



JUL-AUG
2019 EDITION



CSE BYTES

A CSE NEWSLETTER

DEPARTMENT OF COMPUTER
SCIENCE & ENGINEERING

ABOUT JECRC FOUNDATION

An individual's freedom lies in the way he is taught to express his thoughts, and this expression essentially comes from education. Established over a decade ago, JECRC Foundation has been providing quality education to its students, setting rationale in their minds for the transformation of technology, and ideologies of the world at large.

Perceived as the unparalleled educational group, JECRC Foundation is continuously ascending the steps of glory by establishing premier institutes in the field of engineering, management and pure & applied sciences; viz. :

Jaipur Engineering College & Research Centre (JECRC)
JECRC UDML College of Engineering (JECRC UDML)
JECRC University

Every year, more than 5000 students entrust JECRC Foundation with the responsibility of shaping their minds for a better future. Commanding the priority list of best engineering colleges in Jaipur, it has become the preferred choice of students from all across India, showing keen interest in admissions through various mediums of JEE and REAP.

Development of a unique and creative approach to life and education is the prime focus of JECRC Foundation.

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DIRECTOR'S DESK

Mr. ARPIT AGRAWAL

Director, JECRC



Education acts as a pillar for building an affluent and fortunate future. Keeping this in mind and griping up the importance of good education for grooming children, JECRC Foundation has been serving it's best efforts. We at JECRC aim at making the learning process boundless and bona fide so that students can explore every nook of themselves and can procure best in them.

This noteworthy attempt of bringing in notice the happenings of department and giving the achievements a people's glance is a work of great endeavor and admiration. As this newsletter is again out for its's purpose of connecting with all the members, I appreciate the toil of CSE department for keeping up the initiative and putting enormous efforts behind this strenuous task. I am glad for having this initiative graced with such a great team.

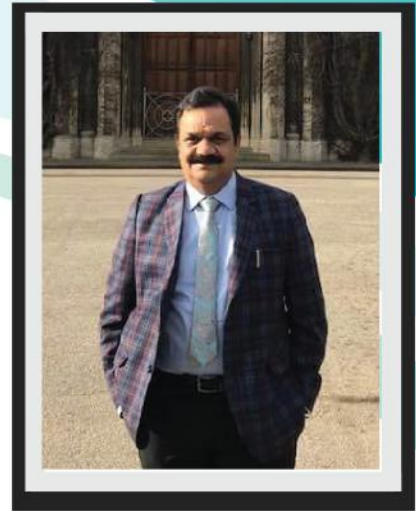
The dedication and commitment of CSE department for making JECRC a central hub of all intellectual activities and acting as an axis to provide a manifesto for innovative discussions among juveniles is remarkable.

Apart from this, enormous students getting placed in distinctive companies fills me with immense pleasure and a feeling of pride.

I have no doubts that with this pace, the institute will unemittingly march ahead of other eminent institutes.

PRINCIPAL'S DESK

Prof.(Dr.) V.K. CHANDNA
Principal, JECRC



To grow a tree of invention, a seed of innovation needs to be sown. Engineer's mind is the hub of innovative thoughts which when flourished in right direction can ripe into great inventions. We at JECRC ensure that the students are given proper guidance and superintendence to espouse meticulous path for themselves.

The faculty members of CSE department and technical staff members make sure to equip the students with newly emerging technologies, outcome based learnings, research driven projects and various other programs which are structured for assisting the students to grow in diverse dimensions. The teaching technique is such that students are furnished with both professional and technical knowledge along with the enhancement of their management skills.

Within a short span of time, JECRC with the help of supportive faculty members and cooperative staff is achieving eminent progress and will strive towards attaining greater heights in near future as well.

HOD'S DESK

Dr. SANJAY GOUR
Head of Department CSE, JECRC



'Opportunities don't happen. You create them.'

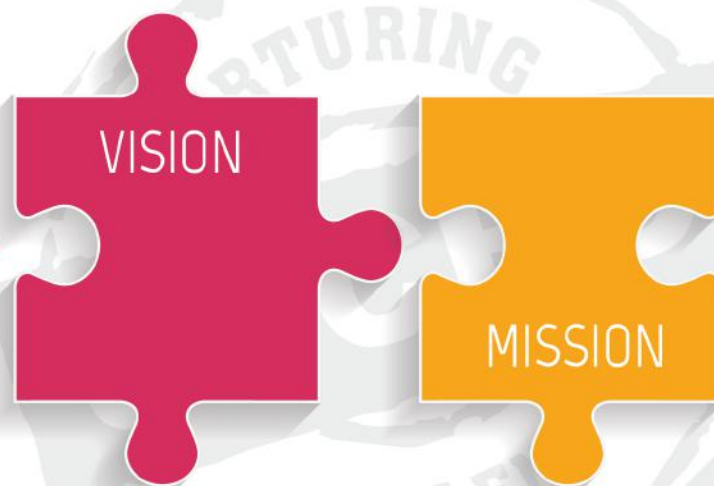
Being a part of an esteemed institution like JECRC, the CS department endeavours to constantly achieve its aims and objectives. The constructive faculty members are incorporating new plans and innovating new schedules just to meet the criterion of an ideal engineer.

