



# COMPLUS

## NEWSLETTER



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**DEPARTMENT OF COMPUTER APPLICATIONS**

**“TECHNOLOGY IS BEST WHEN IT BRINGS PEOPLE TOGETHER”**



## DEPARTMENT OF COMPUTER APPLICATIONS

### ABOUT THE DEPARTMENT

The Department of Computer Applications 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 21 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

- Bachelor of Computer Applications (BCA),
- BCA Specialization (Cybersecurity / Data Science)
- BCA Honors (Software Product Engineering)
- Master of Computer Applications (MCA)
- Ph. D. (Computer Science)







### MESSAGE FROM THE HEAD OF COMPUTER APPLICATION 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





MANIPAL UNIVERSITY  
JAIPUR



## DEPARTMENT OF COMPUTER APPLICATIONS

### FACULTY DEVELOPMENT PROGRAMME

#### A Faculty Development Programme on "Enhancing Faculty Expertise on Integrating AI, Financial Literacy, and Pedagogical Innovations"

Department of Computer Application, Manipal University Jaipur, in collaboration with the Faculty of Science, organized a **Faculty Development Program (FDP)** on "Enhancing faculty expertise on Integrating AI, Financial Literacy, and Pedagogical Innovations." It was a great opportunity to delve into groundbreaking research and innovations. MUJ was honored to have "CA Nitesh Gupta, Partner, GNK & Co.", "Deepak Sihag, Director, xLab IT Consulting Services," CA Piyush Bansal, Partner, Ready-Books, Adv. Jeetam Saini, Partner, Jeetam Saini & Associates," and Sanchit Taksali, CFP®, Director, Daanik & Kedia Capital Services" as the speakers.



**MANIPAL UNIVERSITY JAIPUR**

**A Five Day Faculty Development Programme on**  
**Enhancing Faculty Expertise:**  
**Integrating AI, Financial Literacy and Pedagogical Innovations**  
[05<sup>th</sup> August - 09<sup>th</sup> August 2024]

**Venue:** Room 028, Ground Floor, Academic Block 2.

**In collaboration with:** MCA-DEC & IQAC

**Organized by:** Department of Computer Applications, Faculty of Science, Manipal University Jaipur

**Resource Persons**

 Deepak Sihag Director, xLab IT Consulting Services	 CA Nitesh Gupta Partner, GNK & Co.	 Adv. Jeetam Saini Partner, Jeetam Saini & Associates	 CA Piyush Bansal Partner, Ready-Books	 Sanchit Taksali Director, Daanik & Kedia Capital Services
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**Chief Patron:** Shri S. Vaidheswaran, Chairperson, MUJ

**Patron:** Dr. N.N. Sharma, President, MUJ

**Co-Patrons:**  
**Comd. (Dr.) Jawahar M Jangir**, Pro-President, MUJ  
**Dr. Nita Bhatnagar**, Registrar, MUJ  
**Dr. Lalita Ladhani**, Dean, Faculty of Science, MUJ

**Chief Guest:** Dr. Amit Hirawat, Asst. Professor

**Co-Chief Guest:** Dr. Pramod Kr. Soni, Asst. Professor

**Source to Book Here:** 

**Contact Us:**  
 Dr. Amit Hirawat  
 and Dr. Pramod Kumar Soni  
 9676444401 / 9676444401





## DEPARTMENT OF COMPUTER APPLICATIONS

### STUDENT'S PLACEMENT/ INTERNSHIP

**Parth Mishra** of MCA has successfully joined a prestigious long internship at **IIT KANPUR** during this internship parth will focus on innovative research map generalization, working on development of algorithms to enhance generalization techniques.

**Shubham Panth** of MCA has successfully secured long internship in **pebble jar** and will be working as a web development intern.



**NATIONAL CENTRE FOR GEODESY**  
INDIAN INSTITUTE OF TECHNOLOGY KANPUR, INDIA



Email: [ncg@iitk.ac.in](mailto:ncg@iitk.ac.in)

+91-512-260-7987 (O)

**Onkar Dikshit, PhD**  
Coordinator, NCG  
Professor, Civil Engineering  
Indian Institute of Technology Kanpur

August 05, 2024

Mr. Parth Mishra  
Manipal University Jaipur

Subject: Internship offer at the National Centre for Geodesy, IIT Kanpur

Dear Mr. Parth Mishra,

We are pleased to offer you an internship at the National Centre for Geodesy, IIT Kanpur. During the internship, you will be working on a map generalization problem wherein we expect you to design and develop generalization algorithms.

