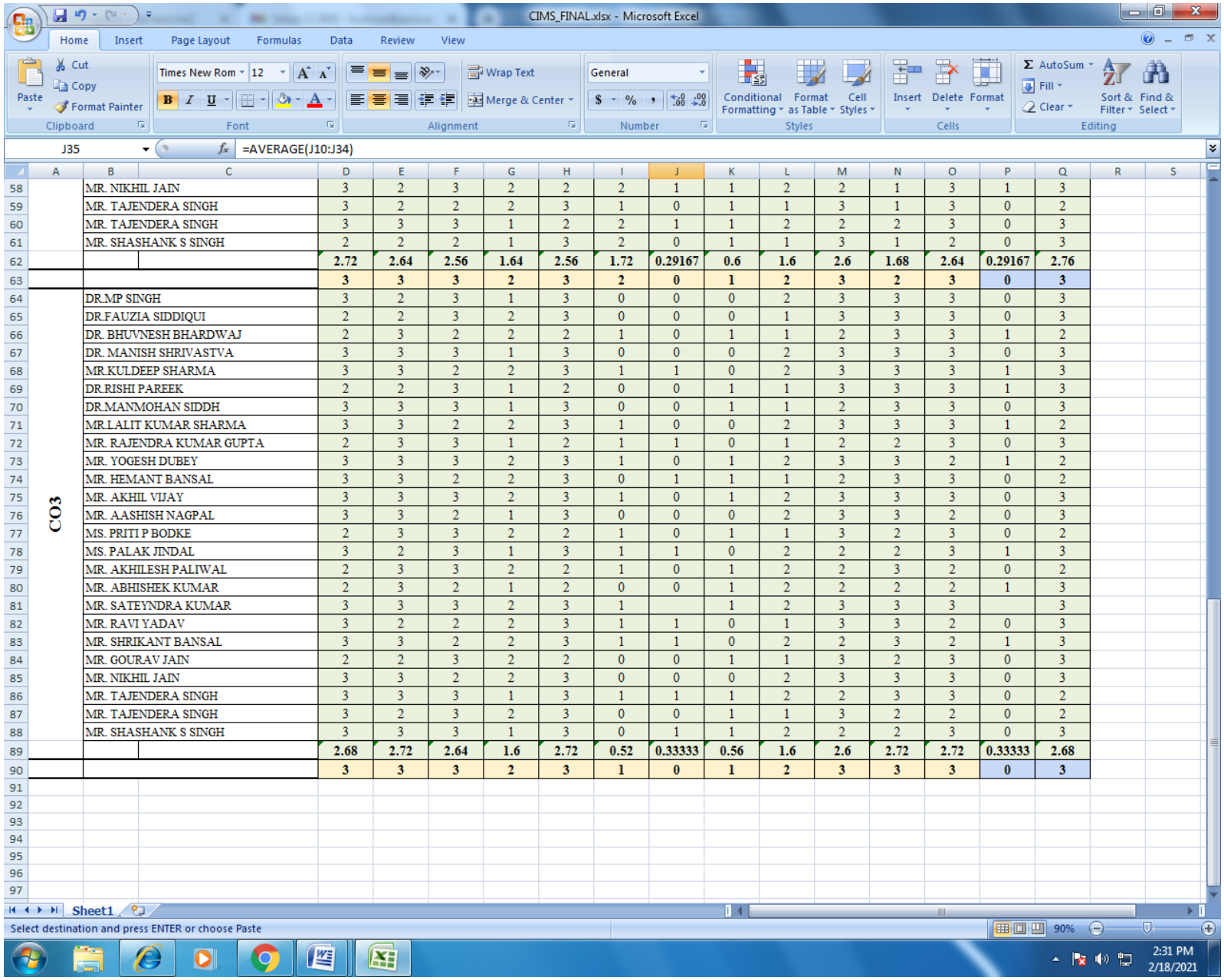


SUBJECT CODE	subject name	CO	
8ME1A	Computer Integrated Manufacturing Systems	CO-1	To identify the main elements in Computer Integrated Manufacturing Systems.
		CO-2	To apply the knowledge of Computer Aided Process Planning (CAPP), features, Group Technology and data exchange in
		CO-3	To analyze the process product models with CAM tools and CNC machines with Collaborative Engineering.

	FACULTY NAME	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	DR.MP SINGH	3	3	3	0	2	1	0	0	2	3	3	3	0	1
	DR.FAUZIA SIDDIQUI	2	2	3	1	2	0	0	1	2	3	2	3	0	1
	DR. BHUVNESH BHARDWAJ	3	2	3	1	2	1	1	1	2	3	2	3	0	1
	DR. MANISH SHRIVASTVA	2	3	2	0	2	1	0	0	2	2	3	3	0	0
	MR.KULDEEP SHARMA	3	3	3	0	2	1	1	1	2	2	2	3	0	0
	DR.RISHI PAREEK	2	3	2	1	1	0	0	1	2	2	3	2	0	1
	DR.MANMOHAN SIDDH	2	2	2	0	2	1	0	0	2	3	2	2	0	1
	MR.LALIT KUMAR SHARMA	2	2	2	0	2	0	1	1	2	2	3	3	0	1
	MR. RAJENDRA KUMAR GAUPTA	3	3	3	1	1	1	0	1	2	2	2	3	0	0
	MR. YOGESH DUBEY	2	2	3	1	1	0	1	0	3	3	2	2	0	1
	MR. HEMANT BANSAL	3	3	3	0	2	1	0	1	2	3	2	3	0	1
	MR. AKHIL VIJAY	3	2	3	1	2	1	0	1	2	3	2	3	0	1
	MR. AASHISH NAGPAL	3	2	3	0	1	0	0	0	2	3	2	2	1	1
	MS. PRITI P BODKE	2	2	3	0	2	0	0	1	2	3	2	2	0	1
	MS. PALAK JINDAL	3	2	2	0	1	1	0	0	2	3	2	3	1	0
	MR. AKHILESH PALIWAL	3	2	3	0	2	0	1	1	3	2	3	2	1	0
	MR. ABHISHEK KUMAR	2	2	2	0	1	1	1	0	3	3	2	3	0	1
	MR. SATEYNDRA KUMAR	2	2	3	1	2	1		1	2	3	2	3		1
	MR. RAVI YADAV	3	2	3	0	1	1	0	0	2	2	2	2	0	0
	MR. SHRIKANT BANSAL	3	2	3	0	1	0	0	1	3	2	2	2	0	1
	MR. GOURAV JAIN	2	2	3	0	2	1	0	0	3	3	2	2	1	1
	MR. NIKHIL JAIN	3	3	2	1	1	1	1	1	2	3	2	3	0	1
	MR. TAJENDERA SINGH	3	2	3	1	2	1	0	1	2	2	3	2	0	1
	MR. TAJENDERA SINGH	2	2	3	0	2	1	0	1	2	3	2	3	0	0
	MR. SHASHANK S SINGH	3	2	3	0	1	1	1	0	2	2	2	3	1	1
		2.56	**2.28**	**2.72**	**0.36**	**1.6**	**0.68**	**0.33333**	**0.6**	**2.2**	**2.6**	**2.24**	**2.6**	**0.20833**	**0.72**
		3	**2**	**3**	**1**	**2**	**1**	**0**	**1**	**2**	**3**	**2**	**3**	**0**	**1**
	DR.MP SINGH	2	3	3	2	3	2	0	0	2	3	2	3	0	3
	DR.FAUZIA SIDDIQUI	2	3	3	2	3	2	0	1	2	3	2	3	0	3
	DR. BHUVNESH BHARDWAJ	2	2	3	2	3	2	0	1	1	3	2	3	0	2
	DR. MANISH SHRIVASTVA	2	3	2	2	3	2	0	0	2	3	1	3	0	3



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
31		MR. NIKHIL JAIN		3	3	2	1	1	1	1	1	2	3	2	3	0	1		
32		MR. TAJENDERA SINGH		3	2	3	1	2	1	0	1	2	2	3	2	0	1		
33		MR. TAJENDERA SINGH		2	2	3	0	2	1	0	1	2	3	2	3	0	0		
34		MR. SHASHANK S SINGH		3	2	3	0	1	1	1	0	2	2	2	3	1	1		
35				**2.56**	**2.28**	**2.72**	**0.36**	**1.6**	**0.68**	**0.33333**	**0.6**	**2.2**	**2.6**	**2.24**	**2.6**	**0.20833**	**0.72**		
36				**3**	**2**	**3**	**1**	**2**	**1**	**0**	**1**	**2**	**3**	**2**	**3**	**0**	**1**		
37		DR.MP SINGH		2	3	3	2	3	2	0	0	2	3	2	3	0	3		
38		DR.FAUZIA SIDDIQUI		2	3	3	2	3	2	0	1	2	3	2	3	0	3		
39		DR. BHUVNESH BHARDWAJ		2	2	3	2	3	2	0	1	1	3	2	3	0	2		
40		DR. MANISH SHRIVASTVA		2	3	2	2	3	2	0	0	2	3	1	3	0	3		
41		MR.KULDEEP SHARMA		3	2	3	2	2	2	0	1	2	3	2	2	0	3		
42		DR.RISHI PAREEK		3	2	3	1	2	1	0	0	2	2	2	3	1	2		
43		DR.MANMOHAN SIDDH		3	3	3	2	3	2	1	0	1	3	1	2	1	3		
44		MR.LALIT KUMAR SHARMA		3	2	2	2	2	1	0	1	1	3	2	2	0	3		
45		MR. RAJENDRA KUMAR GAUPTA		3	3	3	1	3	1	0	0	2	2	1	3	1	2		
46		MR. YOGESH DUBEY		3	3	2	2	2	2	0	1	2	2	2	3	0	3		
47		MR. HEMANT BANSAL		3	3	2	1	2	2	0	0	1	2	2	2	0	3		
48	CO2	MR. AKHIL VIJAY		3	3	3	2	3	2	0	1	2	3	2	3	0	3		
49		MR. AASHISH NAGPAL		3	3	3	2	3	2	0	0	1	3	2	2	0	3		
50		MS. PRITI P BODKE		2	3	3	2	2	1	1	1	2	3	2	3	1	3		
51		MS. PALAK JINDAL		3	2	2	1	2	2	0	1	2	3	1	2	0	3		
52		MR. AKHILESH PALIWAL		3	3	3	2	2	2	0	1	1	3	1	3	1	3		
53		MR. ABHISHEK KUMAR		2	3	2	1	3	2	1	0	1	2	2	2	0	3		
54		MR. SATEYNDRA KUMAR		3	3	2	2	3	2		1	2	3	2	3		3		
55		MR. RAVI YADAV		3	3	2	1	2	2	1	0	2	2	2	3	0	2		
56		MR. SHRIKANT BANSAL		3	3	2	1	3	1	1	0	1	2	2	2	1	3		
57		MR. GOURAV JAIN		3	2	3	2	3	1	0	1	2	2	2	3	0	2		
58		MR. NIKHIL JAIN		3	2	3	2	2	2	1	1	2	2	1	3	1	3		
59		MR. TAJENDERA SINGH		3	2	2	2	3	1	0	1	1	3	1	3	0	2		
60		MR. TAJENDERA SINGH		3	3	3	1	2	2	1	1	2	2	2	3	0	3		
61		MR. SHASHANK S SINGH		2	2	2	1	3	2	0	1	1	3	1	2	0	3		
62				**2.72**	**2.64**	**2.56**	**1.64**	**2.56**	**1.72**	**0.29167**	**0.6**	**1.6**	**2.6**	**1.68**	**2.64**	**0.29167**	**2.76**		
63				**3**	**3**	**3**	**2**	**3**	**2**	**0**	**1**	**2**	**3**	**2**	**3**	**0**	**3**		
64		DR.MP SINGH		3	2	3	1	3	0	0	0	2	3	3	3	0	3		
65		DR.FAUZIA SIDDIQUI		2	2	3	2	3	0	0	0	1	3	3	3	0	3		
66		DR. BHUVNESH BHARDWAJ		2	3	2	2	2	1	0	1	1	2	3	3	1	2		
67		DR. MANISH SHRIVASTVA		3	3	3	1	3	0	0	0	2	3	3	3	0	3		
68		MR.KULDEEP SHARMA		3	3	2	2	3	1	1	0	2	3	3	3	1	3		
69		DR.RISHI PAREEK		2	2	3	1	2	0	0	1	1	3	3	3	1	3		
70		DR.MANMOHAN SIDDH		3	3	3	1	3	0	0	1	1	2	3	3	0	3		



			D	E	F	G	H	I	J	K	L	M	N	O	P	Q
58		MR. NIKHIL JAIN	3	2	3	2	2	2	1	1	2	2	1	3	1	3
59		MR. TAJENDERA SINGH	3	2	2	2	3	1	0	1	1	3	1	3	0	2
60		MR. TAJENDERA SINGH	3	3	3	1	2	2	1	1	2	2	2	3	0	3
61		MR. SHASHANK S SINGH	2	2	2	1	3	2	0	1	1	3	1	2	0	3
62			**2.72**	**2.64**	**2.56**	**1.64**	**2.56**	**1.72**	**0.29167**	**0.6**	**1.6**	**2.6**	**1.68**	**2.64**	**0.29167**	**2.76**
63			**3**	**3**	**3**	**2**	**3**	**2**	**0**	**1**	**2**	**3**	**2**	**3**	**0**	**3**
64		DR.MP SINGH	3	2	3	1	3	0	0	0	2	3	3	3	0	3
65		DR.FAUZIA SIDDIQUI	2	2	3	2	3	0	0	0	1	3	3	3	0	3
66		DR. BHUVNESH BHARDWAJ	2	3	2	2	2	1	0	1	1	2	3	3	1	2
67		DR. MANISH SHRIVASTVA	3	3	3	1	3	0	0	0	2	3	3	3	0	3
68		MR.KULDEEP SHARMA	3	3	2	2	3	1	1	0	2	3	3	3	1	3
69		DR.RISHI PAREEK	2	2	3	1	2	0	0	1	1	3	3	3	1	3
70		DR.MANMOHAN SIDDH	3	3	3	1	3	0	0	1	1	2	3	3	0	3
71		MR.LALIT KUMAR SHARMA	3	3	2	2	3	1	0	0	2	3	3	3	1	2
72		MR. RAJENDRA KUMAR GUPTA	2	3	3	1	2	1	1	0	1	2	2	3	0	3
73		MR. YOGESH DUBEY	3	3	3	2	3	1	0	1	2	3	3	2	1	2
74		MR. HEMANT BANSAL	3	3	2	2	3	0	1	1	1	2	3	3	0	2
75	**CO3**	MR. AKHIL VIJAY	3	3	3	2	3	1	0	1	2	3	3	3	0	3
76		MR. AASHISH NAGPAL	3	3	2	1	3	0	0	0	2	3	3	2	0	3
77		MS. PRITI P BODKE	2	3	3	2	2	1	0	1	1	3	2	3	0	2
78		MS. PALAK JINDAL	3	2	3	1	3	1	1	0	2	2	2	3	1	3
79		MR. AKHILESH PALIWAL	2	3	3	2	2	1	0	1	2	2	3	2	0	2
80		MR. ABHISHEK KUMAR	2	3	2	1	2	0	0	1	2	2	2	2	1	3
81		MR. SATEYNDRA KUMAR	3	3	3	2	3	1		1	2	3	3	3		3
82		MR. RAVI YADAV	3	2	2	2	3	1	1	0	1	3	3	2	0	3
83		MR. SHRIKANT BANSAL	3	3	2	2	3	1	1	0	2	2	3	2	1	3
84		MR. GOURAV JAIN	2	2	3	2	2	0	0	1	1	3	2	3	0	3
85		MR. NIKHIL JAIN	3	3	2	2	3	0	0	0	2	3	3	3	0	3
86		MR. TAJENDERA SINGH	3	3	3	1	3	1	1	1	2	2	3	3	0	2
87		MR. TAJENDERA SINGH	3	2	3	2	3	0	0	1	1	3	2	2	0	2
88		MR. SHASHANK S SINGH	3	3	3	1	3	0	1	1	2	2	2	3	0	3
89			**2.68**	**2.72**	**2.64**	**1.6**	**2.72**	**0.52**	**0.33333**	**0.56**	**1.6**	**2.6**	**2.72**	**2.72**	**0.33333**	**2.68**
90			**3**	**3**	**3**	**2**	**3**	**1**	**0**	**1**	**2**	**3**	**3**	**3**	**0**	**3**

D Y Patil College of Engineering,

Akurdi Pune - 411044

!! तमसो मा ज्योतिर्गमय !!

PARTICIPATION CERTIFICATE

Three weeks 8 Credit Course on:

WhatsApp Outcome Based Education Faculty Development Program

(March 24 to April 14, 2020)

Certificate Earned by
Dr Mahendra Pratap Singh
Mechanical Engineering Department
Jaipur Engineering College & Research Centre,
Jaipur,Rajsthan
(Demonstrated Active Learning during FDP)

Competencies Earned
Game Pedagogy, HOTs based CO-PO, CO-PSO, NBA- OBE Processes

Dr Vinay Kulkarni
FDP Course Coordinator

Dr Mrs P Malathi
Vice Principal

Dr Vijay M Wadhai
Principal

Balaji Reddie
President Deming Forum India

Dr Jayakrishnan M
Senior Research Scientist, NPTEL IITM

Dr Sameer Sahasrabuddhe
Senior Project Research Scientist, NPTEL IITB

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D Y Patil College of Engineering, Akurdi

Pune – 411044

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PARTICIPATION CERTIFICATE

Three weeks 8 Credit Course on:
WhatsApp Outcome Based Education Faculty Development Program (March 24 to April 14, 2020)

CERTIFICATE EARNED BY
DR FAUZIA SIDDIQUI
MECHANICAL ENGINEERING DEPARTMENT JAIPUR ENGINEERING COLLEGE & RESEARCH CENTRE
JAIPUR, RAJASTHAN
(DEMONSTRATED ACTIVE LEARNING DURING FDP)

Competencies Earned Game Pedagogy, HOTs based CO-PO, CO-PSO, NBA- OBE Processes

Dr Vinay Kulkarni
FDP Course Coordinator

Dr Mrs P Malathi
Vice Principal

Dr Vijay M Wadhai
Principal

Balaji Reddie
President Deming Forum India

Dr Jayakrishnan M
Senior Research Scientist, NPTEL IITM

Dr Sameer Sahasrabuddhe
Senior Project Research Scientist, NPTEL IITB

Find Validity of this certificate in https://...

2020-12-12 13:39

D Y Patil College of Engineering,

Akurdi Pune - 411044 !! तमसो मा ज्योततर्मय !!

PARTICIPATION CERTIFICATE

Three weeks 8 Credit Course on:

WhatsApp Outcome Based Education Faculty Development Program

(March 24 to April 14, 2020)

Certificate Earned by

DR.BHUVNESH BHARDWAJ

Mechanical Engineering Department

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE, JAIPUR

(Demonstrated Active Learning during FDP)

Competencies Earned
Game Pedagogy, HOTs based CO-PO, CO-PSO, NBA- OBE Processes

Dr Vinay Kulkarni
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Dr Vijay M Wadhai
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President Deming Forum India

Dr Jayakrishnan M
Senior Research Scientistist, NPTEL, IITM

Dr Sameer Sahasrabuddhe
Senior Project Research Scientist, NPTEL IITB

2020-12-12 13:39

NBA Awareness Webinar
on
Outcome Based Education and Accreditation

Participation Certificate

This is to certify that

Prof./ Dr./ Mr./ Ms. Lalit Kumar Sharma

From **JECRC Jaipur**

has attended the NBA Awareness Webinar on ***"Outcome Based Education and Accreditation"*** on 4th December 2020, jointly organized by NBA and Rajasthan Technical University Kota for the Engineering Colleges in Rajasthan.

Prof. V. K. Chandna
(Principal, JECRC Jaipur)
Nodal Officer
NBA Awareness Webinar
RTU Kota

S.NO.	CRITERIA 3.2Attainment of Course Outcomes	OBSERVATION MADE BY NBA	COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)
3.2.1	**3.2.1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcome is based**	Assignments are only given to weaker students.	• Faculty members provide assignment, question bank having question of previous year question papers/GATE/PSU etc. **to all students.** In assignment, each question is mapped to one or more CO. • In addition to this, if obtained marks by the student in any CO < 60% in midterm examination, then the student is considered weak in that particular CO and additional assignment based on that particular CO is given to that student.
3.2.2	**3.2.2 Record the attainment of Course Outcomes of all courses with respect to set attainment levels**	Attainment process has not been adequately implemented**.** PO attainment is calculated only on the basis of internal test marks and not on end semester examination marks.	● PO attainment = Direct attainment + Indirect attainment ● Direct attainment = 80 % weightage of end semester examination (ESE) + 20% weightage of Mid-term examination (MTE) = 0.8x + 0.2y x= ESE, y=MTE ● Indirect attainment = Surveys from stakeholders, placement data, participation of students in curricular and co-curricular activities ● CO attainment = **0.8x+0.2y** Where x = end semester examination (ESE) y = Mid-term examination (MTE) ● Direct attainment and indirect attainment are mapped with PO attainment through rubrics as given in table.

CO ATTAINMENT FOR YEAR 2018-19

CO ATTAINMENT FOR YEAR 2018-19					
SUBJECT CODE	**SUBJECT NAME**	**Course Outcomes**	**ESE**	**MTE**	**TOTAL**
			x	**y**	**(0.8x+0.2y)**
8ME1A	Computer Integrated Manufacturing Systems	**CO-1**	51.89	43.87	50.29
		CO-2	51.89	66.77	54.87
		CO-3	51.89	55.74	52.66
8ME2A	Laws for Engineers	**CO-1**	58.69	45.76	56.10
		CO-2	58.69	56.69	58.29
		CO-3	58.69	62.94	59.54
8ME3A	Power Generation	**CO-1**	52.17	64.66	54.67
		CO-2	52.17	59.00	53.54
		CO-3	52.17	63.66	54.47
		CO-4	52.17	63.66	54.47
8ME4.1A	Product Development and Launching	**CO-1**	98.52	76.24	94.06
		CO-2	98.52	54.20	89.66
		CO-3	98.52	62.80	91.38
		CO-4	98.52	55.47	89.91
8ME5A	CAM Lab	**CO-1**	94.59	91.00	93.88
		CO-2	94.59	93.00	94.28
8ME6A	CAD Lab	**CO-1**	67.03	94.59	72.54
		CO-2	67.03	94.59	72.54
8ME7A	Industrial Engineering Lab - II	**CO-1**	79.78	69.31	77.69
		CO-2	79.78	68.08	77.44
8MEPR	Project-2	**CO-1**	61.41	100.00	69.13
		CO-2	61.41	100.00	69.13
		CO-3	61.41	100.00	69.13
		CO-4	61.41	100.00	69.13
8MESM	Seminar	**CO-1**	76.63	60.32	73.37
		CO-2	76.63	59.84	73.27
		CO-3	76.63	61.12	73.53
7ME1A	Finite Element Methods	**CO-1**	43.09	85.29	51.53
		CO-2	43.09	83.23	51.11
		CO-3	43.09	81.12	50.69
7ME2A	Refrigeration & Air-conditioning	**CO-1**	39.90	66.65	45.25
		CO-2	39.90	58.36	43.59
		CO-3	39.90	73.24	46.57
		CO-4	39.90	67.58	45.44
7ME4A	Turbomachines	**CO-1**	52.29	46.87	51.21
		CO-2	52.29	64.77	54.79
		CO-3	52.29	52.74	52.38
		CO-4	52.29	52.16	52.26
7ME5A	Operations Management	**CO-1**	59.57	77.94	63.24
		CO-2	59.57	41.17	55.89
		CO-3	59.57	22.02	52.06
		CO-4	59.57	20.00	51.66
7ME6.1A	Micro and Nano Manufacturing	**CO-1**	54.63	43.87	52.48
		CO-2	54.63	66.77	57.06
		CO-3	54.63	55.74	54.85

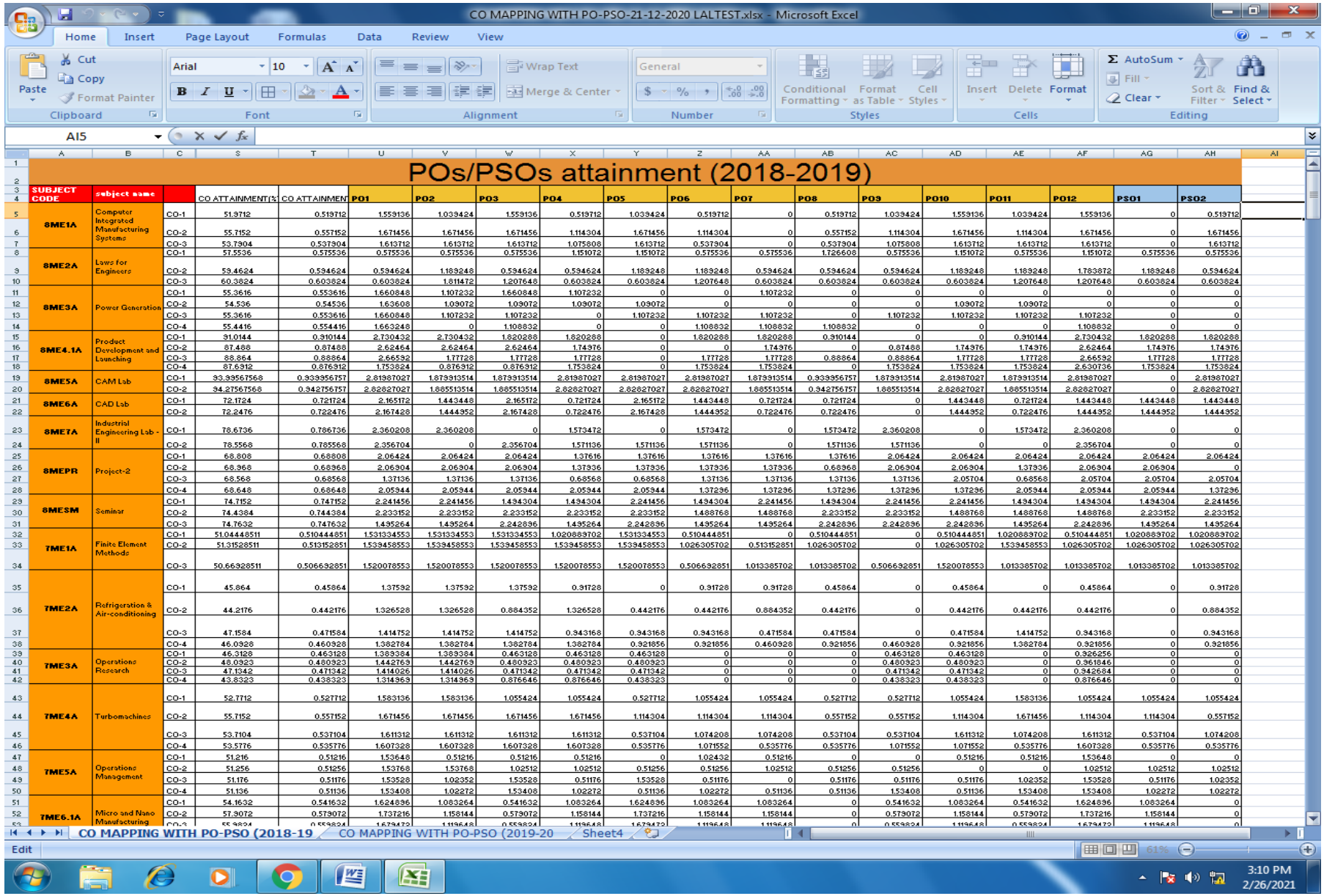
		CO-4	54.63	52.15	54.13
7ME7A	Thermal Engineering Lab-II	**CO-1**	98.94	96.00	98.35
		CO-2	98.94	95.00	98.15
7ME8A	FEM Lab	**CO-1**	81.89	79.52	81.42
		CO-2	81.59	64.87	78.25
7METR	Practical Training & Industrial visit	**CO-1**	85.25	78.46	83.89
		CO-2	85.25	72.29	82.66
		CO-3	85.25	77.56	83.71
7MEPR	Project-1	**CO-1**	100.00	100.00	100.00
		CO-2	100.00	100.00	100.00
		CO-3	100.00	100.00	100.00
		CO-4	100.00	100.00	100.00
6ME1A	Design of Machine Elements - II	**CO-1**	49.50	65.00	52.60
		CO-2	49.50	67.50	53.10
		CO-3	49.50	60.23	51.65
		CO-4	49.50	63.33	52.27
6ME2A	Newer Machining Methods	**CO-1**	57.02	84.15	62.45
		CO-2	57.02	81.46	61.91
		CO-3	57.02	83.95	62.41
		CO-4	57.02	84.16	62.45
6ME4A	Vibration Engineering	**CO-1**	40.53	42.64	40.95
		CO-2	40.53	37.84	39.99
		CO-3	40.53	53.24	43.07
		CO-4	40.53	35.27	39.48
6ME5A	Steam Engineering	**CO-1**	26.49	78.40	36.87
		CO-2	26.49	79.43	37.08
		CO-3	26.49	84.62	38.11
6ME6.3A	Maintenance Management	**CO-1**	24.86	85.94	37.08
		CO-2	24.86	85.94	37.08
		CO-3	24.86	85.94	37.08
		CO-4	24.86	85.94	37.08
6ME7A	Machine Design Sessional -II	**CO-1**	68.20	79.00	70.36
		CO-2	68.20	82.00	70.96
6ME8A	Industrial Engineering Lab-I	**CO-1**	55.45	92.60	62.88
		CO-2	55.45	93.40	63.04
6ME10A	Vibration Engineering Lab	**CO-1**	48.20	68.50	52.26
		CO-2	48.20	69.80	52.52
5ME1A	Heat Transfer	**CO-1**	36.21	67.85	42.54
		CO-2	36.21	68.25	42.62
		CO-3	36.21	66.00	42.17
		CO-4	36.21	69.28	42.82
5ME2A	Dynamics of Machines	**CO-1**	34.78	74.73	42.77
		CO-2	34.78	76.52	43.13
		CO-3	34.78	73.49	42.52
		CO-4	34.78	72.82	42.39
5ME4A	Quality Assurance & Reliability	**CO-1**	30.48	62.03	36.79
		CO-2	30.48	51.98	34.78
		CO-3	30.48	68.09	38.00
		CO-4	30.48	68.00	37.98
		CO-5	30.48	66.09	37.60
5ME5A	Sociology and Economics	**CO-1**	62.49	65.76	63.14

	for Engineers	**CO-2**	62.49	72.67	64.53
		CO-3	62.49	62.94	62.58
5ME6.2A	Automobile Engg.	**CO-1**	31.51	48.26	34.86
		CO-2	31.51	51.36	35.48
		CO-3	31.51	50.84	35.38
		CO-4	31.51	52.76	35.76
5ME7A	Heat Transfer Lab	**CO-1**	78.20	77.00	77.96
		CO-2	76.00	81.00	77.00
5ME8A	Dynamics of Machines Lab	**CO-1**	84.78	80.00	83.82
		CO-2	84.78	77.00	83.22
5ME9A	Production Engineering Lab	**CO-1**	92.40	82.67	90.45
		CO-2	92.40	89.94	91.91
5ME10A	Professional Ethics and Disaster Management	**CO-1**	99.46	94.00	98.37
		CO-2	99.46	98.00	99.17
4ME4-06	Manufacturing Processes	**CO-1**	32.12	64.24	38.54
		CO-2	32.12	67.64	39.22
		CO-3	32.12	67.42	39.18
		CO-4	32.12	57.50	37.20
4ME4-07	Theory of machines	**CO-1**	93.90	52.87	85.69
		CO-2	93.90	50.10	85.14
		CO-3	93.90	49.93	85.11
		CO-4	93.90	53.76	85.87
		CO-5	93.90	51.35	85.39
4ME4-23	Production practice lab	**CO-1**	92.10	67.20	87.12
		CO-2	94.50	69.00	89.40
4ME4-24	Theory of machines Lab	**CO-1**	72.00	78.00	73.20
		CO-2	75.00	73.00	74.60
		CO-3	74.00	76.00	74.40
3ME3-04	ENG. MECH.	**CO-1**	57.95	51.69	56.70
		CO-2	57.95	59.64	58.29
		CO-3	57.95	53.59	57.08
		CO-4	57.95	56.17	57.59
3ME4-06	Materials Science and Engineering	**CO-1**	58.62	62.89	59.47
		CO-2	58.62	53.59	57.61
		CO-3	58.62	30.80	53.06
		CO-4	58.62	40.81	55.06
3ME4-21	Machine drawing practice	**CO-1**	95.40	85.00	93.32
		CO-2	94.50	80.00	91.60
3ME4-22	Materials Testing Lab	**CO-1**	71.00	73.00	71.40
		CO-2	71.00	70.00	70.80
3ME4-23	Basic Mechanical Engineering Lab	**CO-1**	93.25	97.75	94.15
		CO-2	93.25	97.75	94.15
3ME4-24	Programming using MATLAB	**CO-1**	68.20	82.20	71.00
		CO-2	68.20	84.40	71.44
3ME7-30	Industrial Training	**CO-1**	65.00	83.00	68.60
		CO-2	65.00	79.00	67.80

INDIRECT ATTAINMENT TOOL (POs/PSOs)

	PO1			
INDIRECT	Parameters	Target	Attainment	Rubrics
	Placement	3	2.1	≥70% students placed then Target achieved Else = Pro rata
	Co-curriculer activities	2	2	≥80% students placed then Target achieved Else = Pro rata
	Course Exit survey	3	2.6	Pro rata
	Student Exit survey	3	2.7	Pro rata
	Alumni survey	3	2.7	Pro rata
		2.8	2.42	

S. NO	**CRITERIA**	**OBSERVATION MADE BY NBA**	**COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)**
3.3.2	**3.3.2 Provide results of evaluation of each PO & PSO**	PO/PSO attainment: for all subjects PO attainment was not calculated using ESE marks	• The PO/PSO attainment has been carried out by considering direct and indirect attainment tool. • Direct attainment is carried out using internal examination result and end semester examination • Indirect assessment is carried out through Placements, Students co/extracurricular achievements awards, course exit survey, program exit survey from students and Alumni feedback. • PO attainment = Direct attainment + Indirect attainment • Direct attainment = 80 % weightage of end semester examination (ESE) + 20% weightage of Mid-term examination (MTE) = 0.8x + 0.2y x= ESE, y=MTE • Indirect attainment = Surveys from stakeholders, placement data, participation of students in curricular and co-curricular activities • Direct assessment and indirect assessment are mapped with PO assessment through rubrics as given in table.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Refrigeration & Air-conditioning
7ME3A
Operations Research
7ME4A
Turbomachines
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Micro and Nano Manufacturing
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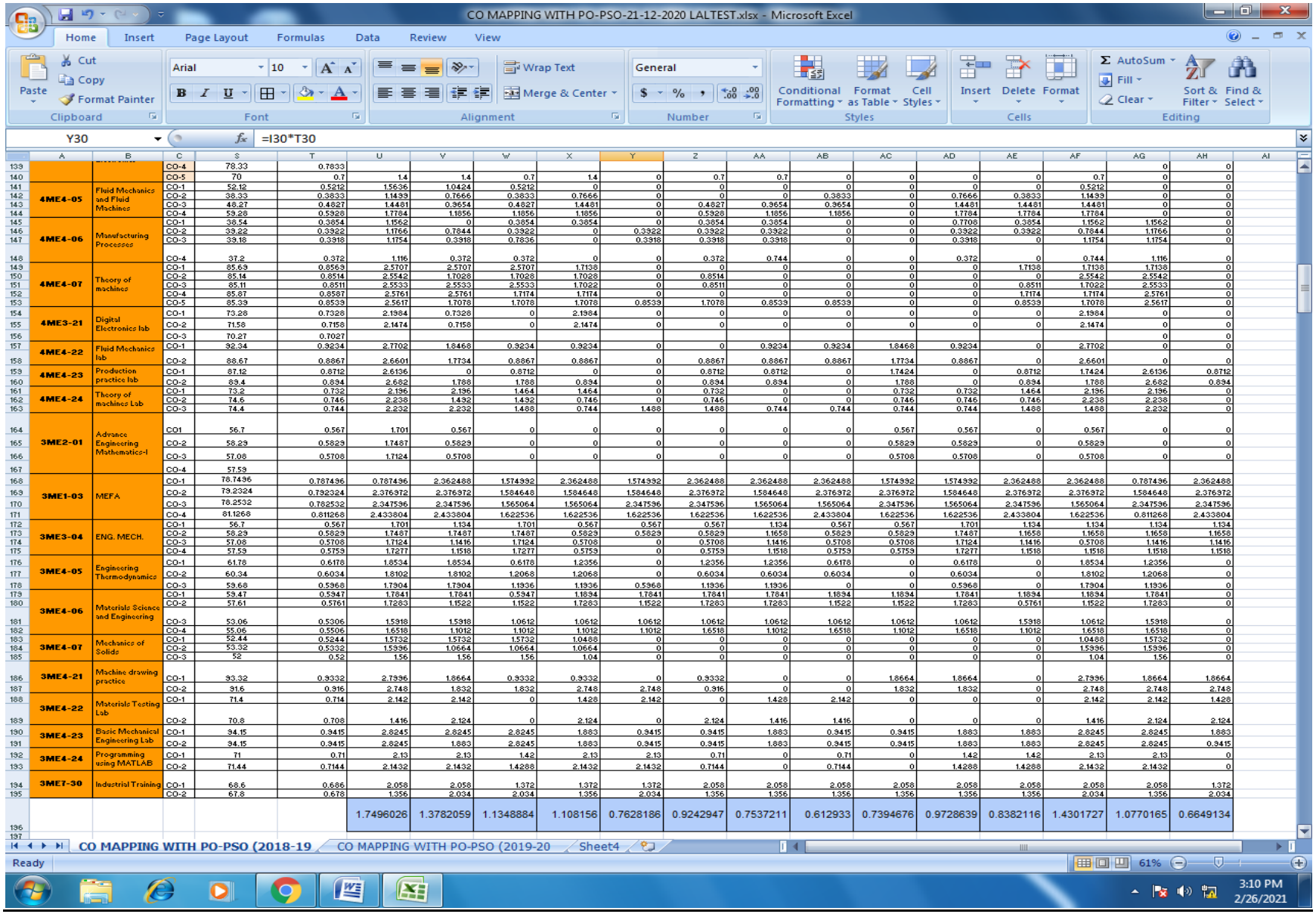

