





NEWSLETTER "Edus Junction"

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DEPARTMENT OF DATA SCIENCE AND ENGINEERING



"Information is the oil of the 21st century, and analytics the combustion Engine"

Peter Sondergaard (Senior Vice President and the Global Head of Research at Gartner

HIGHLIGHTS

- 1. Introduction to **Department**
- 2. Industry expert interaction
- 3. Student Achievements
- 4. Adjunct Faculty
- 5. Academic/Industrial MOU
- 6. Book Launch
- 7. Upcoming Events

CHIEF EDITOR:

Dr. Akhilesh Kumar Sharma **Head of Department, DSE**

EDITOR:

Mr.Deevesh Chaudharv Assistant Professor, Department of

STUDENT EDITOR: **Chahat Verma**



DR. ROHEET BHATNAGAR **ASSOSCIATE DEAN, SCSE, MUJ**

Welcome to the third edition of "EduJunction," the official newsletter of the Department of Data Science Engineering (DSE), and Information, School of Security, and Data Science (SISDS). MUJ. This edition highlights the latest achievements, events, and innovations from our faculty and students. Established in 2021 under the School of IT, the DSE department was created to meet the growing demands and trends of the tech industry. We committed to advancing the frontiers of Data Science, Artificial Intelligence, and Machine Learning through research, education, outreach, and collaboration. With a diverse team of experts, vibrant academic programs, exciting internships, and competitive opportunities, we provide a dynamic environment for both undergraduate and postgraduate students.



DR. AKHILESH KUMAR SHARMA **HEAD OF DEPARTMENT, DSE**

Data Science is an interdisciplinary field that combines tools and methods from applied statistics, mathematics, and computer science to analyze large volumes of data, providing deeper insights and enabling smarter, data-driven decisions across various domains. The DSE program curriculum is carefully designed to equip students with strong foundations in these areas, emphasizing both theoretical knowledge and practical skills. It ensures hands-on learning through labs and real-world applications using cuttingedge technologies. I extend my heartfelt congratulations and best wishes to every stakeholder of Department of DSE and the entire editorial team on the successful launch of their newsletter, "EduJunction."



INTRODUCTION

B.Tech Computer Science and Engineering (Data Science) trains engineering graduates to be skilled data scientists. The emphasis is on core data science subjects along with the related computational mathematics, statistics, and computer science subjects.

The program introduces students to the various application domains like finance, business, and healthcare wherein data science can be used to make informed decisions.

The course is a multi-campus model and promotes one-semester mandatory student mobility in 4/5/6th semester, between the MAHE Manipal, Manipal University Jaipur, and Sikkim Manipal Institute of Technology campuses. It is an eight-semester programme that helps software and IT professionals build the skillset required to advance their careers as Data Analysts, Data Engineers, Data Architects, and Data Scientists, among other roles. The programme covers fundamental to advanced skill and knowledge areas.

Data science is the field in which various tools and methods from the fields of applied statistics, mathematics, and computer science are applied in order to gain greater insight and to make better and more informed decisions for a variety of purposes by analyzing a large amount of data.

VISION

To prepare the next generation of practitioners and researchers with human values and ethics to thrive in a data-centric world.

MISSION

- To establish the department as the epitome of motivation and guidance among aspiring engineers.
- To nurture academic, research, and professional excellence in the domain of Data Science and engineering.
- To transform young learners into competent data engineers by inculcating holistic values

ACADEMIC PROGRAMS

- B.Tech Computer Science and Engineering (Data Science)
- M.Tech (Data Science)
- Ph.D

FACULTIES

- Prof. (Dr.) Akhilesh Kumar Sharma(HoD)
- Dr. Sukhwinder Sharma
- Dr. Aprna Tripathi
- Dr. Rekha Chaturvedi
- Dr. Chirag Joshi
- Dr. Anju Susan George
- Dr. Sudhir Sharma
- Dr. Neha V Sharma

- Dr. Ginika Mahajan
- Dr. Shitanshu Jain
- Mr. Deevesh
 Chaudhary
- Dr. Gaurav Kumawat
- Mr. Abhishek
 Dwivedi
- Dr. Shweta Redkar
- Ms. Shatabdi Basu

