



MSIT CSE NEWSLETTER

Jan-Jun 2024



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TECHNOPULSE

This newsletter showcases the achievements of the Computer Science Department (NBA Accredited) of Maharaja Surajmal Institute of Technology.

The CSE Department has published numerous journal entries, patents, articles, books, and research on various topics from all the fun and educational events organized by the department faculty, students, and societies.

OUR VISION

To maintain academic excellence aiming to produce competent technocrats imbued with ethical values to serve the national emerging technological needs.



OUR MISSION

To impart quality education to the students by providing effective teaching, learning, research, and application based innovative environment.

To include creativity, team-spirit, leadership, and ethical competence through continuous collective curricular, co-curricular and extracurricular activities.



PROGRAM EDUCATIONAL OBJECTIVES

- To acquire a deep insight into mathematical, scientific & analytical skills and adopt self-motivating lifelong learning to explore cutting-edge technologies.
- To evolve as a responsible citizen with a sense of ethics and an environment-aware attitude.
- To acquire the necessary technical knowledge to pursue a successful professional career posing leadership and team spirit.

PROGRAM SPECIFIC OUTCOMES

- Ability to demonstrate the comprehended fundamentals of computer engineering to resolve mathematical and computation problems.
- Ability to explore evolutionary changes in computing by skills acquired through computer engineering principles and provide solutions through innovative ideas.
- Ability to imbibe knowledge in modern computer environments and languages to gain additional skills for a successful career and higher studies.

STAR ACHIEVER



Saksham Gupta (12415002721), batch 2021-2025 showed exemplary performance in the GATE 2024 exam and secured AIR 11

TOP ACHIEVERS

We congratulate our students for placements into top companies-

- Gunjan Singhal of CSE department got an offer from Microsoft with a package of 50 LPA
- Srishti Dharwani of CSE department got an offer from Flipkart (Intern + FTE) with CTC 32.5 LPA and 1 lakh stipend during internship
- Sahil Srivastava of CSE department got an offer from Flipkart (Intern + FTE) with CTC 32.5 LPA and 1 lakh stipend during internship
- Saket Mundra of CSE department got an offer from Flipkart (Intern + FTE) with CTC 32.5 LPA and 1 lakh stipend during internship
- Bishwajeet Parhi of CSE department got an offer from Homebase with a package of 26 LPA

STUDENTS' ACHIEVEMENTS

- We congratulate our students from 2nd year-
Harshita - 01415002722 (CSE 1)
Saksham - 12115002722 (CSE 3)
Siddharth -12515002722 (CSE 3)
Shaurya - 12715002722 (CSE 3)
for securing 1st position in Techathon3.0 at SRCASW, DU
organised by GDSC society on 7th March , 2024
We applaud their dedication and innovative spirit, showcasing
excellence in the field of technology.



- Krish Malhotra (00115002721) prepared for the GATE 2024 exam and has secured AIR Rank as Gate DA: 401 and Gate CS: 468.
- Nilay Dutta (02715002721), batch 2021-25 prepared for GATE exam 2024 and has secured AIR Rank: 383 and Gate DA 383.
- Ravi Nain (35715002721) has secured second position in Hackathon 2024 organized by Cyber Police Station, West District, Delhi.
- Ravi Nain (35715002721) has secured third position in 200 Mts. on the sports day held at MSIT from 29 Jan 2024 to 30 Jan 2024.

