*Pragyanjali*

*To reach out the outreach*

**PRAGYANJALI**

**To reach out the outreach**

# NEWSLETTER

Issue 1, January - June 2022

**Department of Computer Science & Technology,
Manav Rachna University**

# 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



1. To impart outcome based holistic education
2. To disseminate education in frontier areas
3. To produce globally competitive, ethical and socially responsible human resources
4. To produce human resources sensitive to issues of Environment and Sustainable Development
5. 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 focus on new techniques, tools and technology, in ethical and responsible manner
DM3. To encourage and support the generation and implementation of innovative ideas
DM4. To carry out collaborative inter-disciplinary Academic and Research activities
DM5. To create employment-ready human resources

The School of Engineering at Manav Rachna University has earned its name and set itself apart as a Centre of Excellence in Technical Education in the country. There are three main domains offered by the Engineering Department – Computer Science & Technology, Mechanical Engineering, and Electronics & Communication Engineering. Amongst Computer Science and Technology(CST), there are many specializations offered like Artificial Intelligence and Machine Learning, Cyber Security and Threat Intelligence, and Cloud, DevOps and Full Stack Development.

These specialization Course Curricula and E-Course material are prepared by experts from Tech giants like Xebia and QuickHeal, according to the current technology required in the industry giving a cutting-edge from other courses offered. This will inculcate a solid understanding of core concepts fundamental to Computer Science, good problem-solving skills and the ability to work and communicate effectively as ethically socially responsible professionals.

## Program Educational Objectives

### 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: Life Long 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

**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

**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.

# Vice - Chancellor

## Prof.(Dr.) I.K Bhat

It offers me a huge satisfaction  and a sense of pride to witness the achievements of both faculty and students through the medium of the Newsletter "PRAGYANJALI" by the Department of Computer Science & Technology .

I anticipate an awesome reaction to this Newsletter in the near future. The huge spectrum of articles in specific sections offers me a sense of delight that our students and professors own innovative capacity and unique questioning in enough measures and varied ways. Each article is entertaining, thrilling and absorbing. I applaud the individuals for his or her inspired mind and miscellaneous diversity in articles contributed with the aid of using them. Commendable task has additionally been accomplished with the aid of the HoD and Editorial Board members, constituting both faculties and students, in making plans for and generating the Newsletter.

My congratulations to the team who took the duty for the hard venture of releasing this newsletter  which confirms the department's commitment towards the holistic development of the students.

I am hopeful that this small piece of technical draft shall now not only be most effective in expanding the flavor for studying amongst college students but would additionally expand a feel of their belonging to the organization as well.

With Best Wishes

*Prof. (Dr.) I.K Bhat*
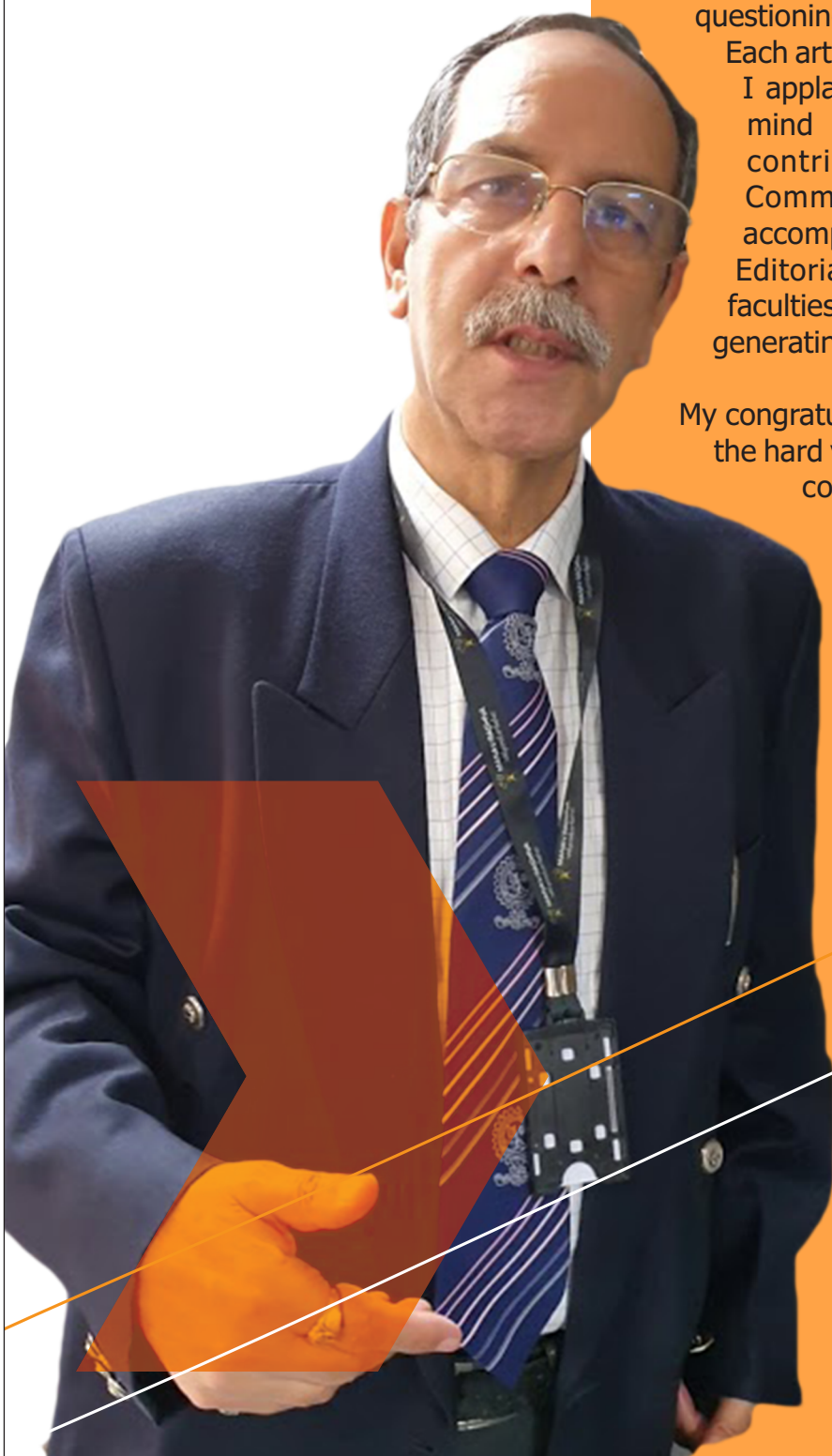
# Pro Vice Chancellor