The terms and conditions of this offer are as follows:

1. Internship duration: Six months
2. Start date: 2 September 2024
3. You will receive a stipend of Rs. 4000 per month.
4. No accommodation on campus may be available immediately upon joining.

If this offer is acceptable to you on the above terms and conditions, please send your acceptance to [ncg@iitk.ac.in](mailto:ncg@iitk.ac.in) and [onkar@iitk.ac.in](mailto:onkar@iitk.ac.in) by 28 August 2024.

With best wishes,

Yours sincerely,

**Onkar Dikshit**  
COORDINATOR  
NATIONAL CENTRE FOR GEODESY  
INDIAN INSTITUTE OF TECHNOLOGY KANPUR  
INDIA AND KANPUR - 208016  
I.I.T. KANPUR - 208016

[ncg@iitk.ac.in](mailto:ncg@iitk.ac.in), +91-512-260-7987 (O), Geoinformatics Applications, Civil Engineering, IIT Kanpur, PIN-208016, India



PEBBLE JAR  
PRODUCTS & SERVICES

Date of Offer: 31-07-2024

Shubham Pant,  
Dharamshala, HP

We are delighted to offer you the position of "Technology and Web Development Intern", at Pebblejar Labs (OPC) Private Limited. The Technology and Web Development intern is a position that strengthens our technological processes and web development efforts. We are confident that this role will serve as a valuable learning experience for you.

With 2500+ products listed on our platform in just 5 years and reaching out to 700,000 lives, this is a massive opportunity to expand ourselves and connect millions of people to adopt a healthy cannabis lifestyle. We'll build a profitable business that creates a clear, measurable impact in this process.

This role requires a minimum commitment of 8 months and can be extended to 12 months. Based on your performance & willingness you may be offered a full-time position at our organisation after completion of the internship.

Your compensation in this role will comprise:  
**INR 35,000/- PM (Rupees Thirty Five Thousand Per Month)**  
Your compensation will be inclusive of all allowances and bonuses.

Kindly indicate your acceptance of this letter before **1-08-2024**.  
We expect you to join work on or before **"07-08-2024"** at our Dharamshala Office.

With Best Wishes

For PEBBLEJAR LABS (OPC) PVT. LTD.

**SEJAN SHARMA**  
Director  
PEBBLEJAR Labs (OPC) Private Limited.

99C SEVKARA, BALAJI VIHAR, KANGRA - 176001, HIMACHAL PRADESH  
CIN: UIN999H9209OPC007515





## DEPARTMENT OF COMPUTER APPLICATIONS

### STUDENT'S PLACEMENT/ INTERNSHIP

**Ashutosh Sharma** of MCA has successfully achieved student level Long internship in **CELEBAL TECHNOLOGIES** and will be working on **Dynamic Data Science**

**Muskan Satwani** of MCA has successfully achieved student level Long internship in **Nokia**

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CELEBAL  
Talent Solutions Pvt. Ltd.

Celebal Talent Solutions Private Limited

CIN: (1729006)206R10058793

+91-845998935

www.practiced@celebaltechnologies.com

www.celebaltechnologies.com

Date: 2nd May, 2024  
**Name:** Ashutosh Tripathi  
**Department:** Data Science  
**Location:** Jaipur, Rajasthan  
**Country:** India

Joining Code: NCH24/AS/MMH/0524/517  
 PPO Code: NCH24/AS/MAH/0225/317

**SUBJECT: PRE-PLACEMENT OFFER LETTER (PMO)**

Greetings on behalf of Celebal Family!

We are absolutely thrilled to extend an offer for the position of Junior Associate, a full-time intern role, in our dynamic **Data Science** domain at Celebal Technologies Private Limited! As you embark on this journey, please note that the opportunity to transition to a Full-Time Employee is contingent upon your performance and internal Company policies.

Your exceptional skills and knowledge make us confident that you will be an invaluable addition to our team, and we eagerly anticipate your contributions towards realizing our organization's mission and vision. Welcome aboard!

