



MANIPAL UNIVERSITY
JAIPUR

IT COMPENDIUM

DEPARTMENT OF INFORMATION TECHNOLOGY

JULY - SEPTEMBER ISSUE | 2025

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*Unleashing Potential,
Transforming Futures*



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Dr. Pratistha Mathur, HOD of
Information Technology

FACULTY EDITOR:-

Dr. Shweta Sharma, Department
of Information Technology

STUDENT EDITOR:-

Swayam Bansal, 3rd Year
Rehan Saini, 2nd Year

MESSAGES

MESSAGE BY ASSOCIATE DEAN



Dear Readers,

The Department of Information Technology at Manipal University Jaipur continues to evolve as a hub of academic excellence, innovation, and industry alignment.

Since its inception in 2012, the Department has grown into a thriving ecosystem—home to state-of-the-art laboratories, a future-ready curriculum, and a distinguished faculty dedicated to academic excellence, innovation, and impactful research.

Our programs are thoughtfully designed to equip students with both foundational and advanced computing knowledge. From mastering basic concepts to creatively solving real-world problems through research and innovation, we aim to empower our students to become industry- and society-ready professionals. Beyond technical competence, we strive to ignite curiosity, nurture creativity, and cultivate a research-driven mindset.

This newsletter marks a new chapter in our journey—a platform to celebrate our achievements, share insights, and reflect the vibrant spirit of our department.

I warmly invite you to explore, engage, and be inspired.

Prof. (Dr.) C. S. Lamba
Associate Dean,
School of Computer Science and Engineering

MESSAGE BY HOD

Think beyond theoretical frameworks- our world class industry ties open doors to real-world challenges and opportunities. Through Value-Added Courses, MOOCs, Workshops, and Industrial Visits, you'll test your mettle, hone your skills, and network with the pioneers shaping the digital landscape. Our mission is your success. We support, guide, and empower you every step of the way as you craft your unique code in the symphony of the digital revolution. This isn't just a department; it's a launchpad, a community, and your home in the heart of the IT revolution. Join us, innovators, dreamers, and builders let's rewrite the very definition of an IT professional, together. Welcome to the Department of Information Technology at Manipal University Jaipur. Welcome to your future

Prof. Pratistha Mathur
HoD, Department of IT





Department of Information Technology – Manipal University Jaipur

Established in 2012, the Department of Information Technology at Manipal University Jaipur is committed to bridging the gap between academia and industry. We offer a cutting-edge curriculum designed to equip students with the latest technical knowledge and industry-relevant skills.

Our department prepares students for the evolving global IT landscape by fostering innovation, research, and hands-on learning. With state-of-the-art computing facilities, we provide a comprehensive curriculum covering fundamental programming languages to advanced domains such as Machine Learning, Cloud Computing, Networking, Image Processing, Android Development, and the Internet of Things (IoT).

Designed to meet industry demands, our curriculum emphasizes practical applications and real-world problem-solving. We actively collaborate with leading industries in areas like Computer Networking, Data Mining, Big Data Analytics, Computer Vision, Cloud Computing, and Cybersecurity. Additionally, the department maintains strong affiliations with prestigious research communities, including IEEE, CSI, ACM, and NVIDIA, ensuring students stay at the forefront of technological advancements.

Through a blend of academic excellence, industry partnerships, and research opportunities, the Department of IT empowers students to thrive in the ever-evolving world of technology.

VISION

To achieve global excellence in higher education, research and human development by adapting innovations in IT domain.

MISSION

To become the most inspirational department among the students and engineering aspirants who want to pursue their career in the field of Information Technology.

To foster academic, research, and professional excellence within the domain of Information Technology.

To transform young minds into competent IT professionals imbining strong moral values.

