



# COMPLUS NEWSLETTER

## DEPARTMENT OF COMPUTER APPLICATIONS



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**“Technology is best when it brings people together”**



## DEPARTMENT OF COMPUTER APPLICATIONS

### ***About the Department***

The Department of Computer Applications & School of CSE-II and Faculty of Science, Technology and architecture at Manipal University Jaipur (MUJ) strives for academic excellence with a cutting-edge curriculum. Since its inception in 2019, the department has reached significant heights, offering high-quality programs at both undergraduate and postgraduate levels. Currently, over 750 students are enrolled with 23 faculty members. The department prepares students to design, develop, and implement software applications, emphasizing the latest programming languages and technologies. It aims to become a center of excellence, providing technical knowledge, innovation opportunities, and state-of-the-art facilities. The flexible curriculum is designed to let students explore their interests and is regularly updated with feedback from stakeholders. This foundation supports students in pursuing higher education in India and abroad.

### ***Courses Offered***

1. Bachelor of Computer Applications (BCA-Core/Cybersecurity / Data Science)
2. BCA Honors (Software Product Engineering)
3. Master of Computer Applications (MCA)
4. Ph. D. (FoSTA)
5. MSC (Cyber Security)





## DEPARTMENT OF COMPUTER APPLICATIONS

### ***Message from the Head of Computer Applications Department***

I am pleased to express my heartfelt appreciation for the successful release of the Newsletter from the Department of Computer Applications. Your dedication and efforts in showcasing the diverse talents of our students, both academically and creatively, are truly commendable. The Newsletter serves as a reflection of the myriad activities undertaken by our Department, offering a clear picture of our achievements. Moreover, it will play a significant role in nurturing the creative writing skills of our students and faculty members through their technical articles, essays and poetry, thereby enhancing students' reading practices. I am confident that this issue of the Newsletter will positively impact all students and individuals interested in not only Computer Applications and IT but also in arts, literature, sciences and other areas. Your continuous efforts in producing this Newsletter annually deserve immense recognition. I extend my sincere appreciation to the Department of Computer Applications and all faculty members for their wonderful contributions in accomplishing this task. Additionally, I congratulate all the students for their fruitful efforts.



**Dr. Shilpa Sharma Kulkarni**  
Associate Professor & Head,  
Department of Computer  
Applications  
Manipal University Jaipur



## DEPARTMENT OF COMPUTER APPLICATIONS

### **Newly joined Faculty Member**

Dr. Aradhana Kar joins us as an Assistant Professor with more than five years of experience in higher education. A Ph.D. graduate of Utkal University, she has a prolific record of Scopus-indexed publications and has contributed significantly to regional education through textbooks published by the Government of Odisha. Her professional background as an external evaluator for institutions like IGNOU and NIFT will provide valuable perspectives to our department



Anam Gupta Joining us on October 13, 2025, Anam Gupta brings 14 years of teaching excellence to the Department of Computer Applications. Currently pursuing her Ph.D. at Manipal University Jaipur, her expertise lies in Image Processing and Machine Learning. Her deep pedagogical experience and research focus will be invaluable to our students and faculty alike..



Dr. Manish Joshi! A warm welcome to Dr. Manish Joshi, who joins us as Assistant Professor in the Department of Computer Applications. A Ph.D. holder from BBAU Lucknow and a UGC-NET JRF qualified scholar, Dr. Joshi specializes in NLP and Machine Learning. We look forward to his contributions to our academic community and his mentorship of the next generation of tech leaders at Manipal University Jaipur.