**ABOUT THE COMPANY:**

Celebal stands as a premier software services company, specializing in the realms of Data Science, Big Data, and Enterprise Cloud. Our mission is to empower our clients with a distinct competitive advantage through intelligent data solutions, crafted using the latest technological innovations. Our primary focus areas encompass Cloud Innovation, Supply Chain Analytics, Chatbots, Power Platforms, and Data Analytics. With our solutions, we enable our clients to expedite decision-making processes and take significant strides in their digital transformation journeys.

**INTERNSHIP DETAILS:**

Internship Commencement Date	15th May 2024
Internship Stipend	Rs. 10,000/- per month
Designation	Junior Associate
Place of Posting	Jaipur, Rajasthan

**TRANSITION TO FULL-TIME EMPLOYEE DETAILS:**

Your association with the Company will begin in the role of a Junior Associate starting from the Internship Commencement Date until you transition to a Full-Time Employee (FTE). We anticipate the following timeline to unfold successfully, provided all aspects progress as planned.

Training Commencement Date	1st October 2024
Stipendship Stipend	Rs. 15,000/- per month
Proposed Confirmation to FTE Commencement Date	1st February 2025
Cost to the Company (CTC)	Rs. 4.50 LPA per annum

\*The salary structure is detailed in Attachment A to this letter.

Address: 3rd Floor, A Wing, T-202, 204, BICO Industrial Area, Mansarovar, Jaipur 302019

**STRICTLY PRIVATE & CONFIDENTIAL**

**SUBJECT: Internship Letter**

**26.06.2024**

Dear Muskan Satwani

Congratulations!

Thank you for investing your time to pursue an opportunity with Nokia. We are delighted to extend to you an **'Internship'** offer at Nokia Solutions Networks India.

At Nokia, we create technology that helps the world act together. As a trusted partner for critical networks, we are committed to innovation and technology leadership across mobile, fixed and cloud networks. We create value with intellectual property and long-term research, led by the award-winning Nokia Bell Labs. Adhering to the highest standards of integrity and security, we help build the capabilities needed for a more productive, sustainable and inclusive world. A truly global company, we are 130 nationalities working in more than 100 countries.

Nokia is enabling the infrastructure for 5G and the Internet of Things to transform the human experience. Powered by the research and innovation of Nokia Bell Labs, we serve communications service providers, governments, large enterprises and consumers, with the industry's most complete, end-to-end portfolio of products, services and licensing.

Our focus is, and has always been, on people. We create technology that helps people thrive. It is through our people and culture that we shape technology to serve human needs. Our pursuit of performance with integrity and sustainability is a culture that stems from our Finnish roots and is the reason why our customers and partners choose to work with us.

Please take a moment to carefully review the attached details of this **'Internship'** Offer. Should you have any questions regarding this offer, you may contact the Talent Attraction Partner. Please accept this offer of **'Internship'** no later than **Aug 05, 2024**. We look forward to welcoming you on board and hope you will join us to be part of something great at Nokia Solutions and Networks.

Yours sincerely, Head of Talent Attraction Asia and MEA



### EXPERT /GUEST LECTURES

#### International Expert Session:

**Title: “Opportunities and Challenges in Multimodal Biometrics**

**Expert: Dr. Sumegh Tharewal (PhD,Post-doc,SMIEEE)**

Department of computer applications conducted a expert lecture on 30th september 2024 . To give students information about Biometrics the lecture was delivered (online). the event started with a welcome address by **Ms. Veerpal Kaur**

**Dr. sumegh** addressed students about challenges faced in multimodal biometrics , **Dr. sumegh** is a Postdoctoral Researcher at Free **University of Bolzano, Italy**.



### International Expert Session- Opportunities and challenges in Multimodal Biometrics

**Dr. Sumegh Tharewal**  
(PhD, Post doc, SMIEEE)  
Postdoctoral Researcher at Free University of Bolzano, Italy,  
Adjunct Faculty at UCSB, California, USA