The CSE department is showing remarkable growth in terms of education and futuristic approach. The heightening ambitions of the CS students is a constant source of motivation for the college and faculty, demanding changes at different levels and organising more co-curricular activities. Students have shown keen efforts in start ups thus experiencing innovation at higher altitudes.

The active participations in hackathons, Ted-ex , workshops and sessions are making them a more productive learner. With a thought of triumph in our mind, we are nurturing talent and impelling students to be entrepreneurs, researchers, programmers and developers as well.

Vision & Mission of JECRC

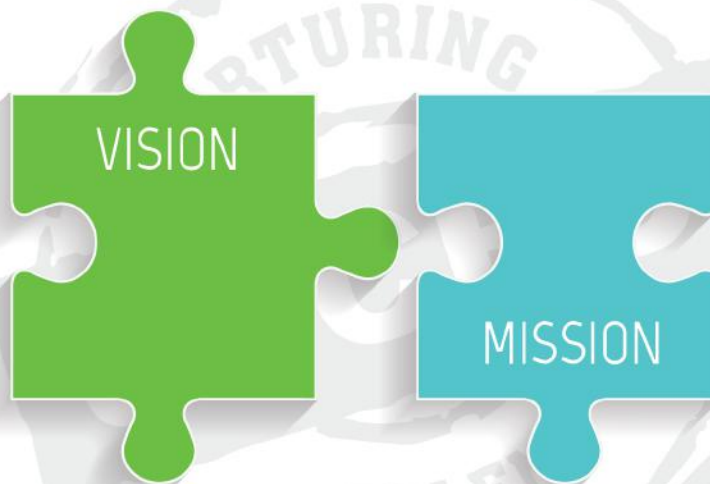
To become a renowned centre of outcome based learning, and work towards academic, professional, cultural and social enrichment of the lives of individuals and communities.



- Focus on evaluation of learning outcomes and motivate students to inculcate research aptitude by project based learning.
- Identify, based on informed perception of Indian, regional and global needs, areas of focus and provide platform to gain knowledge and solutions.
- Offer opportunities for interaction between academia and industry.
- Develop human potential to its fullest extent so that intellectually capable and imaginatively gifted leaders can emerge in a range of professions.

Vision & Mission of Department

To become renowned Centre of excellence in computer science and engineering and make competent engineers & professionals with high ethical values prepared for lifelong learning.



- M1. To impart outcome based education for emerging technologies in the field of computer science and engineering.
- M2. To provide opportunities for interaction between academia and industry.
- M3. To provide platform for lifelong learning by accepting the change in technologies.
- M4. To develop aptitude of fulfilling social responsibilities.

Program Outcomes

1. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and Computer Science & Engineering specialization to the solution of complex Computer Science & Engineering problems.
2. **Problem analysis:** Identify, formulate, research literature, and analyze complex Computer Science and Engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **Design/development of solutions:** Design solutions for complex Computer Science and 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.
4. **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of Computer Science and Engineering experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex Computer Science Engineering activities with an understanding of the limitations.
6. **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 Computer Science and Engineering practice.
7. **Environment and sustainability:** Understand the impact of the professional Computer Science and Engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the Computer Science and Engineering practice.
9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings in Computer Science and Engineering.
10. **Communication:** Communicate effectively on complex Computer Science and 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.
11. **Project management and finance:** Demonstrate knowledge and understanding of the Computer Science and 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.
12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change in Computer Science and Engineering.

PROGRAM EDUCATIONAL OBJECTIVES

1. To provide students with the fundamentals of Engineering Sciences with more emphasis in Computer Science & Engineering by way of analyzing and exploiting engineering challenges.
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 in Computer Science and Engineering
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 for Computer Science & Engineering.
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 in Computer Science & Engineering.



PROGRAM SPECIFIC OUTCOMES

1. Ability to interpret and analyze network specific and cyber security issues in real world environment.
2. Ability to design and develop Mobile and Web-based applications under realistic constraints.

