MANAV RACHNA
vidyanatariksha

MANAV RACHNA UNIVERSITY
Declared as State Private University Vide Haryana Act 26 of 2014

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Newsletter

Manav Rachna University

Issue 4: September 2023

Manav Rachna University

Manav Rachna University has been acknowledged as one of the top emerging universities in India. Manav Rachna University is among the Top 2 Emerging Engineering Institutions of India and has been ranked the No.1 Engineering Institution in India for Research Capability & Placements in the Times Engineering Survey 2022. These rankings and the quality of education that they imply are a reflection of the university's continuous efforts to establish a culture of academic excellence and its commitment to research.

Manav Rachna University has been bestowed with QS I-GAUGE, Overall DIAMOND rating. It has received QS I-GAUGE DIAMOND RATING for Excellence in Teaching and Learning, Faculty Quality, Facilities, and Social Responsibility, and QS I-GAUGE PLATINUM RATING for Employability and Academic Development. The accreditations/rankings are testimonial to the trust of accrediting bodies in the quality of education being offered, a well-established teaching and learning process guided by the global best practices and a culture of academic excellence promoting research, innovation & entrepreneurship.

Institute Vision

To educate students in frontier areas of knowledge enabling them to take up challenges as ethical and responsible global citizens.

Institute Mission

UM1: To impart outcome based holistic education.
UM2: To disseminate education in frontier areas.
UM3: To produce globally competitive, ethical and socially responsible human resources.
UM4: To produce human resources sensitive to issues of Environment and Sustainable Development.
UM5: To develop Environment and Sustainable development as a thrust area of research and development.

Department Vision

To be quality conscious, research centric and change oriented technological leader in the relevant areas.

Department Mission

The Department of Computer Science & Technology has laid down the following missions to achieve its vision which will lead to the betterment of the students' future and the country:

DM1: To develop and impart knowledge and skills in the field of Computer Science and Engineering.
DM2: To encourage and support the generation and implementation of innovative ideas.
DM3: To focus on new techniques, tools and technology, in ethical and responsible manner.
DM4: To carry out collaborative inter-disciplinary Academic and Research activities with a focus on Sustainable Development.
DM5: To create employment-ready human resources.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

PEO-I: Core Competency
To inculcate analytical, design and implementation skills required to provide software solutions in industry.

PEO-II: Breadth
To groom graduates to innovate, design and develop products to provide sustainable solutions to contemporary societal and business problems.

PEO-III: Professionalism
To instill the ability to work in teams, communicate effectively and lead as ethically and socially responsible professionals and entrepreneurs.

PEO-IV: Lifelong Learning
To foster the ability of Lifelong Learning to constantly adapt to emerging technologies, to pursue higher education and instill life skills for a successful career.

PROGRAM OUTCOMES (POs)

1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

2. Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1:
Design and develop computer programs and possess acquaintance with emerging technologies and open-source platforms in the area of mobile app development, artificial intelligence, machine learning, web development, data analytics, cloud computing , networking , cyber security , gaming and animation to build effective computer-based systems.

PSO2:
Acquire technical competency to deliver computer-based innovative and effective solutions to tackle business and societal challenges, for pursuing successful career, entrepreneurship, research and higher studies.

Research/ Consultancy Achievements

a. Research papers published in International Journals:

- Pilania, Urmila, et al. "**A Walk-through towards Network Steganography Techniques.**" Информатика и автоматизация 22.5 (2023): 1103-1151.

- Barkhashree, and Parneeta Dhaliwal. "**Impounding behavioural connotations for hate speech analysis–a view towards criminal investigation using machine learning**." International Journal of Information Technology (2023): 1-14.