## Prof.(Dr.) Sangita Banga

MANAV RACHNA UNIVERSITY is very proud and happy to publish the current edition of the Newsletter of the CST Department "PRAGYANJALI". The Department has advanced significantly in all faculty and student-relevant academic and non-academic capacity-building areas. I am sure that this edition of the department newsletter will create a good impression on all the stakeholders interested in technical education and activities based on technology. A newsletter is like a mirror to showcase a clear picture of all the activities carried out by a department. It also helps students in particular and teaching staff in general to strengthen their technical skills.

I commend the efforts of the Department for this initiative and the Faculty & Student Editorial Board of this Newsletter for their role in helping to draft, giving it shape and completing this Newsletter on time.

*Prof.(Dr.) Sangita Banga*

# Dean Academics & Dean Engineering

## Prof.(Dr.) Shruti Vashist

I am delighted to see the achievements of our faculty and students, who earn credits for the institutions. With great pride and confidence, I can say that the students of the Department of Computer Science and Technology with the support of highly qualified, dedicated, and hardworking faculty take every opportunity to participate in various National and International activities. It feels great to find a considerable number of winners and participants in co-curricular and extracurricular activities which certainly prove that our faculty and students are adequately equipped and possess the required skill sets to bring such laurels to the institution. Our faculty members are invited as resource personnel at national and international seminars, and conferences, in India and abroad. I wish the best for all our faculty members and students who restate their aim at providing the best in academic and extra-curricular fields. Four years of engineering education at Manav Rachna University will not only earn students a degree but will transform students' personalities, empowering them to lead successful lives. On this occasion, I wish all the best to those who are responsible for bringing out this newsletter. Reading this would be an inspiration and motivation for the other students and staffs to perform better and add their contributions to the forthcoming issues. Congratulations to all the contributors. I congratulate the editorial board on this pleasant occasion of releasing the newsletter. I hope that this number may grow in the years to come.

I am sure that publishing a newsletter of this sort containing the achievements of the department will be recognized by them and wish them all the very best for future endeavours.

*Prof. (Dr.) Shruti Vashist*

# HoD Computer Science & Technology

## Prof.(Dr.) Manpreet Kaur

It gives me immense pleasure to present the first edition of the newsletter "PRAGYANJALI" for the Department of Computer Science & Technology for 2022. The objective of this newsletter is to bring out the significant academic, curricular and extracurricular events, and activities that enrich the life and zeal of the department. It also showcases the strength of the department through the achievements of its faculty members, and students with advancements in their careers. The department is continuously evolving its curriculum to impart knowledge and 21st-century skills required for an engineer to provide solutions to societal problems and to make him/her industry ready. Also, this newsletter reflects and confirms the belief of the department in the holistic development of the students. I congratulate the entire editorial team of faculty advisors and students for their valuable efforts and time that has gone into making  and reading this newsletter an enjoyable walkthrough of the affairs of the department.

It makes me proud that CST students are not only rising in academics but also making spaces in University / State / National / International State / Interstate level sports / arts, technical and other cultural competitions. I hope this newsletter will lift your spirits high and showcase the success stories of our CST family.

"If you never try, you will never fail; if you never fail, you will never learn; if you never learn,you will never succeed."

With this quote, I wish all the students of this department to never refrain from trying new ideas, experiments, and plans. Wish you a great future ahead.

Prof. (Dr.) Manpreet Kaur

# Editor in Chief

## Mr. Ram Chatterjee

**Dedicated to Almighty**
-the source of Universal Inspiration...

Knowledge is the Fact,
"To know" is the virtue of the Act...

Presenting is the Tact,
With profound Impact...

Words are the React...
With tenses, sentences and the language
Intact...

What matters is the Flow...
At times fast, at times Slow...
At times avast, at times in Glow...

The moral of the story; is the Lesson...
To say, to be heard, and to Listen...
To see, to observe, at times more; to Lessen...
To mark, to remark, at times to Blessen...

Wisdom lies in the manner to preach,
Solace lies in the matter to reach,
Effort lies in; **reaching the outreach...**

With impression, as the significance of
"Geetanjali",
With an expression, as the essence of
**"Pragyanjali"**...

Thanks a lot to all the faculty and student editorial team for the kind, vigilant and diligent support & response which has been the actual kinematics for the newsletter "PRAGYANJALI".

*Mr. Ram Chatterjee*

# Editor
## Dr. R. Girija

The editorial board is glad to release the first issue of "PRAGYANJALI", newsletter of the Department of Computer Science & Technology. PRAGYANJALI will assist to strengthen and permit amplified cognizance, better-quality communication and amalgamation among all of us. It is a channel to deliver appropriate strap line and admiration to all who work behind the scenes, overtime round the clock.

PRAGYANJALI is envisioned to be published bi-annually (Jan-June; July-December). As an editor, I am highly overwhelmed to publish this inaugural issue. The editorial board always welcome the suggestions and improvements of PRAGYANJALI. It's a step of toddler and it has to reach a longer journey. I would like to extend my sincere gratitude and thanks to Prof. I.K. Bhat (Vice Chancellor, Manav Rachna University), Dr. Sangita Banga (Pro-Vice-Chancellor, Manav Rachna University) and Dr. Shruti Vashisht (Dean-Academics and Dean Engineering, Manav Rachna University). My truthful respect to Prof. Manpreet Kaur (Head of Computer Science & Technology) for her constant support and guidance in executing this newsletter as a real transcript. I extend my thanks to Mr. Ram Chatterjee for schematizing all the corners and special thanks to Dr. Sanjay Singh for his creativity in designing the newsletter. A special thanks to all my dear colleagues in the CST department. Finally, my sincere thanks to the student members.