**Join Online  
September 30, 2024  
10:30 AM to 11:30 AM**

**Convener-  
Ms. Veerpal kaur**

**Organized By-  
Department of Computer Applications  
Manipal University Jaipur**





## DEPARTMENT OF COMPUTER APPLICATIONS

### EXPERT/GUEST LECTURES

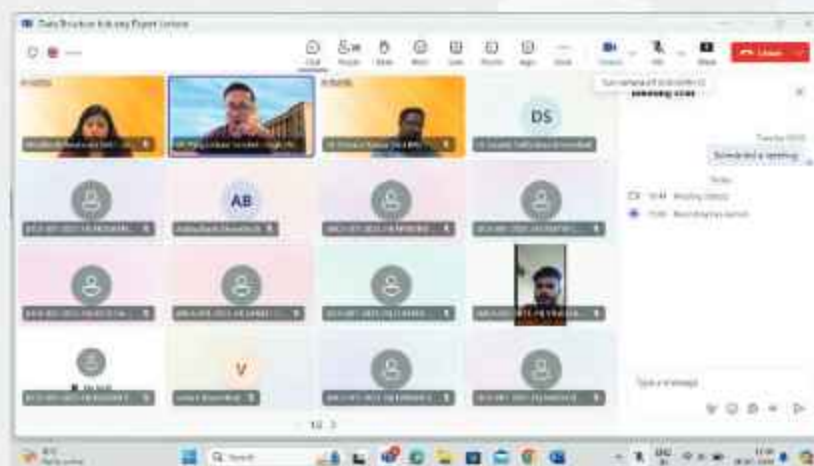
#### International Expert Session:

**Title: “Demystifying Data Structures: The Building Blocks of Modern Software”**

**Expert: Dr. Sounak Sadhukhan Senior Associate at PwC India.**

Department of computer applications conducted a expert lecture on 26th July 2024. To give students maximum benefits the talk was delivered Online (Ms Teams). The event started with welcome address by **Ms. Monika Vishwakarma**.

**Dr. Sounak Sadhukhan**, a distinguished expert in the field of Mathematical and Computational Modelling. Dr. Sadhukhan completed his PhD from Banaras Hindu University, focusing on innovative approaches to cancer treatment using mathematical and computational methods. He also holds a Master of Engineering in Information Technology from Jadavpur University and a B.Tech in Computer Science and Engineering from West Bengal University of Technology.







## DEPARTMENT OF COMPUTER APPLICATIONS

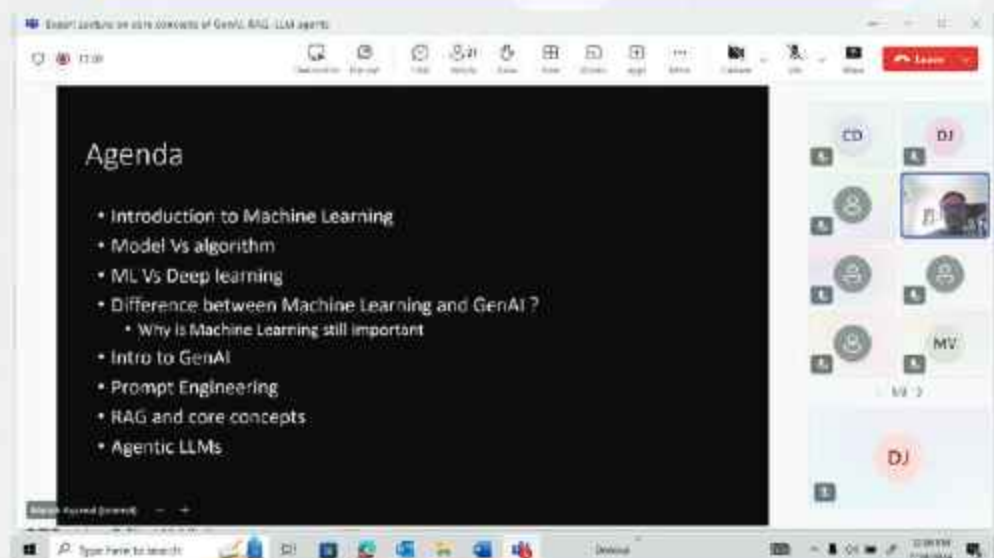
### EXPERT/GUEST LECTURES

#### International Expert Session:

**Title: "Core Concepts of GenAI, RAG, LLM."**

**Expert: Mr. Manish Kr Agarwal, Sr director Techops Infinera Bangalore**

On 30 July 2024, the Department of Computer Applications at Manipal University Jaipur hosted an insightful online expert lecture titled "Core Concepts of GenAI, RAG, LLM." This session was a mandatory component of the academic curriculum, designed to provide students with theoretical & practical knowledge of AI & Gen AI. The lecture was facilitated by Mr. Manish, who brought his extensive experience and expertise to the session, offering valuable insights into the practical applications & job opportunities in Gen AI and its applications. The event saw active participation from 35 students, who joined via Microsoft Teams. Over the course of the two-hour session, from 12:00 noon to 2:00 PM.