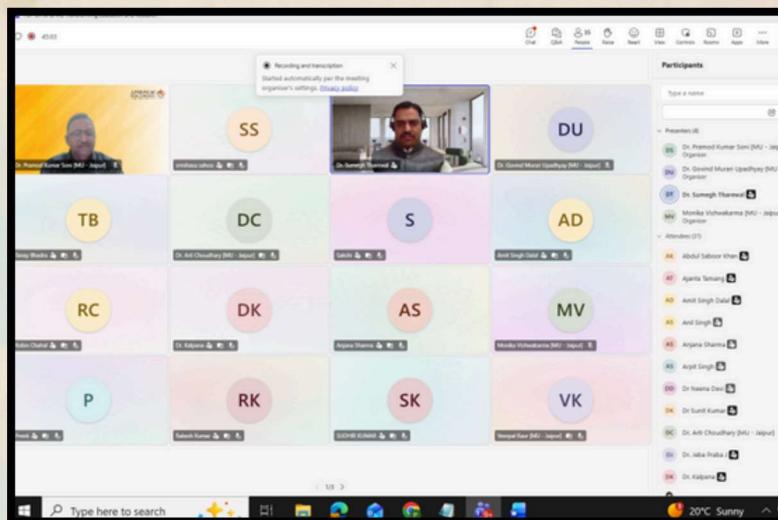




## DEPARTMENT OF COMPUTER APPLICATIONS

### **Faculty Development Program(FDP)**

From 10–14 November 2025, the Department of Computer Applications at Manipal University Jaipur, in collaboration with MUJ-TEC, successfully hosted a five-day Faculty Development Program (FDP) titled “**AI & ML: Transforming Education and Research**”. This comprehensive program aimed to empower educators and research scholars with the conceptual and practical skills needed to integrate emerging technologies into teaching, curriculum design, and academic research. The FDP featured expert-led sessions from distinguished speakers representing top national and international institutions, including JNU, NIT Kurukshetra, and the University of Cape Town. Participants gained valuable insights into contemporary AI/ML methodologies and interdisciplinary research trends, fostering a global exchange of best practices in the evolving technological landscape.



AI & ML: Transforming Education and Research from 10 – 14 November 2025		
Day/Date	Slot 1 10:30-12:30 PM	Slot 2 02:30-4:30 PM
Day 1 10-11-2025	Dr. T.V. Vijay Kumar, Professor, School of Computer & Systems Sciences, Jawaharlal Nehru University Delhi.	Dr. Aishwara Anand Arora, Assistant Professor (CSE) School of Open Learning, University of Delhi, India.  Dr. Dilip Singh Sisodia, Associate Professor & Head of the Department (CSE), NIT Raipur.  Dr. Vikash Kumar Mishra, Post Doctoral Fellow, University of Cape Town, South Africa.  Dr. Dilshad Ansari, Associate Professor, Department of CSE, SRM University, Sonepat, Haryana.
Day 2 11-11-2025	Dr. Sandeep Kumar Sood, Associate Professor, Computer Applications, NIT Kurukshetra, Haryana.	
Day 3 12-11-2025	Dr. Shyam Akashe, Professor & Dean, International Cooperations, IITM University, Gwalior, India.	
Day 4 13-11-2025	Dr. Sumegh Tharewal, Associate Professor, School of Advanced Computing, DBS Global University, Dehradun, Uttarakhand, India.	
Day 5 14-11-2025	Dr. Sumegh Tharewal, Associate Professor, School of Advanced Computing, DBS Global University, Dehradun, Uttarakhand, India.	



## DEPARTMENT OF COMPUTER APPLICATIONS

### Expert Lectures

The Department of Computer Applications at Manipal University Jaipur hosted a series of expert lectures aimed at bridging the gap between academic theory and industry practice. These sessions covered a diverse range of critical technology domains, from foundational programming to advanced architectural frameworks.

#### Industry Insights: Programming & Core Technologies

- Java Exception Handling: On October 30, Mr. Manish Mathuria delivered a mandatory three-hour session on "**Error Free Coding**," providing 115 students with practical techniques for managing exceptions in Java.
- C for Cyber Security: Ms. Akanksha Bhatnagar, a Cyber Security Officer, conducted an online lecture on October 31 titled "**Cracking Problems with C**," emphasizing the language's role in effective problem-solving within the security sector.
- Shell Scripting: On November 5, Dr. Aruna Sengar from SAGE Group led a session on "**UNIX Shell Programming**," demonstrating how to turn commands into powerful automation tools for system administration.
- Web Technologies: A specialized two-day lecture (November 6–7) for MCA students explored the real-world industry applications of HTML, CSS, and JavaScript as the bedrock of modern web development.