- Ravi Nain (35715002721) has secured second position in 4 *200 mts. on the sports day held at MSIT on 29 Jan 2024 to 30 Jan 2024.
- Ravi Nain (35715002721) has secured first position in Tug of War and received a sports excellence award on the sports day held at MSIT from 29 Jan 2024 to 30 Jan 2024.
- Avaneesh Godra (06115002721) and Aditya Goyal (07315002721) won the MYLobby Valorant tournament held on March 30, 2024, earning a prize of 5000 INR.
- Ayushi Gahlot (35115002721) secured first position in single touch 3 leg speed organized by rope skipping-jump rope association on 19th to 20th Jan 2024.
- Ridhima Upadhyay (01896302721) of CSE 2nd shift, 4th year secured first position in Sonic spotlight in Genesis'24 held in MSIT on 02nd Feb 2024.
- Harsh Kumar Suryan (1696302721) of CSE-E 4th year secured third position in the Kimo Tech Challenge held online in March 2024.
- Avinash Thakur (2796302721), Prapti Prajapati (1396302721), and Aditya Gupta (396302721) of CSE-E 4th year secured first position in the ZS Campus Beats Tech Challenge held in Pune on 9th May 2024.

FACULTY PROMOTION

- **Dr. Sonia Rathee, Vidwan ID-241006**, has been promoted to Associate Professor on 1 February 2024.

FACULTY ACHIEVEMENTS



Dr. Koyel Datta Gupta, Vidwan ID-240950 has topped NPTEL course “Computer Networks and Internet Protocols” (Jan-Apr 2024) securing 92%. For the third time in a row, she has topped different NPTEL computer science courses in 2022, 2023, and 2024.

Dr. Kavita Sheoran, Associate Professor, Vidwan ID- 241003 was awarded the “Best Faculty-2024” in recognition for an outstanding contribution to the institution in academics, research and publications and co-curricular activities.



FACULTY ACHIEVEMENTS

- **Dr. Sandeep Kumar, Associate Professor, Vidwan ID-241013** and **Dr. Vikrant Shokeen, Assistant Professor, Vidwan ID-241187** of CSE Department, MSIT, attended the 8th IEEE/IFAC 2024, International Conference on Control, Automation and Diagnosis (ICCAD 24), held in Paris-France from 15th to 17th May 2024. They have presented the Paper "The Power of Few: Dynamic Interaction Modelling in Few-Shot Learning Using Graph Neural Networks and Attention Mechanisms".
- **Dr. Amita Yadav, Associate Professor, Vidwan Id- 241017**, as Convener, and **Dr. Geetika Dhand, Associate Professor, Vidwan ID- 240999**, as Co-Convener, organized an international conference on Artificial Intelligence and Applications (ICAIA 2024) in association with WIT, Boston, USA, on March 19-20, 2024.
- **Dr. Sonia Rathee, Associate Professor, Vidwan ID-241006**, and **Dr. Shalu, Assistant Professor, Vidwan Id- 241002** has been awarded the best paper award for the paper titled "Epilepsy detection using novel Bayesian optimized stacked deep learning layers" in the Second International Conference on Artificial Intelligence and Applications on 19 -20 March 2024.
- **Dr. Nishtha Jatana, Associate Professor, Vidwan ID-241879** was awarded the best paper award in the ICAIA 2024 for the paper entitled "User Profile Management Using Deep Learning for Assistive Headgear" in March 2024.

GLOBAL ACHIEVEMENTS

Dr. Sandeep Kumar and Dr. Vikrant Shokeen represented MSIT at ICCAD'24 in Paris, France.



Dr. Sandeep Kumar, Associate Professor, and Dr. Vikrant Shokeen, Assistant Professor, from the Department of Computer Science & Engineering, attended the International Conference on Control, Automation, and Diagnosis (ICCAD'24) in Paris, France, from May 15-17, 2024. They were honoured to receive a full registration fee waiver of €640 each, totaling €1280 (approximately ₹115,000). They expressed their gratitude to the management of the Surajmal Memorial Education Society (SMES) for providing an environment conducive to research, which significantly contributed to the success of their academic journey. They also thanked the Director, Prof. Archana Balyan, for her motivation. The management of SMES congratulated them and expressed happiness at their international collaboration with eminent researchers, hoping that such endeavors will continue in the future to enhance the global reputation of the Maharaja Surajmal Institute of Technology.