WELCOME OF BATCH 2019-2023

Embarking upon the journey of most memorable four years of one's life, the new students were extremely joyous to see elaborate preparations for their welcome. With a flower decked entrance to give a fragrant welcome, they stepped in the campus with a bright tilak. The delight deepened when senior students rewarded them with batches of #nowjecrcian, truly assimilating them in the JECRC family. To keep them reminded of the fact that they are here to leave a mark, imprints of their hands were secured. Memories to be cherished were made with the new students.



INDUCTION OF BATCH 2019-2023

College life is a very crucial part of one's life and to begin it with bundles of blessings an induction ceremony for the 1st year students was conducted in JECRC campus. With the lamp lighting by honourable dignitaries, distinguished alumni and students coming from different states of the country, the event was graciously commenced. The students were endowed with kind words of various dignitaries and were bestowed with the journey of their seniors, proud distinguished alumni. The event ended with National Anthem, filling the people with Pride, Pleasure and Wisdom.



Members of J-Socialites, Social Media Cell of JECRC Foundation interacted with alumni members who shared their experiences and bequeathed with a message of guidance for currently studying students in JECRC.



AICTE INTERNSHALA

(Award of Excellence) : Best College in Jaipur

SOME PEOPLE DREAM OF SUCCESS WHILE OTHERS GET UP EVERY MORNING TO MAKE IT HAPPEN. ENTREPRENEURSHIP ISN'T ABOUT LUCK, IT'S ABOUT VISION.

Taking a lead in this field, JECRC College received the "NOTABLE MENTION AWARD - RAJASTHAN" amidst the celebration of The Internship Day 2019. Organized by AICTE in association with Internshala, massive participation of 2800 colleges was witnessed. It was a moment of pride for JECRCians to be awarded this prestigious prize by Dr Anil Sahasrabudhe, Chairman- AICTE, Dr. MP Poonia, Vice Chairman, AICTE, Dr Neetu Bhagat, Director of AICTE, Prof. Rajive Kumar, Adviser - I Policy and Academic Planning Bureau- AICTE. Mr Sarvesh (Founder and CEO, Internshala). Held on 25th August 2019 at AICTE Headquarters in New Delhi, this celebration of entrepreneurial abilities will motivate the upcoming generations.

जेईसीआरसी को मिला 'एक्सीलेन्स इन इंटरनशिप ऑफ राजस्थान अवार्ड'

जनसंवाद प्रहरी

जयपुर। जेईसीआरसी फाउण्डेशन को ऑल इंडिया कौंसिल ऑफ टैक्निकल एजुकेशन द्वारा एक्सीलेन्स इन इंटरनशिप ऑफ राजस्थान के अवार्ड से नवाजा गया है। एआईसीटीई द्वारा इंटरनशिप डे के आयोजन के दौरान यह अवार्ड दिया गया। देश भर के 2800 से अधिक सरकारी और गैर सरकारी इंजीनियरिंग कॉलेजों में से राजस्थान में प्रथम स्थान पर जेईसीआरसी कॉलेज को नामांकित किया गया साथ ही सम्पूर्ण भारत में 67वां स्थान प्राप्त हुआ है जो कि गौरव का विषय है। एआईसीटीई द्वारा एक्सीलेन्स इन इंटरनशिप ऑफ राजस्थान का अवार्ड एआईसीटीई के चैयरमैन प्रो अनिल सहस्त्रबुद्धे के साथ सर्वेश अग्रवाल फाउंडर एंड सीईओ इंटरनशाला के द्वारा एआईसीटीई मुख्यालय नई दिल्ली में आयोजित कार्यक्रम में प्रदान किया गया। जेईसीआरसी की तरफ से कम्प्यूटर विभाग के विभागाध्यक्ष प्रो डा. संजय गौड़ एवं ट्रेनिंग एंड प्लेसमेंट ऑफिसर प्रो. अभिषेक दीक्षित ने अवार्ड प्राप्त किया।

इस अवसर पर जेईसीआरसी कॉलेज के डायरेक्टर अर्पित अग्रवाल ने बताया कि एआईसीटीई के इस इनिशियेटिव द्वारा विद्यार्थियों को सीधे इन्डस्ट्रीज से जुड़ने का अवसर प्राप्त होता



है और साथ ही विद्यार्थियों की स्किल भी बढ़ती है। जेईसीआरसी के प्रिंसिपल प्रो. डा. विनय कुमार चांदना ने प्रो. संजय गौड़ और प्रो. अभिषेक दीक्षित को उनके सार्थक प्रयासों के लिये हार्दिक बधाई देते हुये भविष्य में भी इसी दिशा में कार्य करते रहने की बात कही।



WORKSHOPS



An interactive technical workshop on Python with Machine Learning was conducted by Mr Siddharth Singh (Business Head & Artificial Intelligence Trainer Techinest Pvt. Ltd. , Jaipur) in IBM Lab on 22nd August 2019 .The workshop started with an introduction about the latest trends in the field of Artificial Intelligence and experts briefing the students about various types of Machine Learning concepts and technologies . It also emphasized on the features, scope benefits and the working areas of Python programming language.