FACULTY OF IT



Program Educational Objective (PEO)

- To imbibe the inquisitive practices in students to have thrust for innovation and excellence that leads to use research-based knowledge and research methods.
- To foster world-leading technological innovation to support teaching and learning, research and outreach.
- To support the students to acquire various knowledges and skills and nurture constructive attitude and behaviour.
- Promoting the development of resilience, determination, confidence, and creative and critical thinking among students.
- To support students to ensemble easily in integrated environment of learning and pragmatic implementation of concepts.

LIST OF FACULTIES

Dr. Ankit Mundra
Mr. Anurag Bhatnagar
Dr. Anju Yadav
Dr. Ashish Jain
Dr. Avani Sharma
Dr. Bagesh Kumar
Mr. Chandrapal Singh Dangi
Dr. Debolina Ghosh
Dr. Devesh Kumar
Srivastava
Dr. Ganpat Singh Chauhan
Dr. Kavita
Dr. Krishna Kumar
Dr. Krati Dubey

Dr. Lokesh Sharma
Dr. Narendra Singh Yadav
Ms. Nandani Sharma
Dr. Nirmal Kumar Gupta
Dr. Nripendra Narayan Das
Dr. Pankaj Vyas
Dr. Prakash Chandra Sharma
Dr. Pratistha Mathur
Dr. Rahul Saxena
Mr. Ravinder Kumar
Mr. Ravindra Saini
Ms. Rashmi Bartwal
Mr. Rohit Kumar Gupta

Dr. Shally Vats
Dr. Shalini Puri
Dr. Shikha Chaudhary
Dr. Shweta Sharma
Dr. Smaranika Mohapatra
Mr. Suman Saurabh Sarkar
Dr. Sulabh Bansal
Dr. Sumit Srivastava
Dr. Vineeta Soni
Mr. Venkatesh Gauri Shankar
Dr. Vivek Kumar Verma
Mr. Vijay Prakash Sharma
Mr. Virender Dehru
Mr. Yogender Sharma

FACULTY ACHIEVEMENTS

DEPARTMENT OF INFORMATION TECHNOLOGY
RESEARCH DATA

Department of Information Technology - Research Highlights

Faculty of Engineering | School of CSE (CSE & IT)

Reporting Period: JULY 1- SEPTEMBER 30, 2025

The Department of Information Technology at Manipal University Jaipur has shown commendable scholarly productivity and innovation in the first quarter of 2025. Our faculty and researchers have actively contributed to advancing knowledge through high-quality publications and intellectual property filings

Innovation & Intellectual Property

Innovation remains a core focus for the department. In this quarter, faculty members achieved:

- 2 patent grant • 2 patent published
- 2 patent filing

These IPR activities reflect our ongoing efforts to transform academic research into real-world applications and solutions.

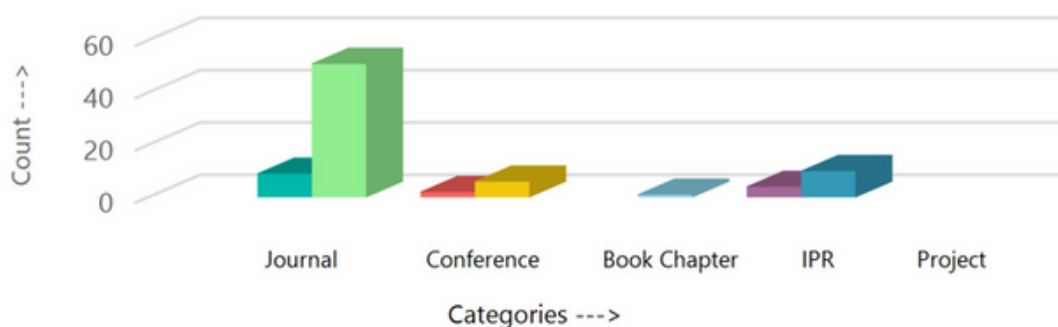
Research Publications

During this period, the department produced a total of 13 research publications. This includes:

- 6 Q1 journal publications, reflecting impactful and high-ranking contributions.
- 1 Q2 publication, 1 in Q3, and 1 in Q4, indicating consistent engagement across recognized journals.
- Additionally, Few publications were contributed to Scopus-indexed book chapters and conference proceedings, strengthening the department's presence in academic and research communities.