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133			CO-4	78.33	0.7833													0	0	
140			CO-5	70	0.7	1.4	1.4	0.7	1.4	0	0.7	0.7	0	0	0	0	0.7	0	0	
141	4ME4-05	Fluid Mechanics and Fluid Machines	CO-1	52.12	0.5212	1.5636	1.0424	0.5212	0	0	0	0	0	0	0	0	0.5212	0	0	
142			CO-2	38.33	0.3833	1.1499	0.7666	0.3833	0.7666	0	0	0	0.3833	0	0.7666	0.3833	1.1499	0	0	
143			CO-3	48.27	0.4827	1.4481	0.9654	0.4827	1.4481	0	0.4827	0.9654	0.9654	0	1.4481	1.4481	1.4481	0	0	
144			CO-4	59.28	0.5928	1.7784	1.1856	1.1856	1.1856	0	0.5928	1.1856	1.1856	0	1.7784	1.7784	1.7784	0	0	
145	4ME4-06	Manufacturing Processes	CO-1	38.54	0.3854	1.1562	0	0.3854	0.3854	0	0.3854	0.3854	0	0	0.7708	0.3854	1.1562	1.1562	0	
146			CO-2	39.22	0.3922	1.1766	0.7844	0.3922	0	0.3922	0.3922	0.3922	0	0	0.3922	0.3922	0.7844	1.1766	0	
147			CO-3	39.18	0.3918	1.1754	0.3918	0.7836	0	0.3918	0.3918	0.3918	0	0	0.3918	0	1.1754	1.1754	0	
148			CO-4	37.2	0.372	1.116	0.372	0.372	0	0	0.372	0.744	0	0	0.372	0	0.744	1.116	0	
149	4ME4-07	Theory of machines	CO-1	85.63	0.8563	2.5707	2.5707	2.5707	1.7138	0	0	0	0	0	0	1.7138	1.7138	1.7138	0	
150			CO-2	85.14	0.8514	2.5542	1.7028	1.7028	1.7028	0	0.8514	0	0	0	0	0	2.5542	2.5542	0	
151			CO-3	85.11	0.8511	2.5533	2.5533	2.5533	1.7022	0	0.8511	0	0	0	0	0.8511	1.7022	2.5533	0	
152			CO-4	85.87	0.8587	2.5761	2.5761	1.7174	1.7174	0	0	0	0	0	0	1.7174	1.7174	2.5761	0	
153			CO-5	85.39	0.8539	2.5617	1.7078	1.7078	1.7078	0.8539	1.7078	0.8539	0.8539	0	0	0.8539	1.7078	2.5617	0	
154	4ME3-21	Digital Electronics lab	CO-1	73.28	0.7328	2.1984	0.7328	0	2.1984	0	0	0	0	0	0	0	2.1984	0	0	
155			CO-2	71.58	0.7158	2.1474	0.7158	0	2.1474	0	0	0	0	0	0	0	2.1474	0	0	
156			CO-3	70.27	0.7027													0	0	
157	4ME4-22	Fluid Mechanics lab	CO-1	92.34	0.9234	2.7702	1.8468	0.9234	0.9234	0	0	0.9234	0.9234	1.8468	0.9234	0	2.7702	0	0	
158			CO-2	88.67	0.8867	2.6601	1.7734	0.8867	0.8867	0	0.8867	0.8867	0.8867	1.7734	0.8867	0	2.6601	0	0	
159	4ME4-23	Production practice lab	CO-1	87.12	0.8712	2.6136	0	0.8712	0	0	0.8712	0.8712	0	1.7424	0	0.8712	1.7424	2.6136	0.8712	
160			CO-2	89.4	0.894	2.682	1.788	1.788	0.894	0	0.894	0.894	0	1.788	0	0.894	1.788	2.682	0.894	
161	4ME4-24	Theory of machines Lab	CO-1	73.2	0.732	2.196	2.196	1.464	1.464	0	0.732	0	0	0.732	0.732	1.464	2.196	2.196	0	
162			CO-2	74.6	0.746	2.238	1.492	1.492	0.746	0	0.746	0	0	0.746	0.746	0.746	2.238	2.238	0	
163			CO-3	74.4	0.744	2.232	2.232	1.488	0.744	1.488	1.488	0.744	0.744	0.744	0.744	1.488	1.488	2.232	0	
164	3ME2-01	Advance Engineering Mathematics-I	CO1	56.7	0.567	1.701	0.567	0	0	0	0	0	0	0	0.567	0.567	0	0.567	0	0
165			CO-2	58.29	0.5829	1.7487	0.5829	0	0	0	0	0	0	0	0.5829	0.5829	0	0.5829	0	0
166			CO-3	57.08	0.5708	1.7124	0.5708	0	0	0	0	0	0	0	0.5708	0.5708	0	0.5708	0	0
167			CO-4	57.59																
168	3ME1-03	MEFA	CO-1	78.7496	0.787496	0.787496	2.362488	1.574992	2.362488	1.574992	2.362488	2.362488	2.362488	1.574992	1.574992	2.362488	2.362488	0.787496	2.362488	
169			CO-2	79.2324	0.792324	2.376972	2.376972	1.584648	1.584648	1.584648	2.376972	1.584648	2.376972	2.376972	1.584648	2.376972	2.376972	1.584648	2.376972	
170			CO-3	78.2532	0.782532	2.347596	2.347596	1.565064	1.565064	2.347596	2.347596	1.565064	1.565064	2.347596	1.565064	2.347596	1.565064	2.347596	2.347596	
171			CO-4	81.1268	0.811268	2.433804	2.433804	1.622536	1.622536	1.622536	1.622536	1.622536	2.433804	1.622536	1.622536	2.433804	1.622536	0.811268	2.433804	
172	3ME3-04	ENG. MECH.	CO-1	56.7	0.567	1.701	1.134	1.701	0.567	0.567	0.567	1.134	0.567	0.567	1.701	1.134	1.134	1.134	1.134	
173			CO-2	58.29	0.5829	1.7487	1.7487	1.7487	0.5829	0.5829	0.5829	1.1658	0.5829	0.5829	1.7487	1.1658	1.1658	1.1658	1.1658	
174			CO-3	57.08	0.5708	1.7124	1.1416	1.7124	0.5708	0	0.5708	1.1416	0.5708	0.5708	1.7124	1.1416	0.5708	1.1416	1.1416	
175			CO-4	57.59	0.5759	1.7277	1.1518	1.7277	0.5759	0	0.5759	1.1518	0.5759	0.5759	1.7277	1.1518	1.1518	1.1518	1.1518	
176	3ME4-05	Engineering Thermodynamics	CO-1	61.78	0.6178	1.8534	1.8534	0.6178	1.2356	0	1.2356	1.2356	0.6178	0	0.6178	0	1.8534	1.2356	0	
177			CO-2	60.34	0.6034	1.8102	1.8102	1.2068	1.2068	0	0.6034	0.6034	0.6034	0	0.6034	0	1.8102	1.2068	0	
178			CO-3	59.68	0.5968	1.7904	1.7904	1.1936	1.1936	0.5968	1.1936	1.1936	1.1936	0	0.5968	0	1.7904	1.1936	0	
179	3ME4-06	Materials Science and Engineering	CO-1	59.47	0.5947	1.7841	1.7841	0.5947	1.1894	1.7841	1.7841	1.7841	1.1894	1.1894	1.7841	1.1894	1.1894	1.7841	0	
180			CO-2	57.61	0.5761	1.7283	1.1522	1.1522	1.7283	1.1522	1.7283	1.7283	1.1522	1.1522	1.7283	0.5761	1.1522	1.7283	0	
181			CO-3	53.06	0.5306	1.5918	1.5918	1.0612	1.0612	1.0612	1.0612	1.0612	1.0612	1.0612	1.0612	1.5918	1.0612	1.5918	0	
182			CO-4	55.06	0.5506	1.6518	1.1012	1.1012	1.1012	1.1012	1.6518	1.1012	1.6518	1.1012	1.6518	1.1012	1.6518	1.6518	0	
183	3ME4-07	Mechanics of Solids	CO-1	52.44	0.5244	1.5732	1.5732	1.5732	1.0488	0	0	0	0	0	0	0	1.0488	1.5732	0	
184			CO-2	53.32	0.5332	1.5996	1.0664	1.0664	1.0664	0	0	0	0	0	0	0	1.5996	1.5996	0	
185			CO-3	52	0.52	1.56	1.56	1.56	1.04	0	0	0	0	0	0	0	1.04	1.56	0	
186	3ME4-21	Machine drawing practice	CO-1	93.32	0.9332	2.7996	1.8664	0.9332	0.9332	0	0.9332	0	0	1.8664	1.8664	0	2.7996	1.8664	1.8664	
187			CO-2	91.6	0.916	2.748	1.832	1.832	2.748	2.748	0.916	0	0	1.832	1.832	0	2.748	2.748	2.748	
188	3ME4-22	Materials Testing Lab	CO-1	71.4	0.714	2.142	2.142	0	1.428	2.142	0	1.428	2.142	0	0	0	2.142	2.142	1.428	
189			CO-2	70.8	0.708	1.416	2.124	0	2.124	0	2.124	1.416	1.416	0	0	0	1.416	2.124	2.124	
190	3ME4-23	Basic Mechanical Engineering Lab	CO-1	94.15	0.9415	2.8245	2.8245	2.8245	1.883	0.9415	0.9415	1.883	0.9415	0.9415	1.883	1.883	2.8245	2.8245	1.883	
191			CO-2	94.15	0.9415	2.8245	1.883	2.8245	1.883	0.9415	0.9415	1.883	0.9415	0.9415	1.883	1.883	2.8245	2.8245	0.9415	
192	3ME4-24	Programming using MATLAB	CO-1	71	0.71	2.13	2.13	1.42	2.13	2.13	0.71	0	0.71	0	1.42	1.42	2.13	2.13	0	
193			CO-2	71.44	0.7144	2.1432	2.1432	1.4288	2.1432	2.1432	0.7144	0	0.7144	0	1.4288	1.4288	2.1432	2.1432	0	
194	3ME7-30	Industrial Training	CO-1	68.6	0.686	2.058	2.058	1.372	1.372	1.372	2.058	2.058	2.058	2.058	2.058	2.058	2.058	2.058	1.372	
195			CO-2	67.8	0.678	1.356	2.034	2.034	1.356	2.034	1.356	1.356	1.356	1.356	2.034	1.356	2.034	1.356	2.034	
196						1.7496026	1.3782059	1.1348884	1.108156	0.7628186	0.9242947	0.7537211	0.612933	0.7394676	0.9728639	0.8382116	1.4301727	1.0770165	0.6649134	
197																				

CO MAPPING WITH PO-PSO (2018-19 | CO MAPPING WITH PO-PSO (2019-20 | Sheet4

Ready | 61%

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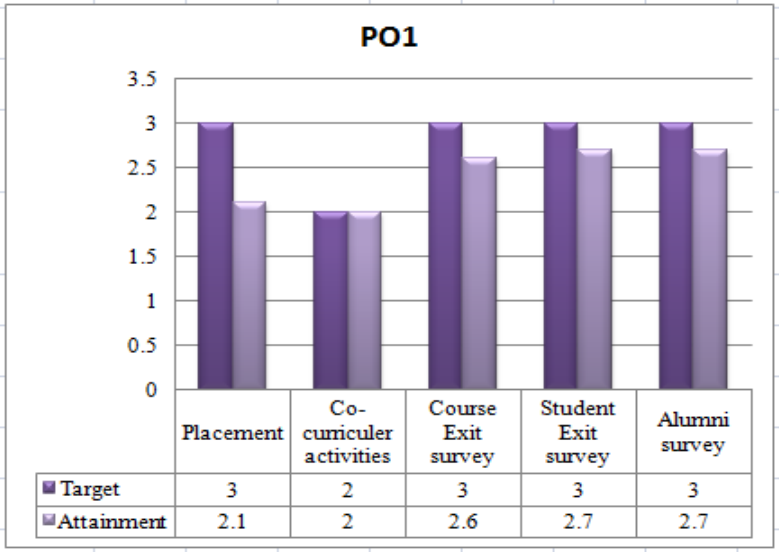
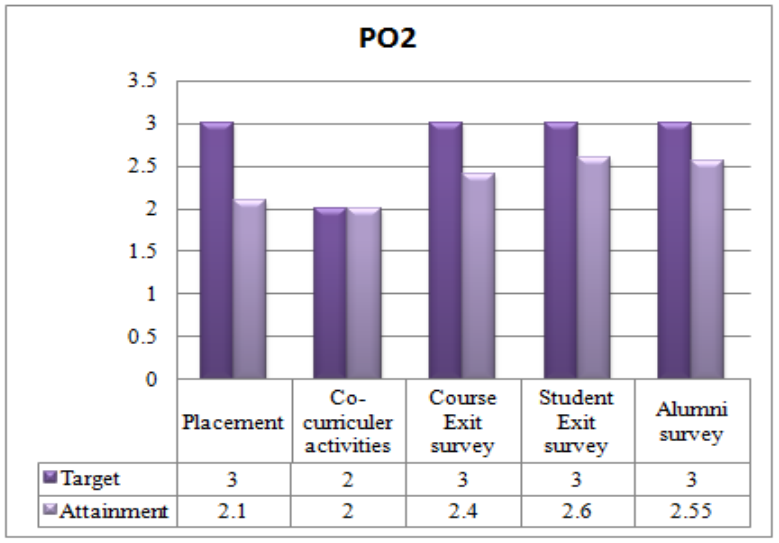
INDIRECT ATTAINMENT (POs/PSOs)

	PO1			
INDIRECT	Parameters	Target	Attainment	Rubrics
	Placement	3	2.1	≥70% students placed then Target achieved Else = Pro rata
	Co-curriculer activities	2	2	≥80% students placed then Target achieved Else = Pro rata
	Course Exit survey	3	2.6	Pro rata
	Student Exit survey	3	2.7	Pro rata
	Alumni survey	3	2.7	Pro rata
		2.8	2.42	

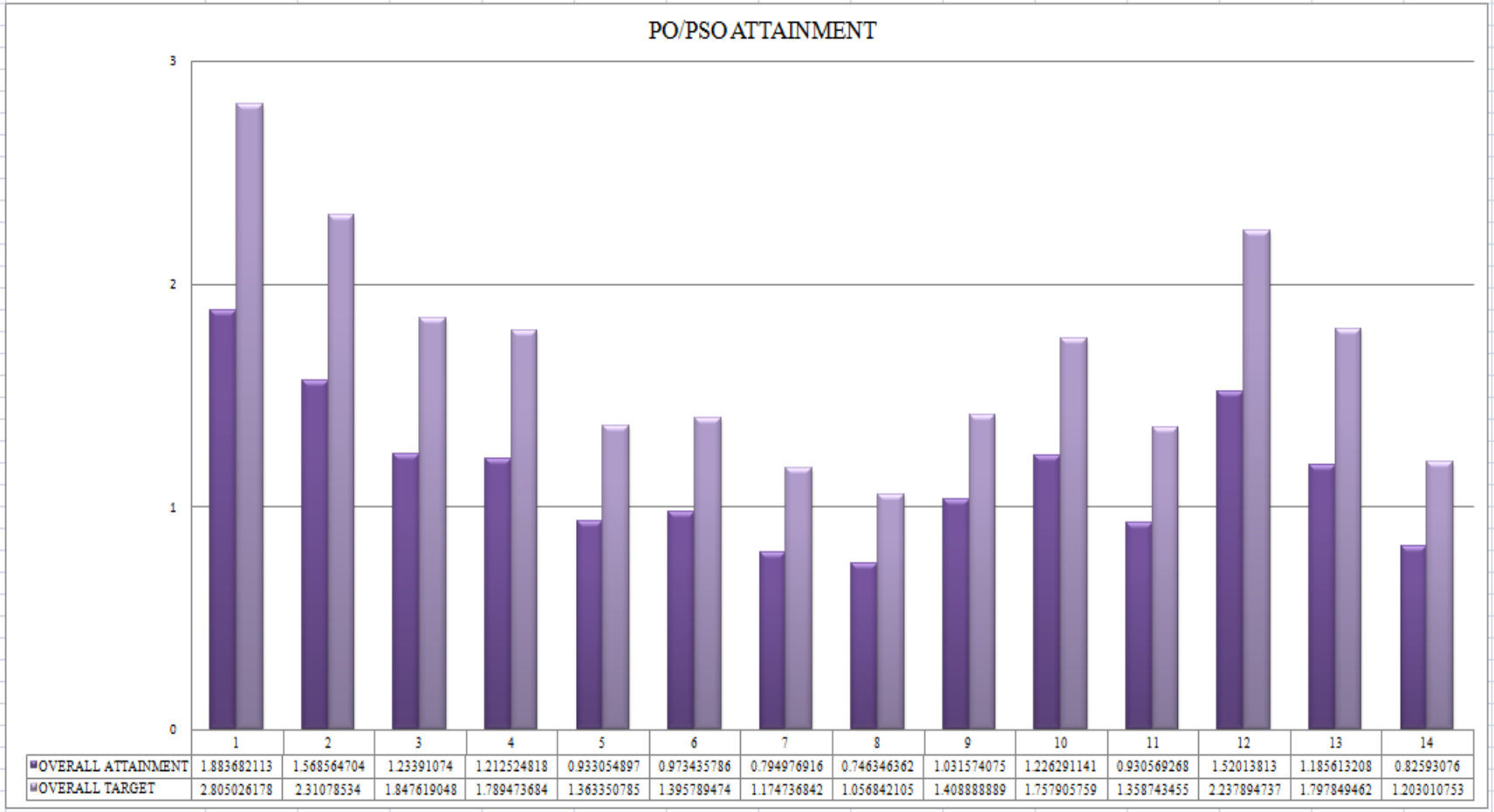


	PO2			
INDIRECT	Parameters	Target	Attainment	Rubrics
	Placement	3	2.1	≥70% students placed then Target achieved
	Co-curriculer activities	2	2	≥80% students placed then Target achieved Else = Pro rata
	Course Exit survey	3	2.4	Pro rata
	Student Exit survey	3	2.6	Pro rata
	Alumni survey	3	2.55	Pro rata
		2.8	2.33	

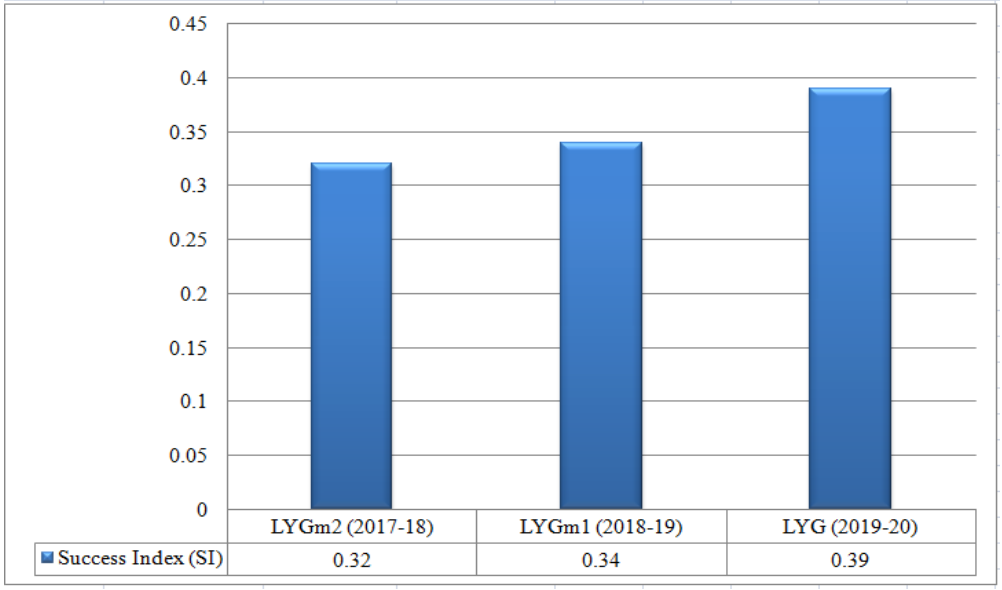


PO/PSO attainment (2018-19)

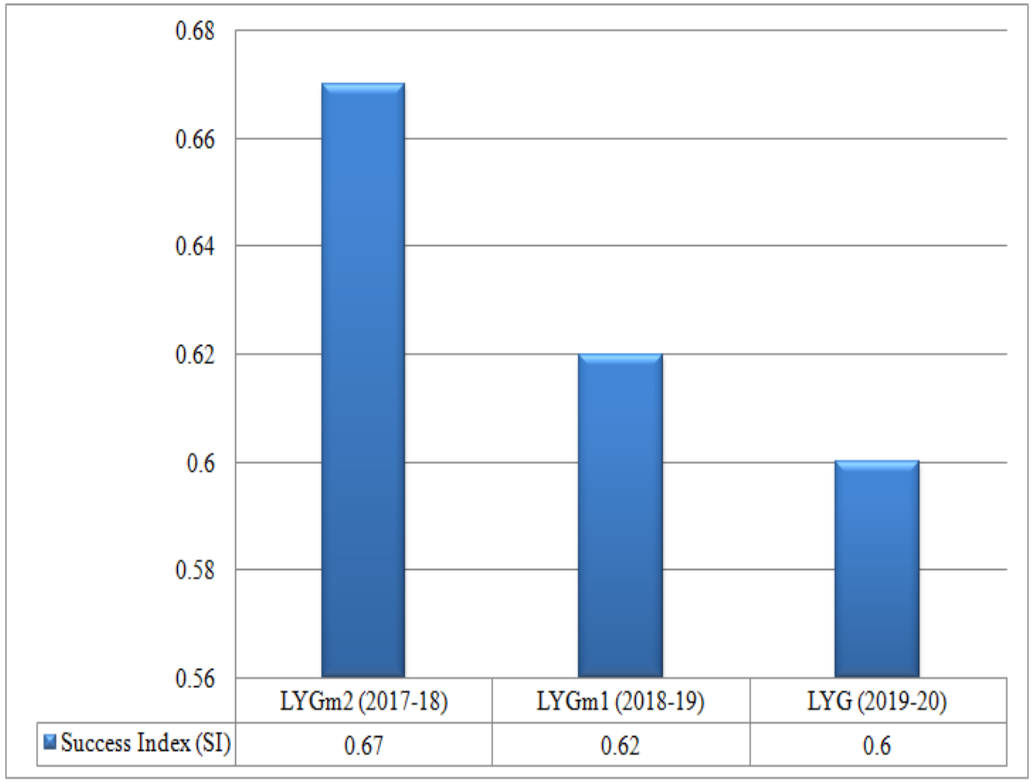
POs/PSOs	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO1	PSO2
DIRECT ATTAINMENT	1.74960264	1.37820588	1.13488842	1.10815602	0.76281862	0.92429473	0.75372115	0.61293295	0.73946759	0.97286393	0.83821159	1.43017266	1.07701651	0.6649134
INDIRECT ATTAINMENT	2.42	2.33	1.63	1.63	1.614	1.17	0.96	1.28	2.2	2.24	1.3	1.88	1.62	1.47
OVERALL ATTAINMENT	1.88368211	1.5685647	1.23391074	1.21252482	0.9330549	0.97343579	0.79497692	0.74634636	1.03157407	1.22629114	0.93056927	1.52013813	1.18561321	0.8259308
OVERALL TARGET	2.80502618	2.31078534	1.84761905	1.78947368	1.36335079	1.39578947	1.17473684	1.05684211	1.40888889	1.75790576	1.35874346	2.23789474	1.79784946	1.2030108



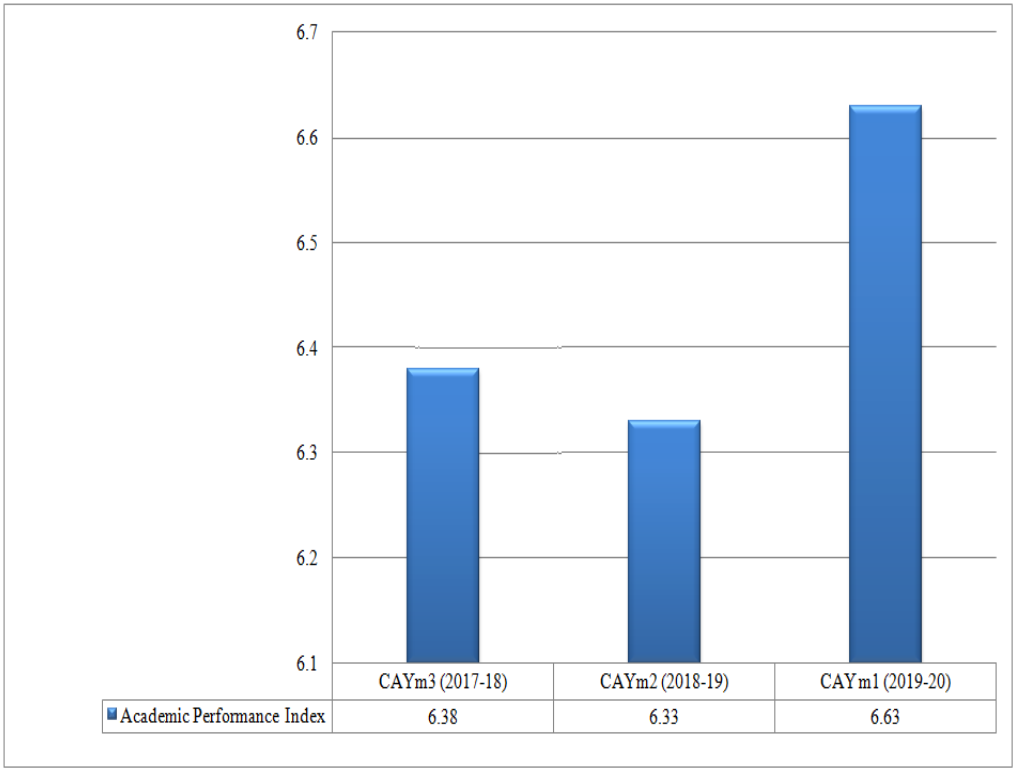
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
OVERALL ATTAINMENT	1.883682113	1.568564704	1.23391074	1.212524818	0.933054897	0.973435786	0.794976916	0.746346362	1.031574075	1.226291141	0.930569268	1.52013813	1.185613208	0.82593076
OVERALL TARGET	2.805026178	2.31078534	1.847619048	1.789473684	1.363350785	1.395789474	1.174736842	1.056842105	1.408888889	1.757905759	1.358743455	2.237894737	1.797849462	1.203010753

Criterion- 4 Student's Performance			
S. No	**CRITERIA**	**OBSERVATION MADE BY NBA**	**COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)**
4.2.1	**4.2.1 Success rate without backlogs in any Semester/year of study Without Backlog means no compartment or failures in any semester/ year of study**	Low success rate	 https://jecrcfoundation.com/jf-data/NBA/ME/2014-15-to-19-20-Pass-Table-B3.pdf

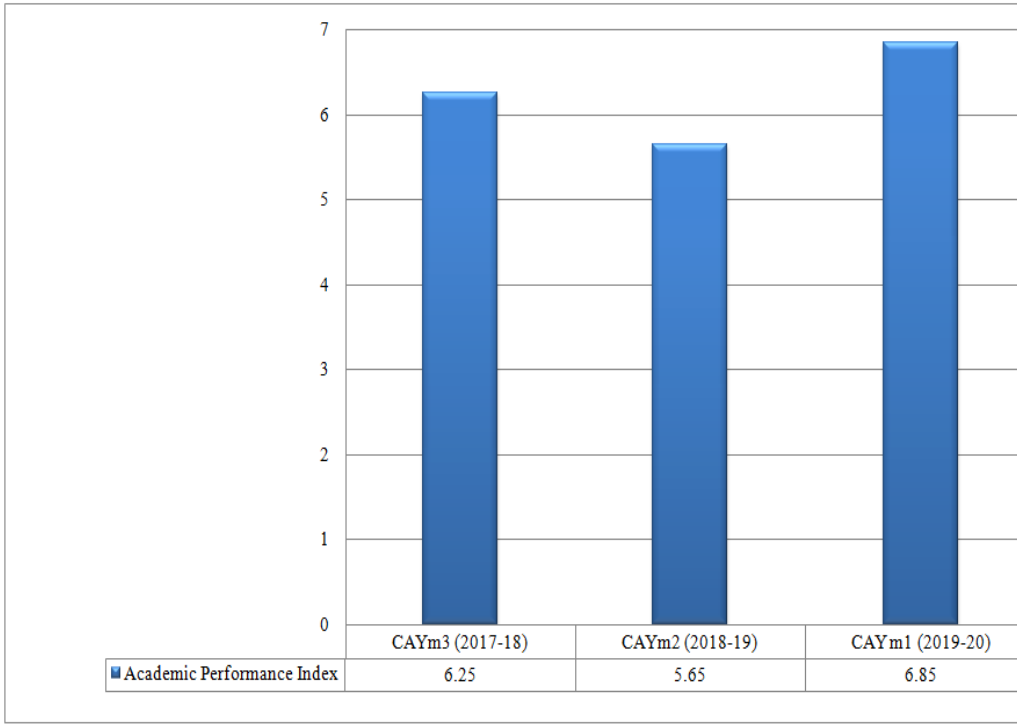
Item	Latest Year of Graduation minus 2, LYGm2	Latest Year of Graduation minus 1, LYGm1	Latest Year of Graduation, LYG
Number of students admitted in the corresponding First Year + admitted in 2nd year via lateral entry and separate division, if applicable	208+5*=213	186+10*=196	184+4*=188
Number of students who have graduated without backlog in the stipulated period	66	65	71
Success Index (SI)	0.32	0.34	0.39
Average Success Index	0.35		

S. No	CRITERIA	OBSERVATION MADE BY NBA	COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)
4.2.2	**4.2.2 Success rate with backlog in stipulated period (actual duration of the program)**	Needs improvement	 https://jecrcfoundation.com/jf-data/NBA/ME/2014-15-to-19-20-Fail-Table-B3.2.pdf

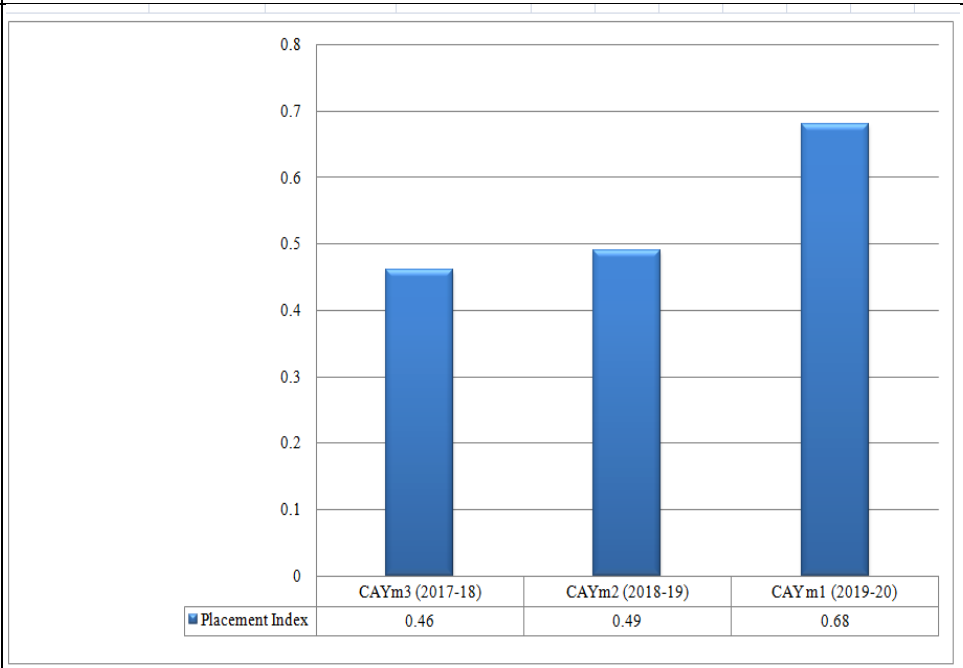
Item	LYG (CAYm6)	LYGm1 (CAYm5)	LYG (CAYm4)
Number of students admitted in the corresponding First Year + admitted in 2nd year via lateral entry and separate division, if applicable	208+5*=213	186+10*=196	184+4*=188
Number of students who have graduated with backlog in the stipulated period	142	121	113
Success Index (SI)	0.67	0.62	0.60
Average Success Index	0.63		

S. NO	CRITERIA	OBSERVATION MADE BY NBA	COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)
4.3	**Academic Performance in Third Year**	Needs improvement	 https://jecrcfoundation.com/jf-data/NBA/ME/NBA-4.3-Performance-3-yr-Table%20B3.5.pdf

Academic Performance	**CAYm3** (2017-18)	**CAYm2** (2018-19)	**CAYm1** (2019-20)
Mean of CGPA or Mean Percentage of all successful students (X)	6.38	6.33	6.63
Total no. of successful students (Y)	189	185	180
Total no. of students appeared in the examination (Z)	189	185	180
API = x* (Y/Z)	6.38	6.33	6.63
Average API = (AP1 = AP2 + AP3)/3	6.45		

S. NO	CRITERIA	OBSERVATION MADE BY NBA	COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)
4.4	**Academic Performance in Second Year**	Needs improvement	 https://jecrcfoundation.com/jf-data/NBA/ME/NBA-4.4-Performance-2-yr-Table-B3.4.pdf

Academic Performance	**CAYm3** (2017-18)	**CAYm2** (2018-19)	**CAYm1** **(**2019-20)
Mean of CGPA of Mean Percentage of all successful students (X)	6.25	5.65	6.85
Total no. of successful students (Y)	186	180	110
Total no. of students appeared in the examination (Z)	186	180	110
API = x* (Y/Z)	6.25	5.65	6.85
Average API = (AP1 = AP2 + AP3)/3	6.25		

S. No	CRITERIA	OBSERVATION MADE BY NBA	COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)
4.5	**Placement, Higher studies and Entrepreneurship**	Needs improvement	 https://jecrcfoundation.com/placement-stats

Item	CAYm3 (2017-18)	CAYm2 (2018-19)	CAYm1 (2019-20)
Total No. of Final Year Students (N)	209	189	185
No. of students placed in companies or Government Sector (x)	93	91	125
No. of students admitted to higher studies with valid qualifying scores (GATE or equivalent State or National Level Tests, GRE, GMAT	2	2	0
No. of students turned entrepreneur in engineering/technology (z)	2	0	0
x+ y + z =	**97**	**93**	**125**
Placement Index : (x + y + z)/N	0.46	0.49	0.68
Average placement = (P1 + P2 + P3)/3	0.54		

<table>
<tr><td colspan="4">Criterion-5 Faculty Information and Contributions</td></tr>
<tr><td><u>S. NO</u></td><td>CRITERIA</td><td><u>OBSERVATION MADE BY NBA</u></td><td><u>COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)</u></td></tr>
<tr><td>5.1</td><td>Student-Faculty Ratio (SFR)</td><td>Average SFR= 19.90</td><td>
<table>
<tr><td>Year</td><td>CAYm2 (2018-19)</td><td>CAYm1 (2019-20)</td><td>CAY (2020-21)</td></tr>
<tr><td>SFR</td><td>17.27</td><td>17.05</td><td>14.92</td></tr>
<tr><td colspan="2">Average SFR</td><td colspan="2">16.41</td></tr>
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<tr><td>5.2</td><td>Faculty Cadre Proportion</td><td>Needs improvement.</td><td>
<table>
<tr><td>Year</td><td>CAYm2 (2018-19)</td><td>CAYm1 (2019-20)</td><td>CAY (2020-21)</td></tr>
<tr><td>Cadre Ratio</td><td>25</td><td>25</td><td>25</td></tr>
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<tr><td>5.3</td><td>Faculty qualification</td><td>Qualification needs enhancement</td><td>
<table>
<tr><td colspan="2">2020-21</td><td colspan="2">2019-20</td><td colspan="2">2018-19</td></tr>
<tr><td colspan="2">Total Faculty =29</td><td colspan="2">Total Faculty =30</td><td colspan="2">Total Faculty =36</td></tr>
<tr><td>Ph.D</td><td>M.Tech</td><td>Ph.D</td><td>M.Tech</td><td>Ph.D</td><td>M.Tech</td></tr>
<tr><td>6</td><td>23</td><td>7</td><td>23</td><td>7</td><td>29</td></tr>
</table>

Two faculty members completed their Ph. D degree during 2018-19 & 2019-20.
Two faculty members enrolled in PhD programme during 2018-19 & 2019-20.