PHD/THESIS COMPLETION



Dr. Swati Malik, Assistant Professor, Department of CSE, Vidwan ID-243375 has successfully completed her Ph.D. in Electronics & Communication Engineering on the topic, "An Investigation of Partial Transmit Sequence Peak-To-Average Power Ratio Reduction with Optimized Side Information Using MIMO-OFDM" on February 13, 2024, at JJT University, Rajasthan.

Dr. Vinita Rohilla, Assistant Professor, Department of CSE, Vidwan ID-241014 completed Ph.D on the topic " Design of Machine Learning Algorithm for location Based Advertising" from Sharda University, Greater Noida on 19.04.24.



PUBLICATIONS IN JOURNALS

- **Dr. Koyel Datta Gupta, Professor, Vidwan ID – 240950**
Paper name: SAGA: Stability-Aware Gait Analysis in constraint-free environments
Journal name: Gait & Posture, Vol. 113, pp. 215-223, (2024) (SCI).
- **Dr. Sandeep Kumar, Associate Professor, Vidwan Id- 241013**
Dr. Vikrant Shokeen, Assistant Professor, Vidwan Id- 241187
Paper name: Sustainable Waste Management through ML-based Real-Time Trash Bin Prediction
Journal name: Journal of Intelligent Systems and Internet of Things Vol. 12, pp. 65-74, (2024) (Scopus)
- **Dr. Sandeep Kumar, Associate Professor, Vidwan Id- 241013**
Paper name: A comparative study of brain tumour classification on unbalanced dataset using deep neural networks
Journal name: Biomedical Signal Processing and Control Vol. 94, (2024) (SCI, Scopus).
- **Dr. Sandeep Kumar, Associate Professor, Vidwan Id- 241013**
Dr. Vikrant Shokeen, Assistant Professor, Vidwan Id- 241187
Paper name: REEGNet: A resource efficient EEGNet for EEG trail classification in healthcare
Journal name: Intelligent Decision Technologies, Vol 18, pp.1463-1476 (2024) (ESCI, Scopus)
- **Dr. Geetika Dhand, Associate Professor, Vidwan ID- 240999**
Dr. Kavita Sheoran, Associate Professor, Vidwan ID- 241003
Paper name: A hybrid forecasting system using convolutional-based extreme learning with extended elephant herd optimization for time-series prediction

Journal name: Soft Computing, Vol 28, pp 7093-7124, (2024)
(SCI)

- **Dr. Geetika Dhand, Associate Professor, Vidwan ID- 240999**
Dr. Nishtha Jatana, Associate Professor, Vidwan ID: 241879
Dr. Shaily Malik, Assistant Professor, Vidwan Id- 240998
Paper name: Differentially processed optimized collaborative rich text editor.
Journal name: Multimedia Tools and Applications (2024), pp. 1-16 (SCIE).
- **Dr. Nishtha Jatana, Associate Professor, Vidwan ID: 241879**
Simerneet Singh, Sukriti Sehgal, Rakshita Anand, B. Arunkumar, and Janjhyam Venkata Naga Ramesh.
Paper name: Making Digital Payments Accessible Beyond Sight: A Usability Study of UPI-Based Smartphone Applications.
Journal name: IEEE Access (2024) (SCIE)
- **Dr. Nishtha Jatana, Associate Professor, Vidwan ID: 241879**
Deekshant Wadhwa, Nitesh Kumar Singh, Oday Ali Hassen, Charu Gupta, Saad Mohammed Darwish, Sundws Mustafa Mohammed, Dhyeauldeen Ahmed Farhan, and Ansam Ali Abdulhussein.
Paper name: Future Frame Prediction using Generative Adversarial Networks.
Journal name: Karbala International Journal of Modern Science 10, no. 1 (2024) (Scopus)
- **Dr. Nishtha Jatana, Associate Professor, Vidwan ID: 241879**
Neha Mathur, Shweta Sinha, and Rajesh K. Tyagi
Paper name: Study of Access Control Techniques on the Blockchain-enabled Secure Data Sharing Scheme in Edge Computing.
Journal name: Recent Advances in Computer Science and Communications (Formerly: Recent Patents on Computer Science) 17, no. 8 (2024): 1-13 (Scopus).

