

M.I.T Insight

NEWS LETTER







Dr Saquib Shakil Prinicipal

Welcome to Millia Institute of Technology (MIT), the first institution in the Seemanchal region, established in 2002. We are proud to be one of the oldest engineering colleges in the state of Bihar, with alumni who hold prestigious positions all around the world.

I am pleased to inform you that our institution is accredited by NAAC. Our aim is to provide you with the highest quality education. In fact, the potential for education lies within each student; we are here to encourage you to explore and enjoy the learning process.

As the diversity of needs and globalization continue to grow, the demand for competitive skills has increased. The main purpose of MIT is to provide a platform where these needs can be met. We motivate students to develop leadership skills and encourage you to trust in yourselves as you reach for great heights.

I want to remind you that each one of you has the power to shape your future. Embrace your uniqueness, pursue your passions, and never shy away from challenges. Remember, growth often comes from stepping outside your comfort zone.

Each of you holds incredible potential. Every day is an opportunity to learn, grow, and make a difference—not just in your own lives, but in the lives of those around you.

Induction Program

The induction program for new students at Millia institute of technology was started on 9/09/2024, and it was a one week program. The program aimed to facilitate a smooth transition for students into the college environment, providing essential information, resources, and support to ensure academic success and personal development.













Engineer's Day

We have also celebrated Engineer's day on 15 th sep 2024, as a part of Engineer's day the students of several branches make their contribution by making some models, like Hydraulic parking, Solid waste management, Fault detection and Computer game using python language. Awards and Prizes were distributed to the winner of the science model and to participants also.



FREE HEALTH CHECK UP CAMP



MIT also organized two days (19/09/2024-20/09-2024) Free Health Check up with association to Medanta Hospital, Patna. In this there were various doctors involved like General physician, Gynecologist, ENT, Dentist, Cardiologist and Ophthalmologist. In this camp approx. 500 people got their medical checkup done free.

ROAD SAFETY CAMP BY TVS

On September 10, 2024, TVS organized a road safety program in which all the students participated. They learned about road safety, and our child won first prize in the lucky draw competition, receiving a mobile phone!

Road safety is essential for preventing accidents and protecting lives. It involves following traffic rules, using seat belts, and avoiding distractions while driving. Pedestrians should use crosswalks, and cyclists must wear helmets. Education and awareness can significantly reduce risks, making roads safer for everyone, including drivers, passengers, and pedestrians.





OUR TEACHERS MESSAGE

Fly Ash Brick

Fly ash bricks are making by mixing of fly ash ,sand, cement and water. Fly ash is a fine powder that isobtained by burning of pulverized coal in the thermal power plants. This is a by product of coalcombustion and is usually disposed of in landfills or ash ponds. However, by using fly ash in theproduction of bricks, it can be recycled and reused ,and reducing the amount of waste generated bypower plants.

Fly Ash Advantages.

Durability- Fly ash bricks offer superior strength, lower water absorption, and higher durability, making them ideal for high-rise buildings and heavy structures requiring enhanced load-bearing capacity.

Eco-Friendly- Fly ash bricks are eco-friendly, reducing power plant waste and clay demand, making them a sustainable alternative with lower environmental impact compared to traditional bricks.

Cost-Effective- Fly ash bricks are cost-effective due to lower production costs, as fly ash is a readily available waste product requiring minimal processing compared to clay bricks.

Thermal Insulation- Fly ash bricks provide superior thermal insulation, maintaining cooler interiors in summer and warmer conditions in winter, which helps reduce energy consumption and heating or cooling costs.

MR.AAMIR RAHI

MR.AAMIR RAHI HOD CIVIL DEPTT.

"The Scope and Future of Self-Healing Concrete: Enhancing Durability and Sustainability in Construction"

Self-healing concrete is a groundbreaking technology designed to make concrete structures last longer by automatically repairing cracks. This innovative material integrates self-repairing mechanisms, which can significantly improve the durability and reduce maintenance costs of concrete.

Self-healing concrete is an innovative material designed to repair itself when cracks form. One method uses dormant bacteria embedded in the concrete, which activate when moisture enters cracks, producing calcium carbonate to seal them. Another technique involves adding chemicals that react with water to create compounds that fill gaps. Self-healing polymers or microcapsules can also release healing agents upon cracking. This technology extends the lifespan of structures, reducing repair costs and environmental impact despite a higher upfront expense. Researchers continue to improve its effectiveness, showing promising results in infrastructure projects, making it a key advancement in sustainable construction.

MR.MIRZA SHAHAB HUSAIN ASSISTANT PROFESSOR, CIVIL DEPTT.

Energy System and Sustainability

Energy sustainability is a subset or component of overall sustainability. Most countries, regions, and cities are striving for sustainability and thus are reevaluating their use of energy, which at present is for the most part far from sustainable. In simple terms, sustainability can be viewed as having environmental, economic, and social dimensions. Energy interacts with each dimension, making energy sustainability a very important component of sustainability. For instance, energy wastes are discarded into the natural environment, while energy resources are extracted or harvested from the environment. As energy is needed for most activities, the attainment of energy sustainability is important to achieving sustainability. Energy sustainability involves the provision of energy services in a sustainable manner, which in turn necessitates that energy services be provided for all people in ways that, now and in the future, are sufficient to provide basic necessities, affordable, not detrimental to the environment, and acceptable to communities and people. Universal agreement on a definition of energy sustainability has not yet been achieved, but various definitions and descriptions have been presented. Linkages between energy sustainability and factors such as efficiency and economic growth have been investigated.

