



CCE PULSE

Jan-June 2024



About CCE Department

Department of Computer & Communication Engineering Manipal University Jaipur marked its commencement in 2015. The goal of the department is to integrate computers and communication, which includes concepts and practices of software and hardware of computers, information networks, wireless communication systems, etc. The department has been NBA-accredited for the years 2023-26. The Department of CCE offers one of the most comprehensive instructional programs enhanced with research in its emerging fields. Research at the department addresses issues across the spectrum of Computer as well as Communication engineering systems. Some of the key areas include Machine Learning, the Internet of Things (IoT), Web Technologies, Advance Computer Networking, Network and Information Security, Wireless Communication, Network on Chip (NoC), Software Testing, Computer Architecture, and Embedded Systems.

The teaching at the department is facilitated with a dedicated number of core subject labs aided by industry standard commercial hardware and software platforms like Nvidia, Param Shavak Supercomputer, Oracle, EMC2, Microsoft Office 365 cloud, .Net, Azure etc. There are special project labs for IoT and data analytics.

The department is focused on providing a realistic approach of learning to develop a dynamic student team that is efficient in meeting the ever-changing technological and social challenges.

Contents

- Workshops
- Outreach activities
- Expert Lectures
- Awards and achievements
- Publications

Chief Editors

Prof (Dr) Vijay Pal Singh Dhaka
Prof (Dr) Sunil Kumar

Associate Editors

Dr Sandeep Kumar Sharma
Dr Hema Shekhawat

Students Editors

Kanha Gupta
Riddhi Garg



From The Magazine Team

Welcome to the Jan-June 2024 edition of our departmental magazine. In this edition, we try to bind together each aspect of our CCE family, and we hope it inspires every member to actively contribute to the development of the department academically and in extra-curricular activities. It represents the creative side of our students to a fair degree—something that we think we all need to reconnect with, amidst the busy schedule of semester exams, surprise quizzes, and all those assignments that make you want to bang your head on the wall. This magazine provides a platform for students and staff to share information, spread the latest technical knowledge, and cultivate the right ways that will equip all of us to stay competent in our respective fields of study, and activities.

We thank all of you who stood by us patiently and contributed to the development of our magazine when there were days when the only thing, we had to offer was our confusion.

From The HoD Desk

Dear Students, Faculty, and Readers,

It gives me immense pleasure to present the July-Dec 2024 newsletter “CCEPulse” of the Department of Computer and Communication Engineering. This newsletter highlights the remarkable achievements, events, and activities that have taken place over the past six months. From expert lectures and workshops to student projects and faculty contributions, these accomplishments reflect our collective commitment to academic excellence and innovation.

Vision and Mission of the Department

VISION

- Inculcate academic excellence and research aptitude for social development.

MISSION

- Nurture the technical skillset of students to enable them to create an innovative solution.
- Sharpen the problem-solving skills through project-based learning.
- Serve society by inspiring young minds for research and innovation with ethical values.

Key Features

- The department has well-equipped laboratories
- All the classrooms are facilitated with state-of-the-art teaching modes
- Tie up with industries involved in research and development to give live experience to the students
- Periodic assessment and modification of the course curriculum in line with the industry requirements
- Periodic updation of the In-house Laboratories as per current industry/research requirements
- R & D activity of the staff has resulted in several publications in peer-reviewed International Journals of High Impact Factor and International/ National conferences.

30
Industry
Collaborations

95%
Campus
Placement

75%
Faculty
Members
Holding PhD

10
Crore
Scholarships

46
Incubation
Startups





One-day Workshop

Effective Strategies for Research Article Writing and Publishing

School of Computing and Intelligent Systems in collaboration with MUJ-Teacher Empowerment Center, Manipal University Jaipur, India is going to organize a one-day workshop on “Effective Strategies of Research Article Writing and Publishing. The workshop aims to help participants structure the scientific content properly and discuss new tools of scientific publishing. Participants benefited from eminent experts who have contributed greatly to the research society by publishing plenty of Research Articles/ Books etc. Aninda Bose (Executive Editor, Springer Nature, London) and Nilanjan Dey (Associate Professor, Techno International New Town, Kolkata, India) were the experts at the workshop.



