



मालवीय राष्ट्रीय प्रौद्योगिकी संस्थान जयपुर
MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY JAIPUR
(An Institute of National Importance)



MNITJ NEWS

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Vision



To create a centre for imparting technical education of international standards and conduct research at the cutting edge of technology to meet the current and future challenges of technological development.

Mission



To create technical manpower for meeting the current and future demands of industry: To recognize education and research in close interaction with industry with emphasis on the development of leadership qualities in the young men and women entering the portals of the Institute with sensitivity to social development and eye for opportunities for growth in the international perspective.

From the Director's Desk



It brings me immense joy and pleasure to present the quarterly issue of the MNIT Newsletter - summing past activities, but looking forward to the new beginnings as well. It is a good time to take stock, give thanks and reach out further and higher. I would like to congratulate the editorial team for their zealous work.

As we all know, digital media has come up in a big way. It has opened up vistas of new possibilities. I am glad to note that the team has made use of this development and harnessed it in a plausible way in the form of the newsletter.

This edition of the MNIT Newsletter vividly portrays the numerous activities organized on the campus from 1 October 2022 to 15 January 2023. The newsletter team has worked endlessly to shine a light on our achievements in diverse fields and they have successfully managed to encapsulate it in this issue. MNIT, during the course of these three months, has improved on its strong foundations in research, teaching, student involvement and organising events of national importance. We have managed to branch out in every direction while staying true to our roots. Oscar Wilde rightly stated that we need to believe in the impossible and remove the improbable. The same ideology guides us at MNIT Jaipur.



I am confident that this communication in the form of the newsletter will establish a trend of acquaintance with our alumni who have set benchmarks worldwide. It will inspire current students to reach greater heights by following the footprints of their seniors. It will also enable the readers to be well versed with activities and achievements of MNIT in multifarious areas. I hope you enjoy the quarterly edition of the MNIT Newsletter.

Happy Reading!

Prof. N.P. Padhy
Director, MNIT



DEPARTMENT NEWS

Department of Architecture and Planning

- Department of Architecture and Planning organized a National ATAL Sponsored Faculty Development Programme on “Universal Design Approach for Accessibility in Built Environment” in hybrid mode from 03 to 14 October 2022 at MNIT Jaipur.
- On 9 November 2022, the department organized a Guest Lecture by Prof. Petr Hajeck, Head of the Department of Architectural Engineering at the Czech Technical University in Prague. The lecture, which was coordinated by Prof. Tarush Chandra, focused on the topic of sustainable buildings using advanced materials and technologies. Prof. Hajeck's talk was well-received by all the faculty members and students. The lecture provided valuable insights and knowledge on how to create sustainable buildings through the use of cutting-edge materials and technologies. Overall, it was a successful and informative event that left a lasting impression on all those who participated.



Department of Chemical Engineering

- Dr. Shiv Om Meena chaired the International Conference on “Chemical Engineering: Enabling Transition Towards Sustainable Future”, organized by the Department of Chemical Engineering, Indian Institute of Technology, Roorkee.
- Dr. Madhu Agarwal chaired a session for the International Conference on “Advances in Chemical and Materials Sciences”, organized by the Indian Institute of Chemical Engineers, Kolkata, India.
- Dr. Madhu Agarwal chaired a session for the International Conference on Water Desalination, Treatment & Management (InDACON 2022), organized by MBM Engineering College Jodhpur, Indian Desalination Association (InDA) and Defence Research & Development.
- Dr. Sonal received distinction in Doctoral Thesis given by Indian Institute of Technology, Delhi.
- Dr. Neetu Kumari received distinction in Doctoral Thesis titled “Development of Ceria Based Catalyst for Solid Oxide Cell”, given by Indian Institute of Technology, Delhi.



- Dr. Virendra Kumar Saharan is featured in the top 2 percent of scientists of the world in 2022. The list is published by Elsevier and authored by John P.A. Ioannidis et al.
- Ms. Harshika Suman and Dr. Vikas K Sangal, presented their work titled, 'Treatment of Chromium and Chlorophenol Synthetic Tannery Wastewater by Electrochemical Method' at the 37th "International Conference on Chemical, Agriculture, Biological & Environmental Sciences" (LCABE-22), held in Lisbon, Portugal from 12 to 14 December 2022.

Department of Civil Engineering

- Dr. Dhiraj Raj delivered an expert lecture on "Seismic bearing capacity of shallow foundation on slope" as part of an online short term programme "Earthquake Risk Management", organized by the Department of Civil Engineering at NITTTR, Chandigarh on 11 October 2022.
- Mr. Gauresh Gupta delivered a lecture on "Case study on rejuvenation of Dravyavati River Project at Jaipur". He talked about the objective, scope and design philosophy as well as a cost-benefit analysis of the project on 22 November 2022.
- Dr. Pawan Kalla and Dr. Siddharth Mehndiratta organized a visit to Central Road Research Institute, New Delhi for 24 M.Tech and Ph.D students from the Department of Civil Engineering on 23 November 2022.
- Department of Civil Engineering, MNIT, signed an MoU with Central Road Research Institute (CRRI), New Delhi for 5 years on 16 December 2022.



- Dr. Riya Bhowmik, Assistant Professor, Department of Civil Engineering, IIT Jammu, delivered an expert lecture titled "Role of geosynthetics in sustainable infrastructure development" on 20 December 2022 in her area of research in Geoenvironmental Engineering. She also held an interactive session with the M.Tech and Ph.D students of the department. The session provided a chance for the students to be acquainted with the latest research in solid waste landfill.

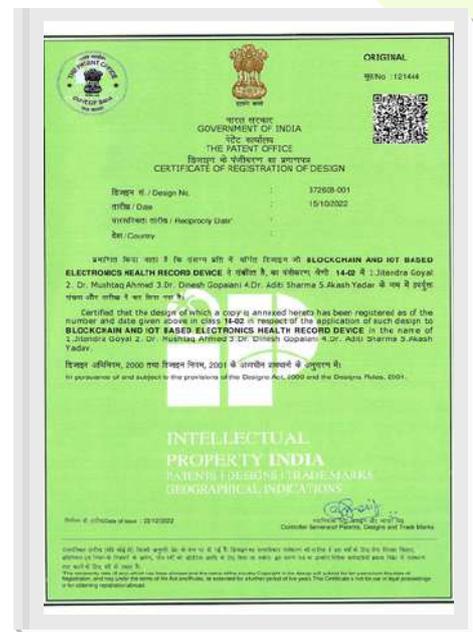
Department of Computer Science Engineering

- A National Seminar on "Agent-based Distributed Artificial Intelligence Framework" was held at MNIT Jaipur on 12 December 2022. The seminar aimed to bring together experts in the field to discuss and share the latest research and developments in the area of AI and its applications.
- Dr. Namita Mittal is working on a project that focuses on developing a demand response management platform in the smart grid for effective performance. The project is funded by the Technology Development Programme (TDP) under the DST, Govt of India with a grant of 30.00 Lacs and is expected to continue from 2022 to 2025.



- An International FDP on IEEE CIS Summer School on “Research Trends in Artificial Intelligence and Machine Learning for Engineering Challenges” was held in hybrid mode at MNIT Jaipur from 06 to 10 December 2022. The FDP focused on the latest research trends in AI and ML and how they can be applied to solve engineering challenges. It was a hybrid mode event that brought together experts from academia and industry to share their knowledge and experience.
- Dr. Mushtaq Ahmed was invited as a Keynote Speaker for a Short Term Course (STC) on “Electrochemistry - Fundamentals and Applications in Engineering” held at NIT Rourkela on 23 December 2022.
- Dr. Ashish Kumar Tripathi is leading a project on automated maze leaf disease and weed detection using deep neural networks. The project is funded by Doremon Labs with a grant of 5.04 Lacs and is expected to continue from 2023 to 2024.
- Dr. Pilli Emmanuel Shubhakar is working on a project that focuses on designing a hybrid introspection-enabled VMM-based security architecture to protect against attacks. The project is funded by the Science and Engineering Research Board (SERB), Department of Science and Technology with a grant of 21.34 Lacs and is expected to continue from 2022 to 2024.
- Dr. Smita Naval is working on a project of simulation and emulation-oriented cyber testbed for training and defense in cybersecurity. The project is funded by IIT Jammu with a grant of 76.71 Lacs and is expected to continue from 2022 to 2024.