PUBLICATIONS IN CONFERENCES

- **Dr. Koyel Datta Gupta, Professor, Vidwan ID – 240950**
Paper Name: Enhancing Cybersecurity with Generative Adversarial Networks (GANs): A Novel Approach to Intrusion Detection in IoT Attacks
Conference name: ICDAM 2024 Organised by BPIT, GGSIPU, and London Metropolitan University
Dates: 14-06-2024 to 15-06-2024
- **Dr. Geetika Dhand, Associate Professor, Vidwan ID- 240999**
Dr. Kavita Sheoran, Associate Professor, Vidwan ID- 241003
Rishik
Paper Name: Integrated Smart Attendance Tracker using YOLOv8 and FaceNet with Spotify ANNOY
Conference name: 4th International Conference on ICT for Digital, Smart and Sustainable Development Organised by Jamia Hamdard, New Delhi
Dates: 23-04-2024 to 24-04-2024
- **Dr. Geetika Dhand, Associate Professor, Vidwan ID- 240999**
Dr. Kavita Sheoran, Associate Professor, Vidwan ID- 241003
Dr. Nishtha Jatana, Associate Professor, Vidwan ID: 241879
Dr. Shaily Malik, Assistant Professor, Vidwan Id- 240998
Divya, Vaani Garg, Ayushi Gahlot, Gowrish Chhabra
Paper Name: Facial expression recognition classification
Conference name: 4th International Conference on ICT for Digital, Smart and Sustainable Development Organised by Jamia Hamdard, New Delhi
Dates: 23-04-2024 to 24-04-2024

- **Dr. Geetika Dhand, Associate Professor, Vidwan ID- 240999**
Aryan Kumar, Gamak Grover, Chirag Kaushik, Ishita Yadav
Paper Name: Captioning images electively: Investigating bleu scores in CNN-LSTM models with different training configurations on FLICKR8K
Conference name: 4th International Conference on ICT for Digital, Smart and Sustainable Development. Organized by Jamia Hamdard, New Delhi.
Dates: 23-04-2024 to 24-04-2024.
- **Dr. Shaily Malik, Assistant Professor, Vidwan Id- 240998**
Gagan Vats, Abhishek Gupta, Amit Kumar Thakur
Paper Name: AbhiGyam: A Machine Learning Model-Driven Research Platform for Assessing Accessibility Infrastructure in Indian Cities.
Conference name: International Conference on ICT for Digital, Smart and Sustainable Development Organised by the Department of CSE, SEST, Jamia Hamdard, New Delhi, India.
Dates: 23-04-2024 to 24-04-2024
- **Dr. Sonia Rathee, Associate Professor, Vidwan Id- 241006**
Dr. Amita Yadav, Associate Professor, Vidwan Id- 241017
Dr. Shalu, Assistant Professor, Vidwan Id- 241002
Paper Name: Energy Efficient Mobile App for Solar Energy using Machine Learning.
Conference name: International Conference on Cognitive, Green & Ubiquitous Computing (IC-CGU)- 2024. Organised by C. V. RAMAN GLOBAL UNIVERSITY, INDIA.
Dates: 01-03-2024 to 02-03-2024.
- **Dr. Nishtha Jatana, Associate Professor, Vidwan ID: 241879**
Dr. Geetika Dhand, Associate Professor, Vidwan ID- 240999
Dr. Kavita Sheoran, Associate Professor, Vidwan ID- 241003
Dr. Shaily Malik, Assistant Professor, Vidwan Id- 240998
Dr. Divya, Assistant Professor, Vidwan Id- 241008
Ms. Vaani Garg, Assistant Professor

Paper Name: Search Space Reducer for Text Analysers and Compilers.