</td></tr>
<tr><td>5.5</td><td>Innovations by the Faculty in Teaching and Learning</td><td>Innovation in teaching-learning is not appreciable and not available on institute website.</td><td>
1. Department encourages use of ICT enabled tools, online resources for effective teaching and learning process.
Department also provide all information regarding the teaching- learning process on institute Website.
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<tr><td>Lectures notes</td><td>https://jecrcfoundation.com/student-corner/notes</td></tr>
<tr><td>Lab Videos</td><td>https://jecrcfoundation.com/student-corner/lab-videos</td></tr>
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<tr><td>NPTEL</td><td>https://jecrcfoundation.com/pdf/nptl/NPTEL-ME.pdf</td></tr>
<tr><td>Virtual lab</td><td>https://jecrcfoundation.com/pdf/virtual%20lab%20expression%20of%20interest.pdf</td></tr>
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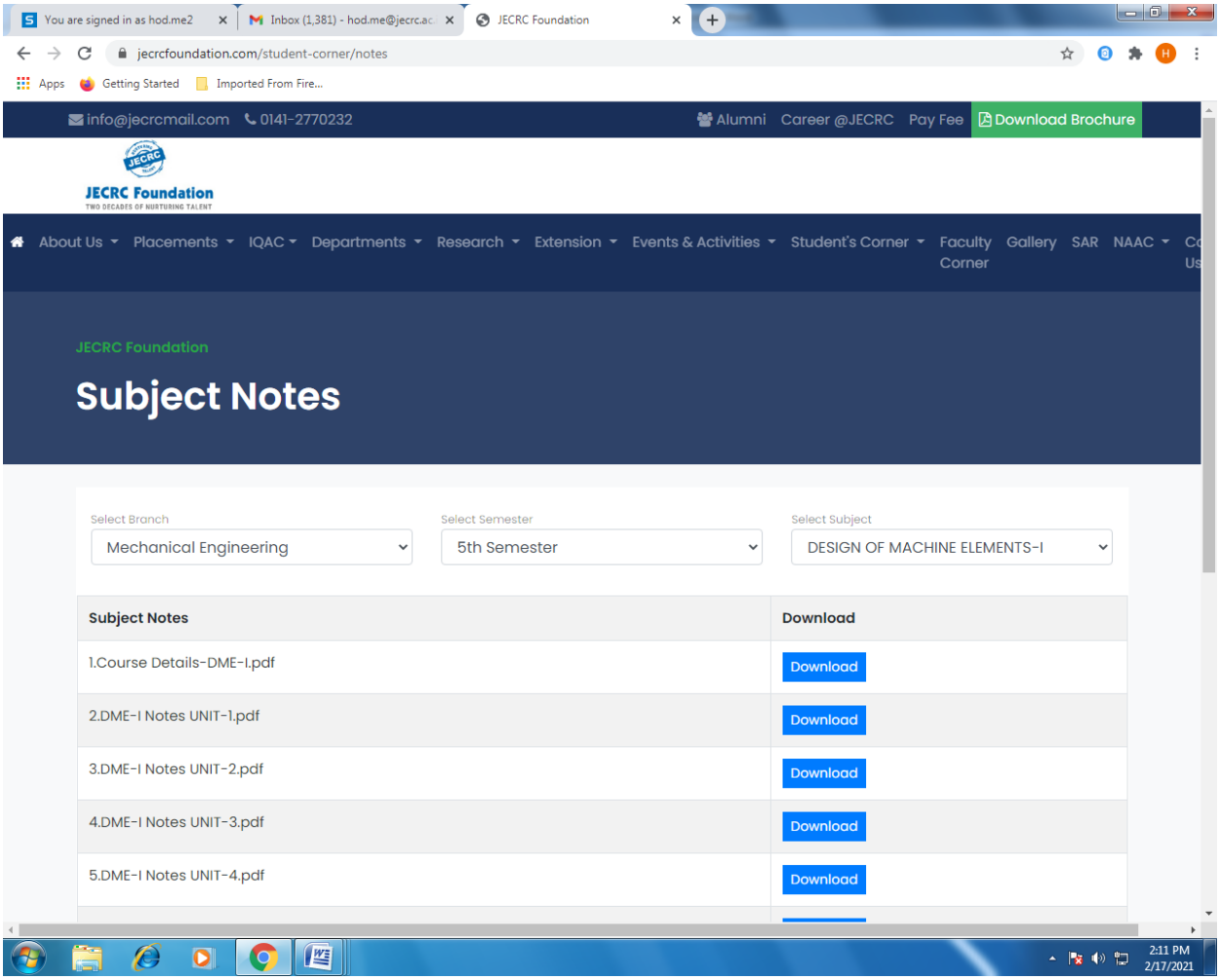
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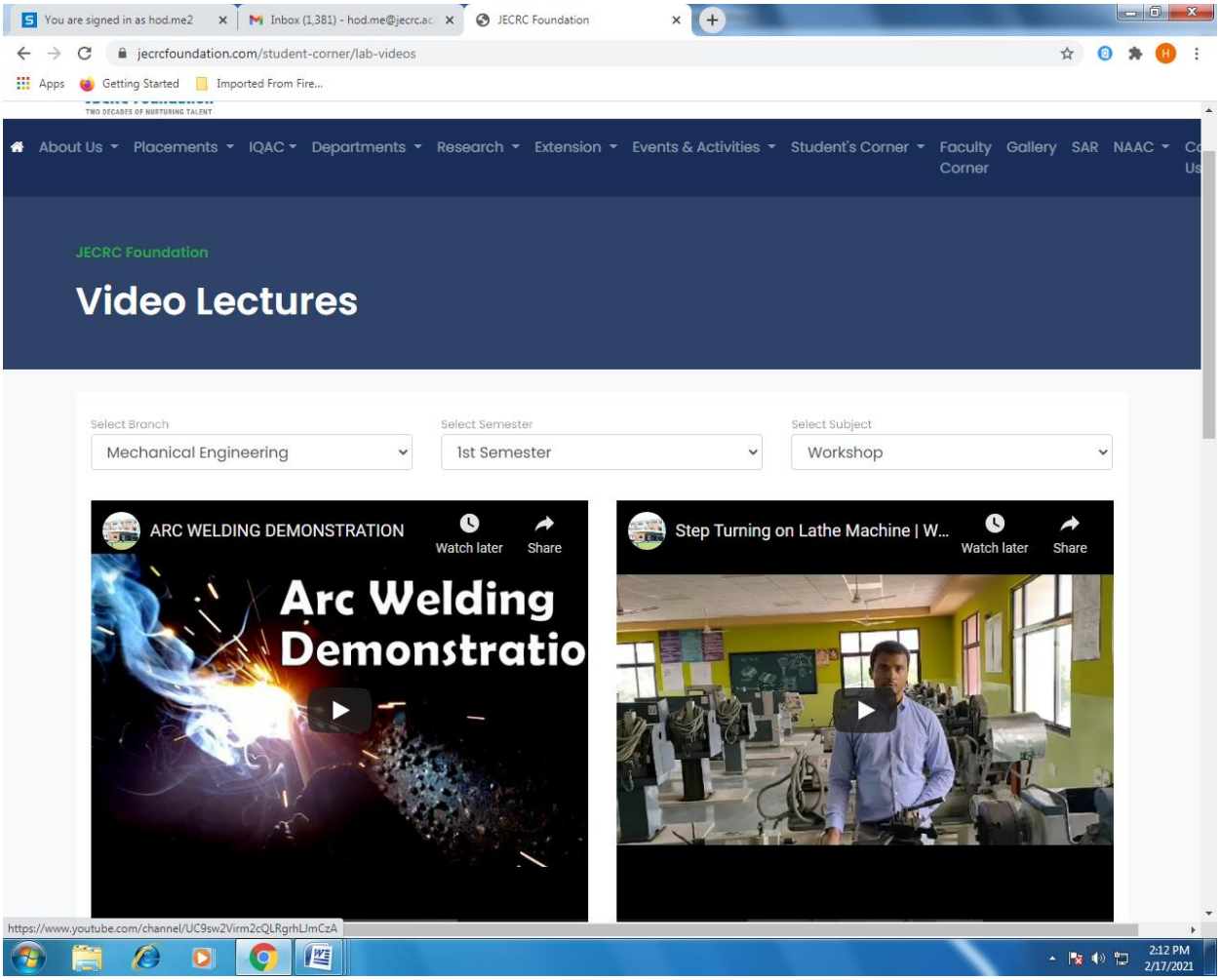
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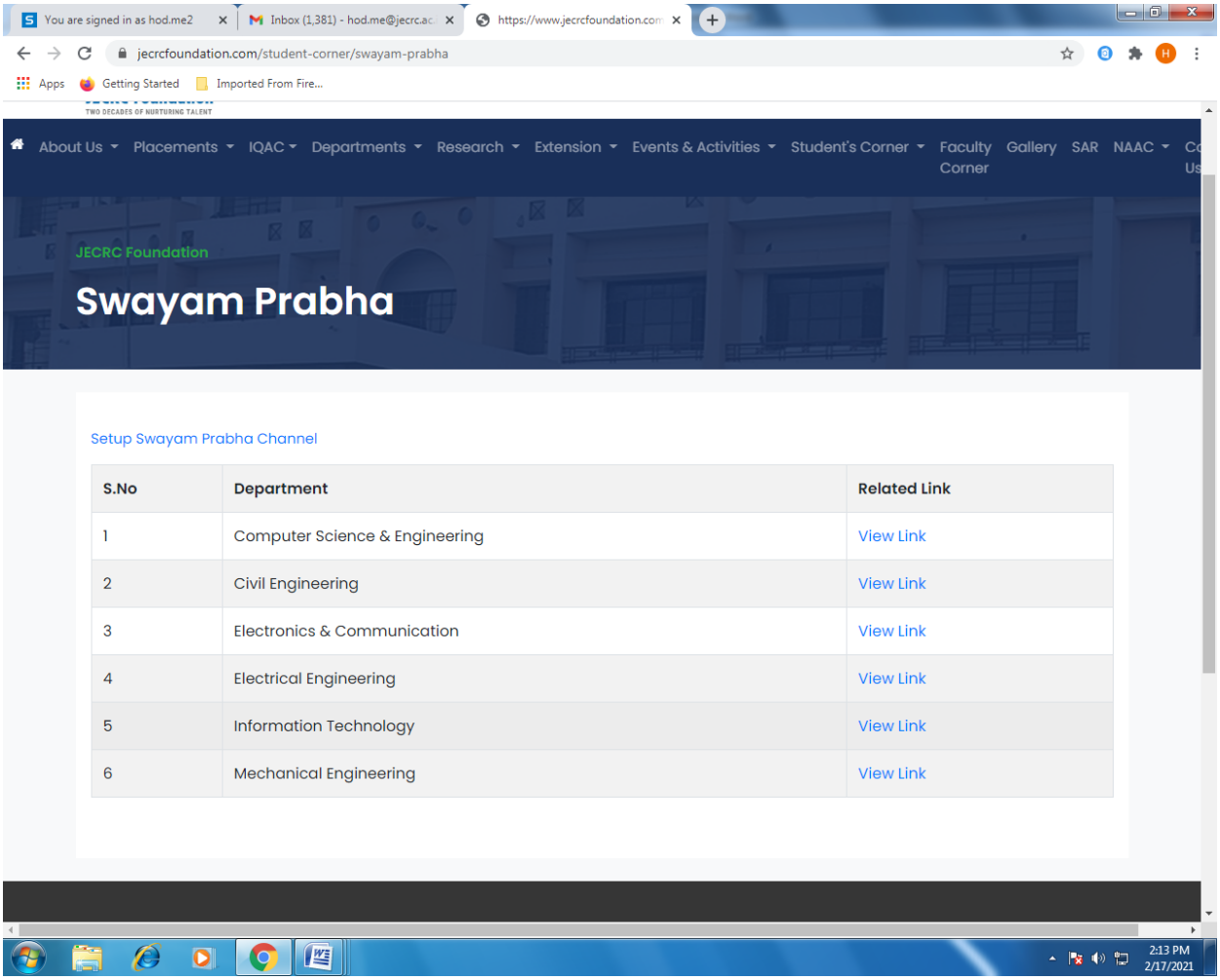
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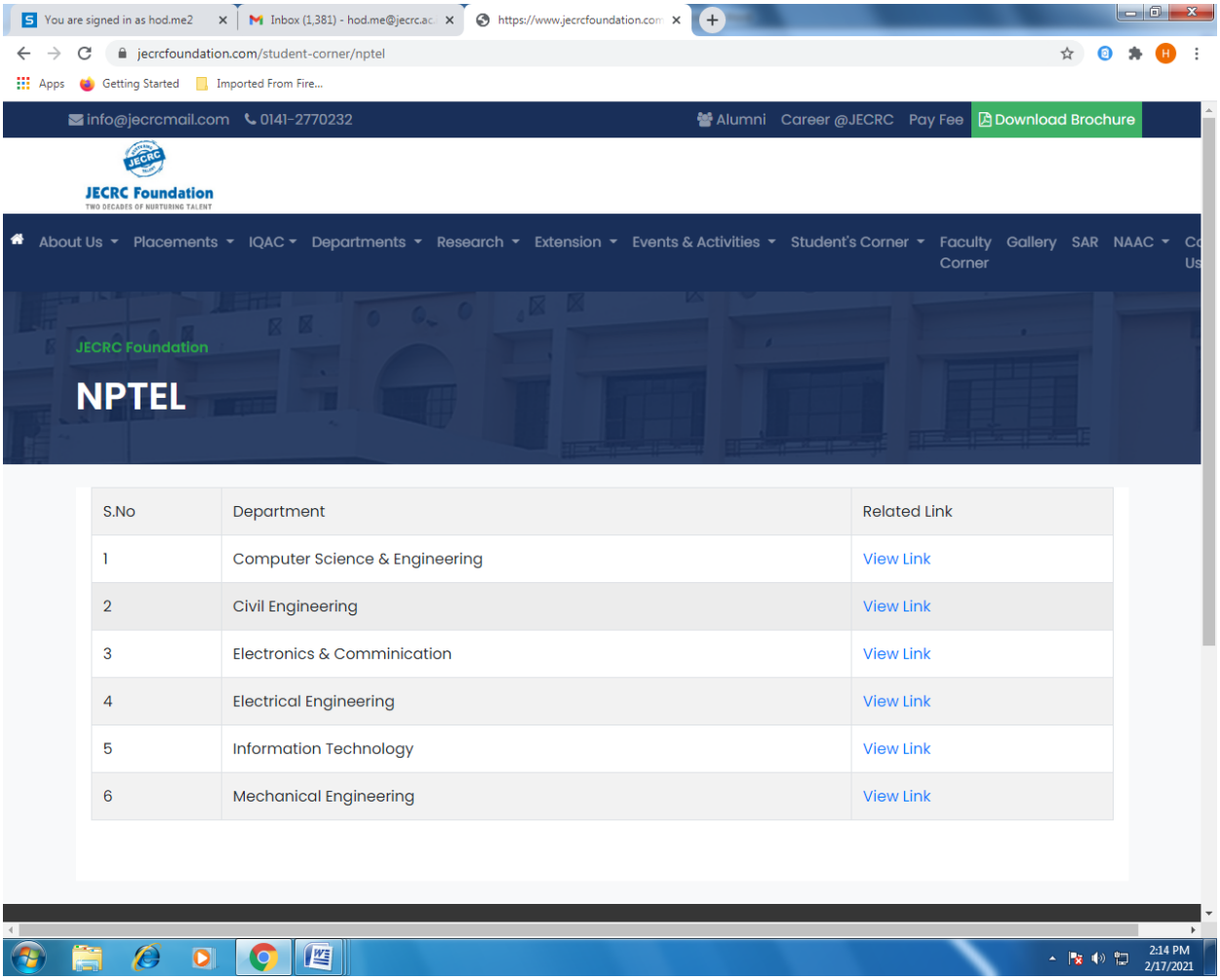
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अभिषद् की अनुशंसा पर

मन मोहन सिद्ध

को

विद्या वाचस्पति

की उपाधि प्रदान करता है।

शोधप्रबंध शीर्षक

एन एम्पिरिकल स्टडी ऑफ एग्रि–फ्रेश फूड सप्लाई चैन क्वालिटी (ए एफ एस सी क्यु) इन सेलेक्ट इण्डियन इंडस्ट्रीज़

आज भारतीय गणराज्य के अन्तर्गत जयपुर में यह उपाधि दी गई है।

दिनांक २९ दिसम्बर, २०१८

Malaviya National Institute of Technology Jaipur

upon the recommendation of the Senate confers on

Man Mohan Siddh

the degree of

Doctor of Philosophy

Thesis title in

An Empirical Study of Agri-fresh Food Supply Chain Quality (AFSCQ) in Select Indian Industries

Given this day at Jaipur in the Republic of India

The 29th December, 2018

कुलसचिव
Registrar

निदेशक एवं अध्यक्ष अभिषद्
Director & Chairman Senate

अध्यक्षा शासी परिषद्
Chairperson Board of Governors

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(Institution of National Importance under NITs Act, Established by Govt. of India)
मालवीय राष्ट्रीय प्रौद्योगिकी संस्थान जयपुर
JLN Marg, Jaipur-302017 (India)

Academic Section

Provisional Admission Letter 2020-21

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Program:	Ph.D
Specilization:	
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Institute E-Mail Id:	2020RME9060@mnit.ac.in

Institute Contacts:

Academic Section:	AR/DR	E-Mail:	erp.acad@mnit.ac.in
Head of the Department:	MURARI LAL MITTAL	E-Mail:	mlmittal.mech@mnit.ac.in
DRGC Convener:		E-Mail:	
Supervisor:		E-Mail:	

Pending Documents:

Instructions:

1. You are required to submit the "pending documents" before __— _____, 2020, failing which your admission is liable to be cancelled.

2. The Institute domain e-mail id and password shall be sent to your e-mail.

3. Enterprise Resource Planning (ERP) login and password shall be sent to your Institute e-mail id. ERP is the web based application for academic and adminisrative processes in the Institute (**www.mniterp.org**).

5. For Hostel allotment, Submit your Fee receipt in the hostel office. For further information, e-mail: hosteloffice@mnit.ac.in, Contact: 09549891444 (M)

6. Hostel allotment priority: 1st Priority: Persons with differential ability (PWD); 2nd Priority: Persons from Abroad; 3rd Priority: Persons from outside Rajasthan; 4th Priority: Persons from outside Jaipur.

Lalit Kr. Sharma

Student Signature

Academic Section

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STUDENT COPY

JECRC University
Plot No. IS-2036 to 2039, Ramchandrapura
Industrial Area, Vidhani, Sitapura Extension,
Jaipur - 303905, Rajasthan, India
Phone: 0141 - 6565602, 2771519
Email: info@jecrcuniversity.edu.in
BUILD YOUR WORLD
Approved by UGC (Estd.Under the Act No.15-2012 of the GOR)

Fee Receipt (Bank)

Receipt No.: BR36131 Batch: JUNE 2019 Date: 16/06/2019

Name: Yogesh Dubey Father Name: Gopesh Dubey

Program: Ph.D in Engineering Admission No.: 19PHEN016 Uni. Roll No.: 19PHEN016

S.No.	Account Head	Amount
1	ANNUAL ACADEMIC FEE	30000.000
Currency: INR		Total 30000.000

Total In Words: INR Thirty Thousand and Zero only

Instrument Number: JU/2019/1293 Instrument Date: 15/06/2019

Instrument's Bank Name: HDFC

Parent Phone No.: 9549041790

Next Due Date:

Particulars: Fees Submitted By: Yogesh Dubey-19PHEN016 Received By: Yogesh Joshi Sponsorship Amount:,Payment Mode: Online ANNUAL ACADEMIC FEE :30000.00

Yogesh Joshi

S. NO	CRITERIA	OBSERVATION MADE BY NBA	COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)
5.6	**Faculty as participants in Faculty development/training activities/STTPs**	Needs improvement	Faculty members participated in different Faculty development programme/STTPs etc. Link is attached for your kind consideration.

Name of teacher who attended	Department	Title of the program	Duration (from – to) (DD-MM-YYYY)	LINK
Dr M.P Singh	Mechanical	WhatsApp Outcome Based Education Faculty Development Program	24/03/2020-14/04/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/MP1.pdf
Dr M.P Singh	Mechanical	Inculcating Universal Human Values in Technical Education	03/05/2020-07/05/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/MP2.pdf
Dr M.P Singh	Mechanical	Hands On Practice on 3D Printing Technology	27/08/2019-31/08/2019	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/MP3.pdf
Dr M.P Singh	Mechanical	IOT in Manufacturing	06/01/2020/10/01/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/MP4.pdf
Dr M.P Singh	Mechanical	WORKSHOP ON EXAM REFORMS	09/12/2019-11/12/2019	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/MP5.pdf
Dr M.P Singh	Mechanical	Advance Material Research	15/06/2020-19/06/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/MP6.pdf
Dr Fauzia Siddiqui	Mechanical	WhatsApp Outcome Based Education Faculty Development Program	24/03/2020-14/04/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/FS1.pdf
Dr Fauzia Siddiqui	Mechanical	Corrosion and its Control	02/06/2020-04/06/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/FS2.pdf
Dr Fauzia Siddiqui	Mechanical	Design,Thinking ,Innovation & IPR	09/13/2019-13/12/2019	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/FS3.pdf
Dr Fauzia Siddiqui	Mechanical	IOT in Manufacturing	06/01/2020/10/01/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/FS4.pdf
Dr Fauzia Siddiqui	Mechanical	Teachers Training Workshop	24/02/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-

				Certificate/2019-20/FS5.pdf
Dr Bhuvnesh Bhardwaj	Mechanical	WhatsApp Outcome Based Education Faculty Development Program	24/03/2020-14/04/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/BB1.pdf
Dr Bhuvnesh Bhardwaj	Mechanical	IOT in Manufacturing	06/01/2020/10/01/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/BB2.pdf
Dr Bhuvnesh Bhardwaj	Mechanical	Advance Material Research	15/06/2020-19/06/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/BB3.pdf
Dr Manish Shrivastava	Mechanical	IOT in Manufacturing	06/01/2020/10/01/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/MS.pdf
Mr Kuldeep Sharma	Mechanical	WhatsApp Outcome Based Education Faculty Development Program	24/03/2020-14/04/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/KS1.pdf
Mr Kuldeep Sharma	Mechanical	Advance Material Research	15/06/2020-19/06/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/KS2.pdf
Mr Satyendra Kumar	Mechanical	Welding for Additive Manufacturing	10/06/2020-15/06/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/SK1.pdf
Mr Satyendra Kumar	Mechanical	IOT in Manufacturing	06/01/2020/10/01/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/SK2.pdf
Ms Priti P Bodkhe	Mechanical	Renewable Energy Utilization	26/05/2020-30/05/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/PB1.pdf
Mr Tej Bahadur Singh	Mechanical	Palagarism,Reseach, Ethics & Patent (PREP)	25/06/2020-27/062020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/TB1.pdf
Mr Tej Bahadur Singh	Mechanical	Additive Manufacturing with Interdisiplinary Applications	29/06/2020-03/07/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/TB2.pdf
Mr Tej Bahadur Singh	Mechanical	IOT in Manufacturing	06/01/2020/10/01/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/TB3.pdf
Mr Tej Bahadur Singh	Mechanical	CAD- CAM and Advanced Manufacturing	02/03/2020-07/03/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/TB4.pdf
Mr Yogesh Dubey	Mechanical	Emerging Trends in Mechanical Engineering	08/06/2020-12/06/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/YD1.pdf
Mr Yogesh Dubey	Mechanical	Palagarism,Reseach, Ethics & Patent (PREP)	25/06/2020-27/062020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/YD2.pdf
Mr Yogesh Dubey	Mechanical	IOT in Manufacturing	06/01/2020/10/01/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/YD3.pdf

Mr Lalit kr Sharma	Mechanical	IOT in Manufacturing	06/01/2020/10/01/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/LKS1.pdf
Mr Lalit kr Sharma	Mechanical	CAD- CAM and Advanced Manufacturing	02/03/2020-07/03/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/LKS2.pdf
Dr Rishi Pareek	Mechanical	LATEX	01/06/2020-07/06/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/RP1.pdf
Dr Rishi Pareek	Mechanical	IOT in Manufacturing	06/01/2020/10/01/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/RP2.pdf
Mr Akhilesh Paliwal	Mechanical	IOT in Manufacturing	06/01/2020/10/01/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/AP1.pdf
Mr Hemant Bansal	Mechanical	IOT in Manufacturing	06/01/2020/10/01/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/HB1.pdf
Mr Ravi Yadav	Mechanical	Welding for Additive Manufacturing	10/06/2020-15/06/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/RY1.pdf
Mr Ravi Yadav	Mechanical	Recent Advances in Material Characterization	23/05/2020-28/05/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/RY2.pdf
Mr Ravi Yadav	Mechanical	IOT in Manufacturing	06/01/2020/10/01/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/RY3.pdf
Mr Ravi Yadav	Mechanical	CAD- CAM and Advanced Manufacturing	02/03/2020-07/03/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/RY4.pdf
MR Hukum Chand	Mechanical	Image Classification using MATLAB	24/25/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/HCN1.pdf
MR Hukum Chand	Mechanical	IOT in Manufacturing	06/01/2020/10/01/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/HCN2.pdf
Mr Nitin Chabbara	Mechanical	Advance Material Research	15/06/2020-19/06/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/NC1.pdf
Mr Nitin Chabbara	Mechanical	Outcome Base Education & Accreditation	25/05/2020-29/05/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/NC2.pdf
Mr Nitin Chabbara	Mechanical	MIGRATION OF IT INFRA USING CLOUD	20/05/2020-21/05/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/NC3.pdf
Mr Nitin Chabbara	Mechanical	Palagarism,Reseach, Ethics & Patent (PREP)	25/06/2020-27/06/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/NC4.pdf
Mr Nitin Chabbara	Mechanical	Emerging Trends in Mechanical Engineering	08/06/2020-12/06/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/NC5.pdf
Ms Palak Jindal	Mechanical	Palagarism,Reseach, Ethics & Patent (PREP)	25/06/2020-27/06/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/PJ1.pdf

Ms Palak Jindal	Mechanical	Advance Material Research	15/06/2020-19/06/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/PJ2.pdf
Mr Akhil vijay	Mechanical	Academic leadership,Teaching & learning Methods,Research plan,Patents etc	08/06/2020-15/06/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/AV1.pdf
Mr Akhil vijay	Mechanical	IOT in Manufacturing	06/01/2020/10/01/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/AV2.pdf
Mr Akhil vijay	Mechanical	REJUVENATION OF BODY,MIND & SOUL	15/06/2020-19/06/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/AV3.pdf
Mr Akhil vijay	Mechanical	Mechanical Behaviour of advance material & its scope for Engineering Application	10/06/2020-14/06/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/AV4.pdf
Mr Akhil vijay	Mechanical	Technological Advances in power switching converters for RES & FT for E-vehicles	01/06/2020-05/06/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/AV5.pdf
Mr Akhil vijay	Mechanical	Advance Material Research	15/06/2020-19/06/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/AV6.pdf
Mr Akhil vijay	Mechanical	Artificial Intellenge	22/05/2020-26/05/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/AV7.pdf
Mr Akhil vijay	Mechanical	Environmental Sustainability and Green Energy	29/06/2020-03/07/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/AV8.pdf
Mr Dayal S Rathore	Mechanical	IOT in Manufacturing	06/01/2020/10/01/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/DSR1.pdf
Mr Jitendra Gupta	Mechanical	IOT in Manufacturing	06/01/2020/10/01/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/JG1.pdf
Mr Rajendra Gupta	Mechanical	IOT in Manufacturing	06/01/2020/10/01/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/RKG1.pdf
Mr Ashish Nagpal	Mechanical	IOT in Manufacturing	06/01/2020/10/01/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/AN1.pdf
Mr Ashish Nagpal	Mechanical	Advance Material Research	15/06/2020-19/06/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/AN2.pdf
Dr Manmohan Siddh	Mechanical	Application of renewable energy systems-Recent trends and Future aspects	22/06/2020-27/06/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/MM1.pdf

Dr Manmohan Siddh	Mechanical	Emerging Trends in Mechanical Engineering	8/06/2020-12/06/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/MM2.pdf
Mr Abhishek Kumar	Mechanical	IOT in Manufacturing	06/01/2020/10/01/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/AK1.pdf
Mr Satya Prakash Saini	Mechanical	IOT in Manufacturing	06/01/2020/10/01/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/SPS1.pdf
Mr Srikant Bansal	Mechanical	Bio energy : Technologies and Transitions	18/05/2020-22/05/2020	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2019-20/SB1.pdf

Session -2018-19				
Teachers undergoing online/ face-to-face Faculty Development Programmes (FDP). (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course etc.)				
Name of teacher who attended	**Department**	**Title of the program**	**Duration (from – to) (DD-MM-YYYY)**	LINK
Mr Hemant Bansal	Mechanical	Teaching Methodology	03/07/2018-05/07/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/hb1.pdf
Mr Akhil Vijay	Mechanical	Teaching Methodology	03/07/2018-05/07/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/av1.pdf
Mr Shrikant Bansal	Mechanical	Teaching Methodology	03/07/2018-05/07/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/sb1.pdf
Ms Palak Jindal	Mechanical	Teaching Methodology	03/07/2018-05/07/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/pj1.pdf
Mr Kuldeep Sharma	Mechanical	Teaching Methodology	03/07/2018-05/07/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/ks1.pdf
Mr Tej Bahadur Singh	Mechanical	Teaching Methodology	03/07/2018-05/07/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/tb1.pdf
Mr Ravi Yadav	Mechanical	Teaching Methodology	03/07/2018-05/07/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/ry1.pdf
Dr M P Singh	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/mp1.pdf
Dr Fauzia Siddqui	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/fs1.pdf
Dr Manish Shrivastava	Mechanical	Optimization Techniques with	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-

		Engineering Applications through ICT		Certificate/2018-19/ms1.pdf
Dr Bhuvnesh Bhardwaj	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/bb1.pdf
Mr Kuldeep Sharma	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/ks2.pdf
Dr Rishi Pareek	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/rp1.pdf
Dr Manmohan Siddh	Mechanical	3D Printing	25/03/2019-29/03/2019	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/mm1.pdf
Mr Lalit Kr Sharma	Mechanical	Finite Element methods in Engineering for Industries and Academia	13/05/2019-17/05/2019	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/lks1.pdf
Mr Lalit Kr Sharma	Mechanical	Recent advances in MechanicalEngineering	20/06/2019-22/06/2019	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/lks2.pdf
Mr Lalit Kr Sharma	Mechanical	Green Buildings: An initiative of civil Engineers to save the environment	25/06/2019-26/06/2019	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/lks3.pdf
Mr Aashish Nagpal	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/an1.pdf
Mr Hemant Bansal	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/hb2.pdf
Mr Satyendra Kumar	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/sk2.pdf
Mr Akhil Vijay	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/av2.pdf
Mr Srikant Bansal	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/sb2.pdf

Mr Abhishek Kumar	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/ak1.pdf
Mr Dayal Singh rathore	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/dsr1.pdf
Mrs Palak Jindal	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/pj2.pdf
Mrs Priti Bodkhe	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/pb1.pdf
Mr Rajendra Kr Gupta	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/rkg1.pdf
Mr Akhilesh Paliwal	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/ap1.pdf
Mr Yogesh Dubey	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/yd1.pdf
Mr Hukum Chand Nagar	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/hcn1.pdf
Mr Nitin Chabbra	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/nc1.pdf
Mr Dilip Prajapati	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/dp1.pdf
Mr Jitendra Gupta	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/jg1.pdf
Mr Ravi Yadav	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/ry2.pdf

Mr Tej bahadur Singh	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/tb2.pdf
Mr Shashank Shekhar Singh	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/sss1.pdf
Mr Gaurav Jain	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/gj1.pdf
Mr Ravindra Kumar	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/rk1.pdf
Devesh kumar	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/dk1.pdf
Ravi kr jangid	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/rj1.pdf
Rohit Goyal	Mechanical	Optimization Techniques with Engineering Applications through ICT	10/12/2018-14/12/2018	http://jecrcfoundation.com/jf-data/NBA/ME/FDP-Certificate/2018-19/rg1.pdf

S. No	**CRITERIA**	**OBSERVATION MADE BY NBA**	**COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)**
5.7.1	**5.7.1 Academic Research**	Number of quality publications are fewer, students are yet to be awarded PhD	• Faculty members published research papers in reputed journals (SCI, SCOPUS, UGC approved journals etc.) • Also, two faculty members completed their Ph. D degree during 2018-19 & 2019-20. • Two faculty members enrolled in PhD programme during 201-19 & 2019-20. • (https://jecrcfoundation.com/mechanical-engineering/publication)

List of Publications (2018-2020)

S.No.	Title of paper	Name of Author/s	Name of the Journal	Year of Publication	ISSN Number	LINK
1	Investigation of Mechanical Properties in Silicon Carbide Fiber Composite	Dr Bhuvnesh Bhardwaj	Manufacturing Engineering, Lecture notes on Multidisciplinary Industrial Engineering, Springer	2019-2020	978-981-15-4619-8_29	https://doi.org/10.1007/978-981-15-4619-8_29
2	Identification of Drivers and barriers of sustainable manufacturing :Optimization Methods in Engineering	Dr M P Singh	Lecture Notes on Multidisciplinary Industrial Engineering. Springer, Singapore	2019-2020	978-981-15-4549-8	https://doi.org/10.1007/978-981-15-4550-4_14
3	An ISM Approach to Performance Indicators of sustainable Manufacturing through MICMAC analysis in Indian Manufacturing Industry: Optimization Methods in Engineering	Dr M P Singh	Lecture Notes on Multidisciplinary industrial Engineering. Springer, Singapore	2019-2020	978-981-15-4549-8	https://doi.org/10.1007/978-981-15-4550-4_1
4	Ranking of Drivers of Sustainable Manufacturing	Dr M P Singh	International Journal of Recent Technology and Engineering	2019-2020	2277-3878	https://www.researchgate.net/publication/339202079_E6077018520
5	Dry sliding wear behaviour of Al 7075/Al2O3/B4C composites using mathematical modelling and statistical analysis	Dr Bhuvnesh Bhardwaj	Material Research Express, IOP Publishing Ltd	2019-2020	2053-1591	https://iopscience.iop.org/article/10.1088/2053-1591/ab546a/meta
6	Resin based restorative dental materials: characteristics and future perspectives	Dr Bhuvnesh Bhardwaj	Japanese Dental Science review, Elseveir	2019-2020	1882-7616	https://doi.org/10.1016/j.jdsr.2019.09.004

7	Effect of Tool Rotation of Surface Roughness During Electro Discharge Machining of Hastelloy C-276	Dr Bhuvnesh Bhardwaj	Manufacturing Engineering, Lecture notes on Multidisciplinary Industrial Engineering,Springer	2019-2020	978-981-15-4619-8_18	https://doi.org/10.1007/978-981-15-4619-8_18
8	Effect of Tool Rotation on Metal Removal Rate During Electro Discharge Machining of Hastelloy C-276	Dr Bhuvnesh Bhardwaj	Manufacturing Engineering, Lecture notes on Multidisciplinary Industrial Engineering, Springer	2019-2020	978-981-15-4619-8_12	https://doi.org/10.1007/978-981-15-4619-8_12
9	Air Erosion Behavior of SiC - Filled Carbon Fiber -Epoxy Composites	Dr Bhuvnesh Bhardwaj	Manufacturing Engineering, Lecture notes on Multidisciplinary Industrial Engineering, Springer	2019-2020	978-981-15-4619-8_30	https://doi.org/10.1007/978-981-15-4619-8_30
10	Performance obstacles in sustainable manufacturing - model building and validations	Dr M P Singh	Journal of advances in Management research, EMERALD Publishing	2019-2020	*0972-7981*	https://doi.org/10.1108/JAMR-03-2020-0031
11	Multiresponse Optimization of EDM Machining Parameters Using Taguchi Methodolgy with grey relational analysis	Dr Bhuvnesh Bhardwaj	Optimization Methods in Engineering, Lecture notes on Multidisciplinary Industrial Engineering,Springer	2019-2020	978-981-15-4550-2_21	https://doi.org/10.1007/978-981-15-4550-4_21
12	Fast Responsive Soft Bio mimetic robotic Actuator	Mr Rohit Goyal	Materials Today Proceedings,Elseveir	2019-2020	2214-7853	https://doi.org/10.1016/j.matpr.2019.05.009

13	Noise reduction of deep groove ball bearing (6205) by process optimization-An Experimental	Dr M P Singh	International Journal of Engineering and Advanced technology	2018-2019	2249-8958	https://www.ijeat.org/wp-content/uploads/papers/v8i5/E7112068519.pdf
14	Modelling based experimental investigation on polymerization shrinkage and micro-hardness of nano alumina filled resin based dental material	Dr Bhuvnesh Bhardwaj	Journal of the Mechanical Behavior of Biomedical Materials, Elseveir	2018-2019	1751-6161	https://doi.org/10.1016/j.jmbbm.2019.06.026
15	Study of Sliding Wear behavior of alumina oxide filled fiber composite using design of experiment	Dr Bhuvnesh Bhardwaj	Advances in Industrial and production Engineering, Lecture Notes in Mechanical engineering, Springer Nature Singapore	2018-2019	978-981-13-6412-9	https://doi.org/10.1007/978-981-13-6412-9_68
16	Barriers analysis for sustainable manufacturing implementation in Indian manufacturing industries using interpretive structural modelling	Dr M P Singh	International Journal of Advanced Research in Engineering and Technology	2018-2019	0976-6480	https://ssrn.com/abstract=3527447
17	Case study on quality control tools for bearing industries	Dr M P Singh	International Journal of Scientific & Engineering Research	2018-2019	2229-5518	https://www.ijser.org/researchpaper/Case-Study-on-quality-control-tools-for-Bearing-industries.pdf
18	Chargers(EVSE) and their stations with business model for India	Dr Fauzia Siddiqui	International Journal of Scientific & Engineering Research	2018-2019	2229-5518	https://www.ijser.org/researchpaper/ELECTRIC-VEHICLE-CHARGERS-EVSE-AND-THEIR-STATIONS-WITH-BUSINESS-MODEL-FOR-INDIA.pdf
19	Identification of micro variables for supply management practices in context of flexible system in Indiana gas industry	Dr Fauzia Siddiqui	International Journal of Scientific & Engineering Research	2018-2019	2229-5518	https://www.researchgate.net/publication/316892856_Micro_Variables_Identification_for_SUPPLY_Chain_Management_Practices_in_Context_of_Flexible_System_in_Indian_Gas_Industry

20	Roadmap for future :Vision 2030 and its impact on Saudi Arabis's Energy sector	Dr Fauzia Siddiqui	International Journal of Scientific & Engineering Research	2018-2019	2229-5518	https://www.ijser.org/researchpaper/Roadmap-for-future-Vision-2030-and-its-Impact-on-Saudi-Arabias-Energy-Sector.pdf
21	The Pathway to Zero waste : Case study of Saudia Arabia's Solid waste Management Techniques	Dr Fauzia Siddiqui	International Journal of Scientific & Engineering Research	2018-2019	2229-5518	https://www.ijser.org/researchpaper/The-Pathway-to-Zero-Waste-Case-Study-of-Saudii-Arabias-Solid-Waste-Management-Techniques.pdf
22	Review on Process Parameter of EDM & micro EDM	Dr Bhuvnesh Bhardwaj	International Journal of Scientific &Engineering Research	2018-2019	2229-5518	https://www.ijser.org/researchpaper/Review-on-Process-Parameter-of-EDM-micro-EDM.pdf
23	Al 6351 T6 as a Brake Rotor Material	Dr Rishi Pareek	International Journal of Scientific &Engineering Research	2018-2019	2229-5518	https://www.ijser.org/researchpaper/Al-6351-T6-as-a-Brake-Rotor-Material.pdf
24	Comparative analysis of ethanol fuel production from sweet sorghum and sugarcane.	Dr Rishi Pareek	International Journal of Scientific & Engineering Research	2018-2019	2229-5518	https://www.ijser.org/researchpaper/Comparative-analysis-of-ethanol-fuel-production-from-sweet-sorghum-and-sugarcane.pdf
25	Production of Biogas from Cow Manure by Adding Various Additives	Dr Rishi Pareek	International Journal of Scientific & Engineering Research	2018-2019	2229-5518	https://www.ijser.org/researchpaper/Production-of-Biogas-from-Cow-Manure-by-Adding-Various-Additives.pdf
26	Ergonomics Blueprint of EOT Crane Cabins : A case study from steel plant within India	Mr Abhishek Kumar	International Journal of Scientific & Engineering Research	2018-2019	2229-5518	https://www.ijser.org/onlineResearchPaperViewer.aspx?Ergonomic-Blueprint-of-EOT-Crane-Cabins-A-Case-Study-from-Steel-Plant-within-India.pdf
27	Taguchi Method Approach for Multi Factor Optimization of S1 Tool Steel in Electrochemical Machining	Mr Yogesh Dubey	International Journal of Research and Analytical Reviews	2018-2019	2348-1269	https://www.researchgate.net/publication/342246824_Taguchi_Method_Approach_for_Multi_Factor_Optimization_of_S1_Tool_Steel_in_Electrochemical_Machining
28	Ergonomics Blueprint of EOT Crane Cabins : A case study from steel plant within India	Mr Yogesh Dubey	International Journal of Scientific & Engineering	2018-2019	2229-5518	https://www.ijser.org/onlineResearchPaperViewer.aspx?Ergonomic-Blueprint-of-EOT-Crane-Cabins-A-Case-Study-from-Steel-Plant-

			Research			within-India.pdf
29	Ergonomics Blueprint of EOT Crane Cabins : A case study from steel plant within India	Mr Rajendra Kr Gupta	International Journal of Scientific & Engineering Research	2018-2019	2229-5518	https://www.ijser.org/onlineResearchPaperViewer.aspx?Ergonomic-Blueprint-of-EOT-Crane-Cabins-A-Case-Study-from-Steel-Plant-within-India.pdf
30	Review on Process Parameter of EDM & micro EDM	Mr Akhil Vijay	International Journal of Scientific &Engineering Research	2018-2019	2229-5518	https://www.ijser.org/researchpaper/Review-on-Process-Parameter-of-EDM-micro-EDM.pdf
31	Mechanical Stresses distribution in functionally graded material's artificial hip joints implants using mathematical model	Mr Satyendra Kumar	International Journal of Scientific &Engineering Research	2018-2019	2229-5518	https://www.ijser.org/researchpaper/Computational-Study-of-Distribution-of-Mechanical-Stress-in-Artificially-Replaced-Hip-Joint-Implants-Using-Mathematical-Model.pdf
32	Chargers(EVSE) and their stations with business model for India	Mr Satyendra Kumar	International Journal of Scientific &Engineering Research	2018-2019	2229-5518	https://www.ijser.org/researchpaper/ELECTRIC-VEHICLE-CHARGERS-EVSE-AND-THEIR-STATIONS-WITH-BUSINESS-MODEL-FOR-INDIA.pdf

S. NO	CRITERIA	OBSERVATION MADE BY NBA	COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)
5.7 .2	**5.7 .2 Sponsored Research**	No research funding from outside agencies has been received.	Mr. Manish Jain, Associate professor, department of mechanical engineering, submitted research project proposals to DST. Other faculty members are working on the project proposals. The submitted research proposal are: 1. **Project Title:** "Scientific Convention Enhancing learning for students of rural Rajasthan" **Agency:** Stem India Demonstration Dissemination Popularization , DST **Total Cost:** 2569000

JECRC Mail

Shruti Kalra <shrutikalra.ece@jecrc.ac.in>

Acknowledgement of Online Project Submission & Temporary Registration No.

1 message

pmso.dst@nic.in <pmso.dst@nic.in>
To: shrutikalra.ece@jecrc.ac.in

Thu, Mar 19, 2020 at 4:34 PM

Department of Science & Technology

Subject: Acknowledgement of Online Project Submission & Temporary Registration No.

Dear Ms. Shruti

Online Project Management System

onlinedst.gov.in | Email: pmso.dst@nic.in

This is to acknowledge the online submission of your project proposal entitled **Scientific Convention Enhancing learning for students of rural Rajasthan** testing the proposal submission.
You can track the status of your proposal quoting the reference as given below:

Temporary Registration Number : **TPN / 47451**

You will be receiving a File Number shortly.