- Dr. Meenakshi Tripathi is conducting a study on the usability and accessibility of various ICT tools related to English language speaking and reading skills of children with Autism Spectrum Disorder (ASD). The project is funded by the Department of Science and Industrial Research (DSIR) with a grant of 10.80 Lacs and is expected to continue from 2022 to 2023.
- Dr. Lavika Goel is leading a project on the design and implementation of a hybrid nature-inspired and machine learning-based intelligent optimization model for crop recommendation in Rajasthan, India. The project is funded by the Department of Science and Technology (DST) and the Science and Engineering Research Board (SERB) with a grant of 30.10 Lacs and is expected to run from 2022 to 2025.
- Indian Design Patent on “Blockchain and IoT Based Electronics Health Record Device” was awarded to the group of researchers from MNIT Jaipur, namely Jitendra Goyal, Dr. Mushtaq Ahmed, Dr. Dinesh Gopalani, Dr. Aditi Sharma, Akash Yadav on 23 December 2022. The device helps to record health parameters and store it using Blockchain technology.





Department of Electrical Engineering

- Department of Electrical Engineering organized an International Conference on “EEE Power Electronics, Drives, and Energy Systems (PEDES-2022)” at MNIT Jaipur from 14 to 17 December 2022.
- The Department organized an International Workshop on “IEEE CIS Summer School on Research Trends in Artificial Intelligence and Machine Learning for Engineering Challenges” from 06 to 10 December 2022.
- The Department organized a National Symposia on Technical Poster Competition at MNIT Jaipur on 14 October 2022.
- Dr. Saravana Prakash P is working on a project titled “Design and Development of High-Power Density Transformer-Rectifier-Unit for More Electric Aircraft Application” which received funding of 32.26 lacs by Science and Engineering Research Board (SERB) for the duration 2022-2024.
- Dr. Arun Kumar Verma is leading a project titled “Design and Development of an Efficient On-Board Chargers for EVs” which received funding of 75.87 lacs by CRG-SERB for the duration 2022-2025.
- A patent was awarded for “The smart gait analyzer” to R. Kumar, C. Prakash, N. Mittal, Reg.No. 417146 [Patent Office Journal] on 09 January 2023.



- A patent was awarded for “An Amalgamated Prediction Method for Breast Cancer Detection Using Fuzzy Features” to S. Verma, R. Kumar, S. Jhajharia, M. Jailia, M. Agarwal , Reg.No. 202211072105 [Patent Office Journal] on 30 December 2022.
- A patent was filed for “A New Modulation System for Peak Device Voltage Reduction and Improved THD in Differential Mode Inverters/Rectifiers”, Reg.No. UIC-2023-025-01 [US Patent] on 11 November 2022.

Department of Electronics and Communication Engineering

- Dr. Ghanshyam Singh and Dr. Ila Sharma received approval for their project proposal from The Department of Science and Technology (DST), Government of India, and the Austrian Federal Ministry of Education, Science, and Research. They are partnering this project with a team from IIT Ropar and TU Graz, Austria, under the India-Austria Joint research program.
- Dr. Ritu Sharma worked on the project “Design, Fabrication and Performance Evaluation of Flexible Piezoelectric Biomechanical Energy Harvester”



- Dr. Amit Mahesh Joshi worked on the project “Febsz Intelligent Febrile Seizure Monitoring Device for Children”. He also worked on the projects like “iGLU Non Invasive Glucose Measurement Device” and “Insulin Management System for Type 1 Diabetes People”.
- Dr. Kuldeep Singh worked on the project “Prototype Development of Artificial Intelligence based Portable Computer Aided Diagnosis System for Silicosis”.
- Dr. Bharat Choudhary worked on the project “Development of Artificial Intelligence based functional prototype for the diagnosis of Urinary Tract Infection”.
- Dr. Satyasai Jagannath Nanda received the Best Paper Award at the 2nd IEEE Odisha International Conference (ODICON-2022) for presenting a paper titled “A Many-objective Chaotic Whale Optimization based Automatic Clustering”, given by the Faculty of Engineering & Technology (ITER), Siksha O Anusandhan (Deemed to be University), Bhubaneswar.
- Dr. Sarthak Singhal is listed in the top 2 percent Scientist in the world. The list was published by Stanford University and Elsevier.
- Ravindra Kumar Maurya, Brinda Bhowmick, Rajesh Saha have been granted a patent for "A System for Developing and Analyzing a Parameter of Bohm Quantum Potential", Reg.No. 202022105580 [Germany patent Granted] on 10 November 2022.
- Dr. Chitrakant Sahu has received a fellowship from SERB International Research Experience (SIRE) scheme 2022-23 for visiting the

University of North Texas, Denton, USA for a period of six months.

- Dr. Rajesh Saha received IEI Young Engineers Award 2022-23 by The Institution of Engineers (India).

Department of Humanities and Social Sciences

- The Department of Humanities and Social Sciences (DoHSS), in association with the MNIT Innovation and Incubation Centre (MIIC), organized a session titled “Technical Session on Importance of IPR for Academia and Corporates” on 25 November 2022. Prof. Sudhir K. Jain from IIT Delhi delivered the lecture and a total of 130 students attended the session. The session was chaired by Prof. S.K. Jain, Dr. Dipti Sharma (Head, DoHSS), and coordinators Dr. Preeti Bhatt and Dr. Monica Sharma.





- The Discrimination against Women (Pakhwada) was observed from 25 November 2022 to 10 December 2022 under the guidance of Prof. N.P. Padhy, Director, MNIT Jaipur. It was coordinated by Dr. Preeti Bhatt, Presiding Officer, Internal Complaints Committee. Several activities and competitions were organized during the Pakhwada. The following events were organized by the ICC during the Discrimination against Women Pakhwada: A Technical Session on 'Legal Awareness of Sexual Harassment of Women at Workplace (Prevention, Prohibition and redressal) Act, 2013' by Prof. Damyanti Gupta, President, Rajasthan University Women's Association; Karaoke Competition for students on the theme 'Women Empowerment'; Essay competition in English and Hindi on "Gender Equality and Women Empowerment in the Indian Society" and "भारतीय समाज में लैंगिक समानता और महिला सशक्तिकरण" for students, staff and faculty; Quiz competition for students to raise awareness about the elimination of all forms of violence and discrimination against women; and Poster-making Competition for students on 'Empowerment of Women through Education and Skill Development.' A large number of students, staff and faculty members participated in the events. Faculty members Dr. Nivedita Kaul, Dr. Dipti Saxena, Dr. Kavita Lalwani, Dr. Niraja Saraswat, Dr. Nidhi Bansal, Dr. Smita Naval, Dr. K. Palpandi and Dr. Geetanjali Chattopadhyay coordinated the events during the Discrimination against Women Pakhwada.



- DoHSS celebrated Constitution Day (Samvidhan Divas) on 26 November 2022. A webinar was organized by the Electoral Literacy Club in collaboration with the Department on the subject "India: The Mother of Democracy" on Google Meet. The invited speaker for the session was Prof. Bhawani Singh Shekhawat, Retired Professor and Head, Department of Political Science, University of Rajasthan, Jaipur. The event was organized under the guidance of Dr. Prerna Jain, Associate Dean Cultural, Dr. Pooja Nigam, Coordinator MoE Flagship Programmes, and Dr. Dipti Sharma, HOD, DoHSS, and was coordinated by Dr. Nidhi Bansal & Dr. Geetanjali Chattopadhyay, Faculty Advisors, Electoral literacy club along with Prof. Vibhuti Singh Shekhawat, DoHSS.