#### Advanced Architecture & Emerging Trends

- Microservice Architecture: On November 2, Mr. Anurag Sunmugam, Associate Architect at Gramener Technology Solutions, provided students with high-level insights into **modern microservice design** via Microsoft Teams.
- AI in Cloud Computing: On November 17, Mr. Sandeep, an infra transformation specialist from Accenture, delivered an expert talk to BCA III Semester students regarding the evolving role of **Artificial Intelligence within cloud applications**.



## DEPARTMENT OF COMPUTER APPLICATIONS

### Expert Lectures

#### Java Exception Handling:



MANIPAL UNIVERSITY JAIPUR (University under Section 2(f) of the UGC Act)

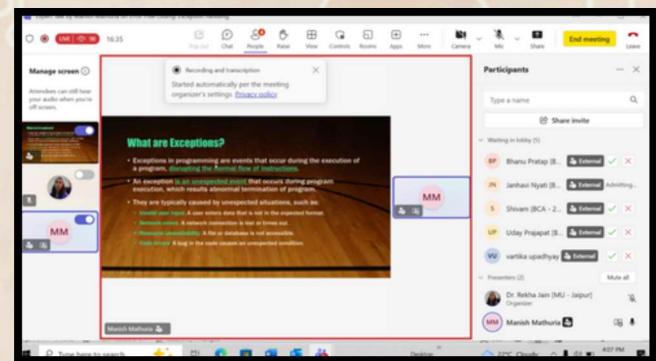
Industry Expert Talk on "Error Free coding: Exception Handling in Java"

**Speaker**



Mr. Manish Mathuria  
Instructor,  
Project Implementation,  
E-Connect Solutions Pvt Ltd.

Department of Computer Applications, Manipal University Jaipur  
30 Oct 2025



Recording and transcription  
Started automatically per the meeting organizer's settings. [docs.google.com](https://docs.google.com)

What are Exceptions?

- Exceptions in programming are events that occur during the execution of a program, and the handling of these exceptions is called exception handling.
- An exception is an unexpected event that occurs during program execution, which results abnormal termination of programs.
- They are typically caused by unexpected situations, such as:
  - Input error type: A user enters data that does not fit the expected format or value.
  - Resource constraint: A file or database is not accessible.
  - Code error: A bug in the code causes an unexpected condition.

#### C for Cyber Security:



MANIPAL UNIVERSITY JAIPUR (University under Section 2(f) of the UGC Act)

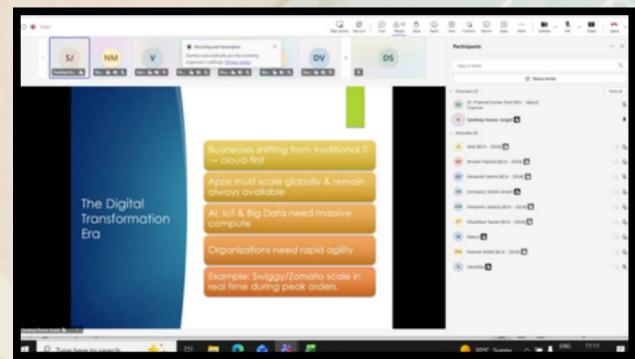
Industry Expert Talk

**Speaker**



Mr. Sandeep  
Infra transformation specialist  
Accenture technology  
Gurugram

Department of Computer Applications, Manipal University Jaipur  
17 Nov 2025



The Digital Transformation Era

- Businesses shifting from traditional to cloud-first
- Apps must scale globally & remain always available
- AI, IoT & Big Data need massive compute
- Organizations need rapid agility
- Example: Swiggy/Comcast scale in real time during peak orders

#### Shell Scripting:



MANIPAL UNIVERSITY JAIPUR (University under Section 2(f) of the UGC Act)

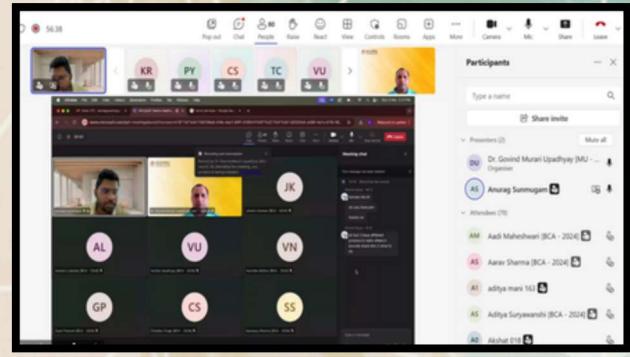
Industry Expert Talk on Micro Service Architecture