Please mention TEMPORARY REGISTRATION NUMBER and TITLE OF THE PROJECT in all future correspondence with DST, till you receive the File Number. You can access this project account at http://onlinedst.gov.in/ using the Principal Investigator (PI) username and password.

Regards
Administrator
e-PMS

This is an auto generated mail. Please do not reply

This is an autogenerated mail from e-PMS

Part 1 : General Information

eral Information:

1.Name of the Institute/University/Organisation submitting the Project Proposal :

JAIPUR ENGINEERING COLLEGE
AND RESEARCH CENTRE

2. State	Rajasthan
3. Principal Investigrator Name:	Ms. Shruti
4. Category:	General
5. Type of the Institue :	Academic Institutions (Private)
6. Project Title :	Scientific Convention Enhancing learning for students of rural Rajasthan
7. Division :	NCSTC
8. Programme Or Scheme :	STEMM INDIA DEMONSTRATION DISSEMINATION POPULARIZA
9. Academic Area :	Civil Engineering, Electrical Engineering, Electronics,Computers an Communication Engineering, Mechanical Engineering,
10. Application Area :	Basic Science, Digital technologies, Science Communications,
11. Goverment National Initiative :	Digital India, Innovate India,
12. Type of Proposal :	Proposal Against Call
13. Project Duration :	1 Years and 0 Months
14. Proposal Submit Date :	18/03/2020
15. Project Keywords :	Scientific convention, live project, digital innovations and interventions Robotics,
16. Project Summary :	

Co-Investigator:

1. Name:	Mr. Manish Jain
Gender:	Male
Date of Birth:	25/05/1970
Designation :	Associate Professor
Department:	Mechanical Engineering
Institute/University:	JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE
State:	Rajasthan
District:	Jaipur
City/Place:	JAIPUR
Address:	JECRC Campus, Opp. EPIP Gate Behind Bharat Petroleum Depot, Tonk Road
Pin:	302022
Communication Email:	manishjain.me@jecrc.ac.in
Alternate Email:	mukeshagarwal.cse@jecrc.ac.in
Mobile:	9214699647

Criterion-5 Faculty Information and Contributions			
S. NO	**CRITERIA**	**OBSERVATION MADE BY NBA**	**COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)**
5.7.3	**5.7.3 Development Activities**	Monograms and instructional materials are not up to the mark	Monogram has been inserted on the instructional materials and other documents. https://jecrcfoundation.com/jf-data/NBA/ME/Lab-Manuals/Lab-Manuals-ME.pdf

S.No	Link
1	http://jecrcfoundation.com/jf-data/NBA/ME/Lab-Manual/3ME4-22-MATERIALS-TESTING-LAB.pdf
2	http://jecrcfoundation.com/jf-data/NBA/ME/Lab-Manual/3ME4-23-BASIC-MECHANICAL-ENGINEERING-LAB.pdf
3	http://jecrcfoundation.com/jf-data/NBA/ME/Lab-Manual/4ME4-22-FLUID-MECHANICS-LAB.pdf
4	http://jecrcfoundation.com/jf-data/NBA/ME/Lab-Manual/4ME4-23-PRODUCTION-PRACTICE-LAB.pdf
5	http://jecrcfoundation.com/jf-data/NBA/ME/Lab-Manual/4ME4-24-THEORY-OF-MACHINES-LAB.pdf
6	http://jecrcfoundation.com/jf-data/NBA/ME/Lab-Manual/5ME4-22-HEAT-TRANSFER-LAB.pdf
7	http://jecrcfoundation.com/jf-data/NBA/ME/Lab-Manual/6ME4-22-VIBRATION-LAB.pdf
8	http://jecrcfoundation.com/jf-data/NBA/ME/Lab-Manual/6ME4-24-THERMAL-ENGINEERING-LAB-I.pdf
9	http://jecrcfoundation.com/jf-data/NBA/ME/Lab-Manual/7ME4-22-THERMAL-ENGINEERING-LAB-II.pdf
10	http://jecrcfoundation.com/jf-data/NBA/ME/Lab-Manual/7ME4-23-QUALITY-CONTROL-LAB.pdf
11	http://jecrcfoundation.com/jf-data/NBA/ME/Lab-Manual/8ME5A-CAM-LAB.pdf
12	http://jecrcfoundation.com/jf-data/NBA/ME/Lab-Manual/8ME6A-CAD-LAB.pdf
13	http://jecrcfoundation.com/jf-data/NBA/ME/Lab-Manual/IFY3-25-2FY3-25-MANUFACTURING-PRACTICES-WORKSHOP.pdf

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE	JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE JECRC Campus, Shri Ram Ki Nangal, Via-Vatika, Jaipur

LAB MANUAL

Lab	:	MATERIALS TESTING LAB
Lab Code	:	3ME4-22
Branch	:	MECHANICAL ENGINEERING
Year	:	2nd YEAR

JAIPUR ENGINEERING COLLEGE
AND RESEARCH CENTRE

Department of Mechanical Engineering
Jaipur Engineering College and Research Centre, Jaipur
(RTU, Kota)

EXPERIMENT 1

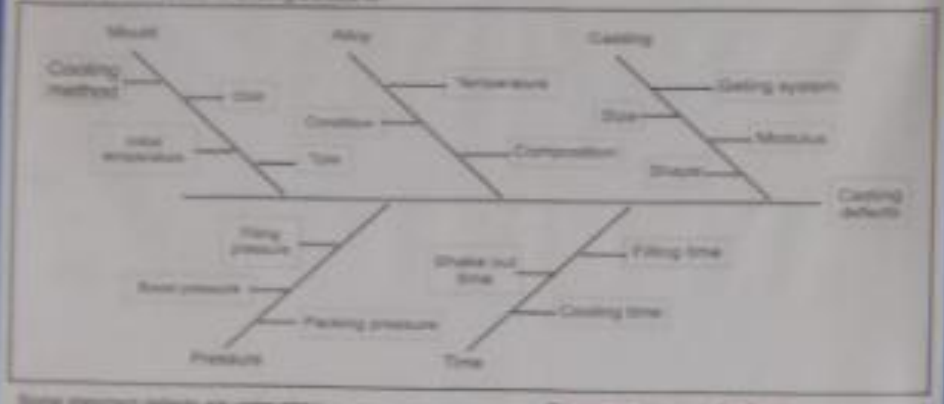
Objective: Study of various crystals structures through models of BCC, FCC, HCP, tetrahedral and octahedral voids.

Introduction: In crystallography, crystal structure is a description of the ordered arrangement of atoms, ions or molecules in a crystalline material. Ordered structures occur from the intrinsic nature of the constituent particles to form symmetric patterns that repeat along the principal directions of three-dimensional space in matter. The smallest group of particles in the material that constitutes the repeating pattern is the unit cell of the structure. The unit cell completely defines the symmetry and structure of the entire crystal lattice, which is built up by repetitive translation of the unit cell along its principal axes. The repeating patterns are said to be located at the points of the Bravais lattice. The lengths of the principal axes, or edges, of the unit cell and the angles between them are the lattice constants, also called lattice parameters. The symmetry properties of the crystal are described by the concept of space groups. All possible symmetric arrangements of particles in three-dimensional space may be described by the 230 space groups. The crystal structure and symmetry play a critical role in determining many physical properties, such as cleavage, electronic band structure, and optical transparency.

Unit Cell: Crystal structure is described in terms of the geometry of arrangement of particles in the unit cell. The unit cell is defined as the smallest repeating unit having the full symmetry of the crystal structure.[4] The geometry of the unit cell is defined as a parallelepiped, providing six lattice parameters taken as the lengths of the cell edges (a, b, c) and the angles between them (α, β, γ). The positions of particles inside the unit cell are described by the fractional coordinates (x_i, y_i, z_i) along the cell edges, measured from a reference point. It is only necessary to report the coordinates of a smallest asymmetric subset of particles. This group of particles may be chosen so that it occupies the smallest physical space, which means that not all particles need to be physically located inside the boundaries given by the lattice parameters.

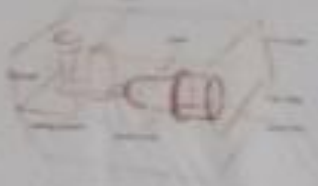
CASTING DEFECTS:

Procedure Which Lead To Casting Defects is:-



Some important defects are under below:

Schematic Diagram Of Casting Mould



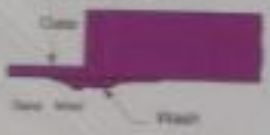
A Short Review on Each Defect:

Cold shut

Misruns

Scar

Shrinkage Cavity



Hot tears

$A_2 G_2$

Session: 2018-19

5.7.4	**5.7.4 Consultancy (From Industry)**	No industrial consultancy in assessment years observed.	**Consultancy Less than 1,00000**

S.No.	Name of faculty	Name of organization to which consultancy provided	Nature of work	Amount
1	Dr. M.P.Singh	RAYFUEL ENERCON Pvt. Ltd.	Winch test	8000/-
2	Mr. Manish jain	RAYFUEL ENERCON Pvt. Ltd	Winch test	8000/-
	Mr. Kuldeep Sharma	M/s Balaji Associates	Die design	5000/-
3	Dr. Bhivnesh Bhardwaj	R tekhno solution	Manufacturing	25000/-
4	Mr. Satyendra Kumar	Bhagwati drug company	Chemical testing	Nil
5	Mrs. Palak Jindal	Jindal tech infrastructure pvt ltd.	Structure construction	Nil

S. NO	CRITERIA	OBSERVATION MADE BY NBA	COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)
5.8	**Faculty Performance and appraisal and development system (FPADS)**	Complicated Performa has been developed Concrete data to show implementation of process lacks no proper implementation.	1. Faculty appraisal form has been revised. 2. The performance of each employee is assessed annually. 3. The outcome of the performance appraisal will reflect in the annual increment, incentives and the promotion of the faculty. Also, appreciation/ advisory are given to faculty members according to their performance. 4. Appraisal system motivates the faculty members for higher study. During 2018-19 & 2019-20, five faculty members enrolled in PhD programme.

Date of joining – 31.1.2014
Contact no.:- 9252812133

JECRC JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE	Jaipur Engineering college and research centre, Shri Ram ki Nangal, via Sitapura RIICO Jaipur-302 022.	Academic year- 2019-20

FACULTY APPRAISAL FORM

Total 200 points

Name of Faculty Member: Nitin Chaudhary
Designation: Asst. Professor
Department: Mech. Engg.

S. No.	Item Name	Maximum Points	Points obtained	Annexure attached with page No.
1	Total theory subjects taught during the session...1+1. Minimum 2 subjects are to be assigned to a faculty member with 15 points each per semester. If a faculty member is taking 1 subject in a semester then the points assigned in this section will be 15 only and remaining will be assigned to section 2 and 4 each with equal diatribution. (a) 60% students having B grade in...BME... subject Yes/No (b) 60% students having B grade in...BME... subject Yes/No (c) 60% students having B grade in..... subject Yes/No (d) 60% students having B grade in..... subject Yes/No	30	7.5 + 7.5	1
2	Research Publication: SCI / Scopus / web of science indexed publication: 15 points, publication having ISSN / UGC approved: 10 points, National level publication: 5 points/ Paper presentation in International conference = 10 points/ Paper presentation in National Conference =5 Points	30	30 15 10	2-4
3	Faculty development programme 10 point average (one faculty development programme minimum 5 days attended 5 points, 2 points for attending 2 days workshop, subject to maximum of 10)	10	10 ✓	5-6
4	Research grants average 20 points for having grant of more than 5 lakhs, 15 points for 2-5 lakhs, and 5 points up to 2 lakhs. If only project submitted to DST/other govt. agency: 5 points. Books published with International publisher 10 points. Books published with National publisher 5 points.	20	-	-
5	Patent 10 points / Product development (10)	20	10 ✓	7-9
6	New Skills (Training, value added courses) 5 points / additional specialization 5 points / certification course (Coursera, Swayam, NPTEL etc.) 5 points. *In what way the new skills will be utilized for the benefit of students* (Summarize in a separate Paper).	15	15 ✓	10-13
7	Innovation in teaching learning 5 points, video lecture 5 points, online prepared MOOCs 5 points, Online notes uploading 5	20	15 ✓	14-15

	points (Updating of course content/Preparation of resource material/Laboratory Manual, Developing and imparting Remedial courses/ Make up classes/ Conduction of computer assisted teaching/web based learning)			
8	Technical activity organized/Participated (1 point / activity) (Guest lecture, Seminar/Webinar, Technical fest, Educational tour, Industry visit, publication of magazine/ newsletter in departmental)	5	5	16-20
9	Projects guided based on the idea of SIH/Project based learning/Industrial project	10	-	-
10	Institute level activity organized / participated (1 point / activity) (sports, cultural fest, social activities such as flood and drought relief, orphanage home and old age home relief or any other similar activity)	5	2	21-22
11	Any award received (1 point), session chair in conference (1 point), guest lecture (1 point), invited talk (1 point), appreciation letter (1 point), External Examiner, BoS etc.	5	1	23-24
12	HOD recommendation	30	25	
	(i) (Outcome Based Knowledge) (Check list MTT Performa) (10)		8	
	(ii) Departmental Responsibilities (10) Mentor/class, coordinator, Examination incharge/Coordinator Lab Incharge, Time Table Incharge, NAAC/NBA coordinator TPO, Social Incharge, Project coordinator, Seminar coordinator		8	25-26
	(iii)Students feedback course exit and teaching learning (10)		9	
	Total	200	105.5	

108

100.5 + 7.5 =

Verified by IQAC

Note: HOD will verify the documentary proof.

Signature of Faculty

Signature of HOD

IQAC

Signature of Principal

Note: Faculty member getting ZERO in critera-1 or criteria-2 for the consecutive three years (CAY, CAY-1, CAY-2) appropriate action will be taken.

As per RTU 'B' Grade means marks range 70 to 75%

Jaipur Engineering College & Research Centre

From : OS Office	To : Mr. Nitin Chhabra, ME

12.02.2021

APPRECIATION LETTER

Mr. Nitin Chhabra
Assistant Professor

Through Program Coordinator/HOD

Congratulations!

As per the faculty self appraisal report submitted by you for the session 2019-20 has evaluated by the IQAC and found satisfactory. You have scored total 108 points out of 200.

Institute appreciates efforts & association. We hope that you will sustain such performance in the years to come.

API scores of previous year: -

2017-18	2018-19
71/200	117/200

Received 13/2/21

PRINCIPAL

Copy to –
1. Vice Chairman
2. Director
3. Concerned Program coordinator/HOD
4. Concerned faculty member
5. Personal file

Jaipur Engineering College & Research Centre

From : OS Office	To : Mr. Satyendra Kumar, ME

12.09.2020

APPRECIATION LETTER

Mr. Satyendra Kumar
Assistant Professor

Through Program Coordinator/HOD

As per the faculty appraisal form submitted by you for the session 2019-20 has been found satisfactory. You have scored total 129 points out of 200. College appreciates your effort and hope that you will continue to improve.

API scores of previous year:

2017-18	2018-19
117/200	122/200

PRINCIPAL

Copy to –
1. Vice Chairman
2. Director
3. Concerned Program coordinator/HOD
4. Concerned faculty member
5. Personal file

Jaipur Engineering College & Research Centre

From : OS Office	To : Mr. Abhishek Kumar, ME

28/08/19

Advisory Note

Mr. Abhishek Kumar
Assistant Professor

Through Program Coordinator/HOD

As per the faculty appraisal form submitted by you for the session 2018-19, you have scored total 88 points out of 200. You are hereby advised to improve your performance during the session 2019-20.

API scores of previous year: -

2016-17	2017-18
86/200	90/200

V. Rel
PRINCIPAL

Copy to –
1. Vice Chairman
2. Director
3. Concerned Program coordinator/HOD
4. Concerned faculty member
5. Personal File

JAIPUR ENGINEERING COLLEGE & RESEARCH CENTRE

OO No:- 241
Date: - 14/2/2019

OFFICE ORDER

The Salary of Dr. Man Mohan Siddh, Assistant Professor, Department of Mechanical Engineering is hereby revised from Rs. 33978/- to Rs. 50000/- w.e.f 01.02.2019, on acquiring the Ph.D degree along with change of the Grade Pay .

Dr. Man Mohan Siddh will also get a sum of Rs. 5000/- as an annual increment for the next three years. The DOI will remain unchanged.

Now, his restructured salary shall be as under–

1. Pay–27697/-
2. AGP–8000/- (Basic Pay=27697+8000=35697/-)
3. DA@20% on BP -7139/-
4. HRA @7.5% - 2677/-
5. Special Allowance -4486/- Total -50000/-

V. [illegible]
Principal

Copy to: -

1. Vice–Chairman, JECRC
2. Director, JECRC
3. HoD, ME
4. Dr. Man Mohan Siddh, AP, ME
5. Accounts Department
6. OS/ Personal file.

JAIPUR ENGINEERING COLLEGE
AND RESEARCH CENTRE

Ref: JECRC/00/38(1)/2019-20

Date: 15/10/19

OFFICE ORDER

Dr. Man Mohan Siddh, Assistant Professor, Department of Mechanical Engineering is hereby promoted to Associate Professor w.e.f 01.11.2019 under the pay Scale of 37400-67000, AGP 9000, on the same salary and terms & conditions.

New Salary bifurcation shall be as under –

1. Pay – 37400/-
2. AGP – 9000/- (Basic Pay=37400+9000=46400/-)
3. HRA @7.5% - 3480/-
4. Special Allowance -120/- Total -50000/-

Date of Increment will remain unchanged.

Principal

Copy to: -

1. Vice –Chairman, JECRC
2. Director, JECRC
3. HoD, ME
4. Dr. Man Mohan Siddh, Assistant Professor, ME
5. Accounts Department
6. OS/ Personal file.

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 e: info@jecrcmail.com

MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR

(Institution of National Importance under NITs Act, Established by Govt. of India)

मालवीय राष्ट्रीय प्रौद्योगिकी संस्थान जयपुर

JLN Marg, Jaipur-302017 (India)

Academic Section

Provisional Admission Letter 2020-21

Name of the Student:	LALIT KUMAR SHARMA
Contact No:	9413417182
Father's Name:	BAL KRISHNA SHARMA
Permanent Adress:	Gopal Bhawan, Ward No. 7, Phulera JAIPUR - 303338
E-Mail:	erlksjecrc@gmail.com
Department:	MECHANICAL ENGINEERING
Program:	Ph.D
Specilization:	
ID No:	2020RME9060
Institute E-Mail Id:	2020RME9060@mnit.ac.in

Institute Contacts:

Academic Section:	AR/DR	E-Mail:	erp.acad@mnit.ac.in
Head of the Department:	MURARI LAL MITTAL	E-Mail:	mlmittal.mech@mnit.ac.in
DRGC Convener:		E-Mail:	
Supervisor:		E-Mail:	

Pending Documents:

Instructions:

1. You are required to submit the "pending documents" before __— _____, 2020, failing which your admission is liable to be cancelled.

2. The Institute domain e-mail id and password shall be sent to your e-mail.

3. Enterprise Resource Planning (ERP) login and password shall be sent to your Institute e-mail id. ERP is the web based application for academic and adminisrative processes in the Institute (**www.mniterp.org**).

5. For Hostel allotment, Submit your Fee receipt in the hostel office. For further information, e-mail: hosteloffice@mnit.ac.in, Contact: 09549891444 (M)

6. Hostel allotment priority: 1st Priority: Persons with differential ability (PWD); 2nd Priority: Persons from Abroad; 3rd Priority: Persons from outside Rajasthan; 4th Priority: Persons from outside Jaipur.

Lalit Kr. Sharma

Student Signature

Academic Section

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STUDENT COPY

JECRC University
Plot No. IS-2036 to 2039, Ramchandrapura
Industrial Area, Vidhani, Sitapura Extension,
Jaipur - 303905, Rajasthan, India
Phone: 0141 - 6565602, 2771519
Email: info@jecrcuniversity.edu.in

BUILD YOUR WORLD

Approved by UGC (Estd.Under the Act No.15-2012 of the GOR)

Fee Receipt (Bank)

Receipt No.: BR36131 | Batch: JUNE 2019 | Date: 16/06/2019

Name: Yogesh Dubey | Father Name: Gopesh Dubey

Program: Ph.D in Engineering | Admission No.: 19PHEN016 | Uni. Roll No.: 19PHEN016

S.No.	Account Head	Amount
1	ANNUAL ACADEMIC FEE	30000.000
	Total	**30000.000**

Currency: INR

Total In Words: INR Thirty Thousand and Zero only

Instrument Number: JU/2019/1293 Instrument Date: 15/06/2019

Instrument's Bank Name: HDFC

Parent Phone No.: 9549041790

Next Due Date:

Particulars: Fees Submitted By: Yogesh Dubey-19PHEN016 Received By: Yogesh Joshi Sponsorship Amount:,Payment Mode: Online ANNUAL ACADEMIC FEE :30000.00

JECRC UNIVERSITY JAIPUR

Yogesh Joshi

Criterion-6: **Facilities and Technical Support**			
S. NO	**CRITERIA**	**OBSERVATION MADE BY NBA**	**COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)**
6.2	**Additional Facilities created for improving the quality of learning experience in Laboratories**	Research lab facilities are not available.	• Research facilities are available in department whereas equipments and software worth rupees 50 lakh provided to institute by industry partners Baba Automobile Pvt. Limited and CADD centre, Jaipur. Department has two Industry supported laboratories viz. Automobile research laboratory (Equipment worth rupees 50 Lakh is provided by the Baba Automobile Pvt. Limited) and Machine design laboratory (related software are provided by CADD centre, Jaipur). (https://jecrcfoundation.com/jecrc-foundation-mou-with-industry) • Various training and activities are carried out through these laboratories for skill enhancement for students as well as placement/start-up opportunity.. • Signed MOU with Bharatiya Skill University for training on advanced machines.

Details of training Centre Equipments / Cars / Engine and Auxiliaries

FOUR- WHEELER CAR SECTION (Rs. 11 - Lakhs)

1. MERCEDES BENZ Working car for Practical or Scanning Purpose. **(Rs. 8 -lakhs)**
2. TATA SAFARI / SEDAN Car for Practical Session. **(3 lakhs)**

FOUR- WHEELER ENGINE SECTION (Rs. 14 Lakhs)

3. AUDI- V-6 Twin Turbocharged Diesel Engine **(2.5 lakhs)**
4. AUDI- V-6 Twin Turbocharged Petrol Engine**. (2.5 lakhs)**
5. MERCEDES Engine **(3 lakhs)**
6. BMW Automatic Transmission **(1.5 lakhs)**
7. Maruti Suzuki 4- Cylinder Diesel Engine. **(1 -lakh)**
8. Tata Safari Diesel Engine **(1 lakh)**
9. Tata Indigo Diesel Engine. **(75,000)**
10. Honda City Diesel Engine. **(75,000)**
11 Skoda Car Engine. **(1 lakh)**

FOUR- WHEELER TRANSMISSION SECTION. (5 -lakh)

12. Front Wheel Drive AUDI Automatic transmission. **(1.5 lakhs)**
13. Rear Wheel Drive MERCEDES Automatic Transmission. **(1.5 lakhs)**
14. Maruti Suzuki 5 Speed Manual Transmission. **(1 -lakh)**
15.Honda Rear Wheel Drive Manual transmission. **(1 -lakh)**

FOUR- WHEELER STEERING SYSTEM SECTION . (2 -lakh)

16. Manual Steering Sytem with Rack Pinion Arrangement. **(45,000)**
17. power Steering system with Rack Pinion Arrangement. **(45,000)**
18. Maruti Suzuki cars ELECTRIC Steering System **(55,000)**
19. Toyota cars ELECTRIC Steering System **(55,000)**

FOUR- WHEELER DIFFERENTIAL SYSTEM SECTION .(4 lakhs)

20. Maruti Suzuki Rear Wheel Drive Differential System. **(45,000)**
21. Tata Cars front Wheel Drive Differential System. **(55,000)**
22. MERCEDES BENZ INDEPENDENT Limited Slip Advanced Differential. **(1.5 lakh**
23 .Electric Vehicle Differential system with Electric Motors. **(1.5 lakhs)**

FOUR- WHEELER BRAKING & SUSPENSION SYSTEM SECTION.(4 lakhs)

24. Front Wheel DUAL DISK Braking System **(40,000)**
25. Rear Wheel DRUM Braking System **(40,000)**
26. MERCEDES BENZ Brake Vacuum Booster **(70,000)**
27. MERCEDES BENZ ABS (Anti Braking System Unit) **(1.5 lakhs)**
28. AUDI E-B-D (Equal Braking Distribution) System**. (1 lakh)**

FOUR- WHEELER AIR BAG & OTHER AUXILIARIES SYSTEM SECTION. (4.15 Lakhs)

29. MERCEDES BENZ Steering Air Bag System **(1-lakh)**
30. MERCEDES BENZ Side Windows Air Bag System **(50,000)**
31. Car Engine Self Starter Motor for Engine Starting **(35000)**
32. Car Engine Alternator System for Battery Charging**.(35000)**
35. Air Filter Units**.(10,000)**
36. Carburetor Systems**.(10.000)**
37. Fuel Injector Systems. **(75000)**
38. and Some Other Auxiliaries systems. **(1 lakh)**

TWO - WHEELER CAR SECTION (6.7 Lakhs)

39 .BAJAJ Pulsar-220 CC Engine (30,000)
40. TVS Apache 180 CC Engine. (30,000)
41. LML Freedom 125 CC Engine. (30,000)
42. HONDA Eterno Engine. (30,000)
43. TVS Victor 150 CC Engine. (30,000)
44. HONDA Activa 110 CC Engine (30,000)
45. HONDA Shine 125 CC Engine (30,000)
46. BAJAJ Discover 150 CC Engine (30,000)
47. TVS MAX 100 2 Stroke. (30,000)
48. Rajdoot 2 stroke. (30,000)
50. START BIKE FOR PRACTICAL SESSION (30,000)
51.START SCOOTY FOR PRACTICAL SESSION (30,000)
52. ELECTRIC WORKING 2-Wheeler for Electric Vehicle Development Training. (30,000)
53. Wiring System. (40,000)
54. Suspension System. (20,000)
55. Carburetion Systems. (20,000)
56. FI Systems. (20,000)
57. Sensors Systems. (60,000)
58. Self-starting and Charging System. (20,000)
59. Tuning of 2- wheelers. (40,000)
60. and Other all Systems of 2- wheeler. (60,000)

Memorandum of Understanding

Between

Baba Automobile Pvt. Ltd., Jaipur

And

JECRC Foundation, Jaipur

This Memorandum of Understanding (MOU) sets the terms and understanding between Baba Automobile Pvt. Ltd. and JECRC Foundation for provision of Automobile Center of Excellence at JECRC College, Jaipur Raj.

This MOU will be applicable to arrange the facilities to students of B.Tech and Diploma Mechanical, Electrical, Automobile (All year) to participate in Automobile Training/Internship.

The above goals will be accomplished by undertaking the following activities:

1. That Baba Automobile Pvt. Ltd. will arrange all the facilities to conduct automobile training for all students of B.Tech & Diploma, Mechanical, Electrical (All year) students. Details of engines which will be available for training are as follows and mentioned in tabular form.
2. That all apparatus, engines, tools, shall be arranged by Baba Automobile in the premises of JECRC College to provide in depth knowledge of above engines.
3. That the training duration will be throughout the year as per time table provided by head of department (jecrc) irrespective of the time.
4. That the lab space and Cabin space for Automobile faculties will be provided by JECRC College.
5. That an ISO certified certificate or any other study material will be provided by Baba Automobile on the completion of training.
6. Maintenance cost of all components will be bear by Baba automobile.
7. Some Sunday and holiday will be utilized for training on mutual consent.

List of 2- wheeler Engines

2-Wheeler Engines	4- Wheeler Engines
1. Bajaj Pulsar-220 cc engine.	8. Hero Honda passion.
2. Honda Shine Engine.	9. Bajaj Discover Engine.
3. Hero Splendor Engine.	10. Bajaj Platina.
4. UM Freedom 150 cc engine.	11. Tvs Sport Engine.
5. Tvs Apache Engine.	12. Tvs Victor Engine.
6. Honda Activa Automatic CVT Engine.	13. Honda Unicorn Engine.
7. Scooty Engine.	14. Automatic CVT Engine.

List of 4-wheeler Engines

4-Wheeler Engines	4- Wheeler Engines
1. AUDI V-6 Petrol Engine.	8. MARUTI SUZUKI 3-CYLINDER PETROL ENGINE.
2. AUDI V-6 Diesel Engine.	9. Maruti Suzuki 4-cylinder Petrol Engine.
3. MERCEDES BENZ CNG Kit.	10. Hyundai Santro CNG Engine.
4. BMW AUTOMATIC TRANSMISSION.	11. Tata Indigo Car Engine.
5. AUDI SEMI AUTOMATIC TRANSMISSION.	12. Toyota diesel Engine.
6. TATA SAFARI DIESEL ENGINE.	13. Hyundai Car Diesel Engine.
7. MAHINDRA SCORPIO DIESEL ENGINE.	14. Honda Car Engine.
15. TATA Truck 18- wheeler Start Engine.	16. Tata Truck Engine For Practical.

List Start Car, Bike, Scooty.

- Tvs Victor one Start Bike.
- UM Freedom one Start Bike.
- Hero/Honda/Bajaj one Start Bike.
- Honda Activa one start Scooty.
- MERCEDES BENZ CAR for Practical & Overhauling.

List of Tool, Machines, Accessories.

- Welding Machine.
- Grinding machine.
- Cutting Machine.
- Drilling Machine.
- Open Spanners 50 Nos.
- Close Spanner 50 – Nos.
- Audi Engine Special Tools.
- Mercedes Engine Special Tools.
- Automatic Transmission Special Tools.
- 4 – Wheeler Differential System.
- Power Steering/ ELECTRICAL STEERING System.

- Electromagnetic Suspension Model
- BS-4, BS-6 System
- ECU Systems With TestRig (testing by Laptops)
- S-ECU for Electrical Engg. Students.
- Disk Brake System.
- Drum Brake System.
- CRDI/MPFI System.
- Air bag system

Financial Terms & Conditions

- A security amount of Rs 5 lakh given to Baba Automobile.
- security amount 5 Lakh pay at the time of signing MOU (by cheque/NEFT/RTGS in favour of nimesh baba automobile pvt ltd or baba automobile)
- The duration of lab installation Shall be maximum 30 days after signing MOU.
- Security amount 5 lakhs refund to jecrc college at the End of MOU without any depreciation.
- 20% Amount of total fee received by outside students shall be share of JECRC & will be transferred to JECRC a/c at the end of month and rest 80 % share will be of Baba Automobile.

This MOU is at will may be modified by mutual consent of authorized officials from Baba Automobile and JECRC. This MOU shall become effective upon signature by the authorized officials from Baba automobile and JECRC and will remain in effect for minimum one year and can be further extended by mutual consent.

In the absence of mutual agreement by the authorized officials from Baba Automobile and JECRC, this MOU shall end after provision of training.

Requirements

1. Space for Engines
2. Faculty Sitting Area/office.
3. Suitable Furniture for Engines
4. Space for Tools
5. Light Facility
6. Banner, hoarding, flex arranged by college.

Contact Information:

Baba Automobile Pvt. Ltd.
Mr. Nimesh Baba
Director

Pratap Nagar, Jaipur, Rajasthan
Contact: +91-[illegible]

JECRC Foundation Jaipur
Dr. V. K. Chandna
Principal JECRC
Shri ram ki nangal, tonk road, sitapura jaipur
Contact: [illegible]

Dated: 5/2/[illegible]

Nimesh Baba
(Director, Baba Automobile Pvt. Ltd.)

Mr. Dr. V. K. Chandna
(..................JECRC Foundation, Jaipur)

Counter Signed By: [signature]
Kartik Muhal (Training Head)

Counter Signed By: [signature]
.... (Mahesh ... [illegible])

MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (MOU) entered on 30th Oct.-2017.
By and Between

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

Objective of the program:

In today's world, CAD-CAM has become an indispensable skill required to make every professional employable and productive in the work place. The objective of the training program is:

- To train the students of JECRC Jaipur at their college campus for CAD and 3D printing by "CADD CENTRE"
- To train the students of JECRC Jaipur on the concepts and soft tools of CAD – CAM, as per the industrial / corporate requirements.
- To facilitate them to excel in their workplace.
- To bridge the skill gap between the individuals and the industry.

Course Fees and Training Program Detail:-

As per annexure 1

COURSEWARE

CADD Centre's Curriculum & Product development (CPD) team develops the courseware. Each book is conceived, prepared and printed after a thorough research on industry specific courses. The team consists of engineers, industry experts who are involved in the development of courseware. The course material is developed specially

for instructor-lead training as well as self-study material. The CPD team reviews the curriculum and updates as needed. Every student who enrolls for a course is provided with a reference manual which is of World Class Standards, comprehensive in coverage and with a nice layout that pleases the eyes!

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.

CADD Centre through its Raja Park, Jaipur Shall Provide

- The proprietary and internationally acclaimed CADD Centre 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.
- CADD Centre will provide "Certificate of Association" between CADD Centre with JECRC Jaipur.
- Permit JECRC Jaipur to use CADD Centre logo as the Skill Development Partner.

BHARTIYA SKILL DEVELOPMENT UNIVERSITY, JAIPUR

SCHOOL OF MANUFACTURING SKILLS

JAIPUR ENGINEERING COLLEGE & RESEARCH CENTRE JAIPUR (JECRC) represented by its Dy. V. K. Chaube ----,

WHEREAS:

A) The BSDU is engaged in providing skills training in various faculties based on Swiss Dual System of Skills Training. The BSDU awards certificates, diplomas, advance diplomas and B. Voc. Degrees to students after 10+2 schooling. It also awards M. Voc. And Ph.D. Degrees to the Candidates. BSDU has a flexible program and students can enter/exit at any time. The whole curriculum has been aligned to UGC/AICTE/NSDC/Sector councils.
B) The JECRC is an engineering college approved by AICTE & affiliated to Rajasthan Technical University, Kota focused on undergraduate and graduate programs, and research.
C) Both the institutions intend to cooperate and focus their efforts on cooperation within areas of Training, Education, Research and Development.
D) Both the institutions being legal entities in themselves desire to sign this MOU for advancing their mutual interests.

NOW THEREFORE, IN COSIDERATION OF THE MUTUAL PROMISES SET FORTH IN THIS MOU, BOTH THE INSTITUTIONS HERE AGREE AS FOLLOWS:

CLAUSE 1

CO-OPERATION

1. Both the institutions are united by common interests and objectives, and they shall establish channels of communication and co-operation that will promote and advance their respective operation within the institutions and its related wings. The Parties shall keep each other informed of potential opportunities and shall share all information that may be relevant to secure additional opportunities for one another.
2. The co-operation between BSDU and JECRC will facilitate effective utilization of the intellectual capabilities of the both Parties providing significant inputs to them in developing suitable teaching/ training systems, keeping in mind the needs of each other.
3. The general terms of co-operation shall be governed by this MOU. Both shall cooperate with each and shall, as promptly as is reasonably practical, enter into all relevant agreements, deeds and documents (the 'Definitive Documents') as may be required to give effect to the actions contemplated in terms of this MOU. The term of Definitive Documents shall be mutually decided between the Parties, Along with the Definitive Documents. This MOU shall represent the entire understanding as to the subject matter hereof and shall supersede any prior understanding between the Parties on the subject matter hereof.

10/12/2020

MEMORANDUM OF UNDERSTANDING
GETTING ASSOCIATED FOR INTELLECTUAL PROPERTY ACTIVITIES WITH JECRCCOLLEGE

This Memorandum of Understanding (MoU) is made on this Tuesday, the 24th day of December 2019 by and between

JECRC College having its main campus address asPlot No. IS-2036 to IS-2039 Ramchandrapura Industrial Area Jaipur, Sitapura, Vidhani, Rajasthan 303905(hereinafter referred to as **'JECRCCollege'**, which expression shall include their subsidiaries, branch offices, associations, administrator, legal heirs, group institutions, etc.).

AND

Verispire Inc., a California, (USA) registered companythrough its Indian entity Verispire Technologies pvt. Ltd. (herein after referred to as 'Verispire') having its offices at C-25, Second Floor, Sector 8, Noida, Uttar Pradesh 201301, which expression shall include their subsidiaries, branch offices, associations, administrator, legal heirs, etc.

1. BACKGROUND:

1.1. Verispire is an intellectual property consulting company engaged in creating valuable business assets for our clients by safeguarding their intellectual property. We provide the best in class and wide array of intellectual property consulting services to our clients worldwide.

1.2. JECRC College has its campus in Jaipur, the capital city of Rajasthan and the famous tourist and business city in north-western India. The 32-acre JU campus combines unique classical architecture and thoughtful layout and landscaping to create a perfect learning ecosystem. JECRC College is driven by the spirit of innovation-led research. This is spelt out in infrastructure as well as practices.

1.3. Verispire also conducts hands-on workshops, lecture series and seminars to educate and train the in-house personnel of companies, educational institutions, government and semi-government bodies towards aspects of creation, management and commercialization of IP.

1.4. Whereas, JECRC COLLEGE is desirous of getting associated with Verispire for Developing Innovation and Research initiatives or streamlining existing IP process, if any with the following primary objectives:

1.4.1. **Facilitate in developing IPCurate Labs with all the activities mentioned in the proposal and mutually agreed (Annexure A)**
1.4.2. Facilitate patent searching, drafting and patent filing.
1.4.3. Facilitate in patent prosecution cycle
1.4.4. **Provide complete IP management**
1.4.5. Encourage creativity and innovation.
1.4.6. Provide other IP filings (Trademark, Design, Copyright, etc), the time taken to do each task mentioned clearly in Annexure C

PRINCIPAL

S. NO	CRITERIA	OBSERVATION MADE BY NBA	COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)
6.3	**Laboratories: Maintenance and overall ambience**	Maintenance of equipment like shaper, bearing machine, dynamics lab is not carried out in last one years, 3-4 equipment's are not functioning.	All the equipments are in working conditions. Routine maintenance of equipments is carried out by the technicians. The appraisal of technicians also includes their involvement in the maintenance and repair of lab equipment. Also, Lab audit has been carried out before the commencement of the Session. https://www.jecrcfoundation.com/pdf/iqac-audit-report/ME%20Audit%20Report.pdf

You are signed in as hod.me2 | Lab Audit - hod.me@jecrc.ac.in

mail.google.com/mail/u/0/#search/manmohan.me%40jecrc.ac.in/FMfcgxwGCkdSPsRjKgpfHzqvGhTWMsfn

Apps | Getting Started | Imported From Fire...

Gmail | manmohan.me@jecrc.ac.in | JECRC Mail

Compose

- Inbox 1,153
- Starred
- Snoozed
- Important
- Chats
- Sent
- Drafts 23
- All Mail
- Spam 19
- Trash

Meet

- New meeting
- My meetings

Hangouts

- HoD
- 6A-Mech online Lectures — Lokesh: Ohk
- Jecrc Hod Group — HoD: 🙏
- Mohini Singh — You were in a video call
- ravi jangid

249 of many

Lab Audit

Inbox ×

Manmohan Siddh <manmohan.me@jecrc.ac.in> Thu, Jan 9, 6:42 PM

to Manmohan, Ravi, Shrikant, Dr, Bhuvnesh, Hemant, Rohit, Aashish, Rajendra, Palak, Kuldeep, lalit, Dilip, Nitin, Rishi, me

Dear all Lab I/C

Lab audit in reference to stock will conducted from 21-01-2020 to 24-01-2020. As per the attached list, all are requested to update and verify their respective lab stock registers in accordance with available machines and equipments.

With Regards
Dr. Man Mohan Siddh


Lab Audit.docx

Thanks for the mail. | Noted. | Acknowledged.