"Hopes of Today are the realisations of Tomorrow!!!!"

Dr. R. Girija

# Graphics Editor

## Dr. Sanjay Singh

The newsletter "PRAGYANJALI" initiated by the DoCST is an initiative towards spreading general awareness about the "know-how(s)" of the students, faculties and University events and efforts to strengthen and channelize the entire teaching & learning community skills, interests, preferences and performances.

The newsletter mirrors the vision & mission of our University and objectives of the DoCST to realize those dreams & goals and motivate all for a unified approach towards the betterment of the objectives to be achieved in the near future.

I wish a wide and well appreciated acceptability of this newsletter in times to come and expect more contributions, ideas and innovations as motivating factors for its future editions.

All the best and thanks to the entire faculty & student team, supporting team, dignitaries for their sincere efforts extended to make this newsletter a success.

*Dr. Sanjay Singh*

# Pragyanjali Editorial Board

## CHIEF PATRON

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2. Dr. Shruti Vashisht, Dean-Academics, Dean- Engineering
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Harsh Kumar Vashisth- CSE AIML 5A

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3. Liza Kansal - CSE AIML 3A
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8. Kanishka Panchal - CSE CSTI 3A

## GRAPHIC EDITOR

Dr. Sanjay Singh, Associate Professor

## STUDENT GRAPHIC EDITOR

Prajawal Paul -CSE 5 CDA

# In This Issue

Dr. Manpreet Kaur, Professor and Head of CST Department received a certificate of recognition from IEEE, Delhi Region on 10th Dec 2021 and also she was elected for First year (Jan - Dec 2022) as the Joint Secretary, IEEE Delhi Section on Dec 2021.

# ACHIEVER'S CORNER

Dr. Hardeo Thakur, Professor, CST Department, as a session chair, received a certificate from the National Institute of Technology(NIT), Jamshedpur in International Conference on Machine Vision Augmented Intelligence(MAI-2022) held on 4-6th March 2022.

Dr. Riya Sapra, Associate Professor, CST Department received a certificate from the State Council of Educational Research and Training, Delhi on 25th March 2022 as an appreciation for being a Business Blaster Coach.

Dr.Manpreet Kaur, Professor and Head of CST Department received an award from the IEEE Delhi Section on 16th April 2022 titled IEEE Special Mention Award- Branch Counselor award.

Ms. Chandni Magoo (Associate Head), and Ms. Dimple Chehal (Assistant Professor) of CST department received a Certificate of Appreciation for student mentoring in the cultural exchange academic program of Manav Rachna University from India and Seikei University in Japan.

**WOMEN'S DAY CELEBARTION AT MRU**

On the occasion of International Women's day, Director (Sports) from Manav Rachna Education Institution has organized sports events and sport activities as a part of the Manav Rachna Silver Jubilee Celebration on 8th March 2022 at Manav Rachna Cricket Ground. Many sports activities were conducted such as Cricket Match, 100m race, Relay Race, Tug of War, Musical Chair and many more fun games.

Many heartful Congratulations to the Dr. Neelu Chaudhary for having defended viva-voce on Feb 11,2022 on her thesis titled as "Mining and analysis of evolving patterns in dynamic graphs".

Many heartful Congratulations to the Dr. Mamta Arora on defending her viva-voce on 17-02-2022 on her thesis titled as "Predictive Analytics on Cervix Cancer Healthcare Data for Optimal Decision Making".

Many heartful Congratulations to the Dr. Harsh Basin who defended his viva-voce on thesis titled as "Classification and Conversion Prediction of Mild Cognitive Impatient using Machine Learning".

# Professional Societies and Chapters

The department has active membership of renowned professional societies and also has a student club within the department and has the following broad objectives:

- To plan & organize technical programmes and activities, such as special lectures, workshops, Webinars, international conferences etc. for the benefit of students on a regular basis.
- Provide a platform to students to exchange ideas and information about current job market, higher studies, emerging technologies, contemporary issues related to Computer Science and Engineering.
- Encourage teamwork and self-reliance among students by participating in various hackathons and competitions.

| SNo | Professional Society Name | Society ID | Level -International/National /Departmental |
|---|---|---|---|
| 1. | IEEE MRU Student Branch | STB07101 | International |
| 2. | IEEE MRU Computer Society (CS) Chapter | STB07101 | International |
| 3. | IEEE MRU Women In Engineering (WIE) Branch | STB07101 | International |
| 4. | Ureka Data Science & Analytics  Club | N/A | International |
| 5. | Google Developer Student Club | N/A | National |
| 6. | Coding Club | N/A | Department |
| 7. | Research Computing Cluster | N/A | Department |
| 8. | IEEE Robotics and Automation Society | STB07101 | International |

So, to augment various aspects relating to professional development of students, we have **IEEE student branch, ICT academy, IIC, Research Cluster of Computing (RCC) and Coding Club .**

Ms. Srijan, (VI sem-CSE) B.Tech Student was selected as a Global Trainee- Data Science in Sloan Technologies FZCO, UAE (technology division of Ureka Education Group, UK) under Tech in Residence Programme, Silicon Valley Promotion on Jan 2022.

Ms. Gauri Verma, (VIII sem-CSE) B.Tech and Mr. Sarthak Rastogi (VI sem) CSE-DSML cleared the level 1 of the Extempore Elocution and GD competition on 13th Jan, 2022.

Ms. Khushi Kathuria (VI sem) B.Tech-CSE anchored the session on Debate competition "WIECHAR" which was organized by IEEE WIE AG Delhi Section.

Mr. Harsh Kumar Vashisth (IV sem )- B.Tech (CSE-AIML-A), Ms. Liza Kansal and Ms. Anoushka Pandey from the CST department under the guidance of Ms. Meena Chaudhary, Dr. Sanjay Singh received a certificate titled "Xebia Editor" from Xebia Academic Alliance on 1st March 2022.