**Speaker**



Mr. Anurag Sunmugam  
Associate Tech Architect,  
Gramener technology  
solutions pvt ltd, India

Department of Computer Applications, Manipal University Jaipur  
November 02, 2025



Participants

Type a name

Presenters (2)  
Dr. Govind Muran Upadhyay (MU - Organiser)  
Amar Sumugam

Attendees (7)  
Aditi Maheshwari (BCA - 2024)  
Aarav Sharma (BCA - 2024)  
Aditya mans 162  
Aditya Surawanshi (BCA - 2024)  
Akshit 111

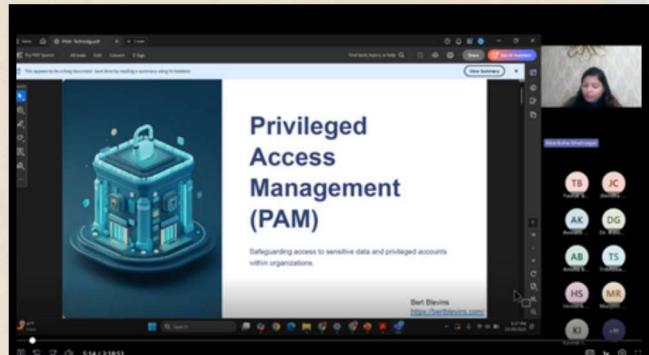


## DEPARTMENT OF COMPUTER APPLICATIONS

### Web Technologies:



### Microservice Architecture:



### AI in Cloud Computing:



## DEPARTMENT OF COMPUTER APPLICATIONS

### ***Faculty Retreat'25***

To celebrate team spirit and academic collaboration, Manipal University Jaipur organized the Faculty Retreat 2025 on November 9, 2025. This event served as a refreshing break for the faculty members and bond, share innovative pedagogical ideas outside the traditional classroom setting.

#### **Highlights of the Retreat:**

- **Networking & Collaboration:** The retreat provided a platform for faculty across the Department of Computer Applications to engage in team-building activities, fostering a culture of mutual support and collective growth.
- **Rejuvenation:** Set against a backdrop of relaxation, the day was designed to recharge the educators who have been busy conducting high-impact sessions
- **Vision Sharing:** Leadership and faculty discussed the roadmap for the upcoming semester, focusing on bridging the gap between academic learning and industry expectations.





## DEPARTMENT OF COMPUTER APPLICATIONS

### Convocation'25

Manipal University Jaipur recently celebrated a landmark achievement as the Department of Computer Applications honored its latest cohort of graduates during the 12th Convocation ceremony. This significant milestone marked the successful completion of graduation and post-graduation for our brilliant BCA and MCA students. The event was a heartfelt celebration of the hard work, dedication, and perseverance shown by each student throughout their academic journey. As these newly minted professionals step into the next chapter of their lives, the department extends its best wishes for their future endeavors, confident that their knowledge and passion will lead them to extraordinary heights in the global tech landscape.





## DEPARTMENT OF COMPUTER APPLICATIONS

**International**

**ASCI'25**

The Department of Computer Applications successfully hosted the International Conference on **Applied Scientific Computational Intelligence using Digital Twins** (ASCI-2025) on December 15–16, 2025, with the support of the **Bureau of Indian Standards**. The featured innovative poster presentations and was graced by Chief Guest **Mr. Sanjeev Telang** (Executive Program Director, HILTI, Switzerland) and Guest of Honour **Mr. Sushil Kumar** (Former Additional Director General, Department of Telecommunications, Govt. of India). Their addresses provided a unique perspective on bridging the gap between academia, industry, and governance. This event served as a prestigious platform for global knowledge exchange, fostering collaboration in the fields of computational intelligence and digital twin technologies.





