

MSIT GSE

NEWSLETTER



TECHNOPULSE

This newsletter showcases the achievements of the Computer Science and Engineering 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.

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OUR VISION

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

OUR MISSION

- M1: To impart quality engineering education to the students by providing effective teaching learning, research and application based innovative environment.
- M2: To inculcate creativity team-spirit, leadership and ethical competence through continuous collective curricular, co-curricular and extracurricular activities.

PROGRAM EDUCATIONAL OBJECTIVES

- To acquire a deep insight in mathematical, scientific & analytical skills and adopt self-motivating lifelong learning to explore cutting edge technologies.
- To prepare graduate to meet the evolving technological needs of the country by promoting innovation, ethical practice and a commitment to serving society.
- To acquire necessary technical knowledge to pursue 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 environment and languages to gain additional skills for a successful career and higher studies.

GRANT AWARDED

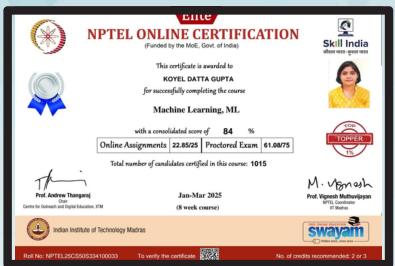




Department of CSE has received grant of **Rs 30 Lakh** from Petronet LNG Ltd to establish a
Center of Excellence for Computational
Intelligence and Machine Learning Lab.

FACULTY ACHIEVEMENTS





Dr. Koyel Datta Gupta, Professor ,Vidwan ID: 240950 has topped the 8-week NPTEL MOOC course "Machine Learning" (January–March 2025). This is the fourth consecutive year (2022,2023,2024,2025) that she has topped different NPTEL Computer Science courses.

FACULTY ACHIEVEMENTS

Dr. Geetika Dhand, HOD CSE, Vidwan Id- 240999 has been awarded with a Certificate of Appreciation in recognition of her valuable contribution as a Guest Editor for Proceedings on Engineering Sciences.

Dr. Rinky Dwivedi, Professor, Vidwan Id- 241399 has been awarded with a Certificate of Appreciation in recognition of her valuable contribution as a Guest Editor for Proceedings on Engineering Sciences.

Dr. Rinky Dwivedi, Professor, Vidwan ID:241399, as Co-Convenor organized an International Conference on Artifical Intelligence and Applications(ICAIA 2025) on 26-27 March 2025

STUDENT ACHIEVEMENTS

- Anoushka Gupta(20196302722) of 3rd year got selected for Nutanix Advancing Women In Technology Scholarship worth \$2000 USD
- Harshit Gahlawat(35396302722) of BTech CSE-2 3rd year got first position in 800 mts. Race in Sports meet in MSIT on 27th January' 2025.
- Harshit Gahlawat(35396302722) of BTech CSE-2 3rd year got first position in 400 meters race in Sports meet in MSIT on 27th January' 2025.
- Anamika Aggarwal (8815002723) of CSE-2 4th semester has won HackWie3.0 Hackathon held on 30th January 2025.
- Manas Gulati (115002723) of CSE-1 4th semester has won won 1st place in street dance Anugoonj competition held on 11 February 2025.
- Anamika Aggarwal (8815002723) of CSE-2 4th semester has won IGDTUW Hack IT Up Hackathon finalist and Special mention out of 100+ teams held on 18th February 2025.
- Anamika Aggarwal (8815002723) of CSE-2 4th semester has won Al Product Pitching at SheBuilds Event held on 8th March 2025.
- Anamika Aggarwal (8815002723) of CSE-2 4th semester is 2nd runner up - UPSTART at the E-summit'25 MSIT, competed with around 200 teams held on 19th March 2025.

STUDENT ACHIEVEMENTS

- Anushree (36715002723) of CSE-1 4th semester has won HackWie3.0 Hackathon held on 30th January 2025.
- Anushree (36715002723) of CSE-1 4th semester is 2nd runner up UPSTART at the E-summit'25 MSIT, competed with around 200 teams held on 19th March 2025.
- Anushree (36715002723) of CSE-1 4th semester has been selected as mentee for Code-Without-Barriers program sponsored by Microsoft held on 29th March 2025.
- Divyansh Aggarwal (215002722) of CSE-1 6th semester has come in top 15 in the 300 teams. He got 13th rank in acehack 4.0 hackathon in which Ministry of Rajasthan and Rajasthan police was also involved, held on 29th - 30th March 2025.
- Nishtha Dhawan (10915002723) of CSE-3 4th semester is Track Winner and Special Mentions held on 17th - 18th March 2025.
- Kinshuk Bageja (11315002722) of CSE-3 6th semester has won 1st runner up position at IIT Delhi hackathon held on 11th March 2025.
- Navneet Kumar Dubey (7815002723) of CSE-2 4th semester is among top 15 among 500+ teams in supernova held on 1st 2nd May 2025.

STUDENT ACHIEVEMENTS

- Navneet Kumar Dubey (7815002723) of CSE-2 4th semester has won 5th position in Hack2Hustle held on 10th -11th May 2025.
- Gunjan Pahwa(20196302723) of BTech CSE-E 2nd year, MSIT with her teammates bagged 3rd price (Rs. 10,000) in "Smart Delhi Ideathon 2025".