Conference name: 4th International Conference on ICT for Digital, Smart and Sustainable Development.

Dates: 23/4/2024 to 24/4/2024

- **Dr. Nishtha Jatana, Associate Professor, Vidwan ID-241879**
Paper Name: User Profile Management using Deep Learning for Assistive Headgear.
Conference name: International Conference on Artificial Intelligence and Applications (ICAIA'24).
Dates: 19/3/2024 to 20/3/2024
- **Dr. Nishtha Jatana, Associate Professor, Vidwan ID- 241879**
Paper Name: A Multi-Key Authentication and Data Sharing Model in Blockchain Networks.
Conference name: International Conference on Artificial Intelligence and Applications (ICAIA'24).
Dates: 19/3/2024 to 20/3/2024.
- **Ms. Gunjan Beniwal, Assistant Professor, Vidwan Id-243313**
Ms. Anita Singhrova, Assistant Professor
Paper Name: Memoization-based Task Scheduling Algorithm for Smart Healthcare Systems.
Conference name: International Conference: 2024 OPJU International Technology Conference (OTCON3.0) on Smart Computing for Innovation and Advancement in Industry 4.0
Dates: 05/6/2024 to 07/6/2024
- **Dr. Nishtha Jatana, Associate Professor, Vidwan ID: 241879**
Dr. Shaily Malik, Assistant Professor, Vidwan Id- 240998
Dr. Divya, Assistant Professor, Vidwan Id- 241008
Ms. Vaani Garg, Assistant Professor
Dr. Geetanjali Sharma, Assistant Professor, Vidwan Id - 243363

Paper Name: A Real-Time Camera-based Motion Sensing Game.
Tool for Cervical Rehabilitation.

Conference name: 2nd International Conference on Knowledge
Engineering and Communication.

Dates: 18/4/2024 to 19/4/2024

RESEARCH EXCELLENCE AWARD

The “Research Excellence Award” has been awarded to the following faculty members for the year 2023 in recognition for an outstanding contribution to the quality of research on Annual Day held on 3 February 2024

- **Dr. Geetika Dhand**, HoD, Associate Professor, Vidwan ID:240999
- **Dr. Koyel Datta Gupta**, Professor, Vidwan ID:240950
- **Dr. Rinky Dwivedi**, Professor, Vidwan ID: 241399
- **Dr. Naresh Kumar**, Professor, Vidwan ID: 241001
- **Dr. Priyanka Nandal**, Associate Professor, Vidwan ID: 241004
- **Dr. Kavita Sheoran**, Associate Professor, Vidwan ID: 241003
- **Dr. Nishtha Jatana**, Associate Professor, Vidwan ID:241879
- **Dr. Navdeep Bohra**, Assistant Professor, Vidwan ID: 241019
- **Mr. Ravi Chaudhary**, Assistant Professor, Vidwan ID:243397
- **Dr. Parul Chaudhary**, Assistant Professor, Vidwan ID: 243353
- **Ms. Gunjan Beniwal**, Assistant Professor, Vidwan ID: 243313

PATENTS

**Dr. Sandeep Kumar, Associate Professor, Vidwan Id- 241013
Amit Sharma, Vikram Bali, Sonali Mathur**

Title: A DIGITAL PAYMENT SYSTEM FOR TRANSACTION OF MONEY THROUGH FACE RECOGNITION AND METHOD THEREOF.

Filled on 14-11-2022; Granted on 13-03-2024; Patent No.: 524792; Application No.: 202211065006

AVENSIS'24

Dr. Rinky Dwivedi, Professor, Vidwan ID: 241399, as Convenor and Dr. Kavita Sheoran, Associate Professor, Vidwan ID: 241003, as Co-Convenor, organized AVENSIS 2024. It was a two-day tech fest held on January 31st, 2024, and February 1st, 2024, featuring a diverse array of activities. From a Harry Potter-themed scavenger hunt and meme-making in "Memeverse," to intense competitions like the "Hackavensis" hackathon and "DSA Marathon" coding challenge, participants enjoyed both fun and technical activities. Robotics battles, life-sized "Human Ludo," cultural performances, and gaming tournaments like Valorant and BGMI added to the excitement, while the fest concluded with a star studded night of music and dance performances.