Mr. Kolla Teja (2019 - 2023) under the guidance of Ms. Priyanka Gupta who is from the CST Department and also a member of RCC received a certificate and prize money from MRIIRS titled judge prize in INNOSKILL under the vertical srijan for Manav Rachna Coin, From Research Cluster andcomputing(RCC) on 12th April 2022.

DoCST is glad to share numerous and amazing achievements of Bhim Vashsistha, student -CSE 4B in the field of cyber security. He is another dark horse in the department. His achievements are listed as below:

- Acknowledgements from NCIIPC for found vulnerabilities in Indian govt. websites
- Internship at Gurugram Police Cyber Cell
- 100$ Bounty for reporting a security vulnerability from a company at Electronics Team Inc
- Appreciation letter from Cambridge University for reporting security issues in their website
- Appreciation letter from Harvard University for reporting security issues in their website
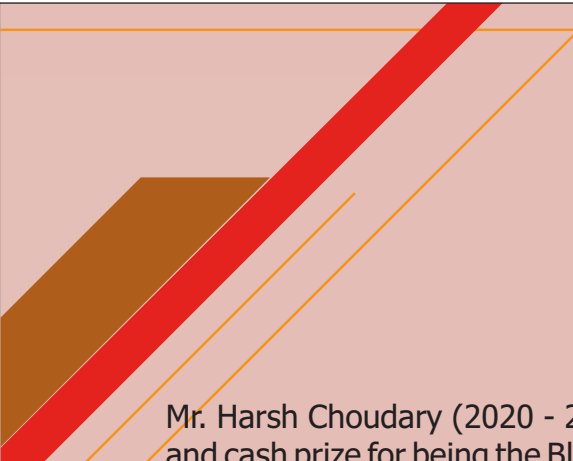


Mr. Gourav Vashisth and Ms. Kushi Kathuria (2019 - 2023) under the guidance of Dr. Manpreet Kaur and Ms. Anupriya Sharma received a certificate from IEEE for being the Outstanding Student Volunteer on 16th April 2022.

Mr. Harsh Choudary (2020 - 2024) under the guidance of Dr. Hardeo Kumar Thakur received a certificate and prize money from MRIIRS for Blogthon on 12 April 2022. Mr. Saurav Kumar Srivastava (2020 - 2024) under the guidance of Dr. Urmila Pilania successfully achieved 1st position and Rs, 2000/- cash from MREI for Aeromodelling and Best Motivation Certificate for his Water Rocket project in INNOSKILL.

Mr. Gunjeet Kumar, Mr. Gorakh Kumar Sharma and Mr. Aryan Sirohi (2020 - 2024) under the guidance of Ms. Sarika (Assistant Professor) CST department received a certificate and cash prize for their Aeromodelling project on 12th April under INNOSKILL. Mr. Kunal Arora, Mr. Deven Chaudary and Ms. Priyanshi (2020 - 2024) under the guidance of Mrs. Sarika received a certificate and cash prize for Valorant Lan Tournament on 12th April 2022 from MRIIS.

Mr. Harsh Choudary (2020 - 2024) under the guidance of Ms. Sarika received a certificate and cash prize for being the Blogothon winner on 12th April 2022 from MRIIRS.

Mr. Lakshaya Bajaj (2020 - 2024) under the guidance of Ms. Sarika received a certificate and cash prize for being the Lan Gaming Winner on 12th April 2022 from MRIIRS.

Mr. Amareshwara Reddy (2019 - 2023)  securely achieved the first position in the E-Treasure Hunt on 12th April 2022 from MRIIRS.

Mr. Nagarjuna Reddy (2019 - 2023) securely achieved the first position in the E-Treasure Hunt on 12th April 2022 from MRIIRS.

Mr. Venkata Ramana Murari (2019 - 2023) securely achieved the first position in the E-Treasure Hunt on 12th April 2022 from MRIIRS.

Mr. Dhamaruk A Siva Sai (2020 - 2024) successfully achieved the first position in the E-Treasure Hunt on 12th April 2022 from MRIIRS.

Mr. Teja Siva Shankar Guru Sai (2020 - 2024) successfully achieved the first position in the Best Out of E-Waste on 12th April 2022 from MRIIRS.

Mr. B.C. Sai Kiran Reddy (2020 - 2024) successfully achieved the first position in the Best Out of E-WAste on 12th April 2022 from MRIIRS.

Mr. K. Satwik and Mr. K. Rahul achieved the first position in the Best Out of E-Waste on 12th April 2022 from MRIIRS.

Sudeep Batra, Mr. Shivank Solanki (2021 - 2025) successfully achieved the second position in the Valorant Gaming on 12th April 2022 from MRIIRS.

Mr. Surbhit Chopra (2020 - 2024)  successfully achieved the third position in the Rooms Event on 12th April 2022 from MRIIRS.

Mr. Anuj Singh Govind (2018 - 2022) under the guidance of Dr. Manpreet Kaur and Ms. Anupriya Sharma received a certificate from IEEE Delhi Section titled J.K Pal Memorial Award on 16th April 2022.

Mr. Pratyush Mishra (2021 - 2025) under the guidance of Dr. R. Girija successfully received 1st position in the YUVA Fit on 12th April from MRIIRS.

Mr. Pratyush Mishra (II sem) - B.tech CSE, Mr. Mukul Sharma (II sem) - B.Tech CSE and Mr. Aadi Dhiman (II sem) - B.Tech CSE (2021 - 2025) under the guidance of Dr. R. Girija received the first position and Rs. 1000/- cash prize in Infographics for Sustainable Future on 12th April 2022 from MRIIRS.

# CORPORATE TRAINING

The Department of Computer Science and Technology, Manav Rachna University, organised a Value Added Course (VAC) in the workshop mode on **"Coding Fundamentals"** for all the sections of the first-year students of the department. It was conducted with the aim to improve the coding skills of the students right from the first year and prepare them for technical interviews. The department faculty worked extremely hard to make this happen. The VAC spanned five days for six hours each day. Each day was divided into two sessions. In each session, the students were apprised of the topic by the teachers. This was followed by contests on Hackerrank. It was conducted to make the students familiar with the coding rounds of big companies. Students liked the course, and their feedback revealed that they wanted more of such sessions.