- The Department organized an Expert Lecture on "Modernism as a Response to a World Crisis" on 13 October 2022. Prof. Prafulla C. Kar, Director, Centre for Contemporary Theory and Balvant Parekh Centre for General Semantics and Other Human Sciences, Baroda, was the invited speaker. He charted his ideas about the growth of Modernism as an art movement over the years. Dr. Preeti Bhatt coordinated the programme and around 75 students and faculty members were a part of the interactive session.



- Dr. Niraja Saraswat is working on the project "Technology Dissemination through Massive Open Online Courses for Skill Development and Supporting Higher Education with Advanced Learning Analytics for Effective Teaching."

- The 17th session of HUMPALS was organized on 22 November 2022. It aimed to foster open discussion among research scholars to enhance their research skills and knowledge. Ms. Riya Chawla, Ph.D. Scholar, was the invited speaker and introduced the basics of drafting Statements of Purpose (SOPs) for graduate and Ph.D. programmes. The session ended with discussions on sample SOPs from the field of Humanities, Social Sciences, and STEM courses.



- Prof. Ramesh K. Arora was invited for a Guest Lecture on "Effective Communication and Behaviour", organized by the department on 18 November 2022. The event was coordinated by Prof. Nupur Tandon and Mrs. Nanny Tripathi. About 150 students took part in an interactive session that delineated the significance of the verbal and non-verbal aspects of communication. Prof. Arora elucidated the importance of various elements of effective communication ranging from silence, active listening, and active participation to body language and manners.



- Department of Humanities and Social Sciences MNIT Jaipur, in collaboration with IIIT Kota, organized a five days Capacity Building Programme Series 3.0 from 2-6 December 2022. It was coordinated by Dr. Niraja Saraswat, Dr. Priyanka Harjule, and Dr. Basant Agrawal. The convenor of the programme included Dr. Dipti Sharma, Head ,Dept. of HSS and Dr. Priyanka Mishra from IIIT Kota. The inaugural ceremony was held in Mini Auditorium, Prabha Bhawan, where the participants had the opportunity to listen to Mr. Chakravati Das, Monk and Life Coach, Former HR in Wipro Technologies. He not only talked about distracting the distractions but also the need for self-management. Mr. Das pointed out the problems of an uncontrolled mind, and how the four types of Yoga: Karma Yoga; Dhyan Yoga; Bhakti Yoga and Jnana Yoga, can be the guiding principles to control it. The programme witnessed several motivational speakers from all walks of life. More than 200 students participated in the programme.



- Dr. Preeti Bhatt, Associate Professor, Department of Humanities and Social Sciences, is leading a project sanctioned by the Department of Scientific and Industrial Research, New Delhi, titled "A Study of the Usability and Accessibility of Various ICT Tools related to English Language Speaking and Reading Skills of Children with Autism Spectrum Disorder (ASD)".
- The Department organized an interactive session on 17 November 2022 on the topic "Cultivating Self-Mangaement Skills". Mr. Rajat Gupta, Planning and Operations Manager, Amazon was the guest speaker for the session. A large number of students attended and got benefitted from the session.

Department of Management Studies

- An expert lecture was organized on 1 November 2022 on "Dynamic Pricing in the Digital Age". Dr. Suresh K. Jakhar, Associate Professor in the operations group at IIM Lucknow, detailed the concept of dynamic pricing and how it gets affected by consumer preferences with the change in time.



- The Department of Management Studies (DMS) organized the second Sustainability Ambassador Programme 2023 from 10 to 14 January 2023 which attracted over 80 participants from industry and academia. In-house and external expert speakers from IIM Lucknow, KPMG, Dublin City University, Oregon State University, XIMB, and Dr. B Lal Institute of Biotechnology conducted the sessions. The programme covered all aspects of sustainability management, including industry terminology, sustainable finance, sustainability as a marketing strategy, sustainable supply chain management, sustainability reporting, zero waste homes, etc. The programme's objective was to sensitize and prepare stakeholders for emerging ESG challenges and strategies.

- On 14 October 2022, the department organized a session on "Being a Successful Business Professional: Role of IQ, EQ, and SQ," by Prof. Neeraj Gupta, Dean, School of Architecture, Head, Department of Architecture and Director of DDU Kaushal Kendra at the Central University of Rajasthan. The session contained several insights into the intricacies of management.



- A guest lecture was conducted on 15 November 2022 on "Preparing for job interviews". Dr. Pankaj Sharma conducted the session which benefitted several participants.
- On 2 December 2022, an expert lecture on "Minimum Public Shareholding Regulation" by Prof. V. Ravi Anshuman, Professor (Finance & Control Area at IIM, Bangalore) was organized by the department.





- A panel discussion was held on 19 January 2023. Esteemed guests Dr. Jauhari Lal (Retired ONGC HR Head) and Mr. Onkar Mal (Retired Professor ONGC Academy) were invited to the department to interact with students on “New Age HR Skills”.



- The FDP on Digital Supply Chain and Logistics 4.0 was held from 16 to 27 January 2023. The programme was coordinated by Dr. Rajeev Agrawal and Dr. Monica Sharma and aimed to provide a comprehensive overview of the impact of digital technologies on supply chain efficiency, the role of sustainability in the supply chain, transportation, traceability issues, and the impact of artificial intelligence and machine learning in the supply chain.
- The National Short-Term Course on Sustainability Ambassador Programme was held from 10 to 14 January 2023 which was coordinated by Dr. Satish Kumar and Dr. Ritika Mahajan. The course focused on topics such as Sustainability Reporting, Green Marketing, ESG & Sustainable Finance, and Sustainable Lifestyle.

- The National Short-Term Course on "Emerging Avenues of Supply Chain Logistical Drivers for Atma-Nirbhar Bharat" was held from 05 to 17 December 2022 which was coordinated by Dr. Monica Sharma and Dr. Rajeev Agrawal. The course covered trends in Supply Chain Education, Mathematical Models for Supply Chain, Hands-on Experience on various softwares, and Interaction with Industry People.
- The FDP under the National Programme entitled Gati Shakti Scheme funded by ATAL was held from 05 to 16 December 2022 which was coordinated by Dr. Monica Sharma. The FDP covered topics such as Digital technologies on supply chain efficiency, Supply chain sustainability, Transportation and traceability issues, and AI and ML impact on supply chain.
- A study to understand the challenges and support mechanism for adopting NEP 2020 among Anganwadi teachers in Rajasthan is an ongoing project coordinated by Dr. Aakanksha Kataria, DMS, MNIT Jaipur, Dr. Ruchi Garg, and Dr. Ritu Chitkara from BML Munjal University, Gurugram. This project has received funding of 4.00 Lacs from the ICSSR, New Delhi. The project aims to study and understand the challenges Anganwadi teachers face in adopting the National Education Policy 2020 in Rajasthan, as well as to identify support mechanisms that could be implemented to facilitate their adoption of the policy.



- An ongoing project “Role of Socioeconomic and Technological Factors in Adoption of Industry 4.0 Technologies in Indian Agri-fresh Supply Chains (AFSC)”, is being coordinated by Dr. Gunjan Soni from the Department of Mechanical Engineering, Dr. Deepak Verma, DMS, and with the external collaboration of Dr. Sachin Mangala from OP Jindal University, Sonapat. This project has received funding of 8.00 Lacs from the ICSSR, New Delhi. The project aims to study the role of socioeconomic and technological factors in adopting Industry 4.0 technologies in the Indian agri-fresh supply chains.
- An ongoing project “An Empirical Investigation of Antecedents and Remedies for Work-Life Balance of Female Healthcare Workers in Rajasthan using Quality Tool(s),” is being coordinated by Dr. Reeta Singh and Dr. Monica Sharma (DMS, MNIT Jaipur). The project has received funding of 8.00 Lacs from the ICSSR, New Delhi. The project aims to investigate the antecedents and remedies for the work-life balance of female healthcare workers in Rajasthan using quality tools.
- The ongoing project “Perception and Awareness of Organic Products in India” is being coordinated by Dr. Shridev Devji and Dr. Shweta Sharma, DMS, MNIT Jaipur, with external collaboration from Dr. Rajesh Kalli from DS Institute of Management, Bengaluru. The project has received funding of 2.05 Lacs from Morehealth Organics. To understand consumer attitudes and behaviour towards organic products, the project intends to study India’s perception and awareness of these products.