JOURNALS

- G. Dhand, M. Rao, P. Chaudhary and K. Sheoran, "A Secure Routing and Malicious Node Detection in Mobile Ad Hoc Network Using Trust Value Evaluation With Improved XGBoost Mechanism", Journal of Network and Computer Applications, vol. 235, No. 104093, Mar 2025 (SCI).
- H. L. Majeed, O. A. Hassen, D. A. Farhan, Y. Y. Gromov, K. Sheoran and G. Dhand, "Computer Vision of Smile Detection Based on Machine and Deep Learning Approach", Journal of Cybersecurity and Information Management, vol. 16, no. 1, pp. 208-230, Mar 2025(Scopus).
- A. Bajgoti, R. Gupta and R. Dwivedi, "ASKSQL: Enabling costeffective natural language to SQL conversion for enhanced analytics and search", Machine Learning with Applications, vol. 20, pp. 1-12, Apr 2025.(ESCI)
- P.Kherwa ,J.Arora Optimal Number of Topics in Topic Modeling Using Deep Auto Encoder Graph Regularized Non-Negative Matrix Factorization Algorithm. J. Syst. Sci. Syst. Eng. 34, 257–283 (2025) (SCI).

JOURNALS

- S. Dhondiyal, H. Goyal, S. Ahuja and N. Jatana, "user profile management using deep learning for assistive headgear," Proceedings On Engineering Sciences, vol. 7, no. 1, pp. 405-416, March 2025(Scopus)
- S. Mashhadani, R.M. Mohammed, N. Jatana, N., C. Gupta, O.A. Hassen, and S. Jindal, "A new automated system approach to detect digital forensics using Natural Language Processing to recommend jobs and courses," *Journal of Cybersecurity and Information Management*, vol. 16, no. 1, pp. 231–242, Jan. 2025(Scopus)
- P. Garg, G. Beniwal, P. Dalal, Monika and M. Chaudhry, "Explainable AI & Model Interpretability in Healthcare: Challenges & Future Directions," Eksplorium-Buletin Pusat Teknologi Bahan Galian Nuklir, vol. 46, no. 1, pp. 104-133, May 2025(ESCI)

JOURNALS

- N. Sangwan and V. Bhatnagar, "Multi-branch LSTM encoded latent features with CNN-LSTM for Youtube popularity prediction," *Scientific Reports*, vol. 15, no. 1, p. 2508, Jan. 2025(SCIE)
- P. Rani, P. Dalal, G. Beniwal, P. Patnaik and P. Garg, "From Data to Diagnosis: Unleashing Al and 6G in Modern Medicine," Eksplorium-Buletin Pusat Teknologi Bahan Galian Nuklir, vol. 46, no. 1, pp. 69-103, May 2025(ESCI)

CONFERENCES

 Dr. Savita Ahlawat, Associate Professor, Vidwan ID -241471

Dr. Vimal Gaur, Associate Professor, Vidwan ID - 241010

Paper Name: Analysing the Defensive Capabilities and

Potential Threats through Artificial Intelligence in

Cybersecurity

Conference Name: ICAIA 2025
Date: 26-03-2025 to 27-03-2025

• Dr. Vimal Gaur, Associate Professor, Vidwan ID - 241010

Paper Name: Hangout-An Al driven local activity

recommendation platform

<u>Conference Name</u>: ICAIA 2025 <u>Date</u>: 26-03-2025 to 27-03-2025

 Dr. Savita Ahlawat, Associate Professor, Vidwan ID -241471

Dr. Vimal Gaur, Associate Professor, Vidwan ID - 241010 Anushka Yadav (02015002718)

Paper Name: Improved Sign language recognition using

LSTM and Object Detection

<u>Conference Name</u>: ICAIA 2025 Date: 26-03-2025 to 27-03-2025



 Ms. Gunjan Beniwal, Assistant Professor, Vidwan ID-243313

Paper Name: BERT-T5: Hybrid Multi-Document Text

Summarization using Deep Learning Models

Conference Name: International Conference on Innovations

and Emerging Trends in AI and Mgmt

<u>Date</u>: 24-25 February 2025.



Dr.Vimal Gaur, Associate Professor, Vidwaan ID 241010
 Book Name : Optimizing Smart and Sustainable Agriculture

for Sustainability

<u>Chapter Name</u>: Precision agriculture Navigating environmental sustainability

Dr.Vimal Gaur, Associate Professor, Vidwaan ID 241010
 Book Name : Emerging Smart Agricultural Practices Using

Artificial Intelligence

Chapter Name: Smart Crop Management Harnessing

Green IoT Tomorrow



• Ms. Gunjan Beniwal

Name: "QOS-AWARE MACHINE LEARNING-ENABLED

INTELLIGENT GATEWAY FRAMEWORK"

Patent, **Published**

Date: 14-03-2025

 Dr. Geetika Dhand, Dr. Nishtha Jatana, Dr. Kavita Sheoran, Vasu Goel, Simerneet singh,