# IEEE AWARD CEREMONY

The Head of the Department Dr. Manpreet Kaur has been felicitated with a "Special Mention Award" for her guidance and active participation of the IEEE MRU branch in the Outstanding Branch category. Mr. Anuj Singh Govind ( B.Tech. CSE final year student) and chairperson of IEEE MRU was awarded the prestigious J.K Pal Memorial award for guiding and mentoring the IEEE Manav Rachna University team and for an endless contribution towards IEEE. Mr. Gourav Vashist (BTech CSE 3rd year student) Webmaster of IEEE MRU was awarded the "Outstanding Student Volunteer Award" for showing outstanding courage and selfless service towards IEEE MRU & IEEE.

Ms. Khushi Kathuria ( BTech CSE DSML 3rd year student) General Secretary of IEEE MRU has been felicitated with 2 awards "WIE COORDINATOR "for her contribution to the IEEE Delhi Section Student Network team in 20212022. She was also awarded the "Outstanding WIE Student Volunteer Award" for her selfless service and dedication towards IEEE MRU.

# IEEE SCHOOL CAMP

IEEE WIE Project Based Learning School Camp 3.0 was organised in Hybrid mode at Manav Rachna University in association with numerous IEEE WIE Affinity Groups ( Delhi, Kerala, Hyderabad, Pune, Gujarat and other sections ) and partners(IEEE TryEngineering, STEM Portal, Raspberry Pi Foundation, Youth for Sustainability, Junior Einstein). The major goal of this event was to increase the practical use of cutting-edge technologies in school curricula, technological reach to elementary and secondary school levels, and to prepare aspiring students for careers in the industry. There were a good number of participants both online and offline around 200+ along with teachers and parents. Participants were from $8^{th}$ to $12^{th}$ grade.

**Day#1** started with a welcome speech by Prof.(Dr.) Shruti Vashist, Dean of Engineering, Manav Rachna University. She introduced the audience to the theme of the event which is Sustainability Technology for Humanity. Further, there have been inspiring sessions by esteemed speakers including Dr Ramalatha Marimuthu, Past WIE Chair Globe WIE, Dr Mini Ulanat, Vice Chair, WIE India Council, Jenifer Castillo, Chair IEEE WIE Global, Dr Lenin Raj, Principal Consultant EMC Wireless and Prachi, Founder Cool the Globe along with numerous section members. During the Q&A sessions, there was a lot of interaction between students and presenters. It was incredibly inspiring to witness children's interest at the school level, which essentially needed to be addressed through such workshops. A fun exercise was also conducted for the students as an icebreaker session. Overall, it was a productive day for all of the participants, who were eager to return the following day.

**Day#2** was a triumph. We had roughly 200 participants, both online and offline, including instructors and parents. The session began with a discussion on STEM applications for humanitarian projects, which students found very interesting. To make the event more engaging, a quiz was organized on Mentimeter.

**Day#3 to Day#7** witnessed all student teams visiting the campus for the development of the project though they were supposed to join online. Students received several problem statements for their projects during the weekly meetings. Projects like Plant health care systems, Automatic Water Spray, Ease Vision, Smart Dustbins, Smart Helmets, etc. were showcased. The valedictory ceremony of this wonderful event was organized on the final Day#8. We had roughly 200 plus participants, both online and offline, including instructors and parents. Emeritus Professor "Chun Che Lance Fung", IEEE Australia Council was the keynote speaker of the session who highlighted the relevance of sustainable technology and congratulated the students for their wonderful participation.
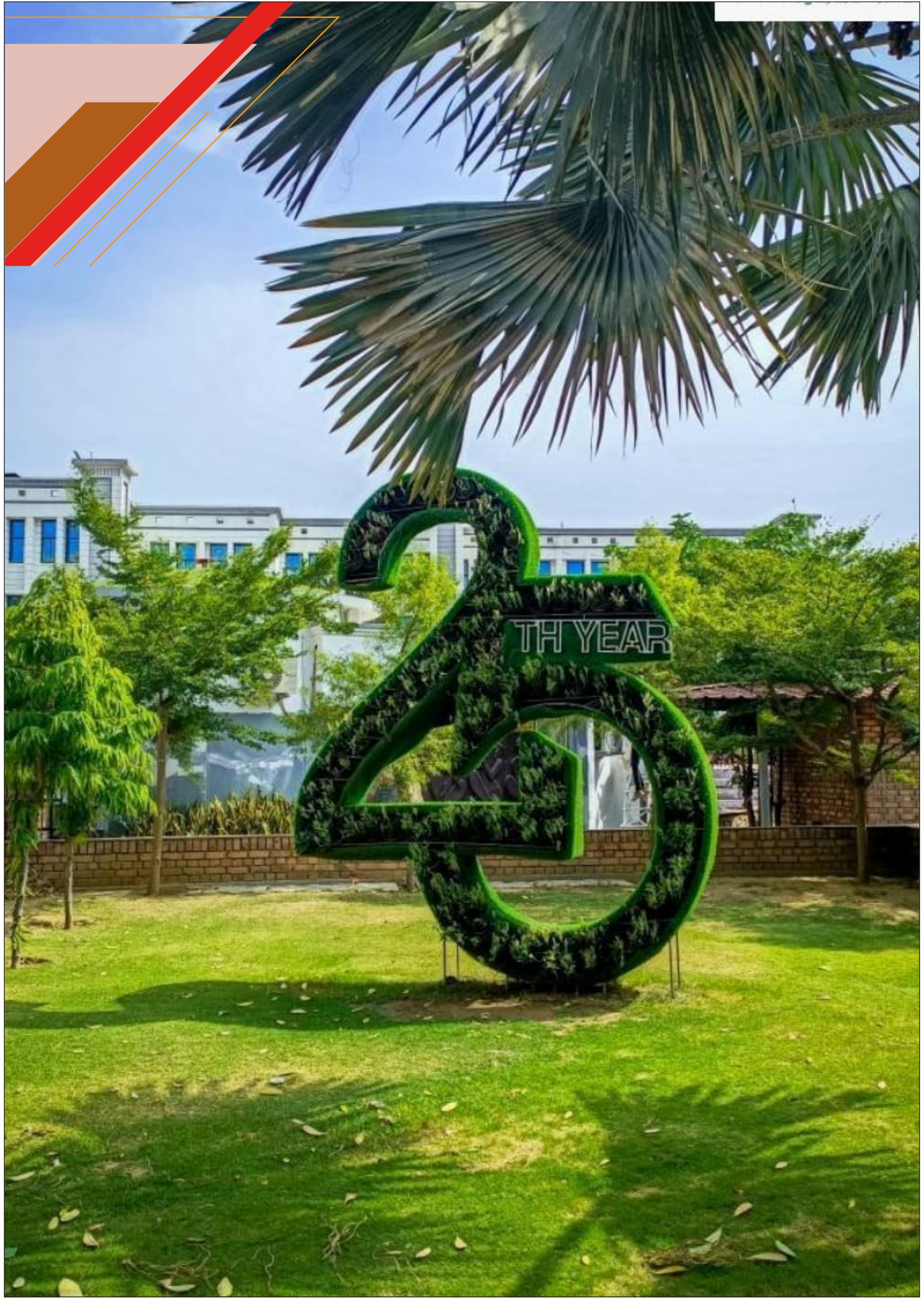
# SOCIAL SERVICES CORNER