## DEPARTMENT OF COMPUTER APPLICATIONS

### Dean Award's

On 10 October 2025, the Department of Computer Applications at Manipal University Jaipur proudly hosted the Dean's List Award Ceremony to honor the outstanding achievements of the 2024–25 academic session. Under the Faculty of Science, Technology & Architecture (FOSTA), this event celebrated students who have demonstrated exceptional academic brilliance, research excellence, and active participation in co-curricular activities. Each awardee embodies the spirit of dedication and perseverance that defines our department, and we extend our warmest congratulations to these scholars for their pursuit of excellence and their impressive contributions to our university community.





## DEPARTMENT OF COMPUTER APPLICATIONS

### ***Industrial Visit***

On 4 November 2025, the Department of Computer Applications, in collaboration with the Standards Club (BIS) and the Centaurus Arena Club, MUJ, organized an insightful industrial visit to the Software Technology Parks of India (STPI) in Jaipur. Sponsored by the Bureau of Indian Standards (BIS), the visit provided students with a practical understanding of core IT operations, including an exploration of incubation facilities for emerging startups and a detailed look at data center infrastructure supporting both IPv4 and IPv6 environments. By observing the real-world application of BIS standards in software development and cybersecurity, our students gained valuable industry exposure beyond the classroom.



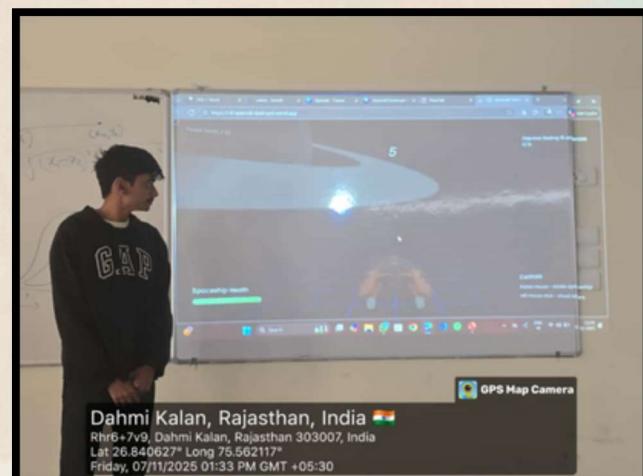


## DEPARTMENT OF COMPUTER APPLICATIONS

**Tech Event**

**Pixel to Project**

The Department of Computer Applications, in association with the Centaurus Arena Club MUJ, successfully organized "PIXEL TO PROJECT" on 6–7 November 2025. This two-day event featured two distinct segments: DesignSphere, where junior students showcased creative UI/UX and frontend designs using tools like Figma, HTML, and CSS, and ProtoFiesta, where final-year students presented functional working project prototypes. By bridging the gap between creative concepts and technical execution, the event provided a platform for students across BCA, MCA, and M.Sc. programs to enhance their collaborative problem-solving skills and professional design sense.





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### **P.H.D Awarded**

The Department of Computer Applications is proud to announce that **Divya Sharma** was officially awarded her PhD following a successful Viva-Voce held on 13 October 2025. Under the expert guidance of **Dr. Shilpa Kulkarni Sharma**, she defended her innovative research titled "**Deep Learning Based Vehicle License Plate Image Restoration and Recognition for Complex Weather Conditions**." Her work addresses critical challenges in computer vision and intelligent transportation systems, marking a significant contribution to the Faculty of Science, Technology and Architecture. We extend our heartiest congratulations to Dr. Divya Sharma on this prestigious academic milestone!





## DEPARTMENT OF COMPUTER APPLICATIONS

**Placement'25**

### **Exceptional Talent Meets Industry Leaders!**

The Department of Computer Applications is proud to announce the exceptional success of our latest placement drive, which saw our students securing prestigious positions at global industry leaders like Infosys, Accenture, and Secure Meters. Highlighting the technical prowess of our cohort, Dheeraj Khatri achieved a remarkable milestone with a package of 21 LPA at Infosys, while several others secured roles as Advanced Associate Software Engineers and Graduate Engineer Trainees with competitive CTCs. This recruitment cycle not only reflects the academic rigor of our program but also the industry-readiness of our students, with numerous others embarking on high-impact internships at innovative firms like Ornate Techno Services. We congratulate all our placed students for their hard work and wish them continued success as they step into their professional careers.