JAIPUR ENGINEERING COLLEGE & RESEARCH CENTRE

JECRC Campus, Shri Ram Ki Nangal, Via-Vatika, Jaipur

Department of Mechanical Engineering

NOTICE

Date: 25-07-2019

Subject: Lab Audit Schedule

Lab audit in reference to stock will be conducted from 09-08-2019 to 17-08-2019. As per the below list all are requested to update and verify their respective lab stock registers, lab manuals, maintenance records in accordance with latest RTU syllabus and available machines .

Audit members: 1. Dr. Rishi Pareek 2. Mr. Ravindra Kumar

Sr.No.	LAB.	IN-CHARGE
1	MFW	MM
2	BME	DSR
3	MT	HCN
4	PP	MM/RKG
5	TOM	LKS
6	FM	SPS
7	TE	RK
8	HT	PB
9	PE	PJ
10	IE	SB
11	VE	DK
12	FEM	SK
13	CAM	HB/LKS
14	CAD	RY
15	CIMS	LKS/HB
16	CAEG/CAMD/MD	NC
17	MATLAB	RG

Head of Department

Head of the Department
Mechanical Engineering
JECRC, Jaipur

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

JECRC Campus, Shri Ram Ki Nangal, Via-Vatika, Jaipur

Department of Mechanical Engineering

Lab Audit Report

Name of Laboratory: Manufacturing Practices workshop (Welding Shop)
Lab Incharge: Dr. Man Mohan Siddh
Lab Technician: Mr. Narendra Singh
Audit Date: 16/9/2019 Session: 2019-20
Audit member: Dr. Rishi Pareek & Mr. Ravindra Kumar

Sr. No.	Comments	Lab In charge (Signature)
1	JECRC/ME/WS/WS/03 Under. maintenance (Lead to be fitted)	
2	Sticker marking 01A, 03, 04, 06, 07, 11, 16, 19	
3	Refilling of Gas cylinder	
4	One Gas Regulator damage	
5	Update stock register. (New stock entry in stock register)	16/9/2019
6		
7		
8		
9		
10		

Audit members (Signature)

Head of Department (Signature)

Head of the Department
Mechanical Engineering
JECRC, Jaipur

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

JECRC Campus, Shri Ram Ki Nangal, Via-Vatika, Jaipur

Department of Mechanical Engineering

Lab Audit for year (2019 -20)

Name of the Department: Mechanical Engineering
Name of Laboratory: Manufacturing Practice/Workshop (Welding Shop)
Lab Incharge: Dr. Man Mohan Siddh
Lab Technician: Mr. Narendra Singh
Audit Date: 16- 08 - 2019 Session: 2019-20
Members of Staff Present: 1. Dr. Rishi Pareek
2. Ravindra Kumar

Sr. No.	Comments	Action Taken	Remark
1	JECRC/ME/WS/WS/ 03 under maintenance (Lead to be fitted)	Lab auditor informed the concerned technical staff for maintenance of JECRC/ME/WS/WS/ 03	Done
2	Sticker marking 01A,03,04,06,07,11,16,19	Lab auditor informed the concerned technical staff for marking	Done
3	Refilling of gas cylinder	Letter send to HOD regarding approval of gas cylinder refilling	Approved Refilled for refilling 21/10/19
4	One gas regulator damage	Letter send to HOD regarding repair of gas regulator	Approved Repaired for repair 21/10/19
5	Update stock register (New stock entry in stock register)	Lab auditor advised the concerned In charge for update the stock register	Updated

(Ravindra Kumar) (Dr. Rishi Pareek)

Signature of the HOD with Seal Signature of the Lab Audit Experts

Head of the Department
Mechanical Engineering

<table>
<tr><td colspan="4">Criterion-7 Continuous Improvement</td></tr>
<tr><td><u>S. NO</u></td><td>CRITERIA</td><td><u>OBSERVATION MADE BY NBA</u></td><td><u>COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)</u></td></tr>
<tr><td>7.1</td><td>Actions taken based on the results of evaluation of each of the COs, POs and PSOs</td><td>Target for most POs/ PSOs are shown to have been attained with less understanding.

Action to bridge the gap for mechanical industry requirements is not exercised thoroughly.</td><td>1. Workshops and FDP on OBE are conducted for faculty members by Rajasthan Technical university in association with NBA and through NITTTR ,Chandigarh.
2. Department has provided a sheet containing COs of all subjects and POs/PSOs to all faculty members for preparing relationship of CO-PO/PSO matrices and ask them to map COs with all POs/PSOs. After that department calculated average mapping and assign final mapping according to below mentioned criteria.
<table>
<tr><td>Average mapping (m)</td><td>Value given</td><td>Level of Relationship</td></tr>
<tr><td>m< 0.5</td><td>0</td><td>No</td></tr>
<tr><td>0.5≤ m≤1</td><td>1</td><td>Low</td></tr>
<tr><td>1< m ≤2</td><td>2</td><td>Medium</td></tr>
<tr><td>2< m ≤3</td><td>3</td><td>High</td></tr>
</table>
3. Each faculty member maintains a course file that includes vision, mission, course outcomes, relationship between CO-PO-PSO, evaluation of COs, identification of slow learner and fast learner, internal question paper mapped with COs, solution of question paper with step marking, assignment to weak students, information about student’s performance etc., reflects the understanding of faculty members.
4. Weightage of knowledge of OBE is also included in the yearly appraisal form of faculty members.
5. IQAC ensures the knowledge about OBE to faculty members through interactions.
6. To attain the POs/PSOs, systematically content beyond the syllabus has been identified and delivered. Also, different activities have been planned and executed to achieve the target value of PO/PSOs attainment.
7. The topics beyond syllabus have been delivered through experiential learning and participative learning.
<table>
<tr><td>Academic Year</td><td>2017-18</td><td>2018-19</td><td>2019-20</td></tr>
<tr><td>Delivery of topics beyond</td><td>22</td><td>27</td><td>28</td></tr>
</table>
8. In departmental discussion, department decided the</td></tr>
</table>

modes of delivery of topic beyond the syllabus which are identified through feedback of stake holders and included in the departmental academic calendar before the commencement of session.

These are the modes of delivery of topics beyond syllabus.

Delivery methods	Link
Add-on courses / workshops	https://jecrcfoundation.com/jf-data/NBA/ME/Workshop/2018-19/2018-19-vehicle-dyanammics.pdf https://jecrcfoundation.com/jf-data/NBA/ME/Workshop/2018-19/2018-19-workshop-3D-Printing-Feb%202019.pdf https://jecrcfoundation.com/jf-data/NBA/ME/Workshop/2019-20/2019-20%20Vehicle%20dyanammics.pdf https://jecrcfoundation.com/jf-data/NBA/ME/Workshop/2019-20/2019-20-3D%20printing-faculty-trainig.pdf https://jecrcfoundation.com/jf-data/NBA/ME/Workshop/2019-20/2019-20-3D-Printing-Nov-2020.pdf https://jecrcfoundation.com/jf-data/NBA/ME/Workshop/2019-20/2019-20-Automobile-faculty%20trainig.pdf
Guest lectures by the industry person	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/Guest-Lectures-2019-20.pdf
Industrial visit s	https://jecrcfoundation.com/jf-data/NBA/ME/Industrial-Visit/Industrial-Visits-2019-20.pdf
Conferences	https://www.jecrcfoundation.com/pdf/conference-reports/ME%202015-2020.pdf
Technical clubs/ activities	https://jecrcfoundation.com/jf-data/NBA/ME/MoonRider/Annual%20Report%202019-20.pdf https://jecrcfoundation.com/jf-data/NBA/ME/MoonRider/Annual-Report-2018-19.pdf

			The content beyond the syllabus was delivered through guest lectures by the industry person, industrial visits, add-on courses, workshops, conferences, lectures of course teacher and presentation of student's project etc.

Guest Lecture			
Year	Date	Guest name and topic	Website Link
2019	27.08.2019	Sh. Rajeev Bhargava, Mechanical CAD	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/27-Aug-2019-Report-CADD-CENTER.pdf
2019	27.08.2019	Sh. Himanshu Shrivastava, Application of Fluid Mechanics in Industries	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/27-Aug-2019-Report-ENGINEERS-ACADEMY.pdf
2019	04.09.2019	Sh. Bhawani Singh, Introduction and Application of MATLAB	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/04-Sep-2019-Report-PVAS.pdf
2019	06.09.2019	Sh. Rajeev Bhargava, Practical Applications and Industrial Uses of Mechanical CAD	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/06-Sep-2019-Report-CADD-CENTER-02.pdf
2019	09.10.2019	Sh. Alon Tal, Design Optimization of Functionally Graded Dental Implant for Bone Remodelling	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/09-Oct-2019-Report-UG-Scholar.pdf
2020	23.01.2020	Sh. Ravi Kumar Swami, Application of AutoCAD, CATIA, Solidworks and ANSYS software in the Manufacturing Industries	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/23-JANUARY-2020-Report-CADEMATE-01.pdf
2020	24.01.2020	Sh. Girish Kumar, Importance of AutoCAD, CATIA,Solidworks in the Manufacturing Industry	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/24-JANUARY-2020-Report-CADDESK.pdf
2020	25.01.2020	Sh. Ravi Kumar Swami, Application of AutoCAD, CATIA, Solidworks and ANSYS software in the Manufacturing Industries	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/25-JANUARY-2020-Report-CADEMATE-02.pdf
2020	12.02.2020	Sh. Diwjendra Srivastava, How to Prepare for CAT and GRE	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/12-FEBRUARY-2020-Report-IMS.pdf
2020	13.02.2020	Sh. Harsh Babel, Careers in Automotive Industries	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/13-FEBRUARY-2020-Report-HARSH-BABEL.pdf
2020	14.02.2020	Sh. Ravindra Dhewa, Importance of digital marketing	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/14-FEBRUARY-2020-Report-Digital-Marketing.pdf
2020	16.02.2020	Sh. Vaibhav Kamalkaka, New Technologies Challenge in Automative Industries	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/16-FEBRUARY-2020-Report-VAIBHAV-KAMALKAKA.pdf
2020	03.03.2020	Sh. Gaurav Dadheech, Start-Up in the in Automotive World and Electric Vehicle Scenario in India	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/03-MARCH-2020-Report-GAURAV-DADHEECH.pdf

S.No	year	Topic	Link
1	2018	1st International Conference on Recent Innovations & Technological Development in Mechanical Engineering ICRITDME - 2018	**https://jecrcfoundation.com/jf-data/Conference/ICRITDME-2018.pdf**
2	2019	1st National Conference On Futuristic Trends in Mechanical Engineering NCFTME-2019 16-17 March, 2019	https://jecrcfoundation.com/jf-data/Conference/NCFTME-2019.pdf
3	2019	2nd International Conference on Recent Innovations & Technological Development in Mechanical Engineering ICRITDME - 2019	https://jecrcfoundation.com/jf-data/Conference/ICRITDME-2019.pdf
4	2020	3rd International Conference on Recent Innovations & Technological Development in Mechanical Engineering ICRITDME - 2020 Recent Innovations & Technological Development in Mechanical Engineering ICRITDME-2020	https://jecrcfoundation.com/jf-data/Conference/ICRITDME-2020.pdf
5	2020	2nd National Conference on Futuristic Trends in Mechanical Engineering NCFTME - 2020	https://jecrcfoundation.com/jf-data/Conference/NCFTME-2020.pdf

Event Site

Photo taken on the last day of event

S. NO	CRITERIA	OBSERVATION MADE BY NBA	COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)
7.2	**Academic Audit and actions taken during the period of Assessment**	Process of academic audit needs deeper understanding and strengthening.	Academic and administrative audit has been carried out in the department where internal and external auditor audited the department academic performance. Report is attached in link for your kind consideration. **https://jecrcfoundation.com/pdf/iqac-audit-report/ME%20Audit%20Report.pdf** **https://jecrcfoundation.com/pdf/Green%20Audit%20File.pdf** **https://jecrcfoundation.com/pdf/Energy%20Audit%20File.pdf** **https://jecrcfoundation.com/pdf/Environment%20Audit%20File.pdf**

INTERNAL AUDIT CORRECTION REPORT

Academic year 2019-20

DEAC		DATE	8/07/2020
PROCESS	Academic Process (Mechanical Department)		
Auditors	1) Dr Sanjay Gaur 2) Dr Sandeep Vyas	Auditees	HOD, Faculties
Observers	1) Dr Bhavesh Bhardwaj 2) Dr Pancha Siddiqui		

Sr. No	Observation	Type	Correction
1	Course File (Mr Nilesh Bansal)	NI	Completed
2	Academic Diary (Mr Ravi Yadav)	NI	Completed
3	Defaulter list (NI CC 1)	NI	Signed by HOD
4	Mapping of all subjects	NC	Mapping Done
5	Industry feedback data	O	Maintained by TPO

Sr. No	Observation	Type	Correction
1	All academic process	NI	Signed by HOD
2	Course File	NI	Corrected
3	PO and PSOs and CO and PSO's	NI	Completed
4	Mapping	NI	Mapping is done
5	Students feedback analysis index	OK	Analysis ok
6	Industry feedback analysis index	NI	Maintained by TPO
7	Alumni feedback analysis index	NI	Maintained
8	Remedial Lectures	In process	Completed
9	Advance Lectures	OK	Highlighted in diary
10	Slow learners' efforts taken	ok	Register is maintained
11	Add on Courses	In process	OK
12	Seminars/Guest Lectures	OK	Files are properly maintained
13	Social Activities Educational relate education	OK	OK
14	Higher Education data	Not found	Completed in soft copy
15	Internship data	OK	Completed
16	Student final year project		Completed
18	All files (Sample visited)	OK	OK

19	Previous Students passbook old Files, exam record	OK	OK
20	Existing rules/policies	OK	Going on
21	Training needed identification teaching, nonteaching	OK	Maintained in soft copy
22	Budget details	In Progress	Completed
23	Departmental Library details	Found OK	Maintained in soft copy & hard copy
24	FDP Publications	OK	Completed
25	Curricular and co-curricular activities	OK	Completed
26	Teaching/ Non-teaching appraisal review	OK	Completed

Auditors

1.Dr Sanjay Gaur

2.Dr Sandeep Vyas

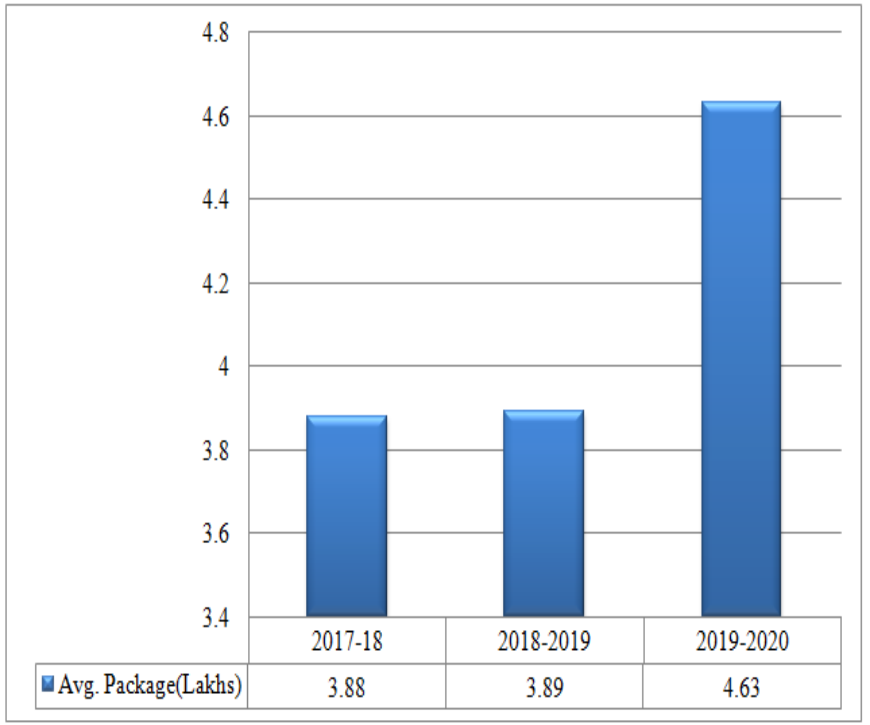
Dr Bhavesh Bhardwaj

Dr Pancha Siddiqui

HOD

Faculties

Faculties need attendance.

S. NO	CRITERIA	OBSERVATION MADE BY NBA	COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)
7.3	**Improvement in Placement, Higher Studies and Entrepreneur**	Pay package has been falling year on year and less core companies are conductingcampus drive.	Average Pay package has been increase 19.3% as compared to academic year 2018-19. Also placement index in the academic year 2019-20 increases 37.4 % as compared to academic year2018-19.  https://jecrcfoundation.com/placement-stats

COMPANY WISE-PLACED STUDENT LIST(2019-20)					
S. No.	**University Roll No.**	**Name**	**Company Placed**	**email**	**Contact No.**
1	16EJCME001	ABHISHEK GUPTA	**Pinnacle**	agabhigupta64@gmail.com	7820834839
2	16EJCME003	ABHISHEK RAJPUT	**GR INFRA, HG INFRA**	abhishekrajput042@gmail.com	7231846537
3	16EJCME005	ADITYA SANADHYA	**Pinnacle**	adityasanadhya555@gmail.com	9660066516
4	16EJCME009	AMIT KUMAR TINKAR	**BABA Automobile**	amittinkar.ak@gmail.com	8955459388
5	16EJCME011	ANKIT KUMAWAT	**Marvel Infocomm Pvt. Ltd.**	ankitkumawat2014@gmail.com	7232086279
6	16EJCME013	ANKUR MITTAL	**TCS NQT, RDC, GR INFRA**	ankurmittal241997@gmail.com	9680604148
7	16EJCME014	ANSHUMAN PACHOLI	**Accenture**	anshumansharma58@gmail.com	9928347936
8	16EJCME017	ARPIT CHOUDHARY	**TCS-Codevita, Asahi India Glass LTD., Accenture Pool Drive**	arpit.kargwal@gmail.com	7891092070
9	16EJCME018	ARPIT KASLIWAL	**Accenture**	arpitkasliwal26@gmail.com	8058045622
10	16EJCME020	ASHOK KUMAR SAINI	**Marvel Infocomm Pvt. Ltd.**	ashoksaini03081998@gmail.com	8387024263
11	16EJCME021	ASHUTOSH MEWARA	**Accenture**	anshumewara10@gmail.com	7568065612
12	16EJCME024	AUGUSTIN JOY MARKER	**Marvel Infocomm Pvt. Ltd.**	lazyaugustin@gmail.com	7239804702
13	16EJCME027	BHARAT KHANDELWAL	**Accenture**	khandelwalbharat01@gmail.com	9460060693
14	16EJCME028	CHIRAG MAHESHWARI	**Pinnacle, Accenture Pool Drive**	chiragmaheshwari23@gmail.com	9782849436
15	16EJCME031	DATTATREY SINGH SHEKHAWAT	**Accenture**	dattatrey.ds@gmail.com	8696996411
16	16EJCME032	DEEPAK KURUP	**Pinnacle**	deepakkurup21@gmail.com	9680907312
17	16EJCME037	DIVIK MATHUR	**TCS NQT**	mathurdivik@gmail.com	7568692563
18	16EJCME038	EKANT LABANA	**BABA Automobile**	ekantlabana64@gmail.com	8005599226
19	16EJCME039	HARDEEP SINGH GULYAR	**THRILOPHILIA, BYJU**	hardeepsinghhd98@gmail.com	9649172521
20	16EJCME040	HIMANSHU CHHAPARWAL	**HG INFRA - Waiting**	chhaparwalhimanshu10@gmail.com	9509875607
21	16EJCME041	HIMANSHU JAIN	**Accenture**	jainhimanshu2407@gmail.com	9587078882
22	16EJCME042	HIMANSHU JAIN	**BABA Automobile**	hjbainara124@gmail.com	7611929171

23	16EJCME045	HIMANSHU SINGHAL	**Pinnacle**	krzysinghal@gmail.com	9413806771
24	16EJCME047	JAYANT SOTI	**Pinnacle**	jayantsoti@gmail.com	9829063391
25	16EJCME050	KISHAN KUMAWAT	**Pinnacle**	kkumawat195@gmail.com	8824115525
26	16EJCME051	KOMAL KUMAR	**Marvel Infocomm Pvt. Ltd.**	komal241197@gmail.com	6376940005
27	16EJCME052	KRISHNA AGARWAL	**HG INFRA**	kagarwal258@gmail.com	8209621335
28	16EJCME054	LAKSHYARAJ SINGH RATHORE	**ALIBABA - TDI**	lakshyarajsinghrathore.2016@gmail.com	8890758898
29	16EJCME056	LOKESH DHYAWANA MEENA	**Accenture**	lmeena619@gmail.com	7062141023
30	16EJCME058	LOVEKESH GUPTA	**Accenture**	lovekeshlove18@gmail.com	9079573819
31	16EJCME064	MOHAMMED SAQUIB KHAN	**Accenture, TCS NQT**	mohammedsaquibkhan@gmail.com	7073907831
32	16EJCME065	MOHD ASIF KHAN	**GR INFRA, HG INFRA**	asifkhan27031998@gmail.com	6375685916
33	16EJCME068	NEEL RAJ KAUSHIK	**Pinnacle, TCS NQT**	neilkaushik193@gmail.com	9079793800
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35	16EJCME073	PIYUSH GIRI	**Accenture Pool Drive**	piyushgiri85@gmail.com	7792803436
36	16EJCME074	POONAM KUMARI	**Pinnacle**	yadavpoonam1997@gmail.com	7690934452
37	16EJCME076	RAHUL KHANDELWAL	**GR INFRA**	rahulkhandelwal737@gmail.com	9928066375
38	16EJCME080	RAJAT GUPTA	**Creditas**	rajatguptasanark@gmail.com	9649004804
39	16EJCME083	RISHABH AHIR	**ALIBABA - TDI**	rishabhaheer@gmail.com	7568627124
40	16EJCME084	RISHABH BHARDWAJ	**GR INFRA, HG INFRA**	rishabhB717898@gmail.com	7976310424
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45	16EJCME095	SAURABH SADARANGANI	**Accenture**	saurabhsadaranganai@gmail.com	7737375749
46	16EJCME097	SHAILENDRA SHARMA	**TCS NQT**	shailendra.reso@gmail.com	9462706509
47	16EJCME100	SHUBHAM GARG	**GR INFRA**	subh.grg@gmail.com	8560868638
48	16EJCME101	SHUBHAM KATTA	**Pinnacle**	shubhamkatta123@gmail.com	9799217345

49	16EJCME102	SHUBHAM KHANDELWAL	**Accenture**	khandelwalshubham5775@gmail.com	9460293481
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51	16EJCME107	SHYAM LAL MISHRA	**GR INFRA, HG INFRA - Waiting**	shyamlalmishra449@gmail.com	7877739994
52	16EJCME108	SHYAM PRATAP SINGH RATHORE	**GR INFRA, HG INFRA**	shyampratapsingh009@gmail.com	9610055551
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54	16EJCME110	SUBHAM AGARWAL	**TCS NQT**	subhamagarwal2803@gmail.com	9782211556
55	16EJCME112	SURYANSH MAHESHWARI	**ALIBABA - TDI**	yhurkat@gmail.com	9672982704
56	16EJCME116	TARUN DUBEY	**Accenture**	tarundubeyphy@gmail.com	9461055663
57	16EJCME118	UDAISHAYA SHARMA	**ALIBABA - TDI**	udaishaya138@gmail.com	7014266855
58	16EJCME119	USAMA SHERWANI	**Pinnacle, TCS NQT**	usamasherwani.2mech20@jecrc.ac.in	7790843175
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60	16EJCME124	VISHAL CHOUDHARY	**TCS NQT**	vishalc0@hotmail.com	7737424888
61	16EJCME125	VISHAL MITTAL	**Accenture, TCS NQT**	vishal.98m31@ymail.com	9529110172
62	16EJCME126	YASH JAITAWAT	**Accenture**	yashjaitawat1998@gmail.com	7023382688
63	16EJCME127	ZAID ALI ANSARI	**HG INFRA - Waiting**	zaidali1307@gmail.com	7737778459
64	16EJCME300	MADAN GARG	**HG INFRA - Waiting**	madangarg1999@gmail.com	7615860963
65	17EJCME202	KULDEEP MATHUR	**BABA Automobile**	kuldeepmathur96@gmail.com	9461810132
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67	16EJCME701	ADITI GUPTA	**Pinnacle**	aditiguptajecrc@gmail.com	8233222695
68	16EJCME702	ALEX ABHINAV ANAND	**Pinnacle**	alexanand444@gmail.com	9414442999
69	16EJCME703	ANIL JASWANI	**BABA Automobile**	aniljaswani3@gmail.com	9929180801
70	16EJCME705	AVNISH BHARDWAJ	**ALIBABA - TDI**	avnish.ab20@gmail.com	8809410751
71	16EJCME707	BHARAT SINGHAL	**Accenture**	bharatsinghal.9@gmail.com	8560012996
72	16EJCME714	DIVYANSH SHRANGI	**Pinnacle**	divyanshshrangi98@gmail.com	8005956512
73	16EJCME718	HANUMAN SINGH	**HG INFRA - Waiting**	hanuman171998singh@gmail.com	9783381936
74	16EJCME719	HEMENDRA SINGH RAO	**BABA Automobile**	hemendrasingh1999@icloud.com	8769494970

75	16EJCME720	HIMANSHU JOSHI	**ALIBABA - TDI**	jhimanshu820@gmail.com	8094566398
76	16EJCME723	KESHAV BHARDWAJ	**TCS NQT**	kbhardwaj751@gmail.com	9587969096
77	16EJCME725	LAVNEET JHASAL	**TCS NQT**	loveyjhasal@gmail.com	7222831382
78	16EJCME727	MANISH SHARMA	**HG INFRA**	manishsharma050897@gmail.com	7014265525
79	16EJCME728	MOHIT MENARIA	**Accenture**	mohitmenaria1998@gmail.com	7821966091
80	16EJCME730	NAVENDU SHEKHAR PANDEY	**Accenture**	navendu.shekhar.26@hotmail.com	7488486724
81	16EJCME731	NIKHIL SHARMA	**Accenture**	nikhil07Sharma07@gmail.com	7597619745
82	16EJCME737	PUNIT CHOUDHARY	**HG INFRA**	punit4choudhary@gmail.com	9057758457
83	16EJCME747	SHUBHAM LOHOMI	**Creditas**	shubhamlohomi@gmail.com	9460658106
84	16EJCME750	SUMIT JAIN	**Pinnacle**	sumitj2223@gmail.com	9116887933
85	16EJCME753	VAIBHAV PARAKH	**BABA Automobile**	vparakh009@gmail.com	9461234499
86	16EJCME754	VARUN GAUTAM	**TCS NQT**	Varungjecrc@gmail.com	9001722983
87	16EJCME756	YASH DANGI	**ALIBABA - TDI**	yashdangi95@gmail.com	8107489690
88	16EJCME757	YOGESH KUMAR DWIVEDI	**Accenture**	yogesh240499dwivedi@gmail.com	9454142193

COMPANY WISE-PLACED STUDENT LIST (2018-19)

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4	15EJCME009	Aditya agrawal	**Pinnacle**	adityaagrawal01996@gmail.com	9602645801
5	15EJCME010	Aditya jain	**Pinnacle**	jainaditya0002@gmail.com	8233805515
6	15EJCME011	Aditya Sharma	**Just Dial**	shrm.adityasharma@gmail.com	8949050776
7	15EJCME013	Akash sharma	**OFF CAMPUS-ASHOK LEYLAND**	akash.070597@gmail.com	9001372587
8	15EJCME017	Amarjeet kumar	**Paramount Research**	kumarjeetamar26@gmail.com	9664255996
9	15EJCME020	Anirudh Singh Chouhan	**PIN click**	anirudhsinghchouhan21@gmail.com	8829944312

10	15EJCME021	ANKIT khandelwal	**Paramount Research**	ankitkh7575@gmail.com	9024711814
11	15EJCME024	Arpit khandelwal	**Just Dial**	khandelwalarpit1996@gmail.com	7340405011
12	15EJCME026	Ashish prajapat	**Appeal Group**	ashpotter254@gmail.com	9680481013
13	15EJCME028	Bhanu prakash gupta	**Pinnacle**	bhanu.gupta456@gmail.com	7877024029
14	15EJCME031	Chandra prakash fulwani	**Pinnacle, FEV**	chandraprakashfulwani.mech19@jecrc.ac.in	9829043901
15	15EJCME036	Devendra pratap yadav	**Paramount Research**	dpyadav4599@gmail.com	8769547333
16	15EJCME037	Devesh lala	**Paramount Research**	lala.devesh12@gmail.com	9649635550
17	15EJCME038	Dhruv Raj Purohit	**Just Dial**	dhruvrajpurohit95@gmail.com	7073502793
18	15EJCME039	divyank rathi	**GAE (Gulati Auto Electricals)**	divyankrathi.mech19@jecrc.ac.in	9672769801
19	15EJCME043	Harsh Mantri	**Just Dial**	harshmantri555@gmail.com	8947864713
20	15EJCME045	Harshit jain	**TRADING BELLS**	hjain1329@gmail.com	8560951045
21	15EJCME049	Himanshu bansal	**Paramount Research**	bansalhimanshu331@gmail.com	8094514686
22	15EJCME050	Himanshu Jangir	**Pinnacle,FEV**	himanshujangir97@gmail.com	9928534804
23	15EJCME051	Himanshu pagariya	**GAE (Gulati Auto Electricals)**	himanshupagariya@gmail.com	9799230300
24	15EJCME063	manish kumar	**PIN click**	manish15091996@gmail.com	7903185272
25	15EJCME066	Mayank Sharma	**Pinnacle**	mayank.sharma170497@gmail.com	9571053364
26	15EJCME068	Md shahbaz akhtar	**Aquatronics**	shahbaz6238@gmail.com	7891709756
27	15EJCME073	Mohit agrawal	**Appeal Group**	agrawalmohit.mech19@gmail.com	7742175164
28	15EJCME074	Mohit Chandani	**Just Dial**	mohitchandani2013@gmail.com	7062690716
29	15EJCME076	MOHIT SHARMA	**Pinnacle**	mohitsharma.mech19@jecrc.ac.in	7220098733
30	15EJCME078	MUKESH KUMAR CHOUDHARY	**Just Dial**	mukesh29121997@gmail.com	9521510098
31	15EJCME080	NIKHIL GUPTA	**TRADING BELLS**	guptanikhil632@gmail.com	9782142097
32	15EJCME083	PANKAJ MAHARSHI	**OFF CAMPUS - TCS**	pankajmaharshi98.pm@gmail.com	7073902935
33	15EJCME087	PIYUSH GUPTA	**Pinnacle**	piyush9797gupta@gmail.com	9649604060
34	15EJCME090	PRASHANT BHASKAR	**F.L. SMITH**	111davprashant46@gmail.com	7424823348
35	15EJCME093	RAGHUNANDAN SHARMA	**Paramount Research**	lappy.jaipur@gmail.com	9461286572

36	15EJCME097	RAHUL SHARMA	**Pinnacle**	rahul.sh.0015@gmail.com	9829444725
37	15EJCME099	RAM SUKHWAL	**TRADING BELLS**	ramsukhwal0098@gmail.com	9929329244
38	15EJCME101	RISHABH GOYAL	**Paramount Research**	rishabhgoyal2610@gmail.com	8955769538
39	15EJCME102	RISHAV VATSA	**Paramount Research**	rishavvatsa.mech19@jecrc.ac.in	9829983721
40	15EJCME105	SAURABH SINGH	**TRADING BELLS**	saurabhchoudhary099@gmail.com	9509996133
41	15EJCME106	SHAHRUKH KHAN DESHWALI	**Paramount Research**	sk564857@gmail.com	8562075358
42	15EJCME107	SHASHANK KUMAR SINGH	**GAE (Gulati Auto Electricals)**	shanshashankk@gmail.com	8521999766
43	15EJCME108	SHOBHIT VINDAL	**Paramount Research**	shobhitvindal@gmail.com	9530387877
44	15EJCME112	SOURABH GUPTA	**Paramount Research**	sourabhgupta451997@gmail.com	8426984869
45	15EJCME113	SUBHAM GARG	**Just Dial**	shubhamgarg.as@gmail.com	7688977790
46	15EJCME117	VIBHAV KHANDELWAL	**Pinnacle, FEV**	vibhavgolia@gmail.com	8107211990
47	15EJCME119	VIKAS YADAV	**TRADING BELLS**	vikasyadav1800@gmail.com	8426089174
48	15EJCME120	YADUNANDAN GAUTAM	**Paramount Research**	luckygautam265@gmail.com	7742510199
49	15EJCME121	YAGYESH SHARMA	**Smart Circle Group**	yeshsharma85@gmail.com	8769014511
50	15EJCME124	YOGESH KUMAWAT	**Paramount Research**	yogeshkumawat480@gmail.com	9782980094
51	15EJCME125	YOGESH YADAV	**TRADING BELLS**	yogeshsyadav24@gmail.com	8559909689
52	15EJCME126	YUVRAJ SHARMA	**Paramount Research**	sharmayuvraj891@gmail.com	9571913211
53	15EJCME300	DEVENDRA SINGH	**TRADING BELLS, Jaro Education**	singhd554@gmail.com	7733937997
54	15EJCME301	RAJAT SHRIVASTAV	**TRADING BELLS**	rajats570@gmail.com	7737327301
55	15EJCME302	AVINS NAVEEN ANAND	**Smart Circle Group**	avinsnaveen@gmail.com	7877524974
56	15EJCME303	ASHIT KHANDELWAL	**Paramount Research**	ashit97gupta@gmail.com	761000756
57	15EJCME304	SHWEKITA SOLANKI	**Just Dial**	shwekita25solanki@gmail.com	9982449708
58	16EJCME200	ADITYA RAJ	**JRBS**	adityathakur1129@gmail.com	7903493988
59	16EJCME203	DEEPAK KUMAR	**TRADING BELLS**	me16deepak@gmail.com	7665216824

60	16EJCME204	HIMANK DAVE	**Just Dial**	himankdave1998@gmail.com	8769998691
61	16EJCME212	YASH SHARMA	**PIN click**	syash659@gmail.com	9772992767
62	15EJCME705	ANUJ TIWARI	**Just Dial**	anujtiwari770@gmail.com	7728052364
63	15EJCME709	DEEPAK JHUDANI	**Pinnacle**	jhudanideepak@gmail.com	8890243987
64	15EJCME712	HASAN RAZA	**TRADING BELLS**	hasanraza9024@gmail.com	9024108010
65	15EJCME718	KRISHAN KANT GUPTA	**TRADING BELLS**	krishankant.gupta1998@gmail.com	9636441536
66	15EJCME720	MANISH JAIN	**Paramount Research**	manishmj2501@gmail.com	9587258533
67	15EJCME721	MANISH KUMAR SHARMA	**Just Dial**	ms733954@gmail.com	9782455192
68	15EJCME722	MANISH SAIN	**FEV**	manishsain639@gmail.com	9680357494
69	15EJCME723	MOHEMMAD AMAN LUHAR	**Pinnacle, FEV**	amankhanjaipur172@gmail.com	8442053751
70	15EJCME724	MOHIT VAISHNAV	**Acadmica Guru**	mohitkumarvaishnav125@gmail.com	9079806455
71	15EJCME725	MOHSIN KHAN	**Pinnacle, FEV**	mohsink607@gmail.com	8947098838
72	15EJCME732	NISHANT GUPTA	**PIN click**	nishantg1225@gmail.com	8949343866
73	15EJCME736	PIYUSH PURSNANI	**Pinnacle**	piyushpursnani7@gmail.com	7062178572
74	15EJCME737	PRATYUSH BHARDWAJ	**Pinnacle**	manu19973k12@gmail.com	9549938874
75	15EJCME738	PRINCE KUMAR SHARMA	**Paramount Research**	prince.sh29@gmail.com	9828941454
76	15EJCME740	PURU PRADHUMN SEN	**Smart Circle Group**	pradhumn.sen1995@gmail.com	9828459332
77	15EJCME746	SHUBHAM WADHWA	**FEV**	shubham.24.wadhwa@gmail.com	8742897880
78	15EJCME747	SUDHANSHU RANJAN	**Paramount Research**	shudhanshu.ranjan01@gmail.com	9450061622
79	15EJCME749	SURAJ PRAJAPATI	**Just Dial**	prajapatisuraj399@gmail.com	9694565854
80	15EJCME751	VIJAY KANT GAUR	**Pinnacle**	vijaykant0700@gmail.com	8561031898
81	15EJCME755	YOGESH PANDEY	**BYJU**	yogesh6pandey@gmail.com	9506794590
82	16EJCME902	NAMAN VIJAYVARGIYA	**Just Dial**	namanvijayvargiya007@gmail.com	7877056036

Criteria 8 First Year Academics

S. No.	Criteria	Observations made by NBA (During the last accreditation visit)	Compliance Status (Action taken by the institution)
8.4.1	**8.4.1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcomes of first year is based**	Limited assessment processes & tools used; no proper bench mark/ target was in place for computing CO attainment; and only CIE marks are used to measure CO attainments, hence not a valid procedure to measure the learn ability.	● PO attainment = Direct attainment + Indirect attainment ● Direct attainment = 80 % weightage of End semester examination (ESE) + 20% weightage of Mid-term examination (MTE) = 0.8x + 0.2y x= ESE, y=MTE ● Indirect attainment = Surveys from stakeholders, placement data, participation of students in curricular and co-curricular activities ● CO attainment = **0.8x+0.2y** Where x = End semester examination (ESE) y = Mid-term examination (MTE) ● Direct attainment and indirect attainment are mapped with PO attainment through rubrics.