Department of Computer Science and Technology, Manav Rachna University, organized an interaction of BTech CSE 1ˢᵗ Year students and faculty members, with Mr. Jas Kalra, President, of The Earth Saviours Foundation on May 18, 2022. TESF is an internationally recognized non-profit organization, established in 2008, by the late Shri Ravi Kalra Ji, which is dedicated to serving the underprivileged, providing a safe place for mistreated animals, and making every possible effort to protect the environment. Mr. Jas interacted with students on the Topic "Serve the Underprivileged" and emphasized the importance of helping others. He mentioned the hardships being faced in running the NGO. He talked about his journey from school-college to joining this NGO at such a tender age. He shared that their NGO is working for the betterment of lives and inspired students also to join hands and do small things to make someone's life better. The session was an interactive session which ended with Mr. Jas humbly answering the queries of students.

On the occasion of World Blood Donors Day, Dr. Hanu Bhardwaj was appreciated and felicitated with the Award & Appreciation certificate for donating Platelets and Granulocytes during the year 2021-22.

Dr. Shalu submitted a patent titled " IOT BASED COAGULATION ANALYZER" on 3$^{rd}$ January, 2022.

Dr. Manpreet Kaur and Dr. Mamta Arora attended the workshop on Project-Based Learning and Infosys Springboard at MRU, LF10 for 2 hours on 5th January 2022

IEEE MRU Student Branch organised an event ANIMIZ- "An Anime Quiz" on 5th january 2022. A quiz based on anime shows and for all the anime lovers out there. The quiz was conducted on the Kahoot app. More than 40 students participated in the event.

Ms. Gaganjot Kaur, Dr. Hanu Bhardwaj, and Ms. Chandani Magoo attended the event Faculty Development Programme on "Effective Academic Practices organised by Manav Rachna International Institute of Research and Studies Faridabad  in association with J. C. Bose University of Science and Technology, YMCA, Faridabad via online google meet for 5 days from 10th January to 14th January, 2022

Dr. R. Girija, Dr. S.L. Jayalakshmi, Dr. Vedhapriyavadhana, and Dr. Shyamal Srivastava contributed to chapter 2 and chapter 8 of the Taylor and Francis Group, First edition 2022, under a precise data-centric application for medical stores and Blockchain: "A next power-driven technology for smart cities".

TECHNICAL CORNER

IEEE MRU student branch in association with the computer society IEEE organised a workshop and quiz on "OOPs using Java: An informative hands-on project-based workshop" on 22nd and 23rd january 2022. It was a 2 days online event which lasted for 1 hour and 30 minutes on both days. In this session, we received 400+ registrations and 150+ audience were reached through Facebook live stream of the same. Mr. Deepak Panwar (Computer science engineer, YouTuber: Smart Programming, Professional Trainer, and Consultant with 8+ years of experience in the field of IT) was invited as a speaker to guide students for this workshop.

The prize for the top scorer was an Amazon Shopping Voucher. At the end of the session, IEEE Branch Coordinator Ms. Anu Priya Sharma and the department members presented a token of appreciation to the speaker. Winners of the quiz were 1st position: Ms. Aashi Kheterpal (IPU) ,2nd position: Mr. Tuhin Tarafder (Manav Rachna University), 3rd position: Mr.Pushti Sampat (Gujarat University). Student volunteers were Ms. Liza Kansal, Ms. Tanishka Bhatia, Mr. Aman Gairola.



Dr. Anupma Thakur · 2nd
Postdoctoral Research Associate at IUPUI, USA | Early Career Fellow, IIT Gandhinagar | Vice President Delhi Innovation Council, WICCI | Secretary, IEEE YP, DS| Country Representative, IEEE Photonics Society USA

Indiana University–Purdue University Indianapolis

Dr. R. Girija from the CST department has organised a workshop on " Formulating Rubrics for Assessment via online meeting for 2 hours on 20th January, 2022. As a resource person, Dr Geeta Thakur, Dean of student welfare, delivered a valuable and informative lecture on the same .
The guest speaker was Dr. Anupma Thakur. She is the Postdoctoral Researcher at Indiana University–Purdue University Indianapolis, USA. She was an Early Career Research Fellow, at IIT, Gandhinagar, Gujarat, INDIA. She is the Country Representative of IEEE Global Young Professionals at IEEE Photonics Society, USA.

All CST Department faculty members participated in Virtual Roadshow-Infosys Springboard at LF10 for 2 hours on 3rd February, 2022.

Dr. Riya Sapra organised an Orientation of Sofocle Lab at Lab 9 for 3 hours on 9th February, 2022.