International Conference

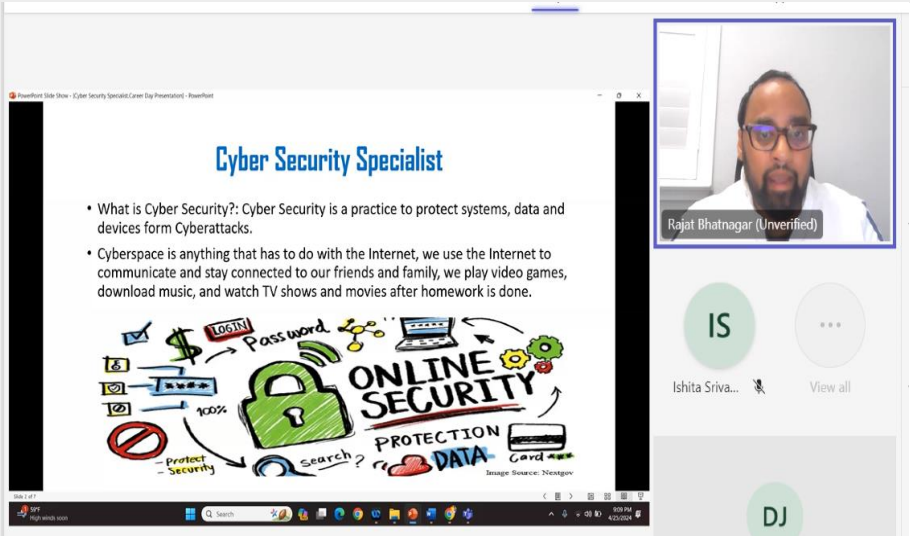
International Conference on Innovations in Computational Intelligence and Computer Vision

School of Computing and Intelligent Systems, Manipal University Jaipur, India is going to organize the Fourth International Conference on Innovations in Computational Intelligence and Computer Vision (ICICV-2024) from April 10-11, 2024. ICICV-2024 invites industry professionals, academicians, and researchers. The conference focused on addressing research challenges in the field of “Computational Intelligence” and “Computer Vision”. The conference provides a platform for bringing forth significant research and literature across the field of Engineering and Technology, especially Computational Intelligence and Computer Vision. This interaction will be the focal point for leading experts to share their insights, provide guidance and address participant’s questions and concerns.





The Department of Computer and Communication Engineering, Faculty of Engineering organized an expert lecture cum industry expert talk on “Importance of Cyber Security and Job market trends in the 360-degree view of IT Security & Cyberspace”, on 26th April 2024. The guest speaker was Rajat Bhatnagar, Identity & Access Management Professional, ISD Engineer IV, and Navy Federal Credit Union. The expert has discussed Understanding the Cyber Security, Current scenario, and opportunities in Cyber Security.



The School of Computer and Communication Engineering, Faculty of Engineering organized an expert lecture cum industry expert talk on “Node JS: modules, NPM modules, create, edit and publish NPM modules.” on Nov 22, 2023 (11:45 AM - 2:00 PM) at room no 307, Academic block-1 (AB1). Students from all sections were invited to participate in the event. Mr. Abhishek Saini (Sr. Software Developer, SDE @Sonata Software | Author-C# Corner, Dzone | Speaker) was the resource person for the talk.



The Department of Computer and Communication Engineering proudly presents Dean Excellence Award to Rishikesh Trivedi, Bhavna Rupanagudi and Paridhi Agarwal for scoring a CGPA above 9.0. Academic Excellence Awards play a crucial role in motivating students by recognizing their efforts, setting high standards, and encouraging a culture of excellence. The benefits extend beyond immediate recognition, providing long-term advantages in academic and professional development. By striving for these awards, students not only enhance their skills and confidence but also contribute to a thriving and inspiring academic community.





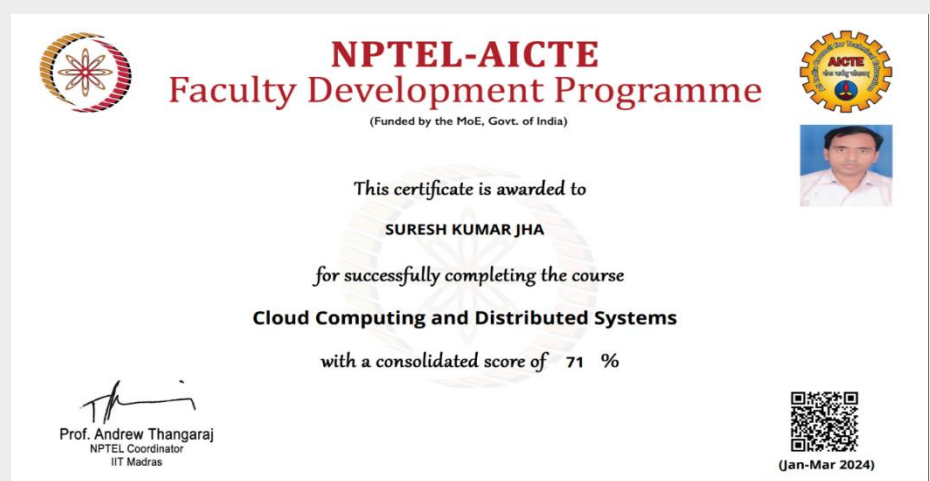
In a momentous achievement, Dr Kusum Lata Jain, Associate Professor, Department of Computer and Communication Engineering, have honored as Educational Brand Ambassador for her valuable contribution for educating the students will be helpful in nation's development by the SAMARPAN SANSTHA for the academic session 2024-25 on 8th June 2024.