- Dr. Malvinder Singh Bali
- Ms. Meenakshi Gaur
- Dr. Srikanta Pradhan
 Dr. Askisk Barakan
- Dr. Ashish Pandey
- Dr. Neeraj Kumar Verma
- Mr. Ram Kumar Yadav

 Dr. Sandeep Kumar Gupta (Associate Professor of Practice)



INDUSTRY EXPERT INTERACTION



The Dept. of Data Science and Engineering, Manipal University Jaipur was thrilled to host Mr. Prakash Panigrahi for expert lecture on "Cyber Security Services in Industry". This session aimed to provide students with practical exposure to real-world cyber threats, security architecture, and modern defense mechanisms employed in various industrial sectors. A heartfelt thank-you to Prakash Panigrahi for this inspiring session!

The Dept. of Data Science and Engineering, Manipal University Jaipur was thrilled to host Mr. Om Jadhav, Principal Technical Officer (Scientist - D), C-DAC, Government of India, Pune for expert lecture on "Introduction to Tiled Matrix Operations in Parallel Programming". The explained how breaking down large matrix computations into smaller, cache-friendly tiles can lead to significant improvements in performance, especially on multi-core processors. Real-world applications and studies presented were to case demonstrate how these concepts applied in industry, particularly in scientific computing, artificial intelligence, and dataintensive applications.. A heartfelt thankyou to Mr. Om Jadhav for this inspiring session!







The Dept. of Data Science and Engineering, Manipal University Jaipur was thrilled to host Mr. Vansh Soni for expert lecture on "THE TECHNOLOGY BEHIND LLMS (CHATGPT, CLAUDE, OR GEMINI): EMPOWERING YOU WITH AI". He shared insights into the functioning of LLMs, their architecture, and their impact across industries. The speaker highlighted the evolution of AI from rule-based systems to generative models and discussed how LLMs like ChatGPT, Claude, and Gemini are transforming communication, education, and business automation. A heartfelt thank-you to Mr. Vansh Soni for this inspiring session!



STUDENT ACHIEVEMENTS



Mr. Utkarsh Somvanshi was part of Innvent for Scholars is a program by SAP Labs India that offers a month-long fellowship for scholars to work on real-world business challenges using AI. This year's theme is Generative AI, and scholars work on various projects across different lines of business within SAP. The program provides scholars with hands-on experience, mentorship, and opportunities to learn from industry experts, culminating in a final showcase of their work.

We are thrilled to announce that Vishrut Mishra, student of Dept. of Data Science & Engineering, has won a silver medal in the 9th Ranking Championship in the "one-lap road event" held in Kolkata, India, organised by the Roller Skating Federation of India (RSFI).

A moment of immense pride for the MUJ, and we heartily congratulate Vishrut for his dedication, talent, and outstanding performance!





The Department of Data Science and Engineering extends its heartfelt congratulations to Mr. Utkarsh Somvanshi on the publication of his insightful article on Medium, titled "Mutation Testing in Java: Are Your Tests Good or Just Lucky?"

Your work reflects a strong grasp of advanced testing methodologies and a commendable ability to communicate complex technical concepts with clarity. It is always encouraging to see students and researchers from our department contribute meaningfully to the broader tech community.

We are proud of your achievement and look forward to more such contributions in the future. Keep up the excellent work!

Link: https://medium.com/@2024sl93081/mutation-testing-in-java-are-your-tests-good-or-just-lucky-8f219e7950f9



ADJUNCT FACULTY



Ramakrishna Mundugar is experienced an researcher with nearly 15 years of expertise in designing and developing algorithms in Computer Graphics, Video Processing, and Computer Networks. He has worked with leading multimedia research groups in both academia and industry in Germany and the United Kingdom. Dr. Mundugar holds a PhD in Multimedia Processing and Streaming from Manipal Academy of Higher Education, an Institute of Eminence by the Government of India. (IoE) recognized Additionally, significant experience he has internationalizing academic programs, including dual degree, integrated, and student mobility programs.