- The ongoing project “Design and Development of Efficient Methods for Food Quality Assessment using Computer Vision” is being coordinated by Dr. Shridev Devji (DMS, MNIT Jaipur) and Dr. Ashish Kumar Tripathi from the Department of Computer Science & Engineering (MNIT Jaipur). The project has received funding of 14.40 Lacs from Lumachain Solutions. The project aims to design and develop efficient methods for food quality assessment using computer vision. These methods will be used to quickly and accurately evaluate the food quality, leading to improved food safety and better consumer experiences.

Department of Mathematics

- The Department of Mathematics organized an invited talk on “The Oldest Problem” by Prof. C. S. Dalawat, Professor HAG, Harish-Chandra Research Institute, Prayagraj on 18 October 2022. The professor had an insightful discussion with the faculty members and students regarding mathematics’ age-old conundrums about geometry and the presence of irrational numbers.





- The Department organized a three-day International conference on “Recent Advances in Mathematical Fluid Dynamics” from 2 to 4 December 2022. Prof. R. Usha, Emeritus Professor, Department of Mathematics, IIT Madras, was the guest of honour in the inaugural ceremony of the event. Over 110 researchers participated in the conference from all over the world, covering various topics such as Mathematical modeling, Hydrodynamic stability analysis, Nanofluidics, and Bio-fluidics.



- The Department organized a workshop on “Visualise multivariable calculus and its applications in MATLAB” from 3 to 4 November 2022. The primary goal of this programme was to introduce MATLAB to M.Sc. students. The sessions were conducted by a team of Mathworks inc. led by Dr. Dhruv Chandel, senior team charge for education and research at Mathworks. Over 100 postgraduate students participated in the workshop.



- The Department organized a six-day Teacher Enrichment Workshop on “Complex Analysis and Geometry” from 12 to 17 December 2022. The inaugural ceremony was held in the presence of the Honourable Chief Guest Prof. N. P. Padhy, Director, MNIT Jaipur, Guest of Honour Prof Dr. S. Ponnusamy, IIT Madras and Dr. Santosh Chaudhary, acting HOD, Mathematics, and was coordinated by Dr. Ritu Agarwal and Dr. Priyanka Harjule. The keynote speakers of the workshop were Prof. S. Ponnusamy, IIT Madras, Prof. KS Charak, Jammu University, Dr. T E Venkata Balaji, IIT Madras, Dr. Swadesh Sahu, IIT Indore, Dr. P Muthukumar, IIT Kanpur, and Dr. S Kaliraj, IIT Ropar. 40 participants across the country participated in the workshop.

- Dr. Priyanka Harjule is working on the project “ICESat-2 based Ground photons retrieval in urban areas by using deep learning algorithm”.
- Dr. Priyanka Harjule is leading the project on “Artificial intelligence (AI)-based model to assist radiologists in silicosis screening using chest X-rays”.
- Dr. Priyanka Harjule is working on the project “Study impact on members of Self Help Groups (SHGs) in Rajasthan through MIS data with applications of data analytics techniques”.



Department of Mechanical Engineering

- The Department of Mechanical Engineering organized a National Short-Term Course on “Emerging Avenues of Supply Chain Logistical Drivers for Atma-Nirbhar Bharat” from 5 to 17 December 2022.
- The Department organized an International Conference on “Advanced Research in Industrial and Manufacturing Applications” at the University of Mauritius, Mauritius, on 13 October 2022.



- Dr. Gunjan Soni is working on the project “Role of Socioeconomic and Technological Factors in Adoption of Industry 4.0 Technologies in Indian Agri-fresh Supply Chains (AFSC)”.
- Dr. Gunjan Soni is leading the project on “A Risk Assessment Index for Prediction and Prevention of Silicosis among Stone Workers in Rajasthan”.
- Dr. Amar Patnaik is working on the project “Hybrid Jute Composite Modification and subsequent Development of Porta Cabin”. He is also working on the projects entitled “Development of Ceramic and UHMWPE Textile Based Hybrid Polymer Composite Armor” and “Development of E-glass/Carbon textile reinforced hybrid polymer composites for wind turbine Blade application”.

- Dr. Harlal Singh Mali is working on the project “Optimisation study for Vacuum-Assisted Compression Molding and Vacuum-Assisted Resin Transfer Molding Processes for Contoured Composites”.

Department of Metallurgical and Materials Engineering

- A National Seminar on “Latest Developments in Engineering Materials and Manufacturing Processes” was hosted by The Institution of Engineers (India) and the Department of Metallurgical and Materials Engineering of MNIT. The highly anticipated event took place from 17 to 18 December 2022, and provided a platform for experts, leading researchers, practitioners and industry professionals to share their knowledge on the latest developments in engineering materials and manufacturing processes. It proved to be a beneficial event in the rapidly evolving field of manufacturing.
- A National Short Term Course on “Advanced Manufacturing Processes” was organized by the Department from 12 to 16 December, 2022. The course provided a comprehensive overview of the latest advancements in manufacturing processes and was addressed by experienced instructors from the engineering and manufacturing sectors, who provided attendees with in-depth knowledge on various topics, including modern manufacturing techniques, materials selection and process optimization.



Department of Physics

- The Department of Physics organized an International Conference on “Soft Materials (ICSM 2022)” from 11 to 16 December 2022. The conference provided a platform for academic deliberations to all the participants.



- Dr. Manoj Kumar is working on a project titled “Tuning of electrical properties through magnetic doping in 3D topological insulators”, which received a funding of 20 Lacs by INSPIRE, DST New Delhi from 2023-2028.
- Dr. Rahul Singhal is working on a project titled “Impact of electronic and nuclear energy loss with moderate energy on metal-fullerene nanocomposite” (WOS-A project of Ms. Jyotsna Bhardwaj), which received a funding of 18.40 Lacs by DST New Delhi from 2023-2026.



Center for Energy and Environment

- The Centre hosted a visit from Foreign Scholars Andrey A. Kovalev and Elena A. Zhuravleva from 1 to 5 December 2022, providing a platform for the exchange of ideas between international and local experts. The guests shared their knowledge and expertise with M.Tech students and Ph.D. scholars of the institute. It provided a valuable opportunity for the students and scholars to gain insights and broaden their understanding of Energy and Environment Studies.



- An Expert Interaction was organized in the Centre on 13 January 2023 with James McCarthy from Clark University, Steven Wolf from Cornell University, and Shayan Shokrgozar from University of Bergen as the key speakers for the event.





- On 14 November 2022, the Centre hosted a visit from Dr. Pawan Kumar, a prominent Scientist from the Institute of Materials Research and Engineering, Singapore. The visit provided an opportunity for scholars and faculty members to engage with Dr. Kumar and learn from his expertise in the field.
- The Centre, in collaboration with RRECL, jointly organized a Student Activity titled "Sustainability and Energy Efficiency Quiz (SEEQ-2022)" on 9 October 2022. The event aimed at raising awareness and promoting education on sustainability and energy efficiency among students. A Quiz was conducted to provide an interactive platform for students to showcase their knowledge and learn more about these important topics. The collaboration further strengthened the efforts towards promoting sustainability and energy efficiency in the community.



Materials Research Center

- Dr. Anurag Hamilton, University of Engineering & Management, Jaipur visited the MRC, MNIT Jaipur on 18 October 2022 to have a practical experience of the equipment under the supervision of Dr. Bhagwati Sharma, Head MRC, Jaipur. He was accompanied by a group of 25 students from UEM Jaipur.

- Prof. Frank Spate and a team from OTH, Amberg- Weiden University, Germany visited the center on 4 November 2022.