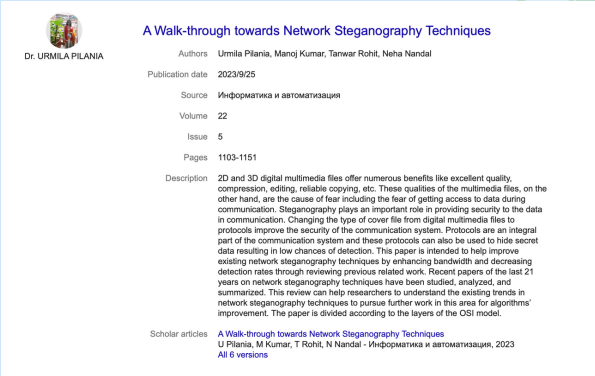
b. Details of Patents:

- **Dr. Abhishek Saxena** is the inventor of a system titled **"A System Based on IoT, Cloud & AI for Monitoring Manufacturing Exhaustion".** This invention was filed for a patent with application number 202321054358 on 13 August 2023 and was granted on 29 September 2023 as a national patent.

- **Dr. Shalu Singh** has contributed to the invention of an **"AI-based driver drowsiness detecting device".** The patent application number for this invention is 6307260, filed on 2 September 2023.

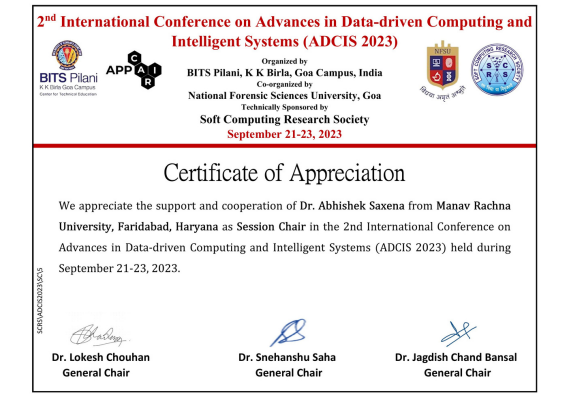
Books / Chapters published by the Faculty Members

- Urmila Pilania, Rohit Tanwar, and Keshav Kaushik. "**Steganography Tools and Their Analysis Concerning Distortion in Stego Image.**" International Conference on Advances in Data Science and Computing Technologies. Singapore: Springer Nature Singapore, 2022.


Dr. URMILA PILANIA

A Walk-through towards Network Steganography Techniques

Authors	Urmila Pilania, Manoj Kumar, Tanwar Rohit, Neha Nandal
Publication date	2023/9/25
Source	Информатика и автоматизация
Volume	22
Issue	5
Pages	1103-1151
Description	2D and 3D digital multimedia files offer numerous benefits like excellent quality, compression, editing, reliable copying, etc. These qualities of the multimedia files, on the other hand, are the cause of fear including the fear of getting access to data during communication. Steganography plays an important role in providing security to the data in communication. Changing the type of cover file from digital multimedia files to protocols improve the security of the communication system. Protocols are an integral part of the communication system and these protocols can also be used to hide secret data resulting in low chances of detection. This paper is intended to help improve existing network steganography techniques by enhancing bandwidth and decreasing detection rates through reviewing previous related work. Recent papers of the last 21 years on network steganography techniques have been studied, analyzed, and summarized. This review can help researchers to understand the existing trends in network steganography techniques to pursue further work in this area for algorithms' improvement. The paper is divided according to the layers of the OSI model.
Scholar articles	A Walk-through towards Network Steganography Techniques U Pilania, M Kumar, T Rohit, N Nandal - Информатика и автоматизация, 2023 All 6 versions


2nd International Conference on Advances in Data-driven Computing and Intelligent Systems (ADCIS 2023)

Organized by
BITS Pilani, K K Birla, Goa Campus, India
Co-organized by
National Forensic Sciences University, Goa
Technically Sponsored by
Soft Computing Research Society
September 21-23, 2023

Certificate of Appreciation

We appreciate the support and cooperation of **Dr. Abhishek Saxena** from **Manav Rachna University, Faridabad, Haryana** as **Session Chair** in the 2nd International Conference on Advances in Data-driven Computing and Intelligent Systems (ADCIS 2023) held during September 21-23, 2023.