## DEPARTMENT OF COMPUTER APPLICATIONS

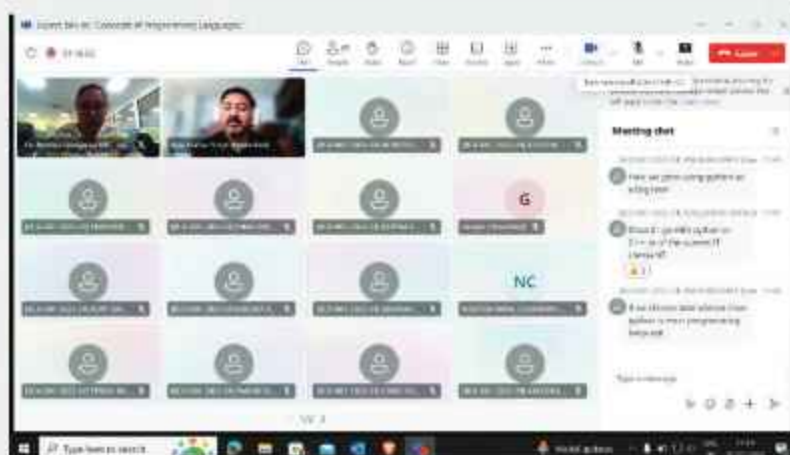
### EXPERT /GUEST LECTURES

**International Expert Session:**

**Title: “Concepts of Programming Languages”**

**Expert: Mr. Ajay Singh, Sr. Engineering leader foundry digital**

On 30 July 2024, the Department of Computer Applications at Manipal University Jaipur hosted an insightful online expert lecture. This session was a mandatory component of the academic curriculum, designed to provide students with theoretical & practical knowledge of programming concepts. The lecture was facilitated by Mr. Singh he brought his extensive experience and expertise to the session, offering valuable insights into the practical applications & job opportunities in python and its application areas. The event saw active participation from 35 students, who joined via Microsoft Teams. Over the course of the one-hour thirty minutes session, from 10:30 AM to 12:00 AM.







## DEPARTMENT OF COMPUTER APPLICATIONS

### CAREER COUNSELLING SESSION

The Department of Computer Applications organized a career counselling session on **2nd august 2024** for future prospectus of The aim of the event is to counsel students seeking admission to UG and PG programmes in the field of Computer Science and its applications. Opportunities, prerequisites, doubts, and queries associated with the field of computer applications will be discussed via experience sharing and subject matter experts.

MANIPAL UNIVERSITY  
JAIPUR  
Inspired by Life

SESSION ON

**FUTURE PROSPECTS OF**  
AI, Data Science & Cyber Security for

**BCA/MCA**  
Aspirants

BY  
Department of Computer Applications  
School of Basic Sciences, Faculty of Science

11:00 AM to 12:00 Noon  
August 2, 2024

SCAN TO REGISTER





# MANIPAL UNIVERSITY JAIPUR



## DEPARTMENT OF COMPUTER APPLICATIONS

### FACULTY ACHIEVEMENT

**Mrs. Swami Nisha Bhagirath** from Department Of Computer Application at Manipal University Jaipur has successfully achieved the Best paper award in International **conference on smart cyber physical systems ICSCPS**. The program, organized by Christ deemed to be university, took place from 13-14 September 2024

**Mrs Nisha** also participated in international conference on smart cyber physical systems & many more. These certification highlights Mrs. Swami Nisha Bhagirath to advancing her expertise in physical systems , paper writing and Deep learning.







## DEPARTMENT OF COMPUTER APPLICATIONS

### INVITED AS GUEST SPEAKERS /KEYNOTES

**Dr. Arpana Sinhal** from the Department of Computer Application was invited to deliver an expert talk for spreading awareness about **"High Performance Computing "** on **28 Aug 2024** at Maharshi Dayanand Saraswati University , Jaipur.