- Dr. T. Jayakumar, Chairman, Materials for Armamanet Application (MAA) Panel, along with his team of scientists from MAA Panel, DRDO visited the center on 21 November 2022 to enhance academic deliberations.
- Prof. Prasad Krishna, Director, NIT Calicut visited the center on 19 December 2022.
- Dr Reena Saxena, along with a group of 30 students from Suresh Gyan Vihar University visited the center on 22 November 2022 to get an insight into the instrumental facilities available for research.





National Centre for Disaster Mitigation and Management

- The National Centre for Disaster Mitigation and Management, MNIT Jaipur organized the 12th “Structural Engineering Convention” from 20 to 22 December 2022. This was the 12th biennial international event under the aegis of the Indian Association for Structural Engineering (IASE). The three-day International Conference was inaugurated by the Chief Guest Prof. Santosh Kapuria, President, Indian Association for Structural Engineering (IASE). It was attended by Guest of Honour Prof. Shriman Kumar Bhattacharya, Vice President, IASE, Prof. Balthasar Novak, Prof. M.K. Shrimali, Conference-Chairman, and Prof. S.D. Bharti, the Organizing Secretary of SEC 2022.



- A budget of Rs 4.28 crores has been funded by the Ministry of Steel, India for the project titled, “Development of Type Designs of Aanganwaadi and Houses using Structural Steel”. The project aims to create new and innovative designs for Aanganwaadi and housing structures using structural steel as the primary building material.

- A sum of Rs 25 lakhs has been awarded for “Full-Scale Testing of three-storied building systems for Seismic Performance Evaluation & Validation” project, funded by B.G. Shirke Construction Pvt. Ltd, Pune. The Primary objective of the project is to test the seismic performance of three-storied building systems by carrying out full-scale tests.
- The project titled, “Analytical Investigation of the three-storied building systems for Seismic Performance Evaluation & Technology Validation” has been funded with Rs 25 lakhs by B.G. Shirke Construction Pvt Ltd, Pune. The project aims to evaluate and validate the technology used in three-storied building systems through an analytical investigation.
- A research paper titled “3D wave problems evaluation and forecasting through an innovative technique” by Engammagari Ganesh, P.V. Ramana, and M.K. Shrimali, was published in the Journal “Materials Today: Proceedings” in 2023. It is part of the journal’s 72nd volume, pages 1175-1180. The authors presented an innovative technique for evaluating and forecasting 3D wave problems using a combination of computational tools and numerical simulations.





MNIT Innovation and Incubation Center

- MNIT Innovation and Incubation Center (MIIC), in association with Jaishree Perival Global School and Rajasthan Renewable Energy Corporation held a hackathon on 19 October 2022 titled, “Energy Champ-thon” for school students of grades 9 to 12 across Rajasthan. The theme of the event was energy efficiency. A team consisting of Aditya Choudhary, Meghana Garg, Lavanya Jain and Yajat Dhaker, under the guidance of mentor Smt. Shubhi Sharma secured the first position. They were awarded certificates and a cheque of ₹15,000 as prize money.
- The Fourth “Prof. Awadhesh Bhardwaj Memorial Lecture” was organized in collaboration with the Department of Mechanical Engineering, MNIT Jaipur and Prof. Awadhesh Educational Society on 4 November 2022. The session was titled “Green Energy: The Future is Now” and the guest speaker for the session was Mr. Ashwani Kumar, CEO Suzion Group.
- Innovation and Incubation Center in association with Department of Humanities and Social Sciences ,MNIT Jaipur held a technical session titled “Importance of IPR for Academia and Corporates” on 25 November 2022. Prof. S.K. Jain, Adjunct Professor, Department of Management Studies, IIT Delhi was the guest speaker of the session. The session centered around the importance of intellectual property in gaining a competitive edge in the industry.
- An interactive session titled, “Meet the Leader” was organized with Mr. Ashwani Kumar, CEO, Suzlon Group on 4 November 2022 at the seminar Hall, MNIT Jaipur.

- 24-Day Comprehensive Training Programme (CTP) was organized by the centre for Diploma and Polytechnic students. The programme was inaugurated on 26 December 2022, and included topics such as Communication Skills, Soft Skills, Entrepreneurship Development, and Intellectual Property Rights.
- “MNIT Ideation Competition” was conducted at the centre on 10 November 2022. The event included themes such as Agri-solutions, EV Infrastructure, Energy Tech and Waste Management. Participating students were entrusted with suggesting innovative solutions to problems in key areas.

Central Library

- A session titled “Inspiring Research and Innovation Using IEEE Publications” was organized on 15 November 2022.
- An online workshop on “Turnitin Feedback Studio: Useful Features for Educators” was conducted on 30 November 2022.
- A user Awareness Session on “Turnitin Feedback Studio” was conducted in online mode on 11 January 2023.
- A “User Orientation Programme” for the newly joined batch of B.Tech and B.Arch students was conducted on 26 November 2022.



MNIT Jaipur





At A Glance





CAMPUS BUZZ

Nobel Laureate Visit

- Prof. Jean Tirole, Nobel Laureate in Economic Sciences, Toulouse 1 Capitole University, France, visited MNIT Jaipur on 24 November 2022. He delivered an expert talk on the contemporary topic titled “Fighting The War Against Climate Change.” The event was organized in collaboration with the Indo-French Centre for the Promotion of Advanced Research (CEFIPRA), New Delhi. Many dignitaries, including Ms. Usha Sharma, Chief Secretary, Government of Rajasthan, Prof. Nitin Seth, Director, CEFIPRA New Delhi, Ms. Nathalie Tirole, Dr. Nibedita Bisoyi, IIT Roorkee, and Dr. Dider Rabbison, French Embassy graced this event with their presence. It is noteworthy to mention that it is for the first time that MNIT Jaipur hosted the Nobel Laureate in person.



- In his lecture to the audience, Prof. Tirole pressed on the need to conserve nature, wherein he regarded "Climate Change as a Time bomb," as, in case the issue is further procrastinated, it'll lead to hazardous results. Prof. Tirole spoke at length on the depletion of resources and the resurgent need to contribute to sustaining the climate. The programme was attended by more than 200

participants in person and around 800 participants in virtual mode. The whole programme was successfully executed by the core team consisting Prof. Rakesh Jain, Prof. M. L. Mittal, Prof. Manju Singh, Dr. M. L. Meena, Dr. Amar Patnaik, Dr. Dipti Sharma, Dr. Satish Kumar, and Prof. G. S. Dangayach.



Joint Conference by MNIT and University of Mauritius

- MNIT Jaipur and the University of Mauritius (UoM) jointly organized the ‘International Conference on Advanced Research in Industrial & Manufacturing Applications’ (ICARIMA-2022) on 13-14 October 2022 in Mauritius. On 13 October 2022, Prof. N. P. Padhy, Director, MNIT Jaipur, Prof. M. I. Santally, Pro-Vice Chancellor, UoM, Prof. G. S. Dangayach, General Chair, MNIT Jaipur, Dr. Dev S. Callychurn, General Chair, UoM, Dr. Amar Patnaik & Dr. M. L. Meena, Organizing Secretary, MNIT Jaipur, Dr. R. Ramful & Dr. Sanasseer Organizing Secretary, UoM, Dr. D. K. Hurreeram, Vice Chancellor, University of Technology, Mauritius, Er. Raj Purryag, President, Institution of Engineers Mauritius, and Er. Baljinder Sharma, Sr. Alumni of MNIT



and Director, AMP Global Technologies, Mauritius, graced the opening ceremony.



- ICARIMA-2022 was the first event organized by MNIT Jaipur abroad. Prof. N. P. Padhy, Patron, ICARIMA-2022, emphasized that industry should adopt the concept of the 9 R's to achieve sustainable development, viz. Reduce, Reuse, Recycle, Rethink, Repair, Replace, Recover, Redesign, and Remanufacture during his inaugural address. More than 100 delegates attended the inaugural function in offline and online modes. In the two-day event, four Keynote addresses were presented by renowned technologists, including Mr. B. Cheekhooree, Director, Green Agro Farms Ltd, Mauritius; Prof. Suresh P. Sethi, University of Texas, USA; Ms. M. Mungra, CEO MARENA, Mauritius, and Prof. S. G. Deshmukh, IIT Delhi. More than fifty research papers were presented by scholars and faculty members from across the world.