Publication trends

Department : Journal Conference Book Chapter IPR Project
School : Journal Conference Book Chapter IPR Project





REPORTING PERIOD: JULY 1, 2025 – SEPTEMBER 30, 2025

The Department of Information and Technology, under the School of Computer Science and Engineering-1, has maintained a strong research trajectory during the third quarter of 2025. Faculty members actively contributed to journals, books, and intellectual property development, reflecting the department's continued focus on scholarly excellence and innovation within the Faculty of Science, Technology and Architecture.

RESEARCH PUBLICATIONS

During this quarter, the department produced a total of 13 research publications, distributed across multiple recognized formats. The highlights include:

- Journal Publications: 9 total
 - Q1: 6
 - Q2: 1
 - Q3: 1
 - Q4: 1
 - Non-Quartile Scopus: 0
 - Non-Scopus: 1
- Book Chapters: 2 (both Scopus-indexed)
- Conference Publications: None reported

These outputs reflect strong engagement in high-impact journals (Q1-Q3) and scholarly book chapters, emphasizing quality research dissemination over volume.

Innovation & Intellectual Property

The department continued to encourage innovation-driven research. During this quarter, a total of 4 IPR activities were reported:

- Patents Published: 2
- Patents Filed: 2
- Patents Granted: 2

These achievements underscore the department's sustained commitment to research translation, innovation, and intellectual property generation.

SUMMARY

As of September 2025, the Department of Information and Technology has achieved a cumulative output of 13 publications and 4 IPR filings. The research outcomes primarily lie in high-ranked journals and Scopus-indexed publications, signifying academic excellence and institutional visibility.

The department remains focused on nurturing an ecosystem that blends research, innovation, and societal impact, reinforcing its pivotal role within the Faculty of Science, Technology and Architecture and its alignment with SDG 4 (Quality Education) and SDG 9 (Industry, Innovation, and Infrastructure).

FACULTY ACHIEVEMENTS

DEPARTMENT OF INFORMATION TECHNOLOGY
RESEARCH DATA

Department of Information Technology – Research Highlights

Faculty of Engineering | School of CSE (CSE & IT)
Reporting Period: July 1 – September 30, 2025

The Department of Information Technology at Manipal University Jaipur has shown commendable scholarly productivity and innovation in the second quarter of 2025. Our faculty and researchers have actively contributed to advancing knowledge through high-quality publications and intellectual property filings



Paper Title: An Improved Quantum-Inspired Evolutionary Algorithm Framework Implemented to Solve Minimum Vertex Cover Problem

Date of Publication: July 2025

Journal Name: Structural and Multidisciplinary Optimization (Springer Berlin Heidelberg)

Indexing: SCI, SCOPUS (Q1)

Quartile: Q1

Authors: Sulabh Bansal, Shiladitya Bhattacharjee



Title: Leveraging Deep Learning for Fault Detection and Localization in Distributed Systems

Date of Publication: 10 July 2025

Journal Name: IEEE Access

Journal Details: Impact Factor 3.6, Science Citation Index Expanded (SCI), Q1

Quartile: Q1

Author: Dr. Debolina Ghosh, Assistant Professor (Senior Scale), Department of Information Technology, Manipal University Jaipur

FACULTY ACHIEVEMENTS

DEPARTMENT OF INFORMATION TECHNOLOGY
RESEARCH DATA

Department of Information Technology – Research Highlights

Faculty of Engineering | School of CSE (CSE & IT)
Reporting Period: July 1 – September 30, 2025