SDRSADCS2023/SC/5

Dr. Lokesh Chouhan
General Chair

Dr. Snehanshu Saha
General Chair

Dr. Jagdish Chand Bansal
General Chair

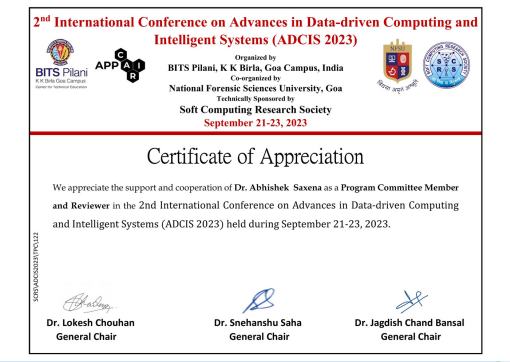
Extra/Co-Curricular Activities and Events

Team CDC, in association with **CST Department**, has conducted a Session on **Enhance your Employability with SHL(AMCAT)** on **Tuesday 26th Sep 2023 at 10:30 am** in G Block Mandala. The event had **Mr. Jasmeet Sethi, Assistant Vice President**, was invited as the expert to guide the students.

Awards & Recognitions

Faculty:

- **Dr. Ranjna Jain** was awarded the **"College SPOC"** recognition for her contribution as a college SPOC on September 18, 2022, during the **KAVACH-2023 cybersecurity hackathon.**
- **Dr. Yojna Arora** received a **"Certificate of Participation"** for her involvement in a one-week National level Faculty Development Program on Cloud Infrastructure (AWS) held from August 21st to 25th, organized by **R P Sarathy Institute of Technology, Tamilnadu.**
- **Dr. Abhishek** was recognized as a **"Session Chair"** and awarded a **"Certificate of Appreciation"** during an event held from **September 21st to 23rd 2023**, at **BITS PILANI, K.K.BIRLA, GOA CAMPUS, GOA, INDIA & NATIONAL FORENSIC SCIENCE LABORATORY.**
- **Ms. Gunjan Chandwani** was honored as a **"Program committee member and Reviewer"**, receiving a **"Certificate of Appreciation"** at an event held from **September 21st to 23rd 2023**, at **BITS PILANI, K.K.BIRLA, GOA CAMPUS, GOA, INDIA & NATIONAL FORENSIC SCIENCE LABORATORY**.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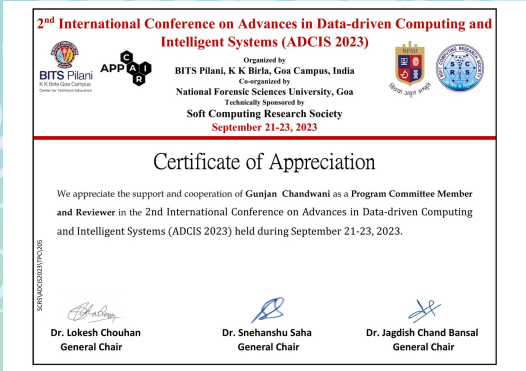
Dr. Lokesh Chouhan, General Chair
Dr. Snehanshu Saha, General Chair
Dr. Jagdish Chand Bansal, General Chair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September 21-23, 2023
Certificate of Appreciation
We appreciate the support and cooperation of Gunjan Chandwani as a Program Committee Member and Reviewer in the 2nd International Conference on Advances in Data-driven Computing and Intelligent Systems (ADCIS 2023) held during September 21-23, 2023.
Dr. Lokesh Chouhan, General Chair
Dr. Snehanshu Saha, General Chair
Dr. Jagdish Chand Bansal, General Chair


Certificate
कवच KAVACH 2023
College SPOC
GRAND FINALE 2023 August 8-9
This Certificate is awarded to
Ranjna Jain
For exceptional contribution as a College SPOC in
'KAVACH-2023'