- The High Commission of India at Mauritius invited Prof. N. P. Padhy, Director, MNIT Jaipur, on 14 October 2022. The High commissioner, Shri Vimarsh Aryan, welcomed the entire MNIT team in Mauritius for the international conference (ICARIMA-2022). During the meeting, the Director apprised that MNIT Jaipur had signed an MoU with the University of Mauritius in April 2022, under which the conference was the first event to be conducted. In the meeting, discussions were held to explore future avenues of collaboration between India and Mauritius.



- MNIT team, consisting of Prof. N. P. Padhy, Director, MNIT Jaipur, Prof. G. S. Dangayach, and Dr. M. L. Meena met the alumni of MNIT Jaipur at Mauritius. Eight senior alumni were present in the meeting, including Er. Baljinder Sharma (1988), a leading entrepreneur and Director of AMP Global Technologies, Mauritius, Er. Balraj PEM (1983, First alumnus from Mauritius), Er. Sanjeev Jaunky (1993), Er. Rajeev Sembhoo (1994), Er. Teeluckmun Bhaugeerutty (1994), Er. Veerbhanoo (1994), Shantaram Jankee (1994), and Er. Romesh Beharee (1995). The Director shared the details about the present strength of the institute. The alumni showed keen interest in regularly associating with



their Alma mater and suggested that MNIT Jaipur should make efforts to increase its visibility at both international and national levels. They assured the Director about their complete cooperation for the task.



Unity Day Celebration

- Unity Day was celebrated on the campus on 31 October 2022 to commemorate Sardar Vallabhbhai Patel's birth anniversary. Several activities were conducted under the banner of Unity Day celebrations to educate and inspire the students about the unity and diversity of India. Think India and Sports Club of MNIT Jaipur conducted a Unity Run, starting from Prabha Bhawan via library road, MIIC, Aurobindo, Hostel 8, Hostel 5, and ending at Prabha Bhawan. The event started with a Pledge Ceremony followed by a Panel Discussion on the theme "United India of Sardar Patel: Changing Roles and Responsibility of Citizens Then, Now and in the Future" by the Debating Club of MNIT Jaipur. The Photography Club conducted a Pictorial Exhibition on the theme "Panch Pran and Sardar Vallabhbhai Patel" at VLTC. A Documentary Screening the life of Sardar Vallabhbhai Patel was also held at Neeti Sabhagar. Work and books on his life, and in his remembrance, were also displayed at the Central Library, MNIT Jaipur.



- As part of the "Unity Day" celebrations, Central Library, MNIT Jaipur, being an essential part of the institute, organized a two-week long "Books Display-cum-Exhibition" from 31 October 2022 to 14 November 2022. The exhibition aimed at celebrating the contributions of Sardar Vallabhbhai Patel in the formation and strengthening of India.





Orientation Programme 2022

- MNIT Jaipur organized the “Orientation Programme” for the 2022-26 batch of B.Tech. and B.Arch. undergraduate students. The event was divided into two parts: Registration of the new entrants on 4 and 5 November 2022 and the Orientation Programme from 6 to 8 November 2022. It included various events such as yoga, meditation, and aerobics sessions. Panel discussions on multiple subjects like “Engineering Career Prospects,” “Gender Sensitization,” “Ethics, Wellness, and Stress Management,” and “Challenges and Opportunities for Students” were organized at the Central Lawn, MNIT Jaipur.



provided enriching counseling sessions to the students and various fun-game activities managed by medical and clinical personnel under the guidance of CACS.



- As part of the Orientation Programme, various Cultural and Technical Clubs of MNIT Jaipur and the Unnat Bharat Abhiyan team also put up their respective stalls at the open-air theater (OAT), MNIT Jaipur for the club orientation and organized informal events for the purpose of better interaction with the newly admitted students.



- During the Orientation Programme, MNIT Jaipur took a unique initiative to express its concern for the student's overall well-being by organizing “Wellness Camp” with the motto of “Navigating Skills for transition to College Life.” The camps comprised various stalls that



Joint Conference by MNIT and University of Mauritius

- Hon'ble Union Cabinet Minister, Shri Dharmendra Pradhan, Ministry of Education, visited MNIT Jaipur on 27 November 2022. He was welcomed on the campus by Prof. N. P. Padhy, Director of MNIT Jaipur. The minister interacted with various faculty members at the institute, who gave an overview of the research and academic activities conducted at MNIT Jaipur. The minister noted the immense contributions being made by MNIT Jaipur in scaling up research on national priorities and addressing complex scientific problems in diverse fields.



- The previous edition of MNIT Jaipur Newsletter, MNITJ News, April-September 2022, was unveiled by Prof. N. P. Padhy, Director, MNIT Jaipur, on 15 November 2022. Prof. Kailash Singh, Dean of Faculty Welfare, and Dr. Amar Patnaik, Associate Professor, were also present at the event. Director Sir appreciated the efforts of the entire Newsletter team for resuming work on this essential element of MNIT Jaipur's ecosystem. He also encouraged the team to continue bringing together information about all the activities, events, awards, and achievements that make MNIT Jaipur an institution of national importance.





- The birth anniversary of prominent tribal Indian freedom fighter Birsa Munda was celebrated as “Janajatiya Gourav Diwas” on 15 November 2022 to acquaint the young generation with the legacy of tribal leaders and other unsung heroes of the Janajatiya community in shaping India. Multiple events were conducted as a part of the celebrations. The Debate Club of MNIT organized a Debate Competition on “Contributions of Tribal Heroes in Freedom Struggle,” and the Photography Club conducted a “Pictorial Exhibition of Birsa Munda.” Winners were awarded certificates and cash prizes.



- In association with SPIC MACAY, Jaipur Chapter, Mohiniyattam Classical Dance Performance was organized in the campus on 26 November 2022. Acclaimed Mohiniyattam artist, Vidushi Rachitha Ravi, accompanied by Mr. Murali Sangeeth (Vocal), Mr. Venu Kurumassery (Mridangam), and Mr. Vayalar Rajendran (Violin), were the artists of the event. Prof. N.P. Padhy, Director MNIT, Prof. Mahesh Kumar Jat, Dean DSW, Dr. Perna Jain, Associate Dean Cultural, Dr. Meenakshi Tripathi, and Dr. U.K. Arun Kumar, faculty in charge, Classical Music and Dance Society, were present during the spellbinding event.



- The All India Inter NIT Sports Tournament 2022-23 was held at MNIT Jaipur from 17 to 19 November 2022. The event saw a footfall of more than 1,000 athletes and coaches from 22 NITs across various states of India participating in the tournament and showcasing their talents. The event hosted games, including athletics, lawn tennis, and basketball tournaments. The award for “Best Athlete in the Women’s Category” was conferred to Poorvie Chaudhary from MNIT Jaipur, and the award for “Best Athlete in the Men’s Category” was won by R Sai Kaushik from NIT Durgapur.





- MNIT Jaipur, in coordination with SPIC-MACAY, hosted an Artistic Musical Performance, “Bhapang Vadan” by famous Sarangi player Suhail Yusuf Khan and his group on 10 October 2022. The team of artists mesmerized the audience. Yusuf Khan, Jakir Khan, and Aanand played the Bhapang, Aslam Bharti and Rajesh were the vocal artists, Kamrudeen played the Harmonium, and Subhrati played Dholak. The programme began with Ganesh Vandana, followed by Lok Geet. An appreciative audience witnessed the event's successful conclusion and interacted with the artists.



- “Constitution Day” was celebrated on 26 November 2022 to commemorate the adoption of the Constitution of India as Jan Bhagidari to honour and acknowledge the contribution of the Republic's founding fathers. “Online Reading of the Preamble of the Indian Constitution” was conducted with an online quiz on "India- the Mother of Democracy.”
- A ‘Regional Orientation cum Review workshop’ was organized under the Unnat Bharat Abhiyan initiative on 28 November 2022 at MNIT Jaipur. The workshop entailed five sessions with different eminent speakers from various organizations. Prof. V.K. Vijay, National Coordinator, UBA, IIT Delhi, Prof.