Name: "COMMUNICATION ASSISTANCE SYSTEM AND

METHOD OF OPERATING THE SAME"

Indian Patent, Granted

Date: 22-04-2025

Application Number: 202111017478

Dr. Neeti Sangwan

Name: "METHOD AND SYSTEM FOR GENERATING

DYNAMIC ALERT IN MESSAGING PLATFORM"

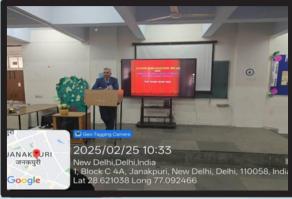
Patent, **Granted**

Date: 21-07-2025

Patent no.: 568874

EXPERT TALK





CSE department organized an expert lecture on the topic "National Board of Accreditation (NBA)" by Prof. S.K. Garg, Director East Delhi Campus and former Pro Vice Chancellor, Delhi Technological University. A renowned expert in the field of education and accreditation. The session aimed to educate academic institutions, faculty members, and administrative personnel on the significance of NBA accreditation and the steps involved in obtaining this prestigious recognition. Prof. Garg's extensive experience in academia and his involvement with accreditation processes made the lecture highly insightful and valuable for the attendees. The session provided a thorough understanding of NBA accreditation, its impact on institutions, and the steps involved in the process.

FDP



The Department of Computer Science and Engineering(2nd Shift) organized a one-week Short-Term Course on Mastering Cloud Computing Essentials with AWS from 3rd-7th March 2025, in collaboration with NITTTR Chandigarh, with 67 participants joining in ICT mode. Led by Dr. Mala Kalra and Mr. Vipin Gupta, the program covered AWS infrastructure, core services, IAM, EC2, S3, VPC networking, serverless computing, database management, and cloud security. Hands-on labs and case studies ensured practical exposure alongside theoretical learning. The course strengthened participants' skills in deploying, managing, and optimizing cloud solutions, making it a highly impactful learning experience.

FDP



A One-Week Faculty Development Program on "Computer Vision Applications using OpenCV" was organised by the Department of Computer Science & Engineering (1st Shift) from 26th – 30th May 2025, in collaboration with NITTTR Chandigarh. The program aimed to enhance faculty expertise in computer vision, covering topics such as feature detection, image processing, and Al-based vision applications. A total of 32 faculty members participated and gained valuable hands-on experience in OpenCV tools and techniques.

EVENTS ORGANISED

- Mr. Pushpendra Sharma, Ducat, delivered a talk on "Generative AI" for third-year and second year students on 23rd January 2025.
- Mr. Pawan Kumar, Senior Verbal Faculty at Triumphant Institute of Management Education (T.I.M.E), delivered a talk on "How to build a good vocabulary" for second year students on 7th February 2025.
- CSE Department organised a mock interview for 3rd year students on 8th February 2025.
- Mr. Shashank Rawat, Partner and Director at Global Colliance, delivered an expert seminar on "Higher Studies" on 11th February 2025, providing valuable insights into international education and career opportunities for thirdyear students.
- Dr. Suman Solanki, Co convener CDC delivered a talk on "Personality and behaviour skills development" on 14th February 2025 for third year students.
- Mrs.Tarannum, T.I.M.E.S Janakpuri, delivered a talk on "Public Speaking" on 1st March 2025 for third year students.
- Dr.Sanjay Kumar, Associate Dean and Professor of Management at college of business administration delivered a talk on "Intelligence in Action" on 21st March 2025 for second year students.
- Dr. Geetika Dhand, (HOD, CSE, MSIT) delivered a talk on "Importance of NBA" for students on 2nd April 2025 for second year students.
- Mr. Arjun Garg, Senior Analyst at Ernst & Young delivered a talk on "Collection Framework Architecture in Java" on 17th April 2025 for second year students.

EDUCATIONAL VISIT



The CSE Department of MSIT organized a visit to India Energy Week 2025 held at Yashobhoomi, Dwarka, on 13th February 2025, where 50 students and 2 faculty members participated in this global platform for innovation and sustainable energy solutions. Inaugurated by Shri Hardeep Singh Puri, the event featured over 600 exhibitors, 10 international pavilions, and insightful discussions on renewable energy, the hydrogen economy, carbon capture, and digital transformation in the energy sector. Students engaged in workshops, policy talks, and exhibits, gaining hands-on exposure to cutting-edge technologies and networking with industry leaders. The visit enriched their understanding of emerging energy trends, explored potential career opportunities, and highlighted India's pivotal role in driving global sustainability.

GALLERY



GALLERY





PATRON

Prof. Archana Balyan (Director, MSIT)

CHIEF EDITOR

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

CO-CHIEF EDITOR

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

EDITORS

Ms. Sonica Upadhyay (Assistant Professor, CSE)
Dr. Vinita Rohilla(Assistant Professor, CSE)

DESIGNED BY

Manas Gulati (3rd year, CSE-1)
Ayush Kumar(3rd year, CSE-1)
Kopal Gupta (4th year, CSE-1)
Harshdeep Singh (3rd year, CSE-1)
Suhani Nagpal (3rd year, CSE-3)