CERTIFICATE OF PARTICIPATION
PROUDLY PRESENTED TO
Dr Yojna Arora
Manav Rachna University
has successfully participated in the
One Week National Level Faculty Development Program on Cloud Infrastructure (AWS)
organized by R P SARATHY INSTITUTE OF TECHNOLOGY, TAMILNADU
in collaboration with Brainovision Solutions India Pvt Ltd
and All India Council for Technical Education (AICTE)
During the period of 21st to 25th August 2023.
We commend your dedication to enhancing your knowledge in cloud infrastructure and AWS technologies.
Your active participation and engagement during the program have contributed to its success.
CERTIFICATE ID: B23NFDP5775

Awards & Recognitions

Student:

Internal Hackathon AVISHKAR 2023 Event of **Smart India Hackathon (SIH) 2023** was conducted at **Manav Rachna University** on **20th September 2023** by the **IIC** team. As per MoE **Innovation Cell-AICTE** directive, a team of technical experts from the industry was invited as judges to MRU to evaluate the idea solution and its implementation and other parameters to specific problem statements demonstrated by several competing teams of our Engineering students and selected the teams to be nominated for SIH 2023 registration for final competition at National level. Each team had 6 students with at least one female student in each group. **18 teams** participated in the internal Hackathon held at Manav Rachna University @ **HB-02**. Students participated enthusiastically and presented their solutions to the Jury members. **Mr. Pranav Chauhan (Technical Manager, Design Tech. Pvt. Ltd.), Dr. Kiran Khattar (Associate professor at BML University)** and **Dr. Devnajali (Associate professor at BML University)** were the three judges invited from industry. The **evaluation** process was done with solution **presentation** as per the **SIH 2023 format** and students demonstrated the basic functionalities of their **solutions** in both **hardware and software category**. The rigorous evaluation process and feedback done by all the jury members were constructive for the teams to understand their shortcomings and solution improvement. Jury members congratulated all the team members and gave them best wishes for the national level (Smart India Hackathon 2023) event.

Team Details:

- **Harsh, Abhinav Pulyani, Nikita Saini, Swayam, Ronit Vijay and Mallika**, students from the year 2023 were recognized for their contribution to **"Internal SIH 2023 - Aavishkar".** They were deemed eligible for the main **SIH 2023**, and the award was conferred on **September 20, 2023**, by **IIC, MRU**.

- **Avdhesh Kumar Sharma, Anoushka Pandey, Vansh Aggarwal, Sanidhya Madav Shukla, Harsh Sharma, and Kanishka Panchal**, students from the year 2023 were acknowledged for their contributions to **"Internal SIH 2023 - Aavishkar".** They were deemed eligible for the main **SIH 2023**, and the award was conferred on **September 20, 2023, by IIC, MRU**.

- **Bhavay Sharma, Gul Mittal, Mohan, Alok, Pratham, and Aayush**, students from the year 2023 were recognized for their contributions to **"Internal SIH 2023 - Aavishkar".** They were deemed eligible for the main **SIH 2023**, and the award was conferred on **September 20, 2023, by IIC, MRU.**

- **Supreet Kaur, Yagh Yadav, Gunjan, Kriti Misra, Shibu, and Ramya Gayatri Kovvali**, students from the year 2023 were recognized for their contributions to **"Internal SIH 2023 - Aavishkar".** They were deemed eligible for the main **SIH 2023**, and the award was conferred on **September 20, 2023, by IIC, MRU.**

- **Joy Khaneja, Sudeep Batra, Manya Sinha, Jatin Kumar, Prerna Kandpal, and Shivank Solanki**, students from the year 2023 were recognized for their contributions to **"Internal SIH 2023 - Aavishkar".** They were deemed eligible for the main **SIH 2023,** and the award was conferred on **September 20, 2023, by IIC, MRU.**