Priyanka Kaushal, Associate Professor, IIT Delhi, and Prof. Vivek Kumar, IIT Delhi were the guests of honour. Shri Jairam, Shri S.R. Meena, Joint Secretary, Plan and Panchayati Raj, Rajasthan, and Mr. Akshat Jain also attended the workshop. The event was organized under the guidance of Dr. Namita Mittal, Coordinator, RCI, MNIT Jaipur, and faculty coordinators, Dr. Nidhi Bansal and Dr. Yash Kumar Mittal. The workshop was attended by more than 45 members, consisting the faculty coordinators of ‘Participating Institutes’ (PIs) and prospective institutes across 11 districts of Rajasthan. The PIs included prominent colleges such as St. Xaviers Colleges (Jaipur), Central University of Rajasthan, NIIT University (Neemrana), Amity University (Jaipur), and SKIT Jaipur. The prospective PIs included S.S. Jain Subodh PG College, ICFAI Law School and ICFAI University Jaipur, and Kanoria PG Mahavidyalaya Jaipur.



- Armed Forces Flag Day was celebrated on 7 December 2022 to commemorate and honour the martyrs of our nation. Token Flags were distributed to students and teachers by the NSS Club to ignite patriotism amongst the countrymen. The students also pledged to serve the nation with full vigour and honesty.
- The Drama Club of MNIT Jaipur participated in the Street Play Competition held at Jaipuria



College, Jaipur on 9 December 2022, and secured second position in the competition.

- The Consultancy Club organized “Learning Weekend” for all the institute club members from 10 to 26 December 2022. The event focused on resource sharing and content collection to excel as consultancy basics. A Quiz was conducted at the end to test the knowledge and skills gained by the participating members.
- The Economics and Finance Club, MNIT Jaipur, in collaboration with StockGro, a virtual trading platform, conducted an online stock trading competition on 19 December 2022. During the event, the students were given virtual money and allowed to trade in various securities based on their strategies and earn profits. Results of the same were declared on 23 December based on the highest profits generated by participating students.
- The Computer Science Club organized an online workshop on “The Basics of C++ Programming” from 22 to 24 December 2022. 320 students registered for the workshop where they were taught basic C++ programming and given programming assignments to help them familiarize themselves with the language.
- The Data Science Club held an online event titled How to be a Data Scientist on 23 December 2022. The event featured talks by prominent MNIT alumni who are working as data scientists at prestigious companies.
- The Consultancy Club organized a learning weekend on 24 and 25 December 2022, where various resources pertaining to consultancy were shared with members to facilitate learning. The weekend culminated in a quiz to assess their performance.

- On the occasion of the 161st birth anniversary of Bharat Ratna Mahamana Pandit Madan Mohan Malviya, MNIT Jaipur organized a programme on 25 December 2022. The dignitaries included Dr. R.K. Tyagi, Chairman, MNIT Jaipur, Special Guest Prof. N.P. Padhy, Director MNIT, and Prof. Mahesh Kumar Jat, Dean, Student Welfare. The Photography Club held a photo exhibition in memory of the Mahamana, depicting the various important events of his life in order to inspire young minds. The curated photos aptly illustrated the different aspects of his life, and the exhibition was a fitting tribute. The Debating Club of MNIT Jaipur also organized an online debate competition to pay veneration to Pt. Madan Mohan Malaviya’s ideology, and to motivate young minds to work for the growth of the nation.





Alumni Day 2022

- Alumni Day 2022 was held on 25 December 2022 at MNIT Jaipur. The event was organized by MNIT Jaipur, in collaboration with MNITJAA, to honour and celebrate the achievements and accomplishments of the alumni of the institute. The institute gave a warm welcome to the alumni and their families. The Silver Jubilee batch of 1997/Arch-1998 and the Golden Jubilee batch of 1972 were felicitated with mementos to recognize their achievements. The recognition of the superannuated faculty members of the institute was also a significant part of the Alumni Day celebration. The event was graced by several dignitaries, including Prof. N.P. Padhy, Director of MNIT Jaipur, Dr. R.K. Tyagi, the Honourable Chairman of the Board of Governors, Prof. Rakesh Jain, the Dean of International and Alumni Affairs, Er. Devraj Solanki, the President of MNITJAA, Er. T.S. Ranawat, the Vice President of MNITJAA, and Er. Rakesh Yadav, the General Secretary of MNITJAA. The event was a way for the institute to connect with its alumni and celebrate their success.



- As part of the Alumni Day 2022 celebrations, Alumni Awards 2022 was organized by MNIT Jaipur on 24 December 2022 to recognize and honour its inspiring alumni who have made a



significant contribution in their respective fields. A total of 17 awards were given in 5 different categories to distinguished alumni. The MNIT Lifetime Achievement Award was presented to five alumni members: Ashok Belani (1982 batch), Mahavir Punia (1973 batch), Shyam Lal Uttam (1971), T. Sarangarajan (1982), and Satish Kumar Agarwal (1983). The Distinguished Alumni Award was given to six alumni, Prof. Ashok M. Raichur (1990), Prof. Shekhar Bhansali (1987), Manoj Joshi (1987), Nitin Gupta (1984), Rajat Agrawal (1991), and Mahesh Singhi (1986). The Prof. V Srinivasan Memorial Award was given to two alumni, Amrit Lal Meena (1987) and Samir Borade (1986). The Young Achiever's Award was presented to three alumni, Megha Sharma (2005), Rakesh Gupta (2011), and Rupesh Kumar Mishra (2016). The Outstanding Service Award was conferred to Shailesh Patni (1986).





Youth Fest 2023

- MNIT Jaipur celebrated YouthFest 2023 from 12 to 15 January 2023. YouthFest is an annual confluence to perform various activities, such as competitive events in the field of sports, culture, and literature. The edition of YouthFest was based on Swami Vivekanand's message to educate and inspire the youth in the field of unity, spirituality, and personal development. The inaugural day witnessed Prof. NP Padhy, Director, MNIT Jaipur garlanding the statue of Swami Vivekanand, followed by a verbal presentation on the life and works of Swami Vivekanand.



- On the first day of the youth fest, an expert talk was presented by the delegates from Vivekanand Kalakendra, Jaipur. Also, the students of the National Service Scheme(NSS) presented a drama, "NAREN," which was an act based on the life of Swami Vivekanand.



- The students and faculty members conducted a donation drive on 13 January 2022 to collect books and valuables for needy children in the vicinity. This was followed by the Lohri celebrations in the evening, which saw performances by Rajasthani Musicians and Punjabi Dancers.
- Athletic and cultural activities like kite flying, tug of war, kabaddi, lemon and spoon race, and the sack race were also conducted on the third day.
- The last day was kickstarted with a session by Prof Joy Sen of IIT Kharagpur on the topic, "Swami Vivekananda: Epitome of the resurgence of eternal youth force." This was followed by Treasure Hunt and various fun sports events, including human chess, slow cycling, backward running, etc., organized at MNIT Sports Ground and Student Activity Centre in VLTC.





- An event titled “Kavyanjali” was organized on the theme "Youth and Motivation." A Pictionary contest was also conducted later in the day followed by a closing ceremony. Winners of various events were felicitated with certificates and awards to acknowledge their efforts and achievements.



- Mr. Mayank Solanki, an Intern at Revelation Labs of the Computer Science Club, delivered an Expert Talk on Blockchain on 19th January 2023 at Neeti Sabhagar. 150 students registered for the talk and gained valuable insight into the field of blockchain.
- Hon'ble Governor of Rajasthan, Shri Kalraj Mishra released a book titled "Rajbhasha Karyanvayan Digdarshika" by MNIT Jaipur, which focuses on spelling standardization and includes official language provisions, rules, and acts. The book's editor, Birendra Kumar Pandey, praised its content, and Prof. N.P.Padhy, Director, MNIT Jaipur and Dr. Ashok Agarwal, Convener of the Official Language Committee attended the book release event.