Student Name	Company	Role	Package/Stipend
Dheeraj Khatri	Infosys	SP - L3	21 LPA
Sanyam Saxena	Accenture	AASE	6.5 LPA
Sanket Mittal	Accenture	AASE	6.5 LPA
Harshit Mittal	Accenture	Adv. Software Engineer	6.5 LPA
Shreshth Jain	Secure Meters	GET	5.48 LPA
Khushi Sharma	Infosys	System Engineer	3.6 LPA
Kunal Rajneesh Sahal	Infosys	Intern	10,000 /mo
Vrinda Vashistha	Ornate Techno Services	Software Intern	5,000 /mo



## DEPARTMENT OF COMPUTER APPLICATIONS

### Research & Publications

#### Faculty publication

##### Department of Computer Applications Sets Research Benchmarks

The Department of Computer Applications at Manipal University Jaipur has demonstrated exceptional academic rigor in the final quarter of 2025, spanning from October 1 to December 31. The latest data highlights a department deeply committed to both high-quality publication and tangible innovation. The department reached a cumulative total of **77 scholarly activities**, including **3 major ongoing research projects**. This remarkable surge in high-tier journal placements and patent grants underscores the department's role as a powerhouse of innovation within the university. By bridging the gap between theoretical research and protected intellectual property, the faculty and students are actively shaping the future of the digital landscape.

Category	Metric	Count
<b>Journal Publications</b>	JQ1 Top & JQ1 (High Impact)	<b>18</b>
	Q2 & Q3 Journals	10
<b>Conference &amp; Books</b>	Scopus Indexed Proceedings	17
	Conference Books & Chapters	8
<b>Innovation (IPR)</b>	Patents Filed	5
	<b>Patents Granted</b>	<b>15</b>
<b>Projects</b>	Ongoing Research Projects	3
<b>Total Impact</b>	<b>Total Scholarly Activities</b>	<b>77</b>



## DEPARTMENT OF COMPUTER APPLICATIONS

### Research & Publications

#### Student publication

- Attendance Automation Excellence: **Mukul Singh Jadoun** (Manipal University Jaipur) successfully presented a paper on an AI-integrated facial recognition model designed for efficient institutional attendance.
- Combatting Misinformation: **Nitin Sahu** (Manipal University Jaipur) presented groundbreaking research on Web-Based Fake News Detection using advanced Transformer-GNN and deep learning techniques.



Kudos to Our Young Researchers! A big round of applause for **Vansh Jasuja** and **Mohit Sharma** for their participation in the ASCI-2025 conference! Organized by the Department of Computer Applications at Manipal University Jaipur in association with the Bureau of Indian Standards, the conference provided a global platform for them to present their paper, "**Reimagining Reality.**" We are incredibly proud of their dedication to innovation and excellence in the tech space.



# DEPARTMENT OF COMPUTER APPLICATIONS

## ***Research & Publications***

## ***Student publication***



MUJ Research Spotlight: Advancing Healthcare with AI During the ICCI 2025 conference on December 27-28, **Tejas Shankar Raheja** presented groundbreaking work on **chronic kidney disease prediction**. The paper utilized permutation-based feature importance to compare various machine learning models, aiming to enhance diagnostic precision. The presentation was a part of the prestigious international forum organized by the Soft Computing Research Society (SCRS) and SVNIT, Surat.



**Diya Sharma** Presents Research at International Conference Diya Sharma, a student from the Department of Computer Applications, recently represented Manipal University Jaipur at the International Conference on "Empowering Women in Science, Technology, Engineering, Arts and Management" (ICEWSTEAM 2025). During the event, Diya presented her research paper titled "**Hybrid Deep Learning Framework for Accurate Brain Cancer Diagnosis using MRI Images,**"



Innovating Healthcare: AI Research Presented at ICEWSTEAM 2025 We are proud to announce that **Baldeep Singh** (Manipal University Jaipur) was a featured presenter at the prestigious ICEWSTEAM 2025 conference. Organized by the School of Physical and Biological Sciences in collaboration with the World Forum for Women in Science (WFWS), the conference focused on bridging gaps in STEM and Management.