- **Liza Kansal, Reet Kaur, Priyam Garg, Prachi, Stuti Thakur, and Tanisha Bhayana,** students from the year 2023 were recognized for their contributions to **"Internal SIH 2023 - Aavishkar".** They were deemed eligible for the main **SIH 2023,** and the award was conferred on **September 20, 2023, by IIC, MRU.**

- **Rishav, Tanishka Bhatia, Ashwani Soni, Manav Sharma, Bhavishay Munjal, and Vinay Kumar Vishwakarma,** students from the year 2023 were recognized for their contributions to **"Internal SIH 2023 - Aavishkar".** They were deemed eligible for the main **SIH 2023**, and the award was conferred on **September 20, 2023, by IIC, MRU.**

Team Details:

- **Raghav Khatura, Mohd Adnan Zohaib, Banu Prakash Nammithi, Katherine Parshad, Varun Kumar Gera, and Shivam**, students from the year 2023 were recognized for their contributions to **"Internal SIH 2023 - Aavishkar".** They were deemed eligible for the main **SIH 2023**, and the award was conferred on **September 20, 2023, by IIC, MRU.**

- **Tejas Singh, Khushi Yadav, Kartik Dargan, Udita Kalra, Ayush Sachdeva, and Ishika Gupta**, students from the year 2023 were recognized for their contributions to **"Internal SIH 2023 - Aavishkar".** They were deemed eligible for the main **SIH 2023**, and the award was conferred on **September 20, 2023, by IIC, MRU.**

- **Sagar Shreemali, Disha Panigrahy, Tejwant Singh, Sneha Kumari, Shreya Marwaha, and Aayush Gupta**, students from the year 2023 were recognized for their contributions to **"Internal SIH 2023 - Aavishkar".** They were deemed eligible for the main **SIH 2023**, and the award was conferred on **September 20, 2023, by IIC, MRU.**

- **Abhinav Goyal, Arjun Vats, Aarya Bhatia, Harsh Yadav, Deeptanshu Nayak, and Gayatri Mendiratta**, students from the year 2023 were recognized for their contributions to **"Internal SIH 2023 - Aavishkar".** They were deemed eligible for the main **SIH 2023**, and the award was conferred on **September 20, 2023, by IIC, MRU.**


MALLA REDDY COLLEGE
OF ENGINEERING & TECHNOLOGY
(UGC, Autonomous Institution-Govt. of India)
Affiliated to JNTU, Hyderabad, Approved by AICTE - Accredited by NBA & NAAC - 'A' Grade, ISO 9001:2015 Certified
Maisammaguda, Dhulapally, Kompally, Secunderabad-500100, Telangana, INDIA

CERTIFICATE

6th International Conference
SOFT COMPUTING AND SIGNAL PROCESSING (ICSCSP-2023) June 23-24, 2023

THIS IS TO CERTIFY THAT

DR/PROF/MR/MRS. Abheer Mehrotra

FROM Manav Rachna University,Haryana

HAS PRESENTED A PAPER ENTITLED

Convolutional Neural Network and Recursive Feature Elimination Based Model for the Diagnosis of Mild Cognitive Impairments

IN THE 6TH INTERNATIONAL CONFERENCE ON SOFT COMPUTING AND SIGNAL PROCESSING (ICSCSP-2023) ORGANIZED BY MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY, HYDERABAD, INDIA. THIS PAPER HAS BEEN PUBLISHED IN THE PROCEEDINGS OF ICSCSP-2023, SPRINGER – LECTURE NOTES IN NETWORKS AND SYSTEMS (LNNS) SERIES.

Springer

Dr. Jiacun Wang, Editor, ICSCSP, Monmouth University, New Jersey, USA
Dr. Suresh Chandra Satapathy, Professor & Dean (R&D), KIIT, Bhubaneswar
Dr. S. Srinivasa Rao, Convener, ICSCSP, Principal
Dr. VSK Reddy, Conference Chair, ICSCSP, Director

Professional Societies /Chapter activities

Institute of Electrical and Electronics Engineers (IEEE)

- On September 26, 2023, a thrilling Treasure Hunt event was organized by the IEEE student branch, boasting 132 enthusiastic participants. The event consisted of four levels, where teams collaborated to decipher clues and progress closer to victory. In the final round, a challenging coding question was presented, and the fastest correct answer determined the well-deserved winner. Among the 30 participating teams, active participants received e-certificates of appreciation, and the winning team was awarded a stunning cash prize.