RESEARCH PUBLICATIONS

Department of Architecture and Planning

- Akanksha Sangwan, Nand Kumar, Ashwani Kumar, "Amorphous Nature of Green Spaces in Indian Urban Planning", International Review for Spatial Planning and Sustainable Development Volume:11 (2023).
- Manish Sharma, Bansari Sharma, Nand Kumar, Ashwani Kumar, "Establishing conceptual components for urban resilience: Taking clues from urbanization through a planner's lens", Natural Hazards Review Volume:24 (2023).
- Parul Bhyan, Bhavna Shrivastava, Nand Kumar, "Allocating weightage to sustainability criteria for performance assessment of group housing developments: Using fuzzy analytic hierarchy process", Journal of Building Engineering, Volume:65 (2023).

Department of Chemical Engineering

- Dr. Jasasmita Das, Dr. Shweta Rawat, Dr. Abhijit Maiti, Dr. Lovjeet Singh, Dr. Debabrata Pradhan, and Dr. Paritosh Mohanty published their book titled,

"Adsorption of Hg²⁺ on Cyclophosphazene and Triazine Moieties based Inorganic-organic Hybrid Nanoporous Materials Synthesized by Microwave Assisted Method, Separation and Purification Technology" in January 2023.

Department of Chemistry

- Dr. Aakanksha Gurawa and Dr. Sudhir Kashyap published "Regioselective Sulfenylation of Multiple Bonds by Using Sulfonium Iodate Reagent OP-49" at the 1st International Conference on Recent Advances in Chemical Sciences-2023 (ICRACS-2023), organized by Department of Chemistry, Mohanlal Sukhadia University, Udaipur.
- Dr. Monika Yadav and Dr. Sudhir Kashyap published "Stereoselective Access to Rare 6-Deoxyglycoconjugates Under Kinetic-Thermodynamic Controlled Process PP-97" at ICRACS-2023, organized by the Department of Chemistry, Mohanlal Sukhadia University, Udaipur.



Department of Computer Science and Engineering

- Jitendra Parmar, Satyendra Singh Chouhan, and Vaskar Raychoudhury published a research paper titled "A machine learning based framework to identify unseen classes in open-world text classification" in Information Processing and Management, Volume 60, Pages 1-18 (2023). The authors propose a machine learning framework to address the challenge of recognizing new classes in open-world text classification.
- Soumya Ranjan Nayak, Deepak Ranjan Nayak, Utkarsh Sinha, Vaibhav Arora, and Ram Bilas Pachori published the research paper titled "An Efficient Deep Learning Method for Detection of COVID-19 Infection using Chest X-ray Images" in Diagnostics, Volume 13 (2023). Using chest X-ray images, the authors propose a deep-learning approach to detect COVID-19 infection.
- Atul Kumar Verma, Rahul Saxena, Mahipal Jadeja, Vikrant Bhateja, and Jerry Chun-Wei Lin published a research paper titled "Bet-GAT: An Efficient Centrality-based Graph Attention Model for Semi-Supervised Node Classification" in Applied Sciences (Special Issue: Integrated Artificial Intelligence in Data Science), Volume 13 (2023). The authors present an efficient centrality-based graph attention model for semi-supervised node classification.
- Vijay Kumar Sharma, Namita Mittal, Ankit Vidyarthi, and Deepak Gupta published a research paper titled "Exploring Web-based Translation Resources Applied to Hindi-English Cross-Lingual Information Retrieval" in ACM Transactions on Asian and Low-Resource Language Information Processing, Volume 1, Page 19 (2023).
- Girish Sharma, Jyoti Grover, and Abhishek Verma published a research paper titled "Performance evaluation of mobile RPL-based IoT networks under version number attack" in Computer Communications, Volume 197, Pages 12-22 (2023). The authors evaluate the performance of mobile RPL-based IoT networks under a version number attack.

Department of Electrical Engineering

- A Jain, S Yamujala, A Gaur, P Das, R Bhakar, and J Mathur published a paper on "Power sector decarbonization planning considering renewable resource variability and system operational constraints", Applied Energy Volume 331 (2023).
- Shuvam Das, Chandra Prakash Barala, Parul Mathuria, Rohit Bhakar, and Satish Sharma published "District Cooling Adoption on University Campuses: A Methodology for Design and a Policy Review", IEEE Innovative Smart Grid Technologies, ISGT - Middle East by IEEE at Khalifa University Main Campus, Abu Dhabi, UAE (2023).
- Saroj Jhahriya, Satish Sharma, Rohit Bhakar, and Parul Mathuria published "Peer-to-Peer Energy Trading Negotiation Based on Cost Allocation", IEEE Innovative Smart Grid Technologies, ISGT - Middle East by IEEE at Khalifa University Main Campus, Abu Dhabi, UAE (2023).
- Rohini Haridas, Satish Sharma, Rohit Bhakar, and Parul Mathuria published "Evolution of Load Redistribution Attack in Cyber-Physical Power System", IEEE Innovative Smart Grid Technologies, ISGT - Middle East by IEEE at Khalifa University Main Campus, Abu Dhabi, UAE (2023).
- Ashish Shukla, Parul Mathuria, Rohit Bhakar, and Satish Sharma published "An Implementation of a Socially Adaptive Blockchain-Based Transactive Energy System", IEEE Innovative Smart Grid Technologies, ISGT - Middle East by IEEE at Khalifa University Main Campus, Abu Dhabi, UAE (2023).
- Ravi Rakeshkumar Trivedi, Rohit Vijay, Satish Sharma, Parul Mathuria, and Rohit Bhakar published "Participation of DERs at Transmission Level: FERC Order No.2222 and TSO-DSO Coordination", IEEE Innovative Smart Grid Technologies, ISGT - Middle East by IEEE at Khalifa University Main Campus, Abu Dhabi, UAE (2023).
- Ravi Rakeshkumar Trivedi, Chandra Prakash Barala, Parul Mathuria, Rohit Bhakar, and Satish Sharma published "Peer-to-Peer Energy Trading: Energy Pricing Using Game Theory Models", IEEE IAS Global Conference on Renewable Energy and Hydrogen



Technologies - GlobConHT by IEEE at Male, Maldives (2023).

- Sarita Meena, Shubham Patwari, Satish Sharma, Vikas Gupta, Rohit Bhakar, and Parul Mathuria published "Network Pricing for Energy Storage in Distribution Networks", IEEE IAS Global Conference on Renewable Energy and Hydrogen Technologies - GlobConHT by IEEE at Male, Maldives (2023).
- Krupali Kamleshbhai Sindhav, Ajay Kumar Verma, Anjali Jain, Rohit Bhakar, Harpal Tiwari, Parul Mathuria, and Satish Sharma published "International Hydrogen Strategies: Opportunities for India", IEEE IAS Global Conference on Renewable Energy and Hydrogen Technologies - GlobConHT by IEEE at Male, Maldives (2023).
- Harshit Rathore, HK Meena, and P Jain published "Prediction of EV Energy Consumption Using Random Forest and XGBoost", International Conference on Power Electronics and Energy ICPEE-2023 by IEEE at Bhubaneshwar (2023).
- Hemlata Meena, HK Meena, and D Saxena published "Detection of Multiple Classes of Disturbances With Hilbert Transform in the Presence of Harmonics", Third International Conference on Advances in Electrical, Computing, Communications, and Sustainable Technologies by IEEE at Bhilai (2023).
- Book Chapter titled "Enhanced Real-Time Power System Monitoring by Detecting Event Signature" (ISBN:978-981-19-0588-9) was published by Springer Nature Singapore (2023), by Divya Rishi Shrivastava, Shahbaz Ahmed Siddiqui, and Kusum Verma.

Department of ECE

- Ahmad, Riyaz, Amit M. Joshi, Dharmendar Boolchandani, and Tarun Varma, "Novel Programmable Readout Amplifier and Potentiostat for Glucose Sensing Applications", SN Computer Science Volume 04 (2023).
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