**Dr. Arpana Sinhal** is certified Master Trainer of HPC in AICTE – SANKALP V2 2024 collaboration with CDAC.





## DEPARTMENT OF COMPUTER APPLICATIONS

### ORIENTATION 2024

The Faculty of Science, Manipal University Jaipur organized orientation programme for newly admitted students in BCA and MCA programs offered by the department of Computer Applications on September 17th 2024. The program started with lamp lighting and floral tribute to Late Dr TMA Pai, the founder of Manipal Education Group. Dean, faculty of science Prof. Lalita Ledwani, welcomed all the newly joined students and introduced them with the programs and opportunities in science. The pro-president Prof. Jawaharmal Jangid motivated the students by sharing some inspirational thoughts and highlighted the significance of basic sciences and research and responsibility of a student in social life. The guest of honor of the function Mr Sanjay Chaudhary, Director, Central Institute of Petrochemical and engineering technology, Jaipur said that conceptual understanding is of utmost significance and language must not be barrier. The dean, student welfares Prof. A D Vyas also shared his thoughts on maintaining discipline while studying at the campus. The chief warden Col Ajay Shekhawat made students aware of various rules and regulations of the hostel facilities. **Dr. Amit Hirawat** was master of ceremony for this event. The program concluded with a vote of thanks by **Prof. Devershi Pallavi Bhatt**.





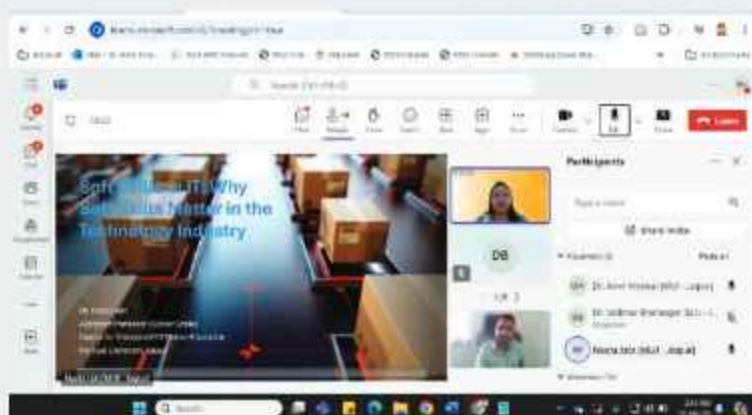


### STUDENT INDUCTION PROGRAMME 2024

The Student Induction Program for the Faculty of Science at Manipal University Jaipur was conducted from **September 2nd to September 11th, 2024**. The program aimed to welcome and orient the new batch of students, helping them transition smoothly into their academic journey.

#### Objective of the Event

- To provide new students with an understanding of the university's academic structure and expectations.
- To introduce students to the faculty members and their respective departments.
- To equip students with essential skills for academic success.
- To promote peer interactions and networking among students.
- To familiarize students with campus facilities and services.

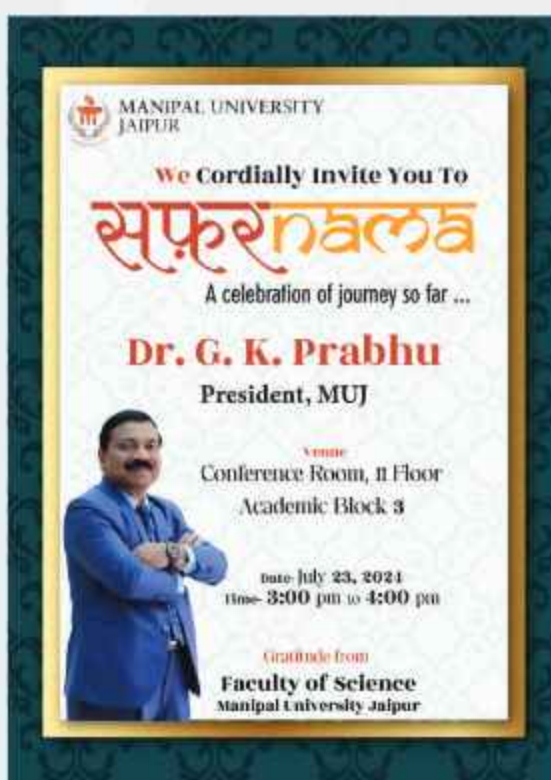




## DEPARTMENT OF COMPUTER APPLICATIONS

### SAFARNAMA

"सफ़रनामा" the Felicitation Program of Dr G K Prabhu, Honorable President MUJ organized by Faculty of Science on 23rd July 2024. To express the gratitude for Sir's profound impact and steadfast commitment. Under his exemplary leadership, FoS has witnessed unprecedented growth and development. As we bid him farewell, we express our deepest gratitude for his invaluable contributions and wish him continued success in his future endeavours.