Dr. Bhargavi Goswami is a seasoned researcher with over 11 years of research experience and 13 years in teaching, in Computer Science, Communication specializing Networks, Network Security, and Algorithm Design. She holds 2 patents, has authored 2 monographs, led 2 funded research projects, and has contributed to over 50 journal and conference publications, with more than 600 citations. Her research expertise spans Smart Grids, Software Defined Networks. Blockchain, Cryptography, Cybersecurity, Mathematical Modeling, and Congestion Control in Data Networks. Recognized as an ethical technologist and a prominent figure in education, research, and development, she is currently teaching at Queensland University of Technology (QUT).



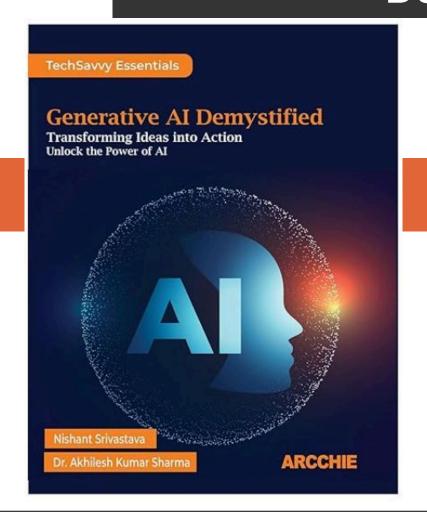
ACADEMIC/INDUSTRIAL MOU

An academic MoU establishes a formal partnership between two or more academic institutions for the purpose of collaboration in research, education, training, or other areas of mutual interest. An academic MoU can also facilitate the exchange of faculty, students, information, and resources between the partner institutions.

- King Mongkut's University of Technology North Bangkok, Bangkok, Thailand
 Prince Sultan University, Riyadh, SaudiArabia
 - · Lyzr.Al
 - · Altair Pvt. Ltd.
 - Celebal Technologies Private Limited, Jaipur
 La Trobe University, Victoria, Australia



BOOK LAUNCH



Dept. of DSE, MUJ thrilled to announce the release of new book: "Generative Al Demystified: Transforming Ideas into Action" Authored by Prof. (Dr.) Akhilesh Kumar Sharma (HoD, DSE, MUJ) and Nishant Srivastava (Solution Architect, Microsoft Global Engineering and Architecture Group).

As Generative AI rapidly transforms the way businesses think, build, and innovate, this book is designed to be your practical guide through the evolving AI landscape.

Book Link: https://lnkd.in/g8CkkeFF

FACULTY DEVELOPMENT PROGRAM

We are proud to announce the successful completion of our 5-day Faculty Development Programme (FDP) cum Industrial Training on "Insights for Data and Business Analytics 2.0," organised in collaboration with MUJTEC.

This transformative program bridged the gap between academia and industry, offering valuable insights into the latest advancements in Artificial Intelligence, data analytics, and no-code platforms.

Program Highlights:

✓AI Around Us, Foundations of AI, and AI Project Life Cycle, No Code Capstone projects—<u>Dr. Manoj Manuja</u>, Founder & CEO, Mystik Minds ✓Recent Trends in Data Analytics & BI—<u>Phayung</u> <u>Meesad</u>. , King Mongkut's University of

Technology North Bangkok.

✓Agentic AI and Digital Twins for Businesses—

Nalika Ulapane, La Trobe University, Australia

✓Altair RapidMiner AI Studio and Tools

(Panopticon & Monarch)—Mr. VivekRaj, Solution

Engineer, ALTAIR





UPCOMING EVENTS

MANIPAL UNIVERSITY



SOCIAL MEDIA

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Jaipur, Rajasthan, India

FACEBOOK: HTTPS://WWW.FACEBOOK.COM/PROFILE.PHP? ID=61574661437092

INSTAGRAM: HTTPS://WWW.INSTAGRAM.COM/DSEMUJ/

LINKEDIN: HTTPS://WWW.LINKEDIN.COM/IN/DEPARTMENT-OF-DATASCIENCE-AND-ENGINEERING-MANIPAL-UNIVERSITY-JAIPUR-028067245/
WEBPAGE: HTTPS://JAIPUR.MANIPAL.EDU/FOSTA/DEPARTMENT-OF-DATA-

SCIENCE-ENGINEERING.PHP