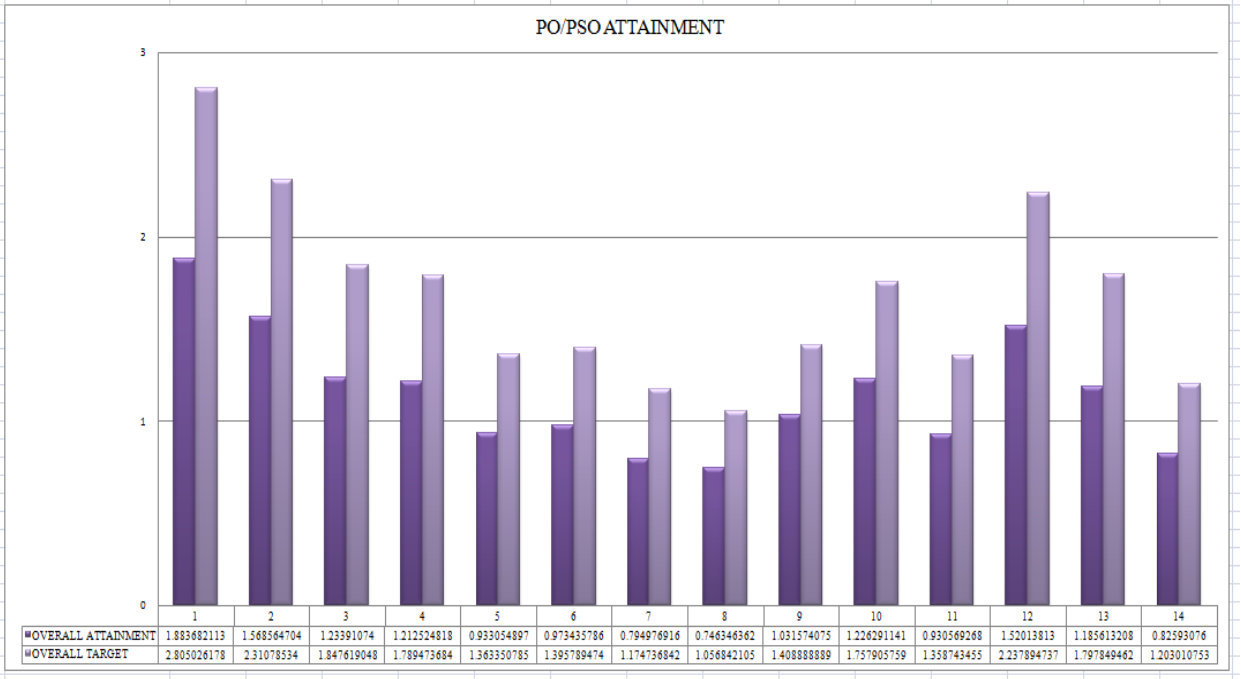
Subject Code	Subject Name	Course Outcome	RTU	MTT	TOTAL
			x	y	0.8x+0.2y
1FY2-01	Engineering Mathematics-I	CO-1	40	51.19	42.238
		CO-2	40	56.19	43.238
		CO-3	40	50.32	42.064
		CO4	40	38.37	39.674
1FY2-03	Engineering Chemistry	CO-1	62.4	50	59.92
		CO-2	62.4	36	57.12
		CO-3	62.4	86	67.12
		CO4	62.4	56	61.12
1FY2-02	Engineering Physics	CO-1	33.68	70.92	41.128
		CO-2	33.68	36.97	34.338

		CO-3	33.68	81.33	43.21
		CO-4	33.68	60.16	38.976
(1FY1-04)	**CSK**	**CO-1**	77.68	84.9	79.124
		CO-2	77.68	74.19	76.982
		CO-3	77.68	57.84	73.712
(1FY1-05)	**HUMAN VALUES**	**CO-1**	75.38	71.8	74.664
		CO-2	75.38	61.6	72.624
		CO-3	75.38	57.4	71.784
1FY3-06	**Programming For Problem Solving**	**CO-1**	40	72.4	46.48
		CO-2	40	70.7	46.14
		CO-3	40	70.7	46.14
		CO-4	40	65.3	45.06
1FY3-07	**BME**	**CO-1**	47.57	66.59	51.374
		CO-2	47.57	60.3	50.116
		CO-3	47.57	48.15	47.686
		CO-4	47.57	46.73	47.402

S.No.	Criteria	Observations made by NBA (During the last accreditation visit)	Compliance Status (Action taken by the institution)
8.5.1	**8.5.1 Indicate results of evaluation of each relevant PO/PSOs**	Assessment tools used to measure PO are irrelevant; only indirect assessment tools are used to measuring PSOs and poor PO/PSO attainment values.	● PO attainment = Direct attainment + Indirect attainment ● Direct attainment = 80 % weightage of end semester examination (ESE) + 20% weightage of Mid-term examination (MTE) = 0.8x + 0.2y x= ESE, y=MTE ● Indirect attainment = Surveys from stakeholders, placement data, participation of students in curricular and co-curricular activities ● CO attainment = **0.8x+0.2y** Where x = End semester examination (ESE) y = Mid-term examination (MTE) ● Direct attainment and indirect attainment are mapped with PO attainment through rubrics.

PO/PSO attainment (2018-19)

POs/PSOs	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO1	PSO2
DIRECT ATTAINMENT	1.74960264	1.37820588	1.13488842	1.10815602	0.76281862	0.92429473	0.75372115	0.61293295	0.73946759	0.97286393	0.83821159	1.43017266	1.07701651	0.6649134
INDIRECT ATTAINMENT	2.42	2.33	1.63	1.63	1.614	1.17	0.96	1.28	2.2	2.24	1.3	1.88	1.62	1.47
OVERALL ATTAINMENT	1.88368211	1.5685647	1.23391074	1.21252482	0.9330549	0.97343579	0.79497692	0.74634636	1.03157407	1.22629114	0.93056927	1.52013813	1.18561321	0.8259308
OVERALL TARGET	2.80502618	2.31078534	1.84761905	1.78947368	1.36335079	1.39578947	1.17473684	1.05684211	1.40888889	1.75790576	1.35874346	2.23789474	1.79784946	1.2030108



	1	2	3	4	5	6	7	8	9	10	11	12	13	14
OVERALL ATTAINMENT	1.883682113	1.568564704	1.23391074	1.212524818	0.933054897	0.973435786	0.794976916	0.746346362	1.031574075	1.226291141	0.930569268	1.52013813	1.185613208	0.82593076
OVERALL TARGET	2.805026178	2.31078534	1.847619048	1.789473684	1.363350785	1.395789474	1.174736842	1.056842105	1.408888889	1.757905759	1.358743455	2.237894737	1.797849462	1.203010753

S. No.	Criteria	Observations made by NBA (During the last accreditation visit)	Compliance Status (Action taken by the institution)
8.5.2	**8.5.2 Actions taken based on the results of evaluation of relevant POs /PSOs**	Ineffective actions taken based on results of PO/PSOs	• To attain the POs/PSOs, systematically content beyond the syllabus has been identified and delivered. Also, different activities have been planned and executed to achieve the target value of PO/PSOs attainment. • The topics beyond syllabus have been delivered through experiential learning and participative learning. • In departmental discussion, department decided

Academic Year	2017-18	2018-19	2019-20
Delivery of topics beyond	22	27	28

the modes of delivery of topic beyond the syllabus which are identified through feedback of stake holders and included in the departmental academic calendar before the commencement of session.

These are the modes of delivery of topics beyond syllabus.

Delivery methods	Link
Add-on courses / workshops	https://jecrcfoundation.com/jf-data/NBA/ME/Workshop/2018-19/2018-19-vehicle-dyanammics.pdf https://jecrcfoundation.com/jf-data/NBA/ME/Workshop/2018-19/2018-19-workshop-3D-Printing-Feb%202019.pdf https://jecrcfoundation.com/jf-data/NBA/ME/Workshop/2019-20/2019-20%20Vehicle%20dyanammics.pdf https://jecrcfoundation.com/jf-data/NBA/ME/Workshop/2019-20/2019-20-3D%20printing-faculty-trainig.pdf https://jecrcfoundation.com/jf-data/NBA/ME/Workshop/2019-20/2019-20-3D-Printing-Nov-2020.pdf https://jecrcfoundation.com/jf-data/NBA/ME/Workshop/2019-20/2019-20-Automobile-faculty%20trainig.pdf
Guest lectures by the industry person	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/Guest-Lectures-2019-20.pdf
Industrial visit s	https://jecrcfoundation.com/jf-data/NBA/ME/Industrial-Visit/Industrial-Visits-2019-20.pdf
Conferences	https://www.jecrcfoundation.com/pdf/confrence-reports/ME%202015-2020.pdf
Technical clubs/ activitie	https://jecrcfoundation.com/jf-data/NBA/ME/MoonRider/Annual%20Report%202019-20.pdf

			s	https://jecrcfoundation.com/jf-data/NBA/ME/MoonRider/Annual-Report-2018-19.pdf
			The content beyond the syllabus was delivered through guest lectures by the industry experts, industrial visits, add-on courses, workshops, conferences, lectures of course teacher and presentation of student's project etc	

Guest Lecture

Year	Date	Guest name and topic	Website Link
2019	27.08.2019	Sh. Rajeev Bhargava, Mechanical CAD	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/27-Aug-2019-Report-CADD-CENTER.pdf
2019	27.08.2019	Sh. Himanshu Shrivastava, Application of Fluid Mechanics in Industries	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/27-Aug-2019-Report-ENGINEERS-ACADEMY.pdf
2019	04.09.2019	Sh. Bhawani Singh, Introduction and Application of MATLAB	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/04-Sep-2019-Report-PVAS.pdf
2019	06.09.2019	Sh. Rajeev Bhargava, Practical Applications and Industrial Uses of Mechanical CAD	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/06-Sep-2019-Report-CADD-CENTER-02.pdf
2019	09.10.2019	Sh. Alon Tal, Design Optimization of Functionally Graded Dental Implant for Bone Remodelling	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/09-Oct-2019-Report-UG-Scholar.pdf
2020	23.01.2020	Sh. Ravi Kumar Swami, Application of AutoCAD, CATIA, Solidworks and ANSYS software in the Manufacturing Industries	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/23-JANUARY-2020-Report-CADEMATE-01.pdf
2020	24.01.2020	Sh. Girish Kumar, Importance of AutoCAD, CATIA,Solidworks in the Manufacturing Industry	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/24-JANUARY-2020-Report-CADDESK.pdf
2020	25.01.2020	Sh. Ravi Kumar Swami, Application of AutoCAD, CATIA, Solidworks and ANSYS software in the Manufacturing Industries	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/25-JANUARY-2020-Report-CADEMATE-02.pdf
2020	12.02.2020	Sh. Diwjendra Srivastava, How to Prepare for CAT and GRE	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/12-FEBRUARY-2020-Report-IMS.pdf
2020	13.02.2020	Sh. Harsh Babel, Careers in Automotive Industries	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/13-FEBRUARY-2020-Report-HARSH-BABEL.pdf
2020	14.02.2020	Sh. Ravindra Dhewa, Importance of digital marketing	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/14-FEBRUARY-2020-Report-Digital-Marketing.pdf
2020	16.02.2020	Sh. Vaibhav Kamalkaka, New Technologies Challenge in Automative Industries	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/16-FEBRUARY-2020-Report-VAIBHAV-KAMALKAKA.pdf
2020	03.03.2020	Sh. Gaurav Dadheech, Start-Up in the in Automotive World and Electric Vehicle Scenario in India	https://jecrcfoundation.com/jf-data/NBA/ME/Guest-Lecture/2019-20/03-MARCH-2020-Report-GAURAV-DADHEECH.pdf

S.No	year	Topic	Link
1	2018	1nd International Conference on Recent Innovations & Technological Development in Mechanical Engineering ICRITDME - 2018	https://jecrcfoundation.com/jf-data/Conference/ICRITDME-2018.pdf
2	2019	1st National Conference On Futuristic Trends in Mechanical Engineering NCFTME-2019 16-17 March, 2019	https://jecrcfoundation.com/jf-data/Conference/NCFTME-2019.pdf
3	2019	2nd International Conference on Recent Innovations & Technological Development in Mechanical Engineering ICRITDME - 2019	https://jecrcfoundation.com/jf-data/Conference/ICRITDME-2019.pdf
4	2020	3rd International Conference on Recent Innovations & Technological Development in Mechanical Engineering ICRITDME - 2020 Recent Innovations & Technological Development in Mechanical Engineering ICRITDME-2020	https://jecrcfoundation.com/jf-data/Conference/ICRITDME-2020.pdf
5	2020	2nd National Conference on Futuristic Trends in Mechanical Engineering NCFTME - 2020	https://jecrcfoundation.com/jf-data/Conference/NCFTME-2020.pdf

Event Site

Photo taken on the last day of event

Links:
https://jecrcfoundation.com/applied-science/tech_events
https://jecrcfoundation.com/applied-science/jtechtrix
https://jecrcfoundation.com/student-corner/notes

Criterion 9: Student Support Systems

S. No	CRITERIA	OBSERVATION MADE BY NBA	COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)
9.2	**Feedback analysis and reward /corrective measures taken, if any**	Feedback system exists, but not effectively functioning.	Institute regularly collect and analyse feedback from students and other stakeholders on various issues. After analysing the feedbacks corrective actions are taken. Action taken reports are shared with the stakeholders. Feedback forms, Mechanism and action taken reports are also available on the institute websites. **https://jecrcfoundation.com/iqac/feedback-forms** **https://www.jecrcfoundation.com/pdf/iqac-feedback/1.4.2-Feedback%20Mechanism.pdf** **https://jecrcfoundation.com/iqac/action-taken-report** List of feedback with link is attached below.

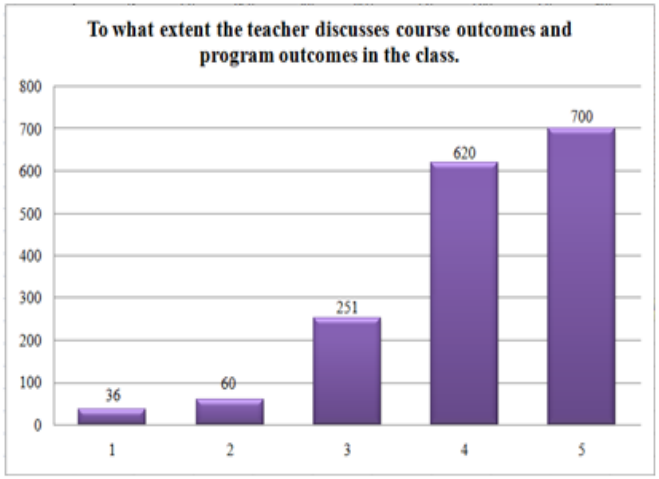
List and link of feedback forms

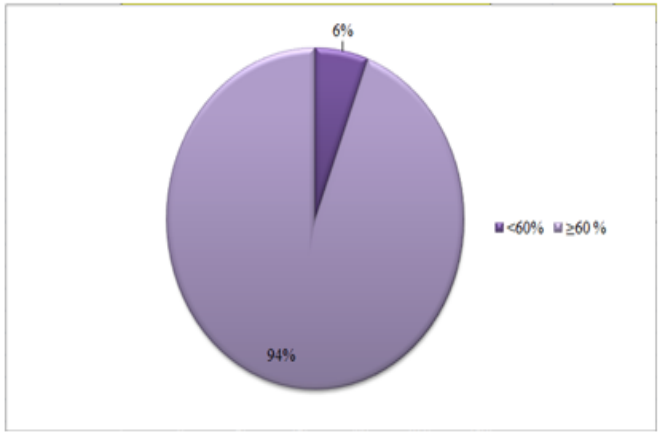
1	Student's Curriculum Feedback Form	https://forms.gle/zf81BNcSCnUtcc2J7
2	Students Feedback On Teaching Learning	https://forms.gle/bmeUV44GyKTkkzay7
3	Students Extra-Curricular Feedback Form	https://forms.gle/FdzxwxoZZEW99usv9
4	Parent's Feedback Form	https://forms.gle/RiwFvop6a5NHqpyG7
5	Student's Facility Feedback Form	https://forms.gle/GhxvQUNrRyGSUsBQA
6	Student's Hostel Facility Feedback Form	https://forms.gle/xeHNUd4dixmNuF2B9
7	Student's Feedback(Transport Facility) Form	https://forms.gle/Y8gAnoQmg9hoTbeJ8
8	General Feedback Form	https://forms.gle/fEwp5T1zbGS2xpvK7
9	Student's Course Outcome Feedback Form	https://forms.gle/GnxSy4NCVzotjtKBA
10	Student's Program Exit Feedback Form	https://forms.gle/kV4f2nXJvFqJEzaPA

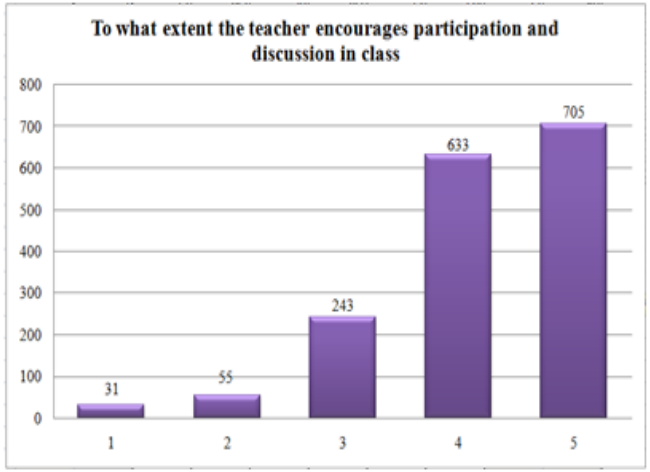
11	Employee Feedback Form	https://forms.gle/fHumzaPAYSrkQBds8
12	Industrial Training Feedback Form	https://forms.gle/AhmpicDXssa3QWkr9

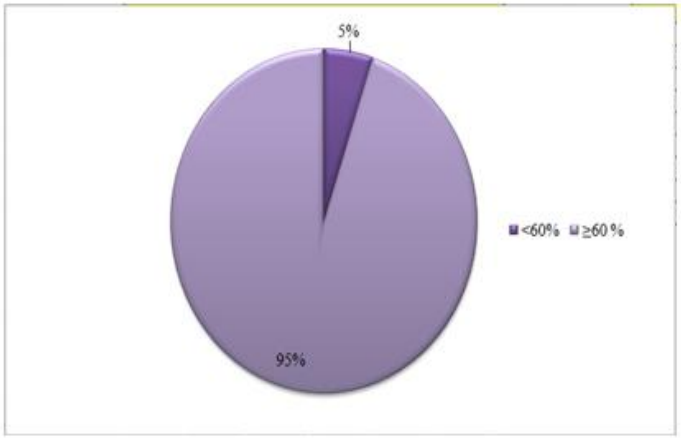
Teaching Learning- feedback

Total responses 1667





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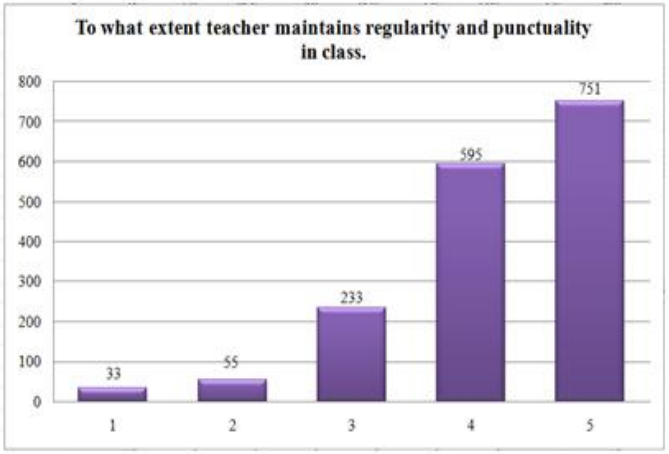
To what extent teacher maintains regularity and punctuality in class.
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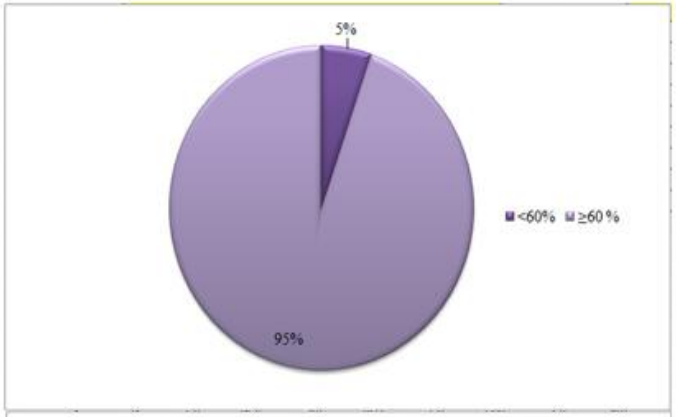
600
500
400
300
200
100
0
33
55
233
595
751
1
2
3
4
5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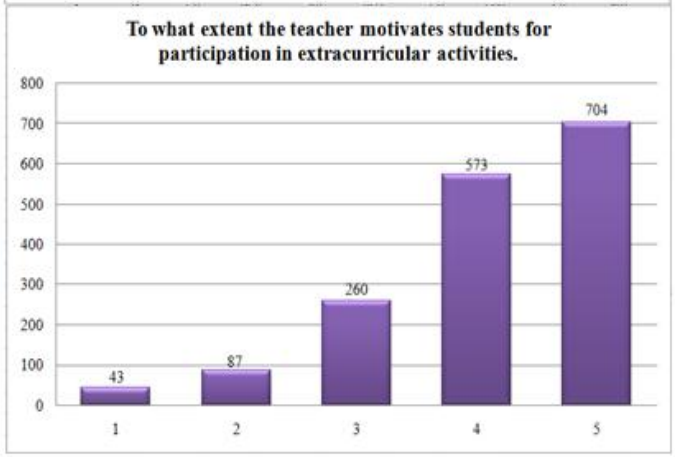
To what extent the teacher motivates students for participation in extracurricular activities.
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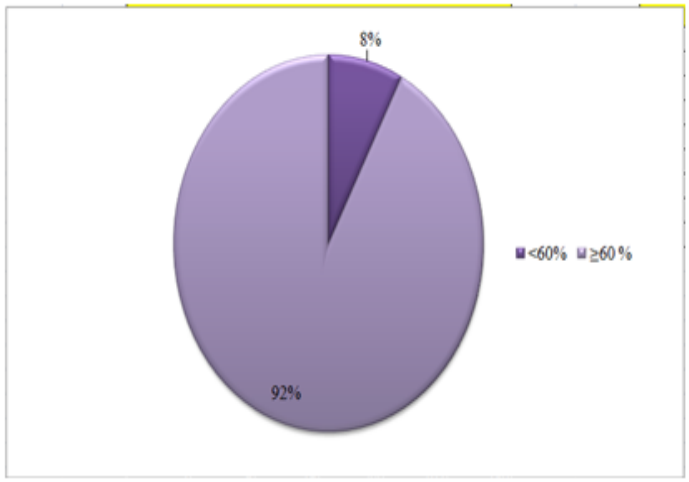
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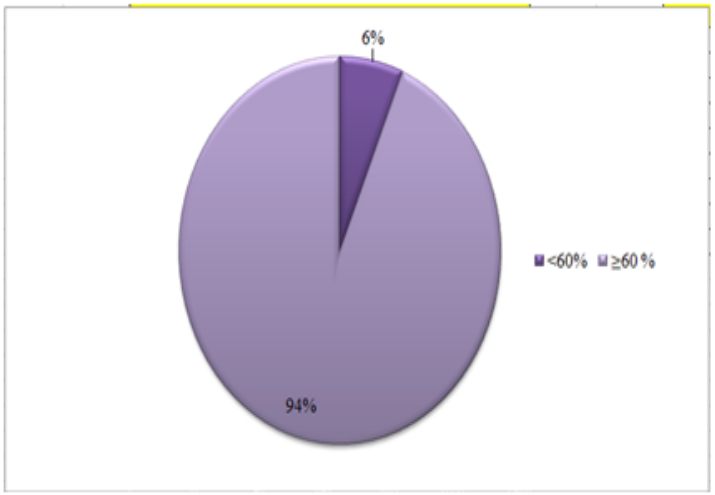
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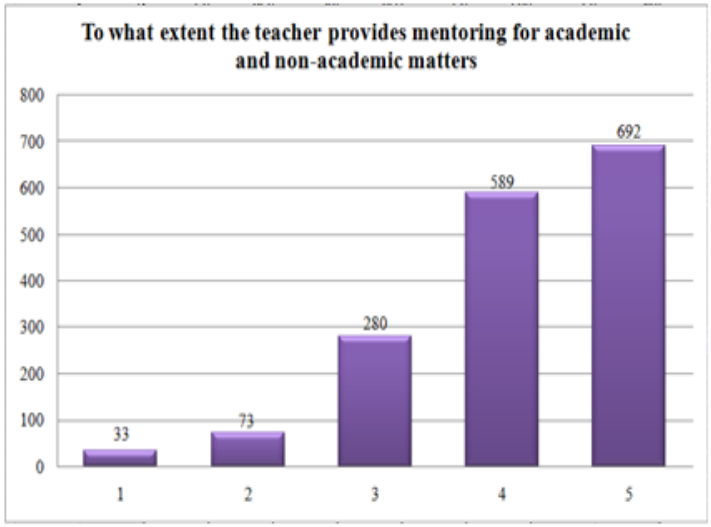
To what extent the teacher provides mentoring for academic and non-academic matters
800
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73
280
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692
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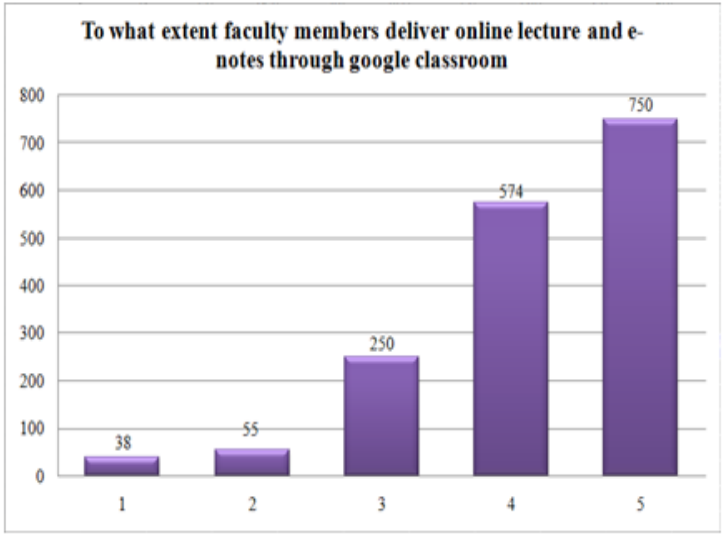
To what extent faculty members deliver online lecture and e-notes through google classroom
800
700
600
500
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100
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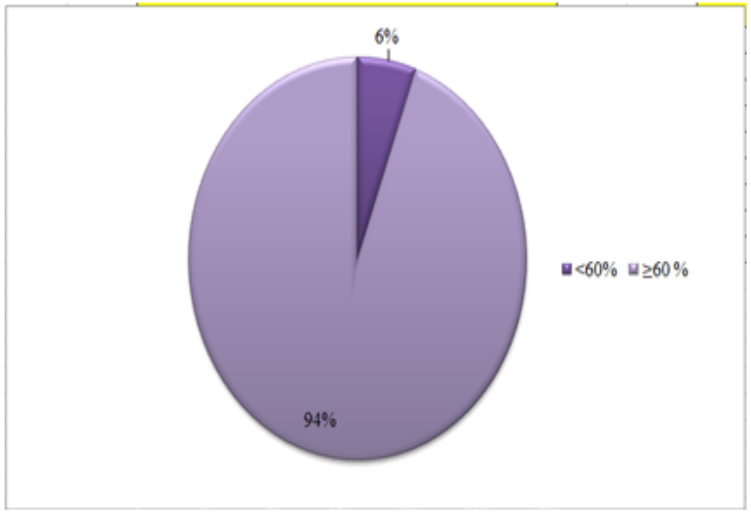
38
55
250
574
750
1
2
3
4
5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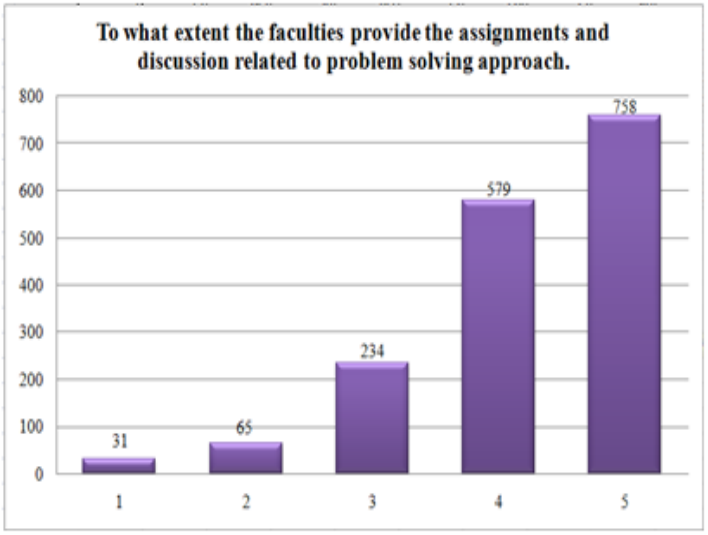
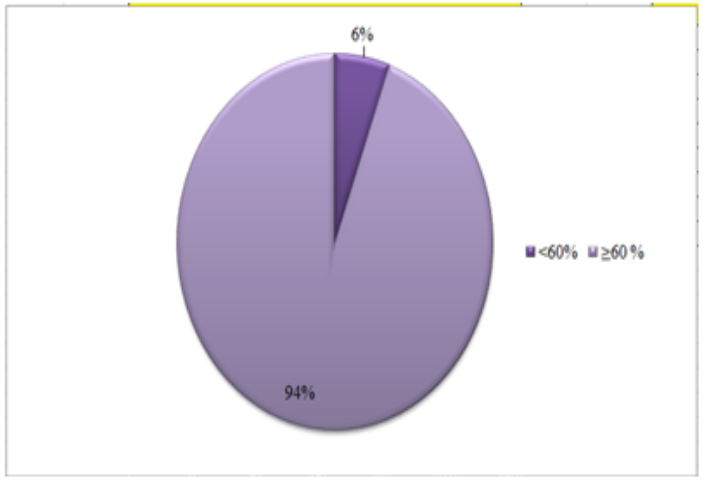

To what extent the faculties provide the assignments and discussion related to problem solving approach.
800
700
600
500
400
300
200
100
0
31
65
234
579
758
1
2
3
4
5


6%
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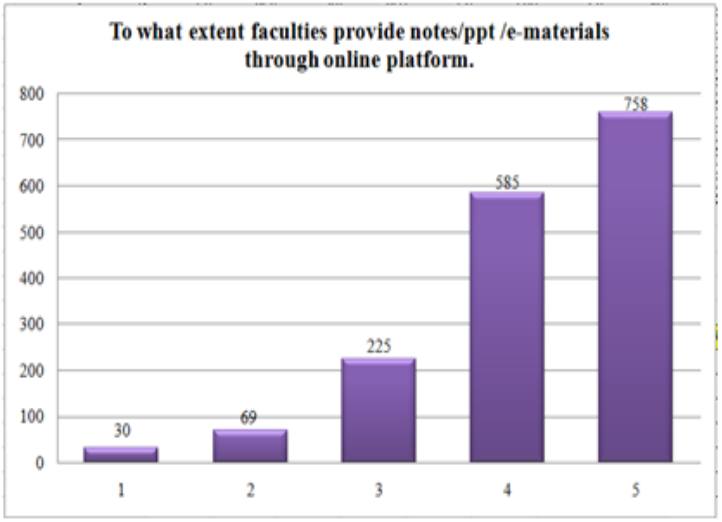
To what extent faculties provide notes/ppt /e-materials through online platform.
800
700
600
500
400
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200
100
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30
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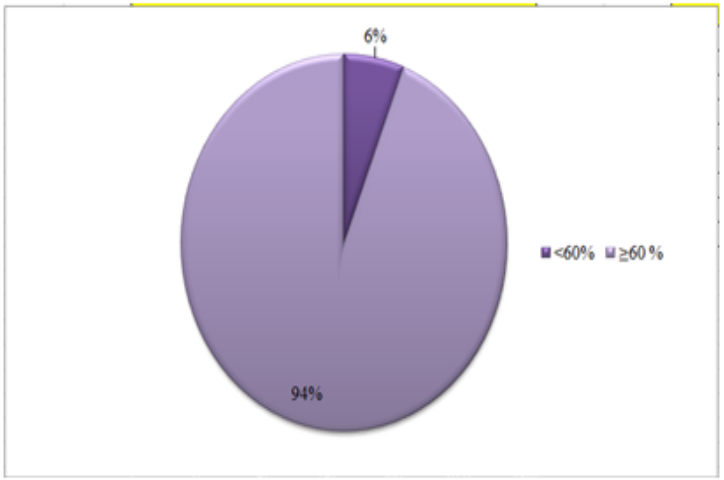
225
585
758
1
2
3
4
5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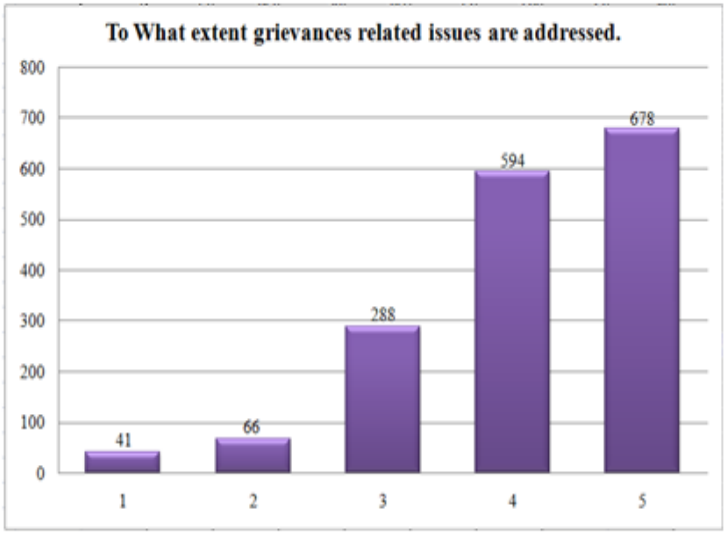
To What extent grievances related issues are addressed.
800
700
600
500
400
300
200
100
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41
66
288
594
678
1
2
3
4
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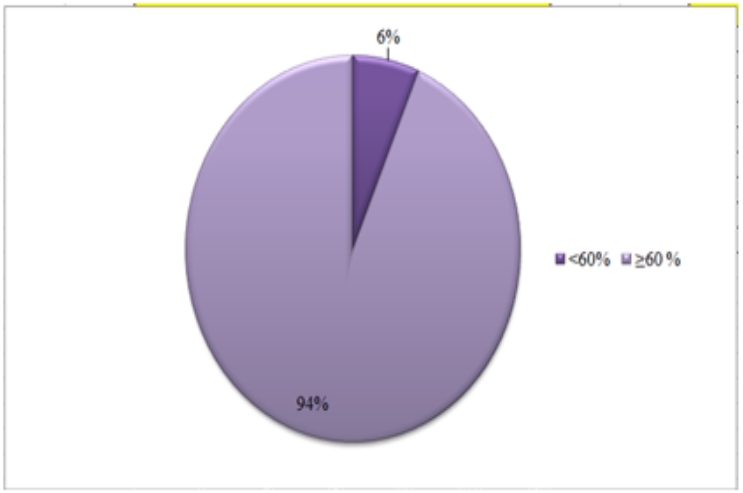

6%
94%
<60%
≥60 %

Student's Teaching learning Feedback forms received from students and summary as follows

Parameters	Responses		Action taken
	<60	≥60	
To what extent the teacher discusses course outcomes and program outcomes in the class.	5.76	94.24	The students appreciate the efforts made by faculty members regarding the discussion of COs & POs. Few students required more discussion regarding the same. IQAC instructed to all HoDs to speak with his faculty members to increase the frequency of discussion of COs &POs in classroom.
To what extent the teacher encourages participation and discussion in class.	5.16	94.84	The faculty members encourage innovative participation of students to make active discussions in classroom teaching. IQAC advised to all faculty members to increase the participation and discussion in class. Also increase the involvement of slow learners in discussion.
To what extent teacher maintains regularity and punctuality in class.	5.28	94.72	The students appreciated the regularity and punctuality of faculty members in classroom. IQAC instructed to all HoDs to insure the regularity and punctuality of faculty members in class.
To what extent the teacher motivates students for participation in extracurricular activities.	7.80	92.20	The students appreciate the efforts made by the faculty members. Also, faculty members are advised to motivate the students to make maximum involvement in extracurricular activities.
To what extent the teacher provides mentoring for academic and non-academic matters	6.36	93.64	The students appreciated the faculty members. Also, it is advised to mentors to increase the frequency of active mentoring sessions, especially for slow learners.
To what extent faculty members deliver online lecture and e-notes through google classroom	5.58	94.42	The students appreciate the efforts made by the faculty members. Also, instructed to all faculty members to provide the advanced study materials like GATE, IES etc materials, lecture videos, lab experiments videos through google classroom.
To what extent the faculties provide the assignments and discussion related to problem solving approach	5.76	94.24	Almost all faculties provide the quality assignment to the students. IQAC advised to faculty members to enhance the difficulty level of assignments by incorporate complex problems. Also provide last year GATE, IES etc questions in assignments for fast learners and provide extra discussion time for slow learners.
To what extent faculties provide notes/ppt /e-materials through online platform.	5.94	94.06	The students appreciate the efforts made by the faculty members. IQAC advised the faculty members to upload advanced study materials, lecture videos, lab experiments videos/ NPTEL/ Swayam/ Swayam Prabha links to students.
To What extent grievances related issues are addressed	6.42	93.58	The students appreciate the efforts made by the department. Almost all the grievances are addressed. IQAC instructed all HoDs to address all grievances related issues of students at time.

S. No	CRITERIA	OBSERVATION MADE BY NBA	COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)
9.3	**Feedback on facilities**	Feedback system on facilities exit, but corrective measures taken are not documented	Institute regularly collect and analyse feedback from students and other stakeholders on various issues. After analysing the feedbacks corrective actions are taken. Action taken reports are shared with the stakeholders. Feedback forms, Mechanism and action taken reports are also available on the institute websites. https://jecrcfoundation.com/iqac/feedback-forms https://www.jecrcfoundation.com/pdf/iqac-feedback/1.4.2-Feedback%20Mechanism.pdf https://jecrcfoundation.com/iqac/action-taken-report

List and link of feedback forms

1	Student's Curriculum Feedback Form	https://forms.gle/zf81BNcSCnUtcc2J7
2	Students Feedback On Teaching Learning	https://forms.gle/bmeUV44GyKTkkzay7
3	Students Extra-Curricular Feedback Form	https://forms.gle/FdzxwxoZZEW99usv9
4	Parent's Feedback Form	https://forms.gle/RiwFvop6a5NHqpyG7
5	Student's Facility Feedback Form	https://forms.gle/GhxvQUNrRyGSUsBQA
6	Student's Hostel Facility Feedback Form	https://forms.gle/xeHNUd4dixmNuF2B9
7	Student's Feedback(Transport Facility) Form	https://forms.gle/Y8gAnoQmg9hoTbeJ8
8	General Feedback Form	https://forms.gle/fEwp5T1zbGS2xpvK7
9	Student's Course Outcome Feedback Form	https://forms.gle/GnxSy4NCVzotjtKBA
10	Student's Program Exit Feedback Form	https://forms.gle/kV4f2nXJvFqJEzaPA
11	Employee Feedback Form	https://forms.gle/fHumzaPAYSrkQBds8
12	Industrial Training Feedback Form	https://forms.gle/AhmpicDXssa3QWkr9

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE	Jaipur Engineering college and research Centre, Shri Ram Ki Nangal, via Sitapura RIICO Jaipur-302 022.	**Academic year-2019-2020**

Internal Quality Assurance Committee

Circular

No: JECRC/2019/Meeting/

Date: 04.12.2019

This is to inform all members of IQAC that there is a meeting on "Feedback analysis and action taken report from different stake holders" scheduled from 2 to 4 pm on 07.12.2019 at the A-Block Conference hall. The Program coordinator are requested to bring the feedback analysis of their department for discussion on the following agenda points:

1. Feedback analysis for different stakeholders.
2. Discussion on action taken report on student's curriculum, co-curricular, facilities, hostel and transport.
3. Discussion on action taken report on parent's feedback.
4. Discussion on action taken report on alumni feedback.
5. Discussion on action taken report on Employer feedback.
6. Any other

IQAC Coordinator

Head of the Department
Mechanical Engineering
JECRC, Jaipur

CC to

JECRC JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE	Jaipur Engineering college and research Centre, Shri Ram Ki Nangal, via Sitapura RIICO Jaipur-302 022.	**Academic year-2019-2020**

Minutes of Meeting

Meeting Venue: Conference Hall, A-Block

Date: 08/12/2019

The meeting held on 7.12.2019 regarding feedback taken by different departments which department collects from the different stakeholders and later analysis is done at department level and submitted to IQAC. Later the analysis is done and IQAC prepares the collective feedback analysis and shared to the stakeholders. The various stake holders are mainly the students, faculty members, alumni, parents and employer. Based on the analysis, an action taken report is prepared for further improvement.

IQAC coordinator shared the action taken report with the program coordinator and also with all the faculty members about the feedback and the analysis of the stakeholders. The following agenda points were discussed.