The Department of Computer and Communication Engineering launched a web page dedicated to providing resources and information for the students. This initiative aims to enhance student engagement, streamline communication, and offer a centralized platform for academic and extracurricular information. The URL of the web page is <https://sites.google.com/view/cce-srp>.



Mr Sueresh Kumar Jha, faculty of Department of Computer and Communication Engineering have successfully completed Cloud Computing and Distributed Systems course offered by NPTEL with 71% score during Jan-March 2024.



Dr Amit Chaurasia, faculty of Department of Computer and Communication Engineering have successfully completed 2 weeks HPC Master Tranee Program organized by AICTE and CDAC from 3rd June 2024 to 14 June 2024.





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Congratulates



SRIJAN DAS
B.TECH - CCE (BATCH 2020- 2024)

on getting selected at **CONCENTRIX**
A Business Services Company

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AND
COMMUNICATION ENGINEERING

Congratulates



ANSH CHAWLA
B.TECH - CCE (BATCH 2020- 2024)

on getting selected at **zscaler**

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JAIPUR

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AND
COMMUNICATION ENGINEERING

Congratulates



RIYA VIJAYVARGIYA
B.TECH - CCE (BATCH 2020- 2024)

on getting selected at **Tech Mahindra**

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AND
COMMUNICATION ENGINEERING

Congratulates



ANUSHKA SINGH
B.TECH - CCE (BATCH 2020- 2024)

on getting selected at **SILICON LABS**

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AND
COMMUNICATION ENGINEERING

Congratulates



PRERNA SACHDEVA
B.TECH - CCE (BATCH 2020- 2024)

on getting selected at **Tech Mahindra**

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AND
COMMUNICATION ENGINEERING

Congratulates



MANVI AGARWAL
B.TECH - CCE (BATCH 2020- 2024)

on getting selected at **pwc**

The image is a congratulatory announcement for a student's placement. At the top left is the Manipal University Jaipur logo, which includes a stylized orange figure and the text 'MANIPAL UNIVERSITY JAIPUR' and 'ESTABLISHED BY LAW'. At the top right is a circular seal from 'THE ASSOCIATION OF AMBA ACCREDITED' with an 'A+' grade and a '9.28 SCORE'. The center text reads 'DEPARTMENT OF COMPUTER AND COMMUNICATION ENGINEERING' in bold black capital letters. Below this, the word 'Congratulates' is written in a large, red, cursive font. To the left is a circular portrait of a smiling man with dark hair, wearing a green shirt. To the right of the portrait, the name 'VIBHORE CHOUDHURY' is written in bold blue capital letters, followed by 'B.TECH - CCE (BATCH 2021- 2025)' in blue capital letters. At the bottom, the text 'on getting selected at' is in a purple cursive font, followed by the 'accenture' logo in black, which includes a purple chevron symbol above the 'u'.





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TESTIMONY

CCE department in MUJ offers a great exposure and opportunity for students. Department and faculty have always guided students in research and academic endeavours.



Srijan Das
B.Tech CCE
2020-2024



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TESTIMONY


The knowledgeable and enthusiastic teaching members have really fueled my interest for technology. The curriculum is also well-designed and often updated to make sure we are learning the most current and cutting-edge ideas and technologies. It has undoubtedly been a rewarding academic experience so far.



Clely Fernandes
B.Tech CCE
2020-2024



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TESTIMONY

Exceptional learning experience! My journey with School of Computer and Communication aligned perfectly with my academic and career goals, possessed with the qualities needed to thrive in outside world. The comprehensive curriculum and esteemed faculty promise an ideal environment for honing my skills.



Harsh Kundan
B.Tech CCE
2020-2024



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TESTIMONY

As a student, my experience within the CCE department has been nothing short of exceptional. The faculty members are not only highly qualified but also dedicated to fostering a stimulating learning environment. The collaborative and interactive nature of the department has facilitated meaningful discussions and collaborations among students. Overall, my time in this department has been instrumental in shaping my academic and professional journey, and I wholeheartedly recommend it to prospective students seeking excellence in the field.



Aishwarya Shree
B.Tech CCE
2020-2024

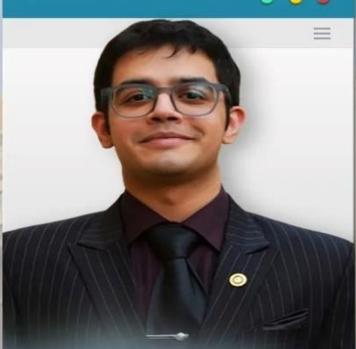


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TESTIMONY

BTech CCE has been my guiding compass in the sea of education, leading to exceptional knowledge and experiences. I wholeheartedly encourage all to choose BTech CCE for a fulfilling engineering journey that turns dreams into reality.