- The IEEE R10 Young Professionals Upskills Event, conducted on September 23 and 24, 2023, at Indira Gandhi Delhi Technical University for Women, was organized by IEEE IGDTUW, IEEE Delhi Section Young Professionals, and IEEE R10 Young Professionals. The event welcomed 7 delegates who engaged in various enlightening sessions and discussions. Topics covered included entrepreneurship, the future of semiconductors in India, and technology, business, and finance. A quiz on IEEE was also held, and Jatin Kumar from Manav Rachna University secured the third position. The event also featured electrifying cultural performances and a session as in the conjunction of entrepreneurship and leadership by Mr. Mahavir Sharma and Ms. Rachna Tiwari on the second day.

Domestic Security Alliance Council (DSAC)

- In the event **"Flutter Development Workshop"** organized by **DSAC Club**, **Ureka on September 21, 2023**, **Dr. Mamta Arora** served as the mentor. There were **11 participants**, and the workshop had an expert, **Hidayat Ulla Bukhari,** student of **CSE 5B.**

Placement Activities

- **Varun Garg** with Roll No. **2K20CSUN01119** secured a placement at **DeltaX** with a package of **7 LPA** in the CSE branch.

- **Tuhin Tarafder** with Roll No. **2K20CSUN04051** secured an **internship** with a **stipend of Rs. 50,000** at **CommVault** in the AIML branch.

- **Dheeraj Gupta** with Roll No. **2K20CSUN01033** secured a placement at **EX Squared Solutions** with a package of **9 LPA** in the CSE branch.

- **Gunjeet Kumar Singh** with Roll No. **2K20CSUN01039** secured a placement at **EX Squared Solutions** with a package of **7.5 LPA** in the CSE branch.

- **Sahil Ahmad** with Roll No. **2K20CSUN01092** secured an **internship** with a **stipend of Rs. 35,000** at **EX Squared Solutions** in the CSE branch.

- **Molleti Surya Pradeep** with Roll No. **2K20CSUN04037** secured an **internship** with a **stipend of Rs. 35,000** at **EX Squared Solutions** in the AIML branch.

- **Tushar Ambawata** with Roll No. **2K20CSUN01112** secured a placement at **Comviva** with a package of **3.75 LPA** in the CSE branch.

Events and Activities:

Glimpses of IQAC First meeting held in the Department:

Internal Quality Assurance Cell (IQAC) is involved in systematic implementation of quality enhancement procedures/criteria to attain improved levels of international compatibility and competitiveness at institutional and program level. The enhancement of these qualities involve continuous monitoring, evaluation, revision and implementation of various academic and administrative procedures.

NBA Visit

National Board of Accreditation (NBA) expert members visited the **Department of Computer Science & Technology** at Manav Rachna University during **September 29, 2023 to October 1,2023**. This visit aimed to evaluate the B.Tech. CSE program, faculty competency, research, student placements and overall infrastructure for the purpose of accreditation. Accreditation process quantifies the strengths, weaknesses in the processes adopted by the Institution and provides directions and opportunities for future growth.

SDG Wall

In an inspiring initiative to promote awareness and action regarding the United Nations **Sustainable Development Goals (SDGs)**, students at Manav Rachna University have come together to create a captivating SDG Wall. This unique and engaging project vividly showcases the university's commitment to sustainable development and the incorporation of SDGs into its **academic and campus life.**

Issue 4: September 2023

Department of Computer Science & Technology

Pragyanjali

To reach out the outreach

Manav Rachna University

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