IOT

A Beneficial and informative workshop on IOT (Internet Of Things) was organised by Mr. Furkhan Ali(Senior Marketing Executive & IOT Expert Ducat Education Pvt. Ltd. , Noida) in IBM lab on 23rd August 2019 . Beginning the session by highlighting the importance of latest trends in the field of Embedded System and IOT Applications. Further the experts explained the theory behind Internet Of Things. These devices use Internet protocol (IP), the same protocol that identifies computers over world wide web and allows them to communicate with one another. The goal behind Internet of things is to have devices that self report in real time, improving efficiency and bringing important information to the surface more quickly than a system depending on human intervention.



RECRUITMENTS

AASHAYEIN

As the sun falls to the end but the moon rises to the beginning, likewise every year brings a new aura to bloom the new ventures.

AASHAYEIN- The Life Saviours initiated the recruitment procedure on 28th and 29th August, 2019 for the fresh souls to be a part of the journey of serving humanity.

Around 180 young buds showcased their talents in various verticals to prove themselves worthy. With the success of the event, Team Aashayein is all set to carry on with it's noble motive of spreading happiness and serving mankind with new enthusiasts, ready to give all they've got to achieve milestones ahead.



SUHASINI

The world will be changed by people who think they can bring the change and go on to work for what they wish.

SUHASINI- an initiative to transform society and it's mindset, having a motto of saving the smile of girl child received an overwhelming response from newly entered changemakers during two days of recruitment process. More than 200 enthusiastic students brought their aspirations for social service. With the support of it's new members, SUHASINI will surely succeed in spreading awareness about it's cause "Beti Bachao Beti Padhao" , leaving it's mark in the hearts of people.



ZARURAT

“EACH ONE, TEACH ONE” demonstrates the noble cause behind the initiative of Team ZARURAT.

With the zeal to work and be part of such a noble cause, a lot of faces full of excitement and admiration towards innocent toddlers were witnessed. Around 150 students showed their dedication and participated enthusiastically in recruitment drive. Team Zarurat extends it's gratitude towards each and every person who came forward to be a part of change.



SOCH

Not often does a situation arise, when you're totally baffled by your very own achievements. Something very similar happened to SOCH on the 30th and 31st of August, when SOCH opened it's recruitment window.

Close to 200 applications were recorded in the window allotted to Team SOCH, which left the previous record way behind and created a new milestone in SOCH's hiring history. The verve and anticipation of being in the quintessential group of the institute was palpable in the freshers, and the whole process of recruitments couldn't have been more engaging and fruitful. Capped by some astonishing performances and a surprise visit from recently graduated members of the social group, the whole process without a doubt was a monumental success



STUDENT CORNER

To promote internet in Indian languages, various coders and developers were invited to be a part of the workshop on UNIVERSAL ACCEPTANCE. Here, students were given a challenge to create a website/web application /web service which specifically, must accept, validate, store, process and display all domain names and email IDs in Devanagari scripts.



A 45 minutes' tutorial session was provided before the challenge, where UA Ambassador of UASG shared the insights, usability of tools, cases to be used, etc. for the benefit of participants. Students from second year & third year of Department of CSE left their imprints by procuring first position in competition, got a cheque prize of Rs. 5000 and certificates. JECRC is overwhelmed and overjoyed by the achievement of it's young buds, developing into blossoms of tomorrow.



STUDENT CORNER



Jecrc is setting benchmarks in academic excellence for students to perform at their level best , Piyush bohra Department of CSE third year has proved an instance. An academic topper in RTU , Piyush believes in focusing on both theory and practical. According to him answer writing with structuring on proper mul and representation of your answers in RTU examination is a smart way of fetching marks as it catches the eyes of examiner. The uncanny knack of garnering the marks is not a big deal if you have a blueprint to represent your answers with relevant diagrams and flowcharts.

"A big part of my success goes to my parents, spiritual cell JECRC and the faculty members at JECRC for helping and guiding me at each step." he quoted.

"A successful person is one who can lay a firm foundation with the bricks that other throw at him." **DAVID BRINKLEY**

With the determination and desire to achieve distinctive rewards, Suraj Kumar, a Computer Science final year student of JECRC, completed his summer internship 2019 at Microsoft, India.