1. **Students Curriculum:** Student's Curriculum feedback forms received from students and summary as follows

Parameters	Responses		Action taken
	<60%	≥60%	
Vision of JECRC	4.90	95.10	Majority of the students agreed with the Vision statement of JECRC
Mission of JECRC	5.15	94.85	Majority of the students agreed with the Mission statement of JECRC
Curriculum provided by university is satisfactory	8.96	91.04	Curriculum is as per RTU. IQAC advised the all-faculty members to identify more content beyond the syllabus and introduce more add on courses.

7. **Student's Facilities Feedback: Student's Facilities** Feedback forms received from students and summary as follows

Parameters	Responses		Action taken
	<60	≥60	
How would you rate the Cleanliness & greenery of college campus?	10.86	89.14	The students appreciated the cleanliness and greenery of college campus. The campus in-charge has been instructed to proper maintain the cleanliness and horticulture, also advised to organize plantation activity regularly.
How would you rate the infrastructure of laboratory in college?	13.44	86.56	The students appreciated the academic related laboratory. IQAC advised the HoDs to establish few industries supported labs. Also, it is proposed to equip the laboratory with latest sophisticated instruments.
How would you rate the infrastructure of Library in college?	7.59	92.41	The students appreciated the infrastructure of library. For further improvement, it is proposed to enhancement of e- library related facility.
How would you rate the Wi-Fi internet facility in the college?	37.66	62.34	Wi-Fi issue is raised and communicated for necessary action. It is proposed to install more routers in the campus.
How would you rate the classroom ambience in the college?	12.74	87.26	The students appreciated the classroom ambiences. Campus in-charge was asked to arrange the curtain for few remaining curtainless windows. Also, maintain the classroom properly.
How would you rate the canteen facility?	17.62	82.38	The issue has been discussed with the canteen contractor and advised him to provide proper facilities.
How would you rate the spiritual cell facility for counseling?	4.71	95.29	The students appreciated the spiritual cell facility for counseling. IQAC inform about the feedback received from students to spiritual cell in charge for further improvement and to organize more activities.
How would you rate the ICT facilities?	8.05	91.95	The students appreciate the ICT based facilities in the campus. Also, it is proposed to increase the number of ICT based classroom in the campus.

How would you rate sports facility in the college?	20.05	79.95	This issue has been discussed with the sports in-charge. The sports in-charge has been instructed to maintain and enhance the sports facility.
How would you rate First Aid facility in college?	13.36	86.64	The students appreciate the first aid facilities in the campus. Campus in-charge was asked to maintain the first aid facility in the college.
How would you rate the grievances regarding facility?	10.25	89.75	Mostly students are satisfied with the grievances regarding facilities. IQAC advised the grievances cell to resolve the grievances of student's within given time frame.

8.Student's Transport Facility Feedback: Student's Transport Feedback forms received from students and summary as follows

Parameters	Responses (%)		Action taken
	<60%	≥60 %	
To what extent transport facility at JECRC is dependable and punctual.	8.02	91.98	Most of the students appreciate the punctuality of transport. Also, transportation in-charge has been instructed to enhance the transportation facility according to requirement.
To what extent bus drivers demonstrates safe and preventive driving skills.	7.89	92.11	Safety of the students/staff is the prime concern for the College. The majority of students appreciated the safety maintained by the drivers while driving. Also, transportation in-charge has been instructed to talk with the drivers and give instructions for safe driving.
To what extent the drivers maintain proper dress code.	5.14	94.86	Mostly students appreciate this. Transportation in-charge has been instructed to talk with the drivers and give instructions to wear proper dress code while on duty.
How would you rate the cleanliness of the interior and exterior of	7.14	92.86	The students are satisfied with the cleanliness of the interior and exterior of the vehicle. Also, transportation in-charge has been

driving skills.	7.89	92.11	the drivers while driving. Also, transportation in-charge has been instructed to talk with the drivers and give instructions for safe driving.
To what extent the drivers maintain proper dress code.	5.14	94.86	Mostly students appreciate this. Transportation in-charge has been instructed to talk with the drivers and give instructions to wear proper dress code while on duty.
How would you rate the cleanliness of the interior and exterior of the vehicle?	7.14	92.86	The students are satisfied with the cleanliness of the interior and exterior of the vehicle. Also, transportation in-charge has been instructed to proper maintain interior and exterior cleanliness of vehicle.
To what extent the drivers communicate related to schedule.	8.02	91.98	The majority of the students feel that drivers adhere to the schedule. Transportation in-charge has been instructed to inform the students/staff before 3-4 day from effective implementation of new schedule.

9. Student's hostel facility feedback: Student's Hostels Feedback forms received from students and summary as follows

Parameters	**Responses (in %)**		**Action taken**
	<60	**≥60**	
To what extent you agree that hostel surroundings are secure.	11.31	88.69	The majority of the students agree with this statement as they find a safe and secure environment in the hostel. Also, this issue has been discussed with campus security in-charge.

	Shri Ram Ki Nangal, via Sitapura RIICO Jaipur-302 022.	

Following members were present in the meeting:

Sno.	Name	Designation	Signature
1	Prof (Dr) V K Chandna	Principal & IQAC Chairperson	
2	Dr M P Singh	HOD ME & IQAC Coordinator	
3	Dr Fauzia Siddiqui	Dy-IQAC Coordinator	
4	Dr Bhuvnesh Bhardwaj	Associate professor-Member	
5	Dr Ruchi Mathur	Dean Ist year	
6	Dr Sanjay Gour	HOD-CSE	
7	Dr Sandeep Vyas	HOD-ECE	
8	Dr Prerak Bhardwaj	HOD-EE	
9	Dr O P Netula	HOD-CE	
10	Mr Piyush Gautham	HOD-IT	
11	Dr Neelu Jain	Social Head	
12	Sh Ramesh Rawat	Placement Head	
13	[illegible]	[illegible]	

<table>
<tr><th>S. NO</th><th>CRITERIA</th><th>OBSERVATION MADE BY NBA</th><th>COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)</th></tr>
<tr><td>10.1.2</td><td>10.1.2 Governing body, administrative setup, functions of various bodies, service rules procedures, recruitment and promotional policies</td><td>Administrative bodies are in place but all are not actively functioning; frequency of meeting is limited.

Minutes of the meetings are not properly documented and action-taken reports are not available.</td><td>The institute governing body (NSERD) regularly meets to discuss various decisions and actions taken are analyzed.
All the administrative bodies regularly conduct meetings related to the smooth functioning of various sections and review the process and procedure from time to time.

<table>
<tr><td>Administrative bodies</td><td>Frequency of Meeting</td></tr>
<tr><td>National Society for Engineering Research and Development NSERD(Governing body)</td><td>Four/Year</td></tr>
<tr><td>Board of Governors (As per AICTE)</td><td>One/Year</td></tr>
<tr><td>Grievance Redressal Committee</td><td>Two/Year</td></tr>
<tr><td>Anti Ragging Committee</td><td>One/Year</td></tr>
<tr><td>Women Cell Committee</td><td>Two/Year</td></tr>
<tr><td>SC/ ST Cell Committee</td><td>Two/Year</td></tr>
<tr><td>Discipline committee/ Security committee</td><td>Twelve /Year</td></tr>
</table>

Link of Minutes of meetings are attached for you kind consideration.</td></tr>
</table>

Administrative Bodies	Link of Minutes of Meetings
National Society for Engineering Research and Development NSERD(Governing body)	https://www.jecrcfoundation.com/pdf/nserd/NSERD%202019-20%20Final.pdf
	https://www.jecrcfoundation.com/pdf/nserd/NSERD%202018-19%20Final.pdf
	https://www.jecrcfoundation.com/pdf/nserd/NSERD%202016-17%20Final.pdf
	https://www.jecrcfoundation.com/pdf/nserd/NSERD%202015-16%20Final.pdf
Board of	https://www.jecrcfoundation.com/pdf/bog/Governing%20Body%20AICTE%2

Governors (As per AICTE)	02019-20.pdf
	https://www.jecrcfoundation.com/pdf/bog/Governing%20Body%20AICTE%202018-19.pdf
Grievance Redressal Committee	https://jecrcfoundation.com/jf-data/NBA/Monitiring-committee_proceedings2019_20.pdf
Anti Ragging Committee	https://jecrcfoundation.com/jf-data/NBA/Monitiring-Anti_Ragging_committee.pdf
SC/ ST Cell Committee	https://jecrcfoundation.com/jf-data/NBA/Monitiring-SC_ST_committee.pdf
Discipline committee	https://jecrcfoundation.com/jf-data/NBA/Monitiring-Discipline_committee.pdf
Women Cell Committee	https://jecrndation.com/jf-data/NBA/Monitiring-Women_Cell_committee.pdf

Reg. No. :- 623/Jaipur/98-99

National Society for Engineering Research and Development

Regd. Off. : H-8, Chitranjan Marg, C-Scheme, Jaipur 302 001
Phone - 91-0141-4190000

Minutes of meeting of the Governing Body of National Society for Engineering Research and Development, Jaipur held on 13th April, 2019 at 11:00 am at the registered office of the Society.

The under noted members of the Governing Body were present in the meeting:-

1.	Shri O.P.Agrawal	Chairman
2.	Shri M.L.Sharma	Vice-Chairman
3.	Shri Arpit Agrawal	Member
4.	Shri Vinay Agrawal	Member
5.	Shri Ramawtar Jain	Treasurer
6.	Shri S.L.Agrawal	Secretary

Agenda No. 1:- Approval of the minutes: Minutes of the meeting of last Governing Body were read by the Secretary and confirmed.

Agenda No. 2:- Approval of the Budget for the year 2019-20: Secretary submitted the budget for the year 2019-20 and after discussion it was approved.

Agenda No. 3:- Approval of IPR Policy: Draft IPR policy was submitted for the approval, after discussion it was approved.

Agenda No. 4:- NBA Accreditation: Secretary informed that National Board of Accreditation has approved Electronic and Communication Engineering and Mechanical Engineering branch at Jaipur Engineering College and Research Centre, Jaipur. Computer Science & Engineering branch was not accredited. For the autonomy we have to make efforts for getting all the branches accredited. For this Principal may be ask to submit action plan.

Agenda No. 5:- Proposal to setup centre of excellence and industrial relation in Jaipur Engineering College and Research Centre, Jaipur. The issue was discussed and proposal may be asked from the college and be put up in the next meeting.

Agenda No. 6:- Proposal for the International Conference: The issue was discussed and it was decided that Two International Conferences may be planned in the college.

The meeting ended with the vote of thanks to the chair.

Secretary
National Society For Engineering
Research & Development

Reg. No. :- 623/Jaipur/98-99

National Society for Engineering Research and Development

Regd. Off. : H-8, Chitranjan Marg, C-Scheme, Jaipur 302 001
Phone - 91-0141-4190000

Minutes of meeting of the Governing Body of National Society for Engineering Research and Development, Jaipur held on 09th March, 2019 at 11:00 am at the registered office of the Society.

The under noted members of the Governing Body were present in the meeting:-

1.	Shri O.P.Agrawal	Chairman
2.	Shri M.L.Sharma	Vice-Chairman
3.	Shri Arpit Agrawal	Member
4.	Shri Vinay Agrawal	Member
5.	Shri Ramawtar Jain	Treasurer
6.	Shri S.L.Agrawal	Secretary

Agenda No. 1:- Approval of the minutes: Minutes of the meeting of last Governing Body were read by the Secretary and confirmed.

Agenda No. 2:- Review the expenditure against budget allocation: Head wise expenditure was reviewed and extra budget was sanctioned in the heads where it was required.

Agenda No. 3:- Excess infrastructure for session 2019-20: Secretary informed that looking to the same seat matrix no extra infrastructure is required.

The meeting ended with the vote of thanks to the chair.

Secretary

Secretary
National Society For Engineering
Research & Development
JAIPUR

Reg. No. :- 623/Jaipur/98-99

National Society for Engineering Research and Development

Regd. Off. : H-8, Chitranjan Marg, C-Scheme, Jaipur 302 001

Phone - 91-0141-4190000

Minutes of meeting of the Governing Body of National Society for Engineering Research and Development, Jaipur held on 30th November, 2019 at 11:00 am at the registered office of the Society.

The under noted members of the Governing Body were present in the meeting:-

1.	Shri O.P.Agrawal	Chairman
2.	Shri M.L.Sharma	Vice-Chairman
3.	Shri Arpit Agrawal	Member
4.	Shri Vinay Agrawal	Member
5.	Shri Ramawtar Jain	Treasurer
6.	Shri S.L.Agrawal	Secretary

Agenda No. 1:- Approval of the minutes: Minutes of the meeting of last Governing Body were read by the Secretary and confirmed.

Agenda No. 2:- To authorize the office bearer of the NSERD to execute the documents in favor of Tourism Finance Corporation of India Ltd. After discussion it was resolved.
{a} That in consideration of Tourism Finance Corporation of India Ltd.(TFCI") (hereinafter called "the Lender") having agreed to advance/ advanced Rupee Term Loan amounting to Rs.70 Crores (Rupees seventy Crores only) (hereinafter called "the said Term Loan") on the terms and conditions contained in the Letter of Intent No.TF/PR/1994/2019/7127 dated 26th November 2019 issued by TFCI to JECRC University (hereinafter called "the Borrower") and in further consideration of the Lenders having agreed to make/made disbursement(s)/interim disbursement(s) from out of the said Term Loan and/or to grant and disburse Bridge Loan/s for an amount not exceeding the amount of the said Term Loan to the Borrower, the NSERD (Society) do execute in favor of the Lender loan agreement as co-borrower &a Guarantee, guaranteeing the repayment of the said Term Loan/Bridge Loan(s) plus interest, Front-end fees, costs, charges and all other moneys payable by the Borrower to the Lender in terms of the Loan Agreement between the Borrower and the Lender and undertakings for non-withdrawal of loans/deposits made by the NSERD Society to the Borrower.

Secretary
National Society For Engineering
Research & Development
JAIPUR

National Society for Engineering Research and Development
Regd. Off. : H-8, Chitranjan Marg, C-Scheme, Jaipur 302 001
Phone - 91-0141-4190000

(b) That the Standard form of the Loan Agreement &Deed of Guarantee received from the Lender/Borrower (copies whereof duly authenticated by the Chairman of the Board have been circulated to the Members of the Board) be and is hereby approved and any one of the following Members, namely Amit Agarwal and Arpit Agarwal be and is hereby severally authorized to accept on behalf of the University such modifications therein as may be acceptable to the Lender.

(c) That the Seal of the NSERD Society be affixed to the fair stamped engrossment of the Loan Agreement &Deed of Guarantee (as per the said standard form with such modifications as may be agreed to by the Lenders) in the presence of Shri OP Agrawal, Chairman and Secretary Shri S.L. Agrawal (Secretary), who shall sign the same in token thereof.

(d) That Shri O P Agrawal, Chairman and Shri S L Agrawal, Secretary of NSERD Society be and are hereby authorized to execute or cause to be executed all undertakings, deeds, instruments, and other writings in favor of the Lender as may be required by the Lender in connection with the said Term Loan/ Bridge Loan(s) and any interim disbursement(s) made/to be made by the Lender out of the said Term Loan from time to time."

(e) That the guarantee/undertakings to be furnished by NSERD Society in favor of the Lenders are subject to jurisdiction of Courts in India.

Agenda No. 3:- To authorize the office bearer of the NSERD to execute the documents of JECRC University in favor of Tourism Finance Corporation of India Ltd..

The Chairman informed that University has been sanctioned, inter-alia, financial assistance by way of Term Loan of Rs.7000 lakhs by Tourism Finance Corporation of India Ltd. (**TFCI**) towards refinancing of existing outstanding term loans of Bank of India, State Bank of India, Corporation Bank and Dena Bank availed for construction of the University at Jaipur and repayment of unsecured loans. The Chairman further informed that the above financial assistance will be secured inter-alia, by registered mortgage in respect of the University's –

LEASEHOLD RIGHTS on all that pieces and parcels of land admeasuring 1,29,070 sq. mtrs. bearing Plot No. IS-2036 to IS-2039 and being, lying and situated at RIICO Industrial Area, Ramachandrapura (Sitapura Extn.), Jaipur and bounded on the -

Agrawal -

North by	- 60 Mtrs. Road
South by	- 06 Mtrs. Road
East by	- 30 Mtrs. Road
West by	- 24 Mtrs. Road

Together with buildings, structures, etc. constructed/to be constructed thereon, both present and future, and within the jurisdiction of Sub-Registrar of Assurances, Jaipur-V, in the Registration District Jaipur, in the State of Rajasthan. The Chairman, therefore, requested to pass the following resolutions which after some discussions were passed:

"RESOLVED THAT -

(1) The University do create mortgage in favor of Tourism Finance Corporation of India Ltd. (TFCI) to secure term loan of Rs.70 crores (Rupees seventy crores only) granted by executing the Indenture of mortgage as Co-Mortgagor with National Society For Engineering Research And Development (Society) and causing the same to be registered in the concerned office of sub-registrar of assurances at Jaipur in order to create security by way of mortgage on the University's-

LEASEHOLD RIGHTS on all that pieces and parcels of land admeasuring 1,29,070 sq.mtrs. bearing Plot No.IS-2036 to IS-2039 and being, lying and situated at RIICO Industrial Area, Ramachandrapura (Sitapura Extn.), Jaipur and bounded on the -

North by	- 60 Mtrs. Road
South by	- 06 Mtrs. Road
East by	- 30 Mtrs. Road
West by	- 24 Mtrs. Road

Together with buildings, structures, etc. constructed/to be constructed thereon, both present and future, and within the jurisdiction of Sub-Registrar of Assurances, Jaipur-V, in the Registration District Jaipur, in the State of Rajasthan (hereinafter referred to as **"the said immovable properties"**) to secure the due repayment, discharge and

Secretary

Reg. No. :- 623/Jaipur/98-99

National Society for Engineering Research and Development

Regd. Off. : H-8, Chitranjan Marg, C-Scheme, Jaipur 302 001

Phone - 91-0141-4190000

Minutes of meeting of the Governing Body of National Society for Engineering Research and Development, Jaipur held on 30th September, 2019 at 11:00 am at the registered office of the Society.

The under noted members of the Governing Body were present in the meeting:-

1. Shri O.P.Agrawal	Chairman
2. Shri M.L.Sharma	Vice-Chairman
3. Shri Arpit Agrawal	Member
4. Shri Vinay Agrawal	Member
5. Shri Ramawtar Jain	Treasurer
6. Shri S.L.Agrawal	Secretary

Agenda No. 1:- Approval of the minutes: Minutes of the meeting of last Governing Body were read by the Secretary and confirmed.

Agenda No. 2:- Faculty Review: Secretary presented the faculty status for each department with qualification of faculty. Most of the faculties are not Ph.D. Faculty may be motivated for getting enrolled for Ph.D.

Agenda No. 3:- Resolved that Shri S. L. Agrawal Secretary, National Society for Engineering Research and Development, Jaipur is authorized to execute and sign all documents relating to any property, deal, new telephone /mobile connections of any company including Airtel etc on behalf of this Society.

Agenda No. 4:- Proposal to setup centre of excellence and industrial relation in Jaipur Engineering College and Research Centre, Jaipur was discussed in previous meeting. Secretary has submitted the detail plan after discussion it was approved.

Agenda No. 5:- Status of Startups and Innovations: The status of Startups and Innovations was submitted by the Secretary, after discussion it was decided that Principal may be asked to improve the status.

Principal presented the formation of IQAC committee, minutes of its first meeting and the same was discussed and approved.

The meeting ended with the vote of thanks to the chair.

Secretary

S. NO	CRITERIA	OBSERVATION MADE BY NBA	COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)
10.1.3	**10.1.3 Decentralisation in working and grievance redressal mechanism**	Grievance redressal cell exits, but adequate evidences of action taken are not shown and it is still in the process of development.	Grievance form is available on the website www.jecrcfoundation.com .The grievance form is forwarded to concerned section to take action and action taken report thus submitted within stipulated time for the closure of grievance and finally information about the action taken is communicated to the individual who has put up the grievance.

Academic Year	Link of Minutes of meeting
2019-20	https://jecrcfoundation.com/jf-data/NBA/Grievance-2019-20.pdf
2017-18	https://jecrcfoundation.com/jf-data/NBA/Grievance-and-Redressal-committee-Proceedings-2017-18.pdf
2018-19	https://jecrcfoundation.com/jf-data/NBA/Grievance-and-Redressal-committee-Proceedings-2018-19.pdf
2019-20	https://jecrcfoundation.com/jf-data/NBA/Grievance-and-Redressal-committee-Proceedings-2019-20.pdf
2020-21	https://jecrcfoundation.com/jf-data/NBA/Grievance-and-Redressal-committee-Proceedings-2020-21.pdf

38/JECRC/2020
02/03/2020
02/03/2020

Jaipur Engineering College and Research centre

Grievance Form

Nature of Grievance: Defective Ceiling Fans in Boys' Hostel I

Grievance:

Complainant Name	Department	Date	Sign
Defective ceiling Fan Room No. 2, 31, 47, 64, 71, 75	BH-1	29-02-20	29/02/20

6 Fans

Submitted to	Department	Date	Signature	Action Taken	Signature
C.M.O Sir	BH-1	29/02/20	29/02/20	Priority action required	28.2.2020
Estate Engineer					

Separate sheet may be attached as annexure if the space provided is insufficient

Complainant Name	Department	Date	Remarks

SL. yogendra. PL. get it checked and minim. Rec. 07/3/20

Report Submitted to Principal /Registrar for remarks:

6 Fans repaired
Yogendra
13/3/2020

Principal / Registrar

Jaipur Engineering College & Research Centre

From : Grievance Committee	To : All Members

Noting Reference No. JECRC/GRC/2020/13 04/01/20

Meeting Notice

There is a meeting of Grievance and Redressal committee on January 25, 2020 in the Conference Room Block A at 11:30 AM to discuss the issues related to Grievances in the last six months. Following members are requested to kindly make it convenient to attend and present the information and data related to their sections –

1. Shri Manish Jain – Chair
2. Dr. M.P. Singh – Member
3. Dr. Ruchi Mathur – Member
4. Dr. Sandeep Vyas – Member
5. Shri P.K. Gupta – Member
6. Dr. Vinay Kumar Chandna – I/c Anti-Ragging Committee and Ragging Squad Committee
7. Dr. Barkha Srivastava – I/c Women Cell Committee
8. Dr. Sanjay Gaur – I/c Student Disciplinary Council Committee
9. Dr. Nilam Choudhary – I/c Schedule Cast & Schedule Tribes Committee

Agenda

1. Chair will share all the details related to complaint or grievances received in the last six months.
2. Invited incharge of Anti-Ragging Committee and Ragging Squad Committee will share all the details related to complaint or grievances received in the last six months.
3. Invited incharge of Women Cell Committee will share all the details related to complaint or grievances received in the last six months.
4. Invited incharge of Student Disciplinary Council Committee will share all the details related to complaint or grievances received in the last six months.
5. Invited incharge of Schedule Cast & Schedule Tribes Committee will share all the details related to complaint or grievances received in the last six months.
6. Grievances and redressal committee incharge will submit the report of complaint received in last six months.
7. Any other issues

PRINCIPAL

Copy to-
1. Vice Chairman
2. Director
3. All concerned
4. Shri Tovinder Sahoo – for necessary arrangements in the conference room

JAIPUR ENGINEERING COLLEGE
AND RESEARCH CENTRE

Ref: JECRC/2019/12 Date: 01/08/2019

Minutes of Meeting

Venue : Conference Room, Block A
Date & Time : Wednesday July 31, 2019 at 11:30 AM

Agenda :

1. Chair will share all the details related to complaint received or grievance received in the last six months.
2. Invited incharge of Anti-Ragging Committee and Ragging Squad Committee will share all the details related to complaint received or grievance received in the last six months.
3. Invited incharge of Women Cell Committee will share all the details related to complaint received or grievance received in the last six months.
4. Invited incharge of Student Disciplinary Council Committee will share all the details related to complaint received or grievance received in the last six months.
5. Invited incharge of Schedule Cast & Schedule Tribes Committee will share all the details related to complaint or grievances received in the last six months.
6. Grievances and redressal committee incharge will submit the report of complaint received in last six months.
7. Any other issues

Members Present :

1. Shri Manish Jain – Chair
2. Dr. M.P. Singh – Member
3. Dr. Ruchi Mathur – Member
4. Dr. Sandeep Vyas – Member
5. Shri P.K. Gupta – Member
6. Dr. Vinay Kumar Chandna – I/c Anti-Ragging Committee and Ragging Squad Committee
7. Dr. Barkha Srivastava – I/c Women Cell Committee
8. Dr. Sanjay Gaur – I/c Student Disciplinary Council Committee
9. Dr. Nilam Choudhary – I/c Schedule Cast & Schedule Tribes Committee

Manish Jain ..2/-

Following items were discussed and decided that –

1. Chair of Student Grievance / Redressal Committee welcome all the members from the committee and invited members of Anti-Ragging Committee and Ragging Squad Committee, Women Cell Committee, Student Disciplinary Council Committee, Schedule cast & Schedule Tribes Committee.
2. Minutes of meeting of last meeting were read and confirmed.
3. Discussion was held with all the incharges of the respective committees related to measures taken in the last six months to curve ragging, harassment or any other related issues with respect to the students and the faculty members. Respective incharges informed that there is no such particular grievance with respect to the Ragging, Gender harassment redressal or category based redressal.
4. Incharges also told that faculty members are also discussed at various platforms through internal and external agencies.
5. It was also discussed some grievances reported in the last six months and the disposal are taken care of.

S. No.	Activity	Total forms received	Resolved	Total pending
1	Student Grievances	0	0	0
2	Maintenance	21	19	2

6. It was also discussed that the pending grievances may be address at early possible to take necessary action in this regard.
7. Meeting ended with a vote of thanks to the Chair.

xxx

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

Ref:- JECRC/GRC/2019/11 Date: 31/07/19

Meeting

Date of Meeting : July 31, 2019 at 11:30 AM
Venue : Conference Room Block A

Following were present in the meeting of Grievance and Redressal committee –

S. No.	Name	Designation	Signature
1	Shri Manish Jain	Chair	
2	Shri P.K. Gupta	Member	
3	Dr. M.P. Singh	Member	
4	Dr. Ruchi Mathur	Member	
5	Dr. Sandeep Vyas	Member	
6	Dr. Vinay Kumar Chandna	I/c Anti-Ragging Committee and Ragging Squad Committee	
7	Dr. Barkha Srivastava	I/c Women Cell Committee	
8	Dr. Sanjay Gaur	I/c Student Disciplinary Council Committee	
9	Dr. Nilam Choudhary	I/c Schedule Cast & Schedule Tribes Committee	

S. No	**CRITERIA**	**OBSERVATION MADE BY NBA**	**COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)**
10.1.4	**10.1.4 Delegation of financial powers**	The financial powers in respect of HoDs are limited in terms of imprest amount only. .	Imprest amount of Rs. 10000/- on consumption basis provided to HOD and after submission of accounts of expenditure another imprest amount is provided to HOD.

Jaipur Engineering College & Research Centre

From : Principal Office	To : All Program Coordinators/HODs

Noting Reference No. JECRC/02/2017-18/269 29/05/18

Minutes of the Meeting

Venue : Board Room – Block A

Date & Time Wednesday; May 30, 2018 at 11:00 AM

Agenda

1. Confirmation of minutes of the last meeting during 2015-16
2. Annual report of the College for the academic year 2016-17
3. Annual report of the College for the academic year 2017-18
4. Proposed activities for the new academic year 2018-19
5. Any other issues with the permission of the Chair

Special invited Guest:

1. Shri Amit Agrawal, Special invited Guest

Members Present:

1. Shri M.L. Sharma, Chairman
2. Prof. (Dr.) V.K. Chandna, Member Secretary
3. Shri Manish Jain, Member
4. Dr. Umesh Kumar Pareek, Member
5. Dr. Naveen Hemrajani, Invited from other University
6. Dr. Sylvester Fernandes, Member (Invitees)
7. Shri Rajeev Bhargava, Member (Invitees)

Members absent:

1. Dr. Rajesh Singhal, Member (RTU Kota)
2. Nominee from the AICTE
3. Nominee of the state Govt./UT.
4. An Industrialist nominated by the State Govt.
5. Shri Deepak Motwani, Member (Invitees)
6. Shri Atul Kumar, Member (Invitees)

V. 29/5/18

Contd. 2/-

Meeting started at 11:00 AM; following items were discussed –

1. With the permission of the Chair, Dr. Vinay Kumar Chandna, Member Secretary welcomes all the dignitaries.
2. He read the last minutes of the meeting and further it was approved by the members unanimously.
3. He presents the annual report of the year 2016-17 and 2017-18, following items were discussed –
    a. Vision and Mission of the institute
    b. 12 points Program outcome
    c. Decentralization of power – institute's organization chart was discussed. He informed that an amount of Rs. 10,000/- is sanctioned to all the Program Coordinators/HODs, Dean II Shift, Dean I year, all section incharges to meet out the immediate requirement of the fund. He also clears that on the submission of account further amount is disbursed.
    d. Students' result analysis
    e. For the placement data; it was made clear that placement percentage is based on unique offers. The data of higher education, engaged with family business, startups etc. will be included later.
    f. Nine MoUs at National level and two MoUs at International level were signed to enhance the students' technical knowledge as per the market requirements. Shri Rajeev Bhargava suggested that we should adopt a process in which these certified courses should be validated by the MSME / University. These certificate courses may be examined by the university if possible it can be from JECRC University. Member secretary has noted the same for further action.
    g. Content beyond syllabus was discussed. Shri Manish Jain informed the members about the duration of the course. Member secretary informed that these courses are running after the college hours. Students are taking interest in these courses.
    h. Research Grants from the Govt. agencies and also proposed FDP/workshop/Seminar during the 2018-19 was discussed in brief. Member secretary informed that proposal of approx. 70 lacs were submitted to the Govt. agencies for conducting the different activities.
    i. Budget and expenditure discussed in brief. Member secretary made clear that "other then R&D" means academic activities, it is not included research related activities. Shri Amit ji appreciated the R&D activities he pointed out that in the year 2015-16 budget was Rs. 2,50,000/- and in the year 2018-19 (proposed) it rose to Rs. 20,00,000/- it shows that students are taking interest in R&D activities.
    j. QIV rating 2016-17 and 2017-18 was discussed. In the year 2016-17 the score was 616/1000 and after efforts this year it rose to 740/1000. Shri Amit Agrawal asked what is the highest marks so far, member secretary replied it will be checked out.

V. P 29/11/18

k. Member secretary told that faculty members will be motivated for paper publication at international level repute journals.
l. Proposed activities for the coming year were discussed in brief.

4. Inputs by the industry –
   a. Dr. Silvester suggested that more budget for the students' R&D activities should be incorporated in more elaborate manner i.e. budget should be clearly mentioned R&D, transportation, other expenditure etc.
   b. Centre of excellence should be opened 24x7.
   c. Result oriented training program should be incorporated.
   d. Shri Rajeev Bhargava suggested development of digital content
   e. These types of meetings should be twice in a year.
   f. In next meeting more representatives from the industry should be incorporated.

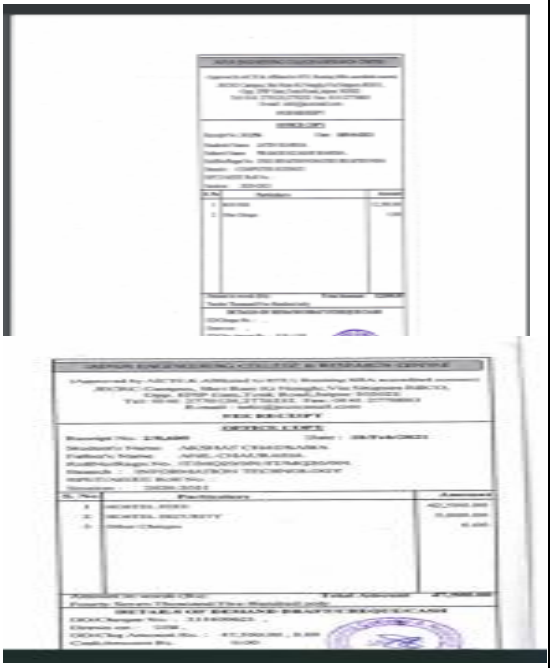
5. The meeting ended with a vote of thanks to the Chair.

V. (R Ou Rastogi

Member Secretary

S. NO	CRITERIA	OBSERVATION MADE BY NBA	COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)
10.1.5	**10.1.5 Transparency and availability of correct/unambiguous information in public domain**	Faculty & student information not available on the college website. .	List of faculty members and students are available on website. Links are provided for your kind consideration.

Academic Year	Link of Faculty and students
Faculty list 2020-21	https://jecrcfoundation.com/mechanical-engineering/faculty
Student list 2018-19 (I Year)	https://jecrcfoundation.com/jf-data/NBA/Student-List/2018-19/First-Year.pdf
Student list 2018-19 (II Year)	https://jecrcfoundation.com/jf-data/NBA/Student-List/2018-19/Second-Year.pdf
Student list 2018-19 (III Year)	https://jecrcfoundation.com/jf-data/NBA/Student-List/2018-19/Third-Year.pdf
Student list 2018-19 (IV Year)	https://jecrcfoundation.com/jf-data/NBA/Student-List/2018-19/Fourth-Year.pdf
Student list 2019-20 (I Year)	https://jecrcfoundation.com/jf-data/NBA/Student-List/2019-20/First-Year.pdf
Student list 2019-20 (II Year)	https://jecrcfoundation.com/jf-data/NBA/Student-List/2019-20/Second-Year.pdf
Student list 2019-20 (III Year)	https://jecrcfoundation.com/jf-data/NBA/Student-List/2019-20/Third-Year.pdf
Student list 2019-20 (IV Year)	https://jecrcfoundation.com/jf-data/NBA/Student-List/2019-20/Fourth-Year.pdf

S. NO	CRITERIA	OBSERVATION MADE BY NBA	COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)
10.2	**Budget Allocation, Utilisation, and Public Accounting at Institute level**	Apart from fees, the receipts include hostel and transport facilities	Separate hostel and transport facilities fees receipts are given to students. 

10.2.1	**10.2.1 Adequacy of Budget allocation**	Inadequate budget allocation; arbitrary allocations and no proper justifications was made .	As affiliated to Rajasthan Technical university and twenty year old college, mostly budget included maintenance and spare. As per new facility is concern, separate budget of Rs Ten lakh is provided for research facility at the department. Budget allocation for attending conferences, budget for start-up and incubation centre are allocated and utilized according to financial assistance. Budget proposals are submitted from the program coordinators, event coordinators, and others under different heads. Budget is allocated in different heads. Audited budget is attached for your kind consideration.