The Department of Information Technology at Manipal University Jaipur has shown commendable scholarly productivity and innovation in the second quarter of 2025. Our faculty and researchers have actively contributed to advancing knowledge through high-quality publications and intellectual property filings

Paper Title: A Systematic Review on Current and Future Prospects of 5G Communications

Date of Publication: August 2025

Journal Name: Cogent Engineering

Indexing: SCOPUS (Q2), Web of Science (ESCI)

Quartile: Q2

Authors: Mounika Tummala, Punith Bekal, Pramod Kumar, Shalini Puri, Sanyog Rawat, Anjali Kumari



Paper Title: Advances in Polymer-Modified Concrete Using XAI

Date of Publication: July 2025

Journal Name: Journal of Polymer and Composites

Indexing: Web of Science (ESCI)

Quartile: Q2

Authors: Shalini Puri, Anjali Dadhich

STUDENT ACHIVEMENTS

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC FIELD



Dr. Shaurya Purohit

He, alumnus of B.Tech (IT), batch 2015–2019, for received the “Best Researcher Award” at Iowa State University, USA. He Currently pursuing a Ph.D. in Cybersecurity and Machine Learning, his research focuses on autonomous vehicles, EV charging systems, distributed energy networks, and cybersecurity. He has also collaborated with Argonne National Laboratory, USA, contributing to cutting-edge research in cybersecurity for autonomous systems.



Yash Kamra

A huge congratulations to Yash Kamra for his impressive performance in the HackLLM Hackathon! Yash secured the 2nd position in the competition, demonstrating exceptional skill and innovation in the field.

Hardik Sharma

Hardik Sharma (B.Tech IT, 2022–2026) for participating in the Summer School on Edge AI at KTH Royal Institute of Technology, Sweden (1–4 Sept 2025). The program, supported by NordForsk, Digital Futures, and TECoSA, gathered participants from 20+ global institutions.



STUDENT ACHIVEMENTS

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC FIELD

Our department students are actively contributing to the field of Intellectual Property Rights (IPR) through patent filing, publication, and grant in emerging technologies such as Artificial Intelligence (AI), Machine Learning (ML), and the Internet of Things (IoT). Their innovative ideas and dedication to research reflect a strong commitment to technological advancement, bringing immense pride to the Department of Information Technology, School of Computer Science and Engineering, Manipal University Jaipur.

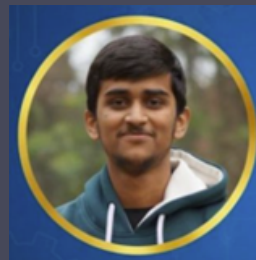
GRANT



Prashasti Rai



Mohammad ayaan



Kirtarth Bijalwann



Harsh V Kadam



Kaustav Kumar



Vidhu Gupta



Sanchit Rana

STUDENT ACHIVEMENTS

DEPARTMENT OF INFORMATION TECHNOLOGY

ACADEMIC FIELD

Our department students are actively contributing to various reputed conferences and journals through their research in emerging fields such as Artificial Intelligence (AI), Machine Learning (ML), and the Internet of Things (IoT). Their consistent efforts and quality publications reflect a strong commitment to innovation, academic excellence, and technological advancement, bringing pride to the Department of Information Technology, School of Computer Science and Engineering, Manipal University Jaipur.



Satvik Agarwal



Dhruv Bareja



Yashvi Neema



Hardik Sharma

CO-CURRICULAR ACTIVITIES

Rishan Mazumdar

Rishan has officially been awarded the FIDE title of Arena Candidate Master in 2025 by the World Chess Federation. This is a prestigious achievement that recognizes exceptional skill and dedication in the game of chess.