He received lucrative supports of facilities. A Pre-Placement Offer was also predisposed to him, glorifying his success even brighter.

JECRC is filled with a feeling of pride and pleasure to see their student gawk and walk on the path of triumphant future



ARTICLES

Integration of Virtual Labs in scientific e-learning

Students can obtain information on laboratory contents equally well from two types of laboratories: a virtual laboratory and a physical laboratory. Virtual Labs provides a complete learning management system in which students can take advantage of various learning tools, including additional web resources, video lectures, animated demonstrations and self-assessment. Virtual Labs does not require any additional infrastructure configuration to conduct experiments at the user's site. Simulation-based experiments can be accessed remotely via the Internet.



Provides remote access to laboratories in various disciplines of science and engineering. These Virtual Labs aimed at undergraduate, postgraduate and research scholars to encourage conducting experiments and arousing their curiosity. This would help them learn basic and advanced concepts through remote experimentation. It provides a complete learning management system in Virtual Labs where students can take advantage of various learning tools, including additional web resources, video lectures, animated demonstrations and self-assessment. It also shares expensive equipment and resources, otherwise available to a limited number of users due to time constraints and geographical distances. The virtual laboratory is a good concept to understand better. The concept of virtual laboratory is advantageous for both faculty members and students.

The Virtual Labs project is an initiative of the Ministry of Human Resources Development (MHRD), Government of India, under the auspices of the National Education Mission through Information and Communication Technology (NMEICT). This project is a consortium activity of twelve participating institutions and IIT Delhi is coordinating an institute. It is a paradigm shift in ICT-based education. For the first time, this initiative was taken in remote experimentation. Within the Virtual Labs project, over 100 Virtual Labs consisting of approximately 700+ web-enabled experiments have been designed for remote operation and visualization.

Dr. Vijeta Kumawat, Associate Professor
JECRC Foundation, Sitapura,
Jaipur, Rajasthan

Outcome Based Education: An Indian Perspective

Nowadays employability of Indian engineering graduates is a great challenge in front of the nation. In the present time almost 65% of population is below the age of 35 years. So we have to search more opportunities and develop competent youth. In that reference need of technological competent mass requirement is crucial issue. So this is the time where we have to stop compromising with quality. Outcome based education is the revolutionary statement which can provide firm base for academia.



Outcome based education is student centered instruction that focuses on measuring student performance / outcomes. Outcomes include real time knowledge, skills and attitudes. Its focus remains on evaluation of outcomes of the program, though input and output parameters are also important.

Outcome based education emphasizes on stating that what you need which makes your students able at the end of the program. Assessing the students whether they are able to do what they are expected to do. Orienting teaching and other academic processes to facilitate students. Outcome based education is directly connected with quality assurance, recognition by the stakeholders and branding which provides recognition of graduates globally.

Now, globalization has brought clear transformation in higher education as expert knowledge to building learner competencies including learning to learn, and lifelong learning. That means we have to focus on understanding fundamentals very well, and learning new skills/competencies that would enable individuals to cope with the demands of the rapidly changing workplace. Let prepare global engineers who will have to solve problems and challenges which are not even known today. It is notable that outcome based education assures program quality. It is not an award system, not an Investigation of a complaint, not an Audit not even a ranking system. It is pure quality oriented standard system and competence development up to benchmark. It provides assurance that a college or university program meets the quality standards of the profession for which that program prepares its graduates.

Author-
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PLACEMENTS



WHEN WE DO IT, WE DO IT BIG!

It is not easy to sustain what you started, and it is even more difficult to beat your own records.

But, we did it with a bang! Around 397 selections by Accenture, 251 by Capgemini and many more by other distinctive companies, we made it to 823 selections in just 30 days. The unprecedented start of the placement session at JECRC across all the streams with a significant hike in the average packages offered to the graduates.

JECRC is redefining the way people get hired! Beholding a huge number of students getting placed in various companies gave an immense satisfaction to the faculty members and students, especially the freshers. Such a magnificent growth of children to reach their paths of glory is simply sanguine and prodigious.

DEGREE DISTRIBUTION



There is a powerful driving force inside every human being that, once unleashed, can make any vision, dream, or desire a reality."Struggling for the same, students of JECRC finally stepped on the road of success, destined to a fortunate future.

To felicitate these students, on 19th August 2019 Degree Distribution Ceremony was organized by Department of CSE for pass out students of batch 2018. Event bestowed the members of JECRC with immense happiness and filled their heart with a feeling of pride.

JECRC wishes it's students to achieve greater heights of success in future.

HOD distributed degrees and wishes students.

Best of Luck!

BEHIND CSE BYTES



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