## DEPARTMENT OF COMPUTER APPLICATIONS

### Achievements

### Faculty Achievements

The Department of Computer Applications at Manipal University Jaipur is proud to celebrate the remarkable achievements of **Dr. Arpana Sinhal** and **Dr. Rekha Jain**, who have both been honored with the Best Innovator Award. Presented by the Institution's Innovation Council, this prestigious recognition highlights their "outstanding innovation and excellence" in their field. These accolades, endorsed by university leadership including the Director of E-Cell, Dean of Graduate Outcomes, and the Provost, underscore our faculty's commitment to advancing technological research and academic excellence.





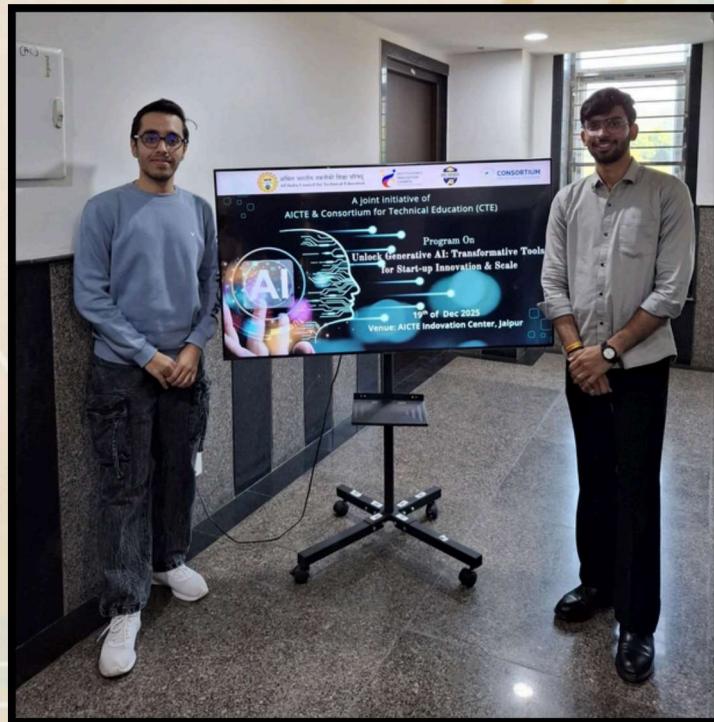
## DEPARTMENT OF COMPUTER APPLICATIONS

### Achievements

### Student Achievements

#### MUJ Students Vansh and Mohit Explore Generative AI

Students Vansh and Mohit from Manipal University Jaipur recently represented the institution at a high-impact technical program titled "**Unlock Generative AI: Transformative Tools for Start-up Innovation & Scale**". The event took place on December 19, 2025, at the AICTE Innovation Center in Jaipur as a joint initiative between AICTE and the Consortium for Technical Education (CTE).





## DEPARTMENT OF COMPUTER APPLICATIONS

### Article Crafting

#### ***The Pulse of Innovation: How Python Powers the Data Revolution***

Python's ascent to the top of the tech hierarchy in 2026 is driven by its role as the "human interface" for complex machine intelligence, enabling a "Time to Market" advantage that lower-level languages cannot match. In the current landscape, Python is no longer just a tool for scripting; it is the orchestrator of the entire intelligence lifecycle, bridging the gap between massive, unstructured data lakes and sophisticated Agentic AI systems. Its dominance is cemented by a massive ecosystem: NumPy and Pandas handle high-speed data manipulation, Scikit-learn powers classical predictive analytics, and frameworks like PyTorch and TensorFlow serve as the bedrock for deep learning research.

Beyond traditional modeling, Python is now the primary language for Generative AI, with SDKs from industry leaders like OpenAI and Anthropic prioritizing Python for LLM integration. This allows developers to build advanced applications—ranging from autonomous agents and Retrieval-Augmented Generation (RAG) systems to Explainable AI (XAI) tools that make healthcare and finance models transparent. As the language continues to evolve with performance optimizations like JIT (Just-In-Time) compilation and expands into Quantum Computing and Edge AI, its readability ensures that innovation remains accessible, making it the most critical skill for any aspiring data professional today.



**Created by - Mohit Sharma**  
**BCA - B**