FACULTY DEVELOPMENT PROGRAMS

- **EFFECTIVE TEACHING LEARNING USING SOCIAL MEDIA:** The Department of Computer Science and Engineering at MSIT organized a one-week short-term course on “Effective Teaching Learning using Social Media” from May 27 to 31, 2024, with 62 participants from various colleges. Facilitated by NITTTR Chandigarh, the course featured esteemed speakers covering topics such as the role of social media in education, integration of platforms like LinkedIn and blogs, and effective use of MOODLE. Participants also explored AI tools and E-resources for enhancing teaching practices. The program concluded with positive feedback, highlighting its informative nature and relevance to faculty development.



- **CYBER SECURITY** : The Department of CSE organized a one-week offline FDP on "Cybersecurity" from 5th to 9th February 2024, conducted by Mr. KumaraGuru S. from ICT Academy, an expert with over 9 years of experience. The FDP covered essential topics such as cybersecurity threats, network security, cryptography, and web application security. With 22 participants from MSIT and other Delhi NCR colleges, the sessions provided valuable insights and practical knowledge on safeguarding against cyber threats.



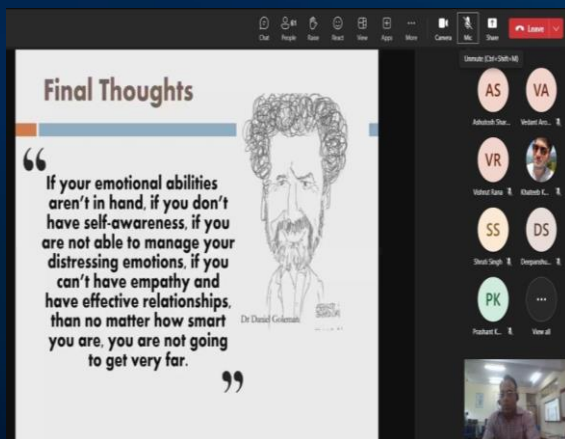
SEMINAR ON HIGHER EDUCATION

On February 13, 2024, the CSE Department hosted a seminar on "Higher Education" presented by KAAISER. The seminar provided an overview of the overseas education process, highlighting KAAISER's partnerships with prestigious institutions and the benefits of studying abroad. Students showed interest by filling out forms and gratitude was expressed to the faculty for their support.



SEMINAR ON EMOTIONAL INTELLIGENCE

On May 6, 2024, the CSE Department of MSIT hosted a seminar on "Emotional Intelligence,". Significance of emotional intelligence in self-management and workplace competencies was discussed, highlighting self-awareness and teamwork. The session was concluded by emphasizing the value of these insights for future success of students.



SEMINAR ON CAREER OPTIONS VIA GRE AND GMAT

On March 13, 2024, Jamboree hosted a seminar on "Career Options via GRE and GMAT" for CSE students. Opportunities for pursuing Master's and PhD programs abroad, including program selection and application processes were discussed in detail. They also offered practical advice on test preparation, emphasizing study strategies and the value of mock tests.



VISIT TO AICTE HEADQUARTERS



On April 22, 2024, CSE students attended a seminar at AICTE Headquarters focused on reducing electricity consumption by 20% in educational institutions. The seminar featured sharing successful energy-saving initiatives and panel discussions on technology's role in conservation. MSIT aims to apply these insights to enhance its commitment to energy efficiency and sustainability.

A GLIMPSE INTO OUR CAMPUS





Chief Editor

Dr. Geetika Dhand (HOD CSE, 1st Shift)

Dr. Nishtha Jatana (HOD CSE, 2nd Shift)

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