## DEPARTMENT OF COMPUTER APPLICATIONS

### RESEARCH PAPER PUBLICATION/PRESENTATION

Detailed list of research publications , contributed by Faculty Members and research scholars of Department of Computer Application

**Dr. Pramod Kumar Soni** published a Q1 SCIE-indexed research paper titled "**AM-UNet: Road Network Extraction from High-Resolution Aerial Imagery Using Attention-Based Convolutional Neural Network**" in the Journal of Indian Society Remote Sensing (2024). This work leverages attention-based CNNs for precise road network extraction from aerial imagery, showcasing advancements in remote sensing and machine learning.

**Dr. Pramod Kumar Soni**, in collaboration with **Dr. Govind Murari Upadhyay** and **Dr. Pangambam Sendas Singh**, published "**Analysis of Urbanization Impact on Land Surface Temperature Variability by Using Landsat Imagery**" in SN Computer Science (2024). This study highlights the effects of urbanization on thermal dynamics using satellite imagery, contributing to sustainable urban development research

S.no	Muj Categorization	Title	Name of book/Publisher	Author Name	Scopus/Indexed	Month&Year Of Publication
1	Book Chapter	AI And Chatgpt Benefits, Implications, And Expectations In Engineering	Real time data decisions with AI and chatGPT techniques	Dr Monika JyotiYana/Computer Applications	Scopus	September 2024
2	Conference Paper	Using Kmer'S Aggregation Analysis And Conscience Projection To Identify Lcss In Normal Human Genomics And MalariaInfected Genes	AIP	Dr Govind Murari Upadhyay/Computer Applications	Scopus	July 2024
3	Conference Paper	Deep Learning And Crow Search To Detect Skin Cancer In Dermoscopic Images	IEEE	Dr Linesh Raja/Computer Applications	Scopus	September 2024
4	Conference Paper	Aidriven Security Enhancements In Wireless Sensor Networks	IEEE	Dr Linesh Raja/Computer Applications	Scopus	September 2024
5	Conference Paper	Lightweight Symmetric Key Encryption To Improve The Efficiency And Safety Of The Iot	IEEE	Dr Linesh Raja/Computer Applications	Scopus	September 2024



## DEPARTMENT OF COMPUTER APPLICATIONS

### RESEARCH PAPER PUBLICATION/PRESENTATION

6	Conference Paper	Optimization Of Hyperparameters On Migraine Classification Using Artificial Neural Networks On Human Brain'S Neuronal Structure	IEEE	Dr Limesh Raja/Computer Applications	Scopus	September 2024
7	Conference Paper	Artificial Intelligent Techniques For Disease Detection In Tomato	IEEE	Dr Limesh Raja/Computer Applications	Scopus	September 2024
8	Original Full	Amunet: Road Network Extraction From Highresolution Aerial Imagery Using Attentionbased Convolutional Neural Network		Dr Pramod Kumar Soni/Computer Applications	Scopus	August 2024
9	Original Full	Sorchic: A Hybrid Image Cipher For Iot Applications Using Second Order Reversible Cellular Automata		Vijaya Bhaskara Rao	Scopus	August 2024
10	Original Full	Analysis Of Urbanization Impact On Land Surface Temperature Variability By Using Landsat Imagery		Dr Govind Murari Upadhyay/Computer Applications	Scopus	September 2024
11	Original Full	Analysis Of Urbanization Impact On Land Surface Temperature Variability By Using Landsat Imagery		Dr Pramod Kumar Soni/Computer Applications	Scopus	September 2024
12	Original Full	Deep Learning And Encryption Algorithms Based Model For Enhancing Biometric Security For Artificial Intelligence Era		Dr Vaibhav Bhatnagar/Computer Applications	Scopus	August 2024
13	Original Full	Developing A Novel Hapriori Algorithm Using Supportleverage Matrix For Association Rule Mining		Harish Kumar Pamnani	Scopus	October 2024
14	Original Full	Developing A Novel Hapriori Algorithm Using Supportleverage Matrix For Association Rule Mining		Dr Limesh Raja/Computer Applications	Scopus	October 2024