Dr. Manpreet Kaur was invited as "Session Chair, IEEE DELCON 2022" at Netaji Subhas University of Technology for 120 minutes on 11th February, 2022 for all the researchers across the world.

Dr. Hardeo Thakur was invited as "Session Chair, 7th International Conference on Computing in Engineering and Technology(ICCET)" at Dr. Babasaheb Ambedker Technological University, Lonere, Maharashtra for 120 minutes on 12th February,2022 for all the researchers across the world.

Technical training for the Amazon drive was given by Dr. Harsh Bhasin which was organised by the CST placement team consisting of 20 participants from 14th to 18th February, 2022.

Dr. Harsh Bhasin organized a workshop on X-ray image classification at RCC for the CST students for 2 days i.e. 2nd March and 9th March 2022.

Ms. Priyanka Gupta and Ms. Dimple Chehal in collaboration with the ACE Engineering Academy organized a workshop on Career Opportunities after B.Tech via the online zoom platform for the CST students for 1.5 hours on 5th March 2022.

Dr. Shalu got her patent accepted titled " An IOT enabled sand air jet machining system"

Dr. Shalu was granted a patent titled " A System Using AI Based Unmanned Aerial Vehicle for Solid Waste Management & Environmental Sensing"

Ms. Gaganjot Kaur attended the event Global E-FDP on "Unleashing Research Potential: Global Trends and Practices organised by the Office of International Relations, Galgotias University, Greater Noida, Uttar Pradesh via the online zoom platform for 5 consecutive days from 7th to 11th March 2022. Ms. Gaganjot Kaur attended the event One Week online Colloquium on "Multidisciplinary Research Problems and Advancements" organised by the Department of Computer Science and Engineering, Amity School of Engineering and Technology, Amity University, Noida via the online zoom platform for 5 consecutive days from 7th to 11th March 2022.

Ms. Chandni Magoo and Ms. Dimple Chehal organized an International cultural exchange event between Indian and Japanese students on 26th March 2022 in which around 60 participants took part. The experts were: Prof. (Dr.) Fuhito Endo - Director of Seikei Institute for International Studies, Midori Kawamukai, Senior Manager, Corporate Citizenship, Oracle, JAPAC, Prof. (Dr.) D.S. Sengar- Pro-Vice-Chancellor, Manav Rachna University, Mr. B. Raghava Srinivasan - Head, Education Initiatives, ICT Academy, 25 students from MRU and 25 students from Seikei University Japan.

Department of Computer Science & Technology organized a one-week ICT-based Short Term Course on Machine Learning Using Python through NITTTR Chandigarh. The STC started on 28th March 2022 till 1st April 2022. Around 35 faculty members from MRU participated in the STC. There were 3 sessions per day. All lectures\sessions were delivered by NITTTR Chandigarh in Online/ICT mode. The event was coordinated by Ms. Anu Priya Sharma and Mr. Ankur Kumar Aggarwal, under the guidance of the head of the department Dr. Manpreet Kaur .

Mr. Prateek, Senior Field Engineer gave an expert lecture on Virtual Lab at IIT Delhi in offline mode on 21st April 2022. The lecture was for all UG students and there were 101 participants listening to the speaker.

Dr. Sachin Lakra, Professor delivered a lecture on Identifying performance indicators and CO-PO attainment calculation in an offline mode on 9th April 2022 for all the CST faculties.

On 16th April 2022, Dr. Mamta Arora delivered a lecture on Artificial Intelligence & Machine Learning at DAV Centenary College, NH-3, Faridabad for all the UG students.

Ms. Chandni Magoo and Ms. Dimple Chehal organized a workshop on Artificial Intelligence and its applications in the real world in online mode for all the CST students for 2 hours on 2nd April 2022.

Dr. Mamta Arora and the CST placement team organised a Placement Awareness Session for 2019-2023 Batch CST students in LS09 for 2 hours on 15th April 2022.

Ravi Yadav, B.Tech CSE (DSML) 2019-2023 batch organised Machine Learning Workshop, DSAC Club EUREKA for the CST students for 3 hours on 7th April 2022

Dr. R. Girija published the chapter titled "Predicting Air Quality Index with Machine Learning Models" in the book Machine Learning and Deep Learning in Efficacy Improvement of Healthcare Systems under the publisher Taylor & Francis in March 2022.
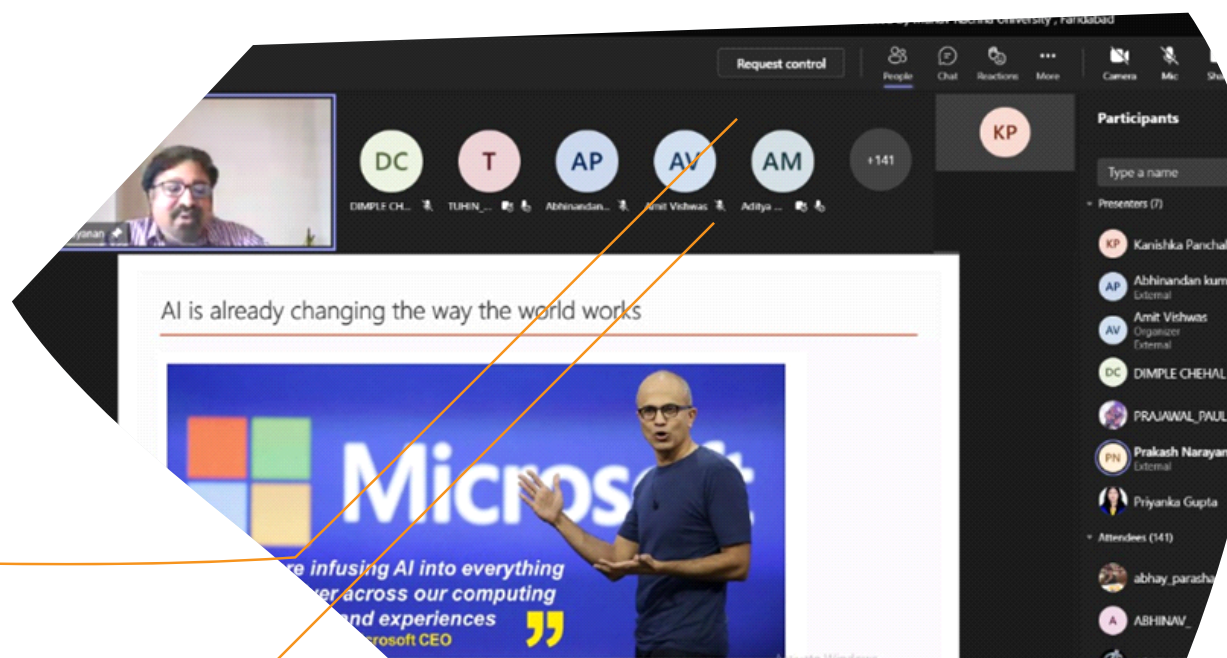
# Reminiscence 2022
## ALUMNI