DEPARTMENT PROGRAMS

**MANIPAL UNIVERSITY
JAIPUR**



**Department of Information Technology
School of Computer Science and Engineering**

is organizing a

**STC (NITTTR Chandigarh)
in collaboration with MUJ-TEC**

on

Data Science and Machine Learning (ICT-38)

28 July, 2025 to 1 August, 2025 Lab 109, Ab2

Organizing Chairs:

- Dr. Kuldeep Singh Sangwan
Dean, FoSTA
- Dr. C. S. Lamba
Associate Dean, FoSTA
- Dr. Pratistha Mathur
HoD, Information Technology

Convenors:

- Dr. Shalini Puri
Mob: 7023069773
shalini.puri@jaipur.manipal.edu
- Dr. Shweta Sharma
Mob: 8239163927
sharma.shweta@jaipur.manipal.edu



KEY HIGHLIGHTS:

OBJECTIVES:

A collaborative FDP was conducted under NITTTR's national ICT-based training framework, featuring a week-long blend of lectures and practical labs on Data Science and Machine Learning. Participants gained hands-on experience with regression, classification, clustering, and anomaly detection using real-world datasets, along with insights into Generative AI and AI applications in healthcare through expert online talks. The program concluded with a valedictory session, with feedback highlighting excellent participant satisfaction and a well-structured course.

SDG Mapping:

1. SDG 4 (Quality Education): Promoted lifelong learning opportunities and faculty upskilling in frontier technologies.
2. SDG 9 (Industry, Innovation & Infrastructure): Advanced innovation through capacity-building in data-driven industrial applications.

EVENT SEGEMENTS:

Interactive FDP Sessions:

- Day 1: Registration & Inauguration; Introduction to Data Science & Machine Learning; Basics of Python Programming
- Day 2: Data preprocessing, feature engineering, and statistical analysis using Python
- Day 3: Regression algorithms; Generative AI and AI in healthcare (online)
- Day 4: Regression & classification modeling with real-world case studies
- Day 5: Unsupervised learning (clustering & anomaly detection); Feedback & Valediction

Each session combined conceptual understanding with hands-on demonstrations, emphasizing reproducible workflows and data ethics.



INDUSTRY LECTURE

EVENT TITLE: "BLUEPRINT X"

The Department of Information Technology, in collaboration with the Directorate of Students' Welfare, hosted "Blueprint X", a flagship student-led seminar conducted by MUJToppers, on 23rd August 2025 at the Smt. Sharada Pai Auditorium. The event brought together 120+ participants, providing a collaborative platform where senior students offered structured guidance to first-years on academic excellence, internships, open-source contributions, and overall holistic growth.



Key Highlights:

A peer-to-peer mentorship initiative led by MUJ students, focusing on GPA management, internships, open-source projects, and hackathons. The event encouraged community-driven learning through real examples and interactive Q&A, featuring seven accomplished senior speakers from diverse engineering disciplines.

Objective:

To ease first-year transition at MUJ, provide strategies for GPA management and academic balance, share insights on internships and open-source opportunities, introduce hackathons and skill-based competitions, and promote mentorship, ethical growth, and collaborative learning.

PROGRAM FLOW:

Event Agenda: Welcome & opening remarks, introduction to MUJToppers, leadership Q&A, off-campus internship insights, academics & GPA session ("Massive GPA Boost"), creative segment (Likhawat Presentation), internship experiences sharing, hackathons & GSoC guidance, followed by an open Q&A and closing acknowledgments.

INTERNSHIPS:

Takeaways: Build a strong professional profile (resume, LinkedIn, GitHub), apply early and network for off-campus opportunities, and prepare aptitude and interview skills for campus placements.

IMPACT:

Key Outcomes: Offered structured roadmaps and actionable skills for first-years, strengthened MUJ's peer-mentorship culture, enhanced awareness of research, industry, and open-source opportunities, and supported SDG 4 & SDG 8 by promoting self-driven learning and career readiness.