Ansh Chawla
B.Tech CCE
2020-2024



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TESTIMONY


I am thrilled to share my experience with the School of Computer and Communication. Enrolling in this institution was one of the best decisions I've made in my academic journey.



Devangi Telwani
B.Tech CCE
2020-2024

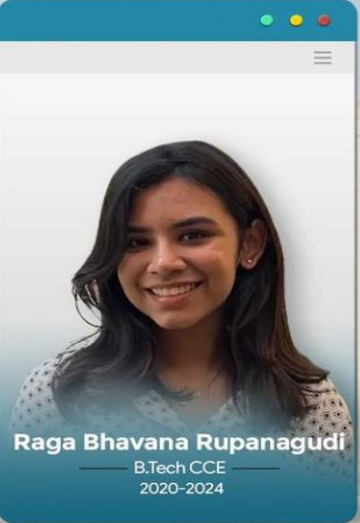


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TESTIMONY

As a student of CCE, my experience has been very enriching. The expansive curriculum covers a broad range of subjects and ideas, while never being too burdensome on the students. With the guidance of the excellent and experienced faculty, I have been able to explore and pursue my technological interests.



Raga Bhavana Rupanagudi
B.Tech CCE
2020-2024



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TESTIMONY


MUJ's CCE branch offered a transformative learning experience. With supportive and friendly faculty, I gained a strong foundation and am grateful for the opportunity to grow in an environment that values excellence and encourages ambitious aspirations. Their continual assistance has been invaluable throughout my journey



Shubhi Jain
B.Tech CCE
2020-2024




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TESTIMONY

CCE provided me with an exceptional education, valuable experiences, and a strong foundation for my future career in engineering. I am confident that it can do the same for everyone, and I encourage all to consider it as their college of choice.



Parv Mishra
B.Tech CCE
2020-2024



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TESTIMONY

Manipal University Jaipur's B.Tech in Computer and Communication Engineering has been an enlightening voyage. The cutting-edge curriculum, combined with stellar faculty, fostered a rich learning atmosphere. This program not only sharpened my technical prowess but also nurtured critical thinking. Grateful for a transformative experience, equipping me for a thriving career in technology.



Riya Sharma
B.Tech CCE
2020-2024



Anuj Sahani, Rishikesh Bhupendra Trivedi, and Tushar Singh, students of B.Tech CCE 5th Semester, have published their research paper titled "PyLoomer - The Automated Weaving of Python Text" in the prestigious IEEE Xplore Proceedings in March 2024. Their innovative work explores the automation of Python-based text generation using advanced computational techniques, contributing to the broader field of programming automation and text processing.

Ms. Ankita Gangwar, a research scholar, has published a significant research paper titled "Time and Space Efficient Multi-Model Convolution Vision Transformer for Tomato Disease Detection from Leaf Images with Varied Backgrounds" in a Scopus-indexed journal in March 2024. Her innovative work focuses on leveraging advanced convolutional vision transformer techniques to enhance the accuracy and efficiency of tomato leaf disease detection across diverse backgrounds.

Ritwiz Aryan, a student of the Department of CCE, has published a research paper titled "A Quantum-Secure Mutual Authentication and Data Sharing Scheme for the Smart-Grid Ecosystem". His groundbreaking work addresses critical security challenges in smart-grid systems by proposing a robust, quantum-secure authentication and data-sharing mechanism. The work is published in a Scopus-indexed conference held in June 2024.

Divyani Tirthyani, a research scholar, for her outstanding academic contribution. She published a research paper titled "Clustering and Unsupervised Learning" in the Scopus-indexed book "Recent Trends and Future Direction for Data Analytics" in June 2024. Her work explores innovative methodologies in data clustering and advances in unsupervised learning techniques, contributing significantly to the field of data analytics. This accomplishment reflects her dedication to research excellence and enhances the department's reputation for scholarly achievements.

Dhruv Rajesh Krishnamachari, a student of the Department of CCE, has successfully published his research paper titled "Fraudulent Product Identification System Using Blockchain" in the Scopus-indexed conference "ICCCE 2024", scheduled for February 2024. His paper presents an innovative approach to utilizing blockchain technology to identify fraudulent products in the market.

Divyani Jigyasu, a talented student from the Department of Computer and Communication Engineering, achieved a remarkable milestone by publishing a book chapter titled "Introduction to Artificial Intelligence-Empowered Electric Vehicles in Smart Grids". Her work is featured in the Scopus-indexed book "Artificial Intelligence-Empowered Modern Electric Vehicles in Smart Grid Systems", published in May 2024. This chapter explores the transformative role of artificial intelligence in enhancing the efficiency and sustainability of electric vehicles.