Items	Link of audited Budget statement
Infrastructure	https://jecrcfoundation.com/jf-data/NBA/infrastructure-budget.pdf
Maintenance	https://jecrcfoundation.com/jf-data/NBA/maintenance-Budget.pdf
library	https://jecrcfoundation.com/jf-data/NBA/library%20expenses.pdf

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

DEPRECIATION CHART AS ON 31.03.2019

Schedule 5

ASSETS	Gross Block					Rate of Dep.	Depreciation				Net Block	
	As on 01.04.2018	Additions		Deductions	As on 31.03.2019		Upto 31.03.2018	Dep for the year	Written Back	Depreciation upto 31.03.2019	As on 31.03.2019	As on 31.03.2018
		More than 180 Days	Less than 180 Days									
Building	56,84,94,072.49	2,19,799.00	62,30,336.00		59,49,44,208.49	3.34%	7,45,32,830.31	1,97,67,090.00		9,42,99,920.31	50,06,44,288.18	51,39,61,243.18
Land	16,86,34,611.62				16,86,34,611.62	0.00%	-	-		-	16,86,34,611.62	16,86,34,611.62
Land Consolidation	21,00,77,336.00				21,00,77,336.00	0.00%					21,00,77,336.00	21,00,77,336.00
Computer	2,84,98,005.83	7,49,583.00	8,25,925.00		3,00,71,513.83	16.21%	2,84,96,005.83	15,75,508.00		3,00,71,513.83	-	-
Furniture	3,67,48,038.12	12,88,983.00	14,26,886.00		3,94,61,607.12	6.33%	1,35,49,179.73	24,52,759.00		1,60,01,938.73	2,34,59,668.39	2,31,98,858.39
Other Assets	6,04,11,972.36	84,31,000.00	4,84,593.00		6,93,27,565.36	4.75%	1,91,88,002.53	32,81,550.00		2,24,69,552.53	4,68,58,012.83	4,12,23,969.83
Vehicle	2,02,33,053.57				2,02,33,053.57	9.50%	1,18,90,233.22	19,22,140.00		1,38,12,373.22	64,20,680.35	83,42,820.35
Bus	1,52,97,862.06				1,52,97,862.06	9.50%	1,13,08,125.40	14,53,297.00		1,27,61,422.40	25,36,439.66	39,89,736.66
TOTAL	1,12,83,92,953.05	1,06,87,065.00	89,67,740.00	-	1,14,80,47,758.05		15,89,64,377.02	3,04,52,344.00	-	18,94,16,721.02	95,86,31,037.03	96,94,28,576.03

For Jaipur Engineering College & Research Centre

President

For Jaipur Engineering College And Research Centre

Accounts Officer

Photocopy attested

Agarwal & Associates JAIPUR

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

DEPRECIATION CHART AS ON 31.03.2020

Schedule 5

ASSETS	Gross Block						Depreciation				Net Block	
	As on 01.04.2019	Additions		Deductions	As on 31.03.2020	Rate of Dep.	Upto 31.03.2019	Dep for the year	Written Back	Depreciation upto 31.03.2020	As on 31.03.2020	As on 31.03.20
		More than 180 Days	Less than 180 Days									
Building	59,49,44,208.49	1,19,153.00	46,211.00		59,51,09,572.49	3.34%	9,42,99,920.31	1,98,75,888.00		11,41,75,808.31	48,09,33,764.18	50,06,44,268.1
Land	16,86,34,611.62				16,86,34,611.62	0.00%	-	-		-	16,86,34,611.62	16,86,34,611.6
Land Consolidation	21,00,77,336.00				21,00,77,336.00	0.00%					21,00,77,336.00	21,00,77,336.0
Computer	3,00,71,513.83				3,00,71,513.83	16.21%	3,00,71,513.83	-		3,00,71,513.83	-	-
Furniture	3,94,61,607.12	2,71,956.00	35,282.00		3,97,68,845.12	6.33%	1,60,01,938.73	25,16,251.00		1,85,18,189.73	2,12,50,655.39	2,34,59,668.3
Other Assets	6,93,27,565.36	4,19,863.00	3,62,609.00		7,01,10,037.36	4.75%	2,24,69,552.53	33,21,615.00		2,57,91,167.53	4,43,18,869.83	4,68,58,012.8
Vehicle	2,02,33,053.57				2,02,33,053.57	9.50%	1,38,12,373.22	19,22,140.00		1,57,34,513.22	44,98,540.35	64,20,680.3
Bus	1,52,97,862.06				1,52,97,862.06	9.50%	1,27,61,422.40	14,53,297.00		1,42,14,719.40	10,83,142.66	25,36,439.6
TOTAL	1,14,80,47,758.05	8,10,972.00	4,44,102.00	-	1,14,93,02,832.05		18,94,16,721.02	2,90,89,191.00	-	21,85,05,912.02	93,07,96,920.03	95,86,31,037.0

For Jaipur Engineering College And Research Centre

Accounts Officer

For Jaipur Engineering College & Research Centre

Chairman

Vimal Agrawal & Associates
Chartered Accountants
JAIPUR

Photocopy attested

ASSOCIATES

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

Year	Budget allocated for infrastructure augmentation	Expenditure for infrastructure augmentation	Total expenditure excluding Salary	Expenditure on maintenance of academic facilities (excluding salary for human resources)	Expenditure on maintenance of physical facilities (excluding salary for human resources)
2019-2020	20,00,000.00	12,55,074.00	25,50,88,527.82	14,57,094.00	31,44,757.00
2018-2019	2,00,00,000.00	1,96,54,805.00	26,78,06,984.63	13,38,938.00	46,82,137.00
2017-2018	3,00,00,000.00	3,04,40,473.00	27,49,26,915.79	13,56,535.00	32,98,661.00
2016-2017	10,50,00,000.00	10,43,67,912.00	23,36,91,762.43	11,26,487.00	50,87,369.00
2015-2016	1,50,00,000.00	1,40,84,773.00	18,80,68,911.15	10,14,006.00	38,28,578.00
2014-2015	50,00,000.00	65,32,079.00	16,01,03,616.30	11,86,962.00	60,10,724.00

For Jaipur Engineering College
And Research Centre

Accounts/Finance Officer

Chartered Accountant

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

Income and Expenditure A/c as on 31.03.2020

Particulars	Amount	Particulars	Amount
To Affiliation Fee	11,82,000.00	By Annual Fee	28,60,75,961.49
To Conference Expenses	3,14,414.00	By Bus Fee	1,31,32,900.00
To Consultancy Expenses	46,800.00	By Hostel Fee	9,72,05,166.00
To Cultural & Placement Expenses	22,41,573.00	By Donation Received	1,00,00,000.00
To Electricity Expenses	50,89,153.06	By Misc Income	45,41,479.50
To Financial Charges	12,46,23,082.01	By Interest Received	1,80,324.00
To Hostel Expenses	2,15,49,875.00	By Excess of Expenditure over Income	32,84,695.83
To Office Expenses	16,74,645.00		
To Other Administrative Expenses	9,92,651.03		
To Repair & Maintenance	31,44,757.00		
To Repair & Maintenance Expenses (Vehicle)	18,79,644.00		
To Salary Expenses	15,93,31,999.00		
To Bus Running Expenses	46,97,556.78		
To Conveyance Exp	11,56,013.44		
To Depreciation	2,90,89,191.00		
To Diesel For Generator	4,41,146.50		
To Insurance Exp	10,29,542.00		
To Interest on TDS	18,10,672.00		
To Internet Exp	9,75,121.00		
To Laboratory Expenses	2,01,182.00		
To Library Expenses	2,80,791.00		
To PF Demand	2,69,840.00		
To Scholarship	4,85,00,155.00		
To Security Expenses	24,58,365.00		
To Sports Expenses	30,636.00		
To Staffwelfare	6,30,920.00		
To Student Expenses	1,04,630.00		
To Travelling Exp	5,98,544.00		
To Uniform Expenses	18,900.00		
To Website Development Exp	56,328.00		
	41,44,20,526.82		41,44,20,526.82

For Jaipur Engineering College and Research Centre

For Jaipur Engineering College & Research Centre

Chairman

O. P. AGRAWAL
(Chairman)

As per our audit report of even date
For Vimal Agarwal & Associates
(Chartered Accountants)
FRN: 004187C

(Vimal Agarwal)
Partner
M. No.: 071627

Place: Jaipur
Date: 30.12.2020

For Jaipur Engineering College
And Research Centre

Accounts Officer

Photocopy attested

JAIPUR

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

Profit & Loss A/c as on 31.03.2019

Particulars	Amount	Particulars	Amount
To Affiliation Fee	17,12,000.00	By Annual Fee	29,19,68,746.77
To Conference Expenses	5,93,129.80	By Bus Fee	1,30,46,700.00
To Consultancy Expenses	6,43,700.00	By Hostel Fee	9,99,66,670.00
To Cultural & Placement Expenses	31,78,088.12	By Insurance Claim Received	84,057.50
To Financial Charges	17,50,48,344.45	By Interest Received	3,79,413.87
To Hostel Expenses	1,96,05,886.38	By Misc Income	28,61,495.50
To Office Expenses	15,94,158.27		
To Other Administrative Expenses	6,04,515.00		
To Repair & Maintenance Expenses (Vehicle)	15,48,819.00		
To Salary Expenses	12,48,05,675.00		
To Bus Running Expenses	39,31,066.26		
To Conveyance Exp	8,08,572.41		
To Depreciation	3,04,52,344.00		
To Diesel For Generator	4,01,900.00		
To Electricity Expenses	74,13,385.94		
To Insurance Exp	9,25,004.00		
To Interest on TDS	19,79,874.00		
To Internet Exp	9,73,342.00		
To Lab Expenses	1,58,652.00		
To Library Expenses	2,06,944.00		
To PF Demand	9,01,573.00		
To Repair & Maintenance	46,82,137.00		
To Scholarship	70,24,886.00		
To Security Expenses	22,97,038.00		
To Sports Expenses	17,010.00		
To Staffwelfare	2,58,427.00		
To Student Expenses	1,88,000.00		
To Students Project	85,000.00		
To Travelling Exp	2,58,509.00		
To UD Tax	62,843.00		
To Uniform Expenses	2,06,800.00		
To Website Development Exp	45,056.00		
To Excess Of Income Over Expenditure	1,56,94,424.01		
	40,83,07,083.64		40,83,07,083.64

For Jaipur Engineering College and Research Centre

For Jaipur Engineering College & Research Centre

President

O. P. AGRAWAL
(Chairman)

Place: Jaipur
Date: 23.10.2019

For Jaipur Engineering College And Research Centre

Accounts Officer

As per our audit report of even date
For Vimal Agarwal & Associates
(Chartered Accountants)
FRN: 004187C

(Vimal Agarwal)
Partner
M. No.: 071627

S. No	CRITERIA	OBSERVATION MADE BY NBA	COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)
10.2.2	**10.2.2 Utilization of allocated funds**	Poor budget utilization	As affiliated to Rajasthan Technical university and twenty year old college, mostly budget included maintenance and spare. As per new facility is concern, separate budget of Rs Ten lakh is provided for research facility at the department. Budget allocation for attending conferences, budget for start-up and incubation centre are allocated and utilized according to financial assistance. Audited budget is attached for your kind consideration. https://www.jecrcfoundation.com/naacdata/Criteria%206/6.3.2/6.3.2%20Data%20template%20WEB.pdf

Items	Link of audited Budget statement
Infrastructure	https://jecrcfoundation.com/jf-data/NBA/infrastructure-budget.pdf
Maintenance	https://jecrcfoundation.com/jf-data/NBA/maintenance-Budget.pdf
library	https://jecrcfoundation.com/jf-data/NBA/library%20expenses.pdf

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

DEPRECIATION CHART AS ON 31.03.2019

Schedule 8

ASSETS	Gross Block						Depreciation				Net Block	
	As on 01.04.2018	Additions		Deductions	As on 31.03.2019	Rate of Dep.	Upto 31.03.2018	Dep for the year	Written Back	Depreciation upto 31.03.2019	As on 31.03.2019	As on 31.03.2018
		More than 180 Days	Less than 180 Days									
Building	56,84,94,073.49	2,19,709.00	62,30,336.00		59,49,44,208.49	3.34%	7,45,32,830.31	1,97,67,090.00		9,42,99,920.31	50,06,44,288.18	51,39,61,243.18
Land	16,86,34,611.62				16,86,34,611.62	0.00%	-	-		-	16,86,34,611.62	16,86,34,611.62
Land Consolidation	21,00,77,336.00				21,00,77,336.00	0.00%					21,00,77,336.00	21,00,77,336.00
Computer	2,84,96,005.83	7,49,583.00	8,25,925.00		3,00,71,513.83	16.21%	2,84,96,005.83	15,75,508.00		3,00,71,513.83	-	-
Furniture	3,67,48,038.12	12,86,883.00	14,26,886.00		3,94,61,807.12	6.33%	1,35,49,179.73	24,52,759.00		1,60,01,938.73	2,34,59,868.39	2,31,98,858.39
Other Assets	6,04,11,972.36	84,31,000.00	4,84,593.00		6,93,27,565.36	4.75%	1,91,89,002.53	32,81,550.00		2,24,69,552.53	4,68,58,012.83	4,12,22,969.83
Vehicle	2,02,33,053.57				2,02,33,053.57	9.50%	1,18,90,233.22	19,22,140.00		1,38,12,373.22	64,20,680.35	83,42,820.35
Bus	1,52,97,862.06				1,52,97,862.06	9.50%	1,13,08,125.40	14,53,297.00		1,27,61,422.40	25,36,439.66	39,89,736.66
TOTAL	1,12,83,92,953.05	1,06,87,065.00	89,67,740.00	-	1,14,80,47,758.05		15,89,64,377.02	3,04,52,344.00	-	18,94,16,721.02	95,85,31,037.03	96,94,28,576.03

For Jaipur Engineering College & Research Centre

President

For Jaipur Engineering College And Research Centre

Accounts Officer

Photocopy attested

Associates JAIPUR

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

Income and Expenditure A/c as on 31.03.2020

Particulars	Amount	Particulars	Amount
To Affiliation Fee	11,82,000.00	By Annual Fee	28,60,75,961.49
To Conference Expenses	3,14,414.00	By Bus Fee	1,31,32,900.00
To Consultancy Expenses	46,800.00	By Hostel Fee	9,72,05,166.00
To Cultural & Placement Expenses	22,41,573.00	By Donation Received	1,00,00,000.00
To Electricity Expenses	50,89,153.06	By Misc Income	45,41,479.50
To Financial Charges	12,46,23,082.01	By Interest Received	1,80,324.00
To Hostel Expenses	2,15,49,875.00	By Excess of Expenditure over Income	32,84,695.83
To Office Expenses	16,74,645.00		
To Other Administrative Expenses	9,92,651.03		
To Repair & Maintenance	31,44,757.00		
To Repair & Maintenance Expenses (Vehicle)	18,79,644.00		
To Salary Expenses	15,93,31,999.00		
To Bus Running Expenses	46,97,556.78		
To Conveyance Exp	11,56,013.44		
To Depreciation	2,90,89,191.00		
To Diesel For Generator	4,41,146.50		
To Insurance Exp	10,29,542.00		
To Interest on TDS	18,10,672.00		
To Internet Exp	9,75,121.00		
To Laboratory Expenses	2,01,182.00		
To Library Expenses	2,80,791.00		
To PF Demand	2,69,840.00		
To Scholarship	4,85,00,155.00		
To Security Expenses	24,58,365.00		
To Sports Expenses	30,636.00		
To Staffwelfare	6,30,920.00		
To Student Expenses	1,04,630.00		
To Travelling Exp	5,98,544.00		
To Uniform Expenses	18,900.00		
To Website Development Exp	56,328.00		
	41,44,20,526.82		41,44,20,526.82

For Jaipur Engineering College and Research Centre

For Jaipur Engineering College & Research Centre

Chairman

O. P. AGRAWAL
(Chairman)

As per our audit report of even date
For Vimal Agarwal & Associates
(Chartered Accountants)
FRN: 004187C

(Vimal Agarwal)
Partner
M. No.: 071627

Place: Jaipur
Date: 30.12.2020

For Jaipur Engineering College
And Research Centre
Accounts Officer

Photocopy attested

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

Profit & Loss A/c as on 31.03.2019

Particulars	Amount	Particulars	Amount
To Affiliation Fee	17,12,000.00	By Annual Fee	29,19,68,746.77
To Conference Expenses	5,93,129.80	By Bus Fee	1,30,46,700.00
To Consultancy Expenses	6,43,700.00	By Hostel Fee	9,99,66,670.00
To Cultural & Placement Expenses	31,78,088.12	By Insurance Claim Received	84,057.50
To Financial Charges	17,50,48,344.45	By Interest Received	3,79,413.87
To Hostel Expenses	1,96,05,886.38	By Misc Income	28,61,495.50
To Office Expenses	15,94,158.27		
To Other Administrative Expenses	6,04,515.00		
To Repair & Maintenance Expenses (Vehicle)	15,48,819.00		
To Salary Expenses	12,48,05,675.00		
To Bus Running Expenses	39,31,066.26		
To Conveyance Exp	8,08,572.41		
To Depreciation	3,04,52,344.00		
To Diesel For Generator	4,01,900.00		
To Electricity Expenses	74,13,365.94		
To Insurance Exp	9,25,004.00		
To Interest on TDS	19,79,874.00		
To Internet Exp	9,73,342.00		
To Lab Expenses	1,58,652.00		
To Library Expenses	2,06,944.00		
To PF Demand	9,01,573.00		
To Repair & Maintenance	46,82,137.00		
To Scholarship	70,24,856.00		
To Security Expenses	22,97,038.00		
To Sports Expenses	17,010.00		
To Staffwelfare	2,58,427.00		
To Student Expenses	1,88,000.00		
To Students Project	85,000.00		
To Travelling Exp	2,58,509.00		
To UD Tax	62,843.00		
To Uniform Expenses	2,06,800.00		
To Website Development Exp	45,056.00		
To Excess Of Income Over Expenditure	1,56,94,424.01		
	40,83,07,083.64		40,83,07,083.64

For Jaipur Engineering College and Research Centre

For Jaipur Engineering College & Research Centre

O. P. AGRAWAL
(Chairman)

As per our audit report of even date
For Vimal Agarwal & Associates
(Chartered Accountants)
FRN: 004187C

(Vimal Agarwal)
Partner
M. No.: 071627

Place: Jaipur
Date: 23.10.2019

For Jaipur Engineering College
And Research Centre
Accounts Officer

Photocopy attested

S. NO	CRITERIA	OBSERVATION MADE BY NBA	COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)
10.3.1	**Program Specific Budget Allocation, Utilization** **10.3.1 Adequacy of budget allocation**	Inadequate budget allocation; arbitrary allocations and no proper justifications was made	As affiliated to Rajasthan Technical university and twenty year old college, mostly budget included maintenance and spare. As per new facility is concern, separate budget of Rs Ten lakh is provided for research facility at the department. Budget allocation for attending conferences, budget for start-up and incubation centre are allocated and utilized according to financial assistance. Department Head is intimated of the extent of funds allocated against the budget proposals. Actions for procurement of lab equipment, up-gradation of existing lab facilities, purchase of consumables etc. are initiated from the departments. Audited budget is attached for your kind consideration. https://www.jecrcfoundation.com/naacdata/Criteria%206/6.3.2/6.3.2%20Data%20template%20WEB.pdf

Items	Link of audited Budget statement
Infrastructure	https://jecrcfoundation.com/jf-data/NBA/infrastructure-budget.pdf
Maintenance	https://jecrcfoundation.com/jf-data/NBA/maintenance-Budget.pdf
library	https://jecrcfoundation.com/jf-data/NBA/library%20expenses.pdf

Jaipur Engineering College and Research Centre, Jaipur
Department of Mechanical Engineering

Subject: Expenditure for session 2018-19

The expenditure for the session July2018-June2019 of Mechanical Engineering Department is as follows:

S. No.	Category	Items	Budget Sanctioned(in Rs)	Total Expenditure (in Rs)	Expenditure by Institute (in Rs)	Expenditure other than Institute
1	Consumable	1. Raw Material For Workshop & Labs	187000	125000	125000	Nil
2	Hardware &Software	1. 2 Stroke Petrol Engine Cut section 2. Hydraulic Braking System Model 3. Grinding of Milling Cutters and Drilling Attachment 4. Steering System Models 5. Pool Boiling Apparatus 6. Wheel Balancing Machine 7. Profile Projector 8. Orsat Apparatus 9. Dryness Fraction of Steam 10. Simple Steam Turbine Model 11. Stop Watch	750000	6,39,770	6,39,770	Nil
3	Curricular activity	1. International conference 2. National conference 3. FDP /Workshop 4. Guest lecture/Industry visit	315000	171576	4626	166950
4	Co-Curricular Activity	1. Technical Events(MECHTECH Activities) 2. Moonrider activities	120000	89450	50000	39450
			1372000	1025796	819396	206400

Submitted for your kind Information.

HOD ME

Head of the Department
Mechanical Engineering
JECRC, Jaipur

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

Jaipur Engineering College and Research Centre, Jaipur

Department of Mechanical Engineering

Subject: Budget & Expenditure for session 2019-20

The Budget & expenditure for the session July2019-June2020 of Mechanical Engineering Department is as follows:

S. No.	Category	Items	Budget Sanctioned(in Rs)	Total Expenditure (in Rs)	Expenditure by Institute (in Rs)	Expenditure other than Institute
1	Consumable	Raw Material For Workshop & Labs	160000	118225	120000	NIL
2	Hardware &Software	Machines and Equipments 1.Creep testing machine 2. Thermocouple for chip measurement 3. Cantilever beam with electric dynamometer	500000	nil	nil	NIL
3	Additional Facilities R& D	1. Centre of Excellence (BABA automobile) 2. Tchnical club (Moonrider) activities 3. 3 D printing 4. International conference 5. National conference 6. FDP /Workshop 7. Guest lecture/Industry visit	700000	500000 50000 23550+ 3390	550000 3390	23550 national conference (Generate 102500) International conference
4	Curricular & Co curricular Activities	Technical Events	120000	nil	nil	101500 (Generate)
			1530000	695165	673390	227550

Submitted for your kind Approval

HOD ME

Head of the Department
Mechanical Engineering
JECRC, Jaipur

S. NO	CRITERIA	OBSERVATION MADE BY NBA	COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)
10.3.2	**Program Specific Budget Allocation, Utilization** **10.3.2 Utilization of allocated funds**	Poor budget utilization as it not decided by the departmental authorities	As affiliated to Rajasthan Technical university and twenty year old college, mostly budget included maintenance and spare. As per new facility is concern separate budget of Rs Ten lakh is provided for research facility at the department and budget allocation for attending conferences, budget for start-up and incubation centre are allocated and utilized according to financial assistance. Department Head is intimated of the extent of funds allocated against the budget proposals. Actions for procurement of lab equipment, up-gradation of existing lab facilities, purchase of consumables etc. are initiated from the departments. Audited budget is attached for your kind consideration.

Items	Link of audited Budget statement
Infrastructure	https://jecrcfoundation.com/jf-data/NBA/infrastructure-budget.pdf
Maintenance	https://jecrcfoundation.com/jf-data/NBA/maintenance-Budget.pdf
library	https://jecrcfoundation.com/jf-data/NBA/library%20expenses.pdf

Jaipur Engineering College and Research Centre, Jaipur
Department of Mechanical Engineering

Subject: Expenditure for session 2018-19

The expenditure for the session July2018-June2019 of Mechanical Engineering Department is as follows:

S. No.	Category	Items	Budget Sanctioned(in Rs)	Total Expenditure (in Rs)	Expenditure by Institute (in Rs)	Expenditure other than Institute
1	Consumable	1. Raw Material For Workshop & Labs	187000	125000	125000	Nil
2	Hardware &Software	1. 2 Stroke Petrol Engine Cut section 2. Hydraulic Braking System Model 3. Grinding of Milling Cutters and Drilling Attachment 4. Steering System Models 5. Pool Boiling Apparatus 6. Wheel Balancing Machine 7. Profile Projector 8. Orsat Apparatus 9. Dryness Fraction of Steam 10. Simple Steam Turbine Model 11. Stop Watch	750000	6,39,770	6,39,770	Nil
3	Curricular activity	1. International conference 2. National conference 3. FDP /Workshop 4. Guest lecture/Industry visit	315000	171576	4626	166950
4	Co-Curricular Activity	1. Technical Events(MECHTECH Activities) 2. Moonrider activities	120000	89450	50000	39450
			1372000	1025796	819396	206400

Submitted for your kind Information.

HOD ME

Head of the Department
Mechanical Engineering
JECRC, Jaipur

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTRE

Jaipur Engineering College and Research Centre, Jaipur

Department of Mechanical Engineering

Subject: Budget & Expenditure for session 2019-20

The Budget & expenditure for the session July2019-June2020 of Mechanical Engineering Department is as follows:

S. No.	Category	Items	Budget Sanctioned(in Rs)	Total Expenditure (in Rs)	Expenditure by Institute (in Rs)	Expenditure other than Institute
1	Consumable	Raw Material For Workshop & Labs	160000	118225	120000	NIL
2	Hardware &Software	Machines and Equipments 1.Creep testing machine 2. Thermocouple for chip measurement 3. Cantilever beam with electric dynamometer	500000	nil	nil	NIL
3	Additional Facilities R& D	1. Centre of Excellence (BABA automobile) 2. Tchnical club (Moonrider) activities 3. 3 D printing 4. International conference 5. National conference 6. FDP /Workshop 7. Guest lecture/Industry visit	700000	500000 50000 23550+ 3390	550000 3390	23550 national conference (Generate 102500) International conference
4	Curricular & Co curricular Activities	Technical Events	120000	nil	nil	101500 (Generate)
			1530000	695165	673390	227550

Submitted for your kind Approval

HOD ME

Head of the Department
Mechanical Engineering
JECRC, Jaipur

<table>
<tr><th>S. NO</th><th>CRITERIA</th><th>OBSERVATION MADE BY NBA</th><th>COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)</th></tr>
<tr><td>10.4.1</td><td>Library and Internet

10.4.1 Quality of learning resources (hard/soft)</td><td>10.4.1 Quality of learning resources (hard/soft)

Limited number of e-resource facilities</td><td>Institute continuously enrich e-resource facilities. All the information related to e-resource facilities is available on website.

<table><tr><td>e-resources</td><td>Link of e-resources</td></tr><tr><td>Lectures notes</td><td>https://jecrcfoundation.com/student-corner/notes</td></tr><tr><td>Lab Videos</td><td>https://jecrcfoundation.com/student-corner/lab-videos</td></tr><tr><td>Swayam link</td><td>https://jecrcfoundation.com/pdf/swayam/Swayam-ME.pdf</td></tr><tr><td>NPTEL</td><td>https://jecrcfoundation.com/pdf/nptl/NPTEL-ME.pdf</td></tr><tr><td>Virtual lab</td><td>https://jecrcfoundation.com/pdf/virtual%20lab%20expression%20of%20interest.pdf</td></tr></table></td></tr>
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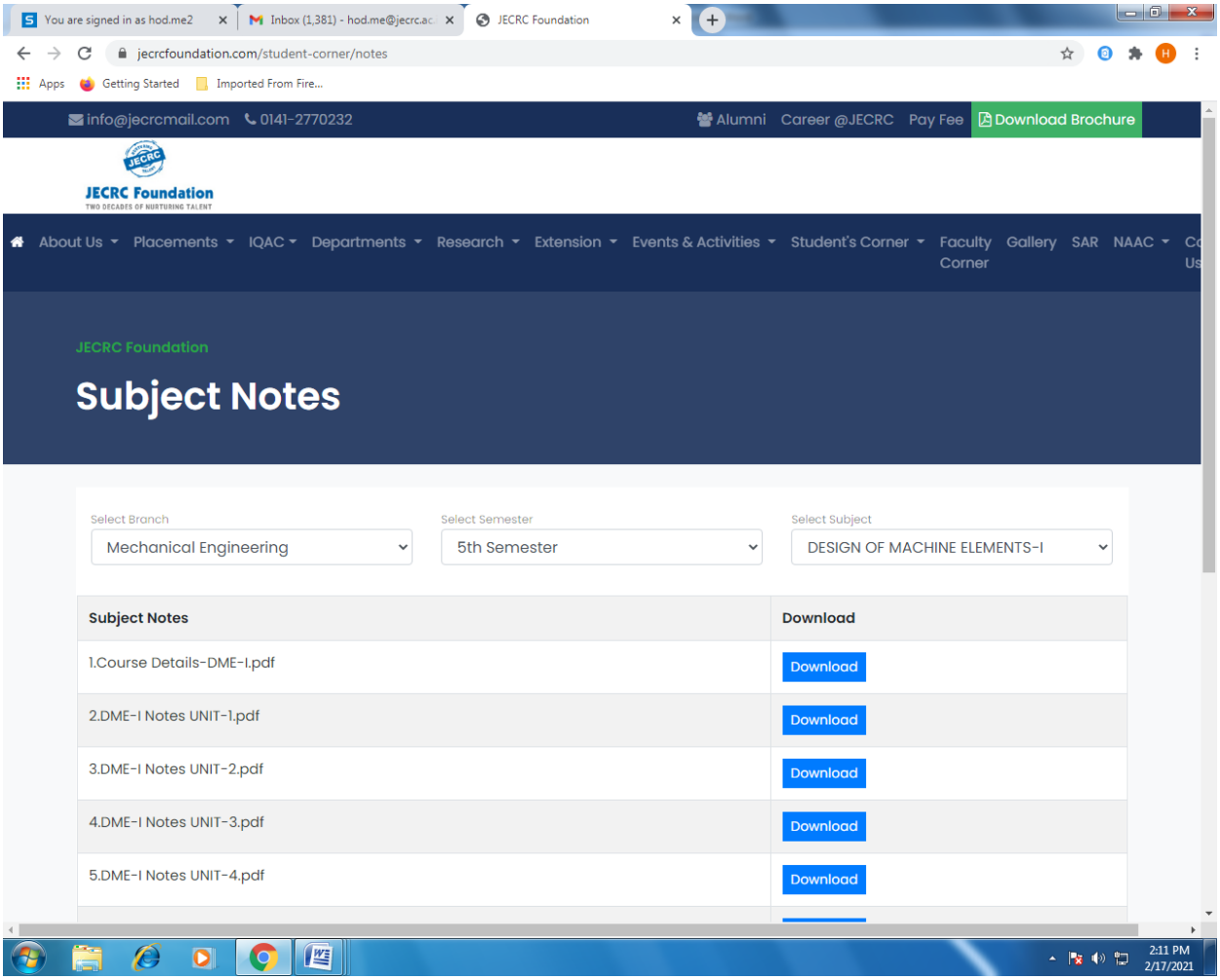
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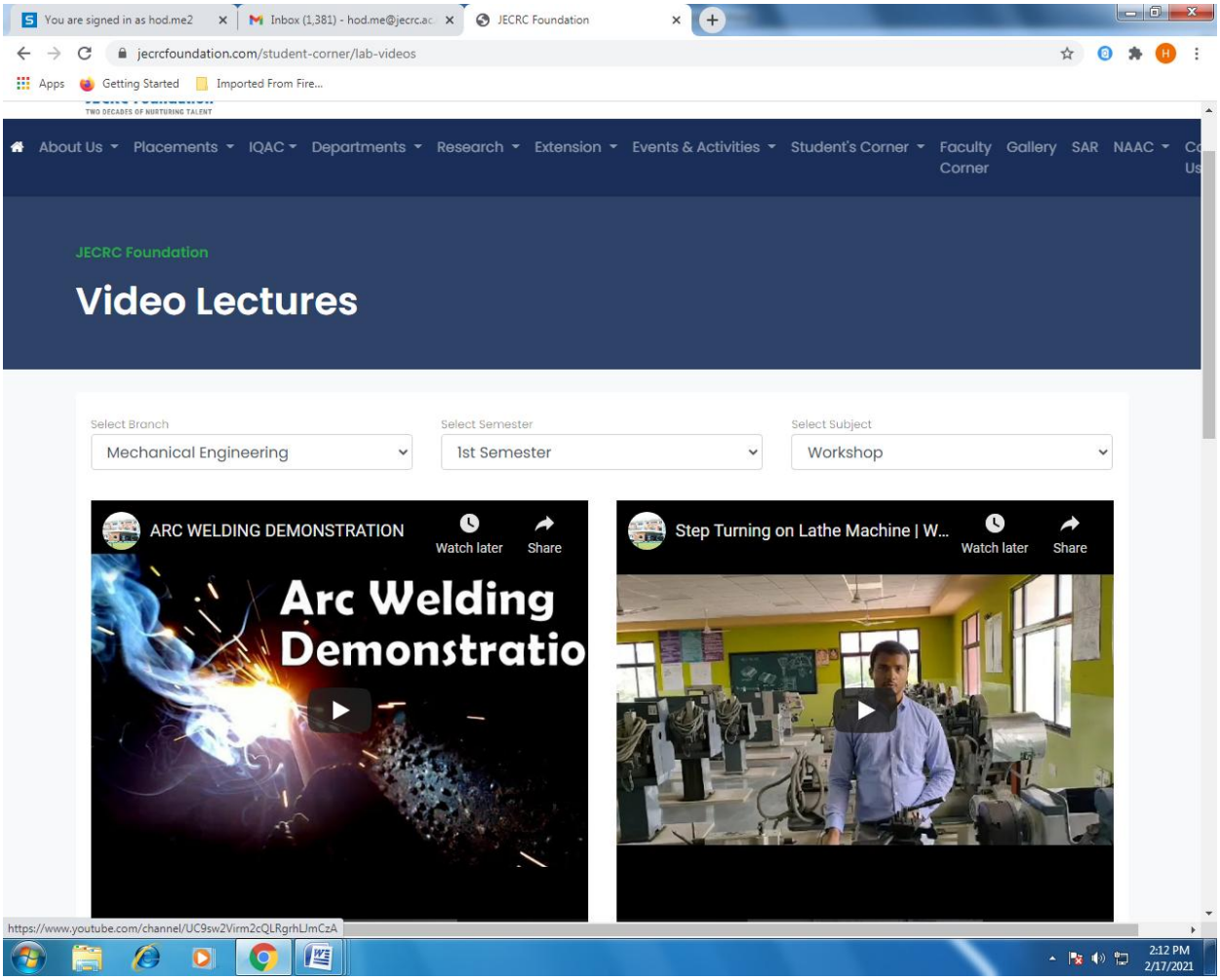
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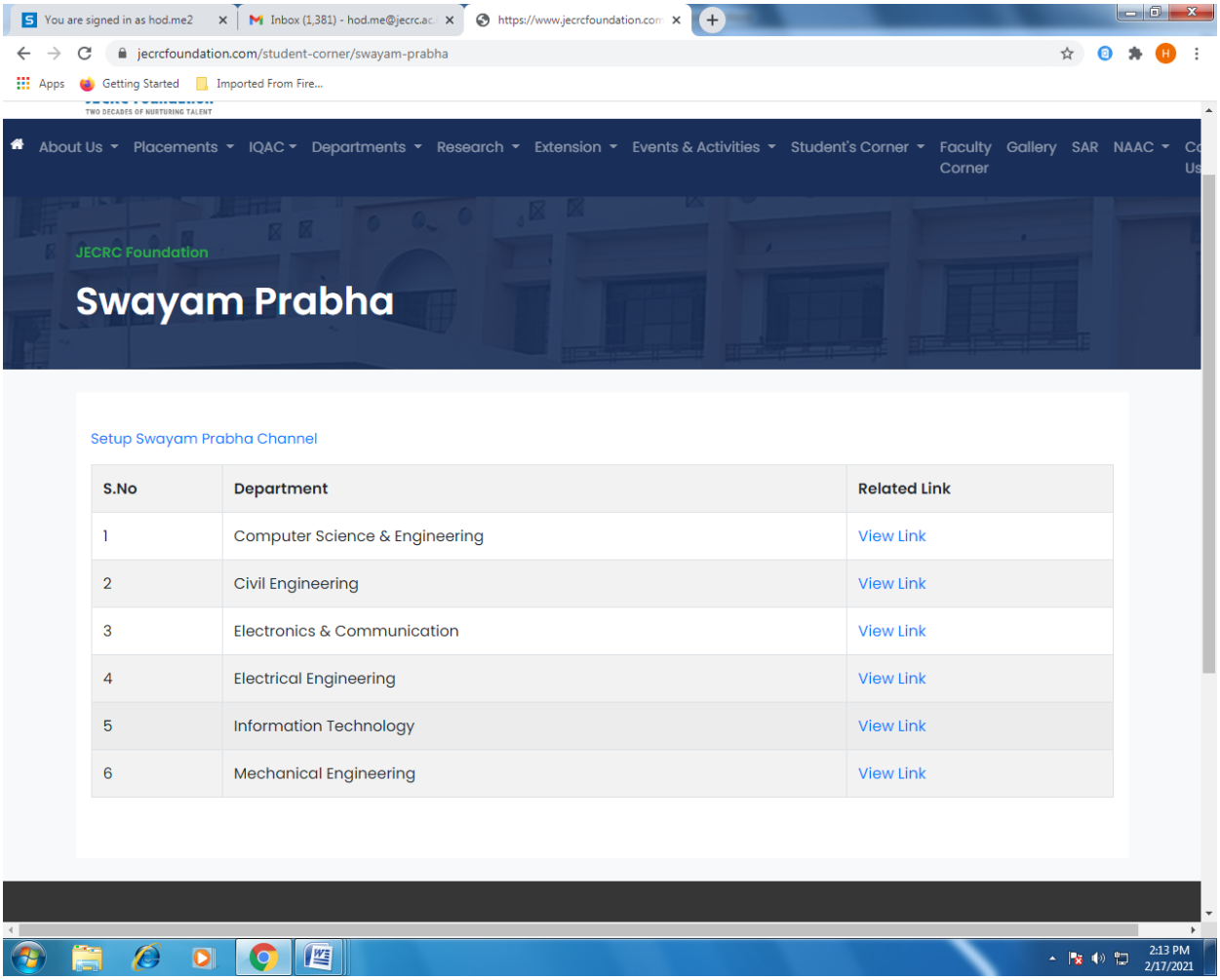
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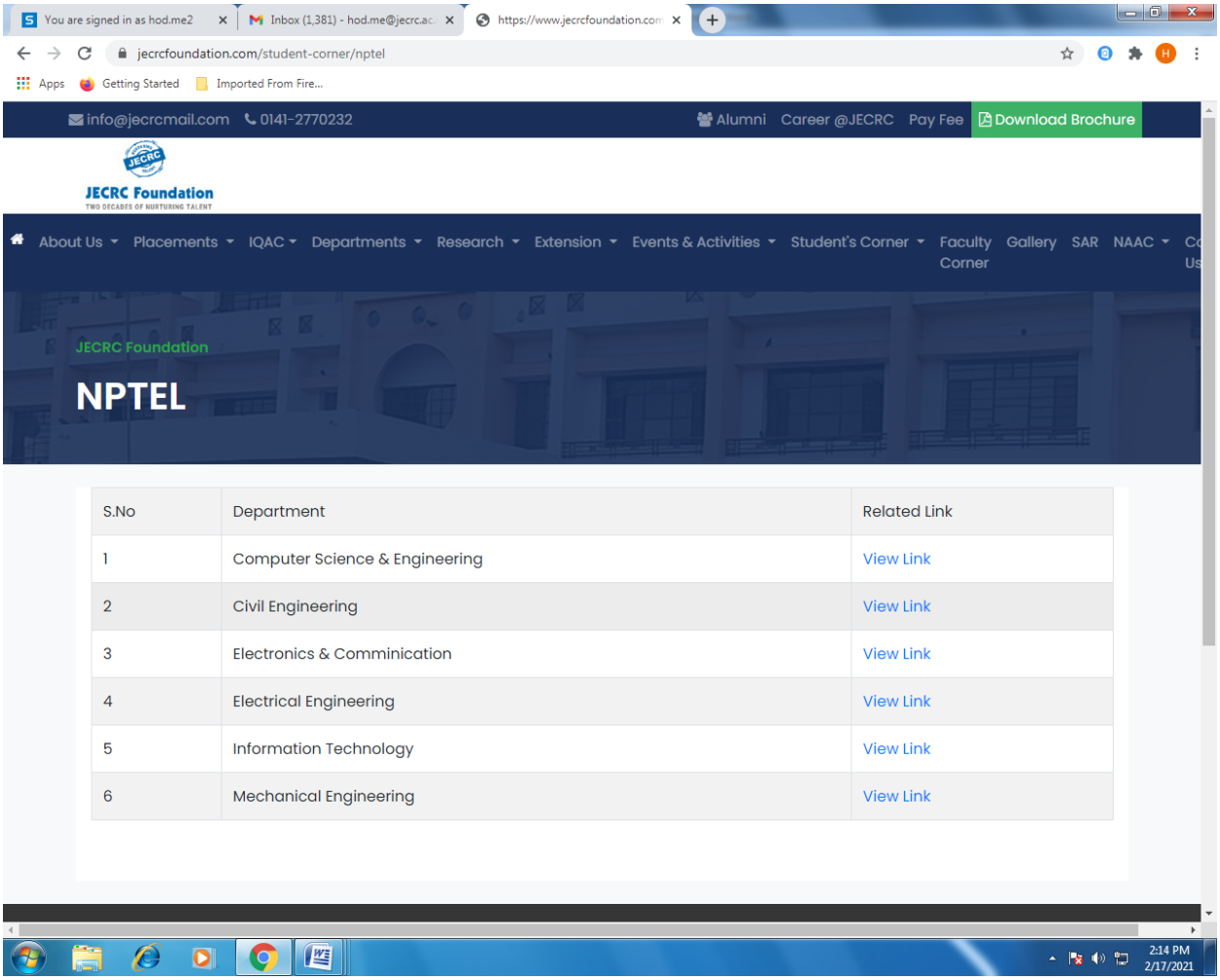

S. No	CRITERIA	OBSERVATION MADE BY NBA	COMPLIANCE STATUS (ACTION TAKEN BY INSTITUTION)
10.4.2	**Library and Internet** **10.4.2 Internet**	Limited Wi-Fi facilities, internet access in labs, classrooms, library and offices.	The *entire campus* including the hostels is high speed *Wi-Fi* enabled and users can access the *internet* on their laptops round the clock. https://jecrcfoundation.com/library-facilities

Room number or Name of classrooms/Seminar Hall with LCD /WiFi/LAN facilities with room numbers	Type of ICT facility	Link to geo tagged photos and master time table
DF-3Classroom)	WI-FI+DESKTOP+PROJECTOR	
DS-1(Classroom)	WI-FI+DESKTOP+PROJECTOR	link for geotagged photos
DS-3(Classroom)	WI-FI+DESKTOP+PROJECTOR	
DS-5(Classroom)	WI-FI+DESKTOP+PROJECTOR	
CLG-02 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
CLG-06 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
CLG-05 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
CG-05(Seminar Hall)	WI-FI+DESKTOP+PROJECTOR	
CG-06 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
CG-08 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
CG-09 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
CS-01 (Seminar Hall)	LAN+WI-FI+ROOFTOP PROJECTOR	
CF-03 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
CF-06 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
CF-07 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
CF-13 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
CS-03 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
CS-04 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
CS-05 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
CS-08 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
CS-09 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
CS-18 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
CT-1 (Seminar Hall)	WI-FI +LAN+ROOFTOP PROJECTOR	
CT-04 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
CT-05 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
CT-07 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
CT-11 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
CT-12 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
CT-13 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
CT-19 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
CT-20 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
BLG-13 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
BLG-19 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
BG-07 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
BG-14 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
BG-19 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
BF-01 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
BF-06 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
BF-13 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
BF-18 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
BS-01 (Classroom)	WI-FI+DESKTOP+PROJECTOR	

BS-06 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
BS-08 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
BS-12 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
BT-01(Classroom)	WI-FI+DESKTOP+PROJECTOR	
BT-04(Classroom)	WI-FI+DESKTOP+PROJECTOR	
BT-06(Classrom)	WI-FI+DESKTOP+PROJECTOR	
BT-07 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
BT-14 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
BT-19 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
AG-05 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
AG-06 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
AF-01 (Seminar Hall)	WI-FI +LAN+ROOFTOP PROJECTOR	
AF-07 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
AF-09 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
AS13 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
AS14 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
AS15 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
AS16 (Classroom)	WI-FI+DESKTOP+PROJECTOR	
CF12(Seminar Hall)	WI-FI +LAN+ROOFTOP PROJECTOR	

JAIPUR ENGINEERING COLLEGE
AND RESEARCH CENTRE

Declaration

It is hereby declared that information provided in this Compliance Report is factually correct. I understand and agree that an appropriate action against the institute will be initiated by the NBA (which may include debarring the institution for three years), in case any false statement/information is observed during the assessment of the compliance report.

Date: 03/03/2021
Place: Jaipur

Prof. Vinay Kumar Chandna
(Principal)

PRINCIPAL
Jaipur Engineering College &
Research Centre
Tonk Road, Jaipur-30