CLUB ORGANIZED EVENTS

LEARN IT

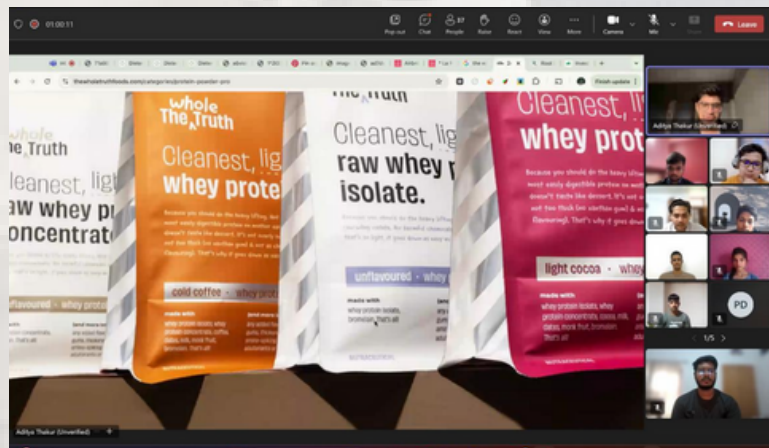
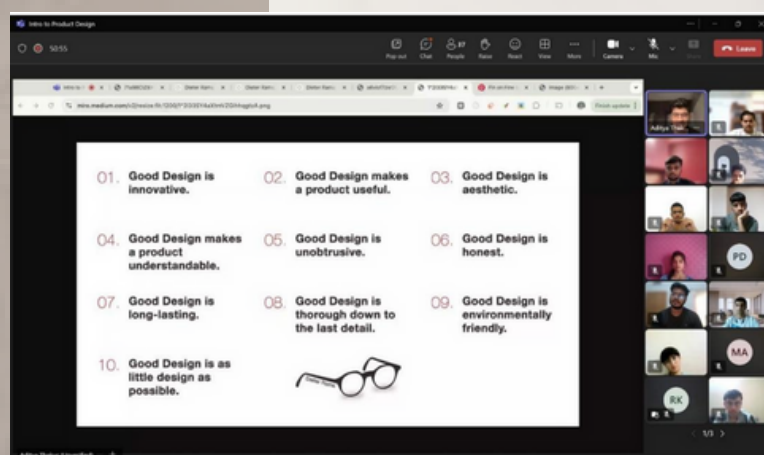


LearnIT is one of the founding clubs established at the start of Manipal University Jaipur under the Department of Information Technology. Since its inception, LearnIT has become a cornerstone of collaboration, innovation, and technical excellence at MUJ. The club has organized numerous hackathons and codeathons that have attracted thousands of participants from across India. In addition to competitive events, LearnIT has hosted a wide range of workshops and industry talks focused on the IT sector and emerging technological advancements, fostering a culture of continuous learning and industry engagement.

PRODUCT DESIGN



LearnIT successfully hosted a Product Design Webinar aimed at fostering innovation and practical understanding among students. The session featured engaging discussions on user-centric design, creative problem-solving, and industry-standard tools used in product development. Attendees gained valuable insights from experienced professionals who shared real-world applications of design thinking and prototyping. The webinar encouraged critical thinking and collaborative exploration, enabling participants to strengthen their approach toward building intuitive, impactful products.



Key Highlights:

- Bridged academic knowledge and industry practice, giving students practical insights into product design.
- Covered modern design workflows, from ideation to prototyping and testing, emphasizing UX/UI design and user-centric thinking.
- Provided students the opportunity to interact directly with an experienced professional from a leading fintech company

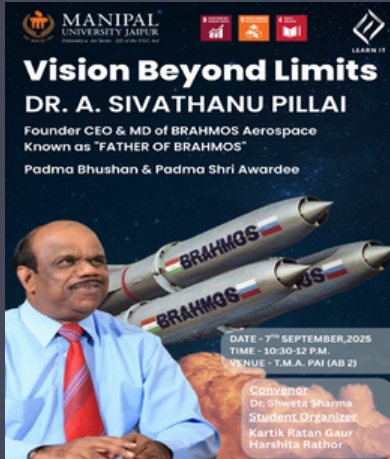
Objectives:

- Introduce Real-World Product Design Practices (SDG 4 – Quality Education): Enhanced conceptual clarity and practical knowledge through real-life examples.
- Encourage Creative and Analytical Thinking (SDG 4 & SDG 8): Fostered problem-solving and critical thinking via exposure to real-world design challenges.
- Promote Career Awareness and Industry Exposure (SDG 8 – Decent Work and Economic Growth): Equipped students with insights into career paths in design and technology.

SDG Mapping:

- SDG 4 – Quality Education: Ensuring access to relevant, skill-based learning opportunities through expert-led sessions.
- SDG 8 – Decent Work and Economic Growth: Empowering students with employability skills for sustainable creative careers.
- SDG 9 – Industry, Innovation, and Infrastructure: Encouraging innovation-driven thinking aligned with modern industry needs.

VISION BEYOND LIMITS



The Department of Information Technology, in collaboration with the Directorate of Students' Welfare and LearnIT (Official IT Department Club), hosted an inspiring leadership and innovation talk titled "Vision Beyond Limits" by Dr. A. Sivathanu Pillai on 7th September 2025 at the Dr. TMA Pai Auditorium (AB-2). The session aimed to inspire visionary thinking, purpose-driven leadership, and innovation among students, offering first-hand insights from one of India's leading science and technology experts.



Key Highlights:

- Vision talk by Dr. A. Sivathanu Pillai, architect of several national missions in defence and space.
- Emphasis on innovation, leadership, and nation-building through science and technology, with an engaging Q&A connecting classroom learning to real-world problem solving.
- Cross-disciplinary participation, fostering a community of future trailblazers.

Objectives:

- Inspire Visionary & Innovative Thinking (SDG 9): Encourage bold, creative approaches to real-world challenges.
- Bridge Knowledge & Practice (SDG 4 & 9) & Ignite Action (SDG 8 & 9): Translate insights from national programs into learning and motivate students toward impactful careers and innovation-led entrepreneurship.

SDG Mapping:

- SDG 4 – Quality Education: Holistic learning through expert-led interactions.
- SDG 8 – Decent Work & Economic Growth: Career inspiration and skill pathways.
- SDG 9 – Industry, Innovation & Infrastructure: Fostering an innovation-driven outlook aligned with national priorities

PLACEMENT

Placement Report – 2025 (Till Date)

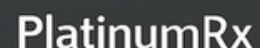
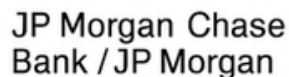
Faculty of Science, Technology and Architecture

School of Computer Science and Engineering | Manipal University Jaipur

Total Placements Achieved: 184

The Department of Information and Technology proudly reports continued excellence in campus placements for the academic year 2024–2025, reflecting the department's strong industry connect, skill-oriented pedagogy, and student preparedness for diverse career roles.

Students have secured opportunities across a broad spectrum of global technology, consulting, analytics, and finance organizations, with several achieving multiple offers in core and emerging domains such as data analytics, cloud computing, product engineering, and consulting.



Highlights

- Placement Conversion Rate: Exceptional—reflecting strong alignment with current industry requirements.
- Core & IT Roles: Software Development, Data Science, Business Analytics, and Cloud Engineering.
- Recruiter Spectrum: Spanning global MNCs, emerging startups, and consulting leaders.

TEAM IT



As we wrap up the Third quarter of the year, it's inspiring to reflect on the remarkable achievements, vibrant events, and collaborative spirit that defined the past three months. From academic excellence and innovative projects to cultural celebrations and community engagement, each milestone showcases the dedication and enthusiasm of our students, faculty, and staff. Let's carry this momentum forward, embracing new challenges and opportunities with the same passion and purpose. Here's to a productive and impactful year ahead!