**Reminiscence 2022**

Manav Rachna University organized Alumni Meet "Reminiscence 2022" on April 2nd, 2022, in Mandala, G block Auditorium. The occasion drew around 300 Alumni from batches of 2008 to 2021. The event started with Registration followed by networking tea, wherein faculty members got a chance to welcome and interact with the alumni, some of them were visiting even after a decade. The alumni were apprised of the developments taking place in University over the last few years. The event continued with various cultural performances which included foot-tapping Group Dances, memorable Band Performance, enthusiastic Skit Performance and also a mesmerising Fashion Show by our current students. In between the various performances, some incredibly enjoyable games were also played with Alumni wherein they had a great time living their college days again. Alumni's delight was evident in their surprise performances, which included Dance, Singing, Fashion Walk performances, On the Spot games and exciting Lucky Draw Prizes. Towards the end, Dean Academics, Prof. Sangeeta Banga gave the blessings and revived memories while interacting with the Alumni. A remarkable film of their college days was shown to Alumni to make them nostalgic and whisk them back to their favourite memories. Alumni also enjoyed getting themselves clicked with a themed photo booth "Trip to Nostalgia". The Alumni Meet ended with a DJ followed by a networking lunch, our Alumni appreciated the efforts of the University for organizing such an event and shared that they had a great enjoyable & memorable time.



Alumni Corner

**LAKSHAY MITTAL**

B.Tech
Computer Science & Engineering

SPECIALIZATION
Digital Transformation Engineering

offered in association with

Xebia

at MRU

Batch: 2018-2022

Placed with

COMMVAULT

#MRPlacements

**PACKAGE OFFERED : 30.3 LPA**

---

Placement Highlight

Congratulations

**Karan Aditya Ghoshal**

Student of B.tech CSE (2nd Year)

For joining
KPMG-Egyde Cyberse

as

**Junior Cyber Threat Intelligence Analyst**

KPMG

With a **monthly package** of

**Rs. 1.2 Lakhs**

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**Manav Rachna** | **MANAV RACHNA UNIVERSITY**
Declared as State Private University vide Haryana Act 26 of 2014

**#MRPlacements**

*Congratulations*

**GAURAV GARG**

**B.Tech**
**Computer Science & Engineering**
Manav Rachna University

**Batch 2017-21**

Placed with
publicis
sapient

**PACKAGE OFFERED : 12.52 LPA**

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**MANAV RACHNA**

**PLACEMENT HIGHLIGHT**

**Student of B.Tech. CSE**
**(Data Science & Machine Learning)**

Batch: 2018-22

**DEEPAK GAUBA**

has been placed with

Quadeye

ANNUAL PACKAGE:

**9 LPA**

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**PLACEMENTS HIGHLIGHTS**

# OUR KNOWLEDGE PARTNERS

**Xebia:** Xebia is a specialized global IT Consultancy and Services company focusing on Enterprise development, Agile development, DevOps, and Outsourcing services. Xebia also provides Internship support and Placement opportunities for students within Xebia and Client-Partner network.

**Quick Heal:** Quick Heal is a leading provider of Security Software Products and Solutions, under the widely-recognized brand names 'Quick Heal' and 'SEQRITE' across various operating systems and devices. Cyber security experts from Quick Heal train the students on these courses, giving the exposure to real case studies in this domain. Quick Heal also supports students in Internship and Placement.

**AWS:** Computer Science & Technology Department, MRU has adopted Cloud Computing curricula from the Amazon Web Services (AWS) Educate global initiative into its mainstream university syllabus to help develop the next generation of cloud professionals. The cloud computing content from AWS Educate has been offered as part of Bachelor of Technology (B.Tech.) in Computer Science and Engineering program, since 2020.

**Infosys:** Department of Computer Science & Technology, MRU has been associated with Infosys since 2009 for training the students & faculty members under the purview of the Infosys Campus Connect Programme. Moreover, Students are offered lot of opportunities for competitions, internships, Infosys springboard online courses and learning pathways which provide industry ready content to the students.

**Artificially Intelligent Workforce :** AIW has collaborated with CST MRU under " No Code Clique" which will be referred to as a program for students who will be able to use AIW Builder, get access to variety of industries, case studies and use a no code platform to deploy AI workers. This MOU would lay down opportunities for student internship/ placement, projects, R&D in the field of Machine Learning, Neural networks, Big Data and Blockchain Technology.

**Coding Ninja:** Manav Rachna University has collaborated with Coding Ninjasto provide students with the exposure to the Coding rounds of companies like Amazon, Microsoft, etc. The" Coding Prep" course currently being run, includes the fundamentals, applications and advanced problems.

**NPTEL:** Provides e-learning through video lectures and web courses in Engineering, Science, Technology, Management and Humanities equipped with internship and employment opportunities.

**Virtual labs:** IIT Delhi for Virtual Labs: A project initiated by MHRD, GoI, under the aegis of National Mission on Education through Information and Communication Technology (ICT). Provides remote-access to laboratories in various disciplines of science and engineering for students at all levels from under-graduate to research.

# PROMINENT PLACEMENTS

# Pragyanjali

*To reach out the outreach*

Issue 1, January - June 2022
**Department of Computer Science & Technology**



**Manav Rachna University**

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