> MR.OBAIDUR RAHMAN HOD, MECHANICAL DEPTT.

Manufaturing and Automation Engg

Manufacturing Process and Automation Engineering deals with the concepts and processes involved in the design and development of machines. This branch of engineering involves the creation and application of technology to control or monitor the production and delivery of

products and services. In this engineering programme students are taught about the principles of materials, mechanics and energy that are important for the design and manufacturing of machines. It mainly focuses on the different practices of manufacturing, design, research, use of machines, equipment and control systems. Automation professionals are hired by different types of industries such as manufacturing, automobile industry, automation sector, research & development, and production industry. They are responsible for reducing the costs and time involved in manufacturing by the application of robots in industries.

MR. RAVINDRA KR. YADAV ASSISTANT PROFESSOR, MECHANICAL DEPTT.

Freelance paintings is growing at a rate of 15% in step with 12 months. We're within the 4th business Revolution and the gig financial system is booming. It;s a length of rapid change spurred via automation, and is remodeling the manner we do business. Now, is one of the first times disruptive era is truly reaping rewards absolutely everyone on the desk.

Upwork, one of the main digital systems in the world, estimates that by 2027 there could be 86.5 five million freelancers globally. The majority of the employees within the US might be self-hired by using them.

MISS SOMAIYA SABRI

ASSISTANT PROFESSOR, MBA DEPTT.

MICROGRIDS

A microgrid is a self-sustaining energy system that connects energy sources and loads, providing electricity to local areas. It can operate in island or connected mode, based on community needs. Types include campus, community, remote off-grid, military, and commercial, offering benefits like reliability, resilience, and renewable energy integration.

Dependability: They have the ability to supply power during a power failure. They can also assist in decreasing how often and how long outages occur.

Cost: Due to their compact size and decentralized setup, they are a more economic option compared to conventional grid systems.

Sustainability: The integration of renewable energy sources in microgrids can decrease reliance on fossil fuels.

Efficiency: They offer customized local power that matches the area's specific requirements.

Scalability: They can be easily expanded and adapted to changing energy requirements.

MR. AJAZ ALAM (HOD, DEPARTMENT OF EE)

COZMO

Meet Cozmo—aa bit robot created with the aid of a group of robotics engineers at Anki; however, now not just any robot. Most robots have a tendency to lack an actual feel of character, with repeated moves and scripted responses. Cozmo, however, makes use of an aggregate of artificial intelligence (AI), robotics, and PC. imaginative and prescient to develop his very own personality—"a gifted little guy with a thoughts of his very own," the creators write on their internet site. In fact, Anki claims that Cozmo possesses the sort of character we have a tendency to look within the cute robots in films. Plus, his personality evolves with the extra time someone spends with him.

"We've had this promise in science fiction of all of the robots that might exist," Anki CEO and co-founder Boris Sofman stated in a video introducing Cozmo.

"There's been very few applications in which a robot has truly felt like a character that connects with humans around it. For that, you actually need artificial intelligence and robotics. That's been the lacking key." Regardless of Cozmo's small length, he carries over three hundred man or woman portions inside. which the layout crew claims makes Cozmo capable of processing more facts in step with 2nd than all of the Mars Rovers combined.

Cozmo boasts a number of unique capabilities, which include the capability to play games with people. via an accomplice cell phone app. Similarly, Cozmo will learn to understand a person's face and consider which games she or he enjoys gambling maximum. Spending extra time with Cozmo will even free up more games and actions.

MR. PRIYANSHU SHEKHAR HOD, DEPARTMENT OF ECE

Virtual reality (VR) is a technology that has the power to bring revolution in English Language Teaching (ELT) and it is getting popular with youths with each new passing day. It allows students to get into in a simulated ambience that can improve their language learning skills. Students can practice their language skills in a virtual classroom, engage in chitchat and mutual talking, and find virtual environments that are relevant to their language learning targets. VR has immensely mingled with the ELT as it's a new tool. It has though some issues for early learners. So we must be positive that in 2024 we all will bear testimony to the increase in the VR popularity in an unprecedented manner.

Virtual Reality technology has bright future in different fields apart from ELT such as gaming, teaching, entertainment and training.

ASST. PROFESSOR

DEPARTMENT OF APPLIED SCIENCE

MR. CHANDRAGUPT

Monotone Operators have become an effective technique for studying a wide class of problems arising in various branches of mathematical and engineering science in a natural, unified and general framework. Formally, an operator T on a real Hilbert space H is monotone if, for all x and y in H, the inequality $\langle T(x)-T(y),x-y\rangle \ge 0$ holds. Here, $\langle \cdot,\cdot \rangle$ denotes the inner product. The significance of monotone operators lies in their position in fixing convex optimization troubles and variational inequalities. They provide a framework for addressing issues wherein traditional strategies may additionally falter, specially in high-dimensional areas. Monotone operators are indispensable to take a look at equilibrium issues, in which answers regularly correspond to fixed points of those operators. Latest advancements have multiplied the applicability of monotone operators to extra complex systems, inclusive of those in machine mastering and signal processing. information about their properties and behaviors can result in more efficient algorithms and deeper insights into the shape of optimization troubles. As studies progress, monotone operators remain a cornerstone of theoretical and implemented mathematics.

MR.G M NOOR QUTUB

ASST. PROFESSOR

DEPARTMENT OF MATHEMATICS

Blockchain technology in education ensures secure, tamper-proof record-keeping of academic credentials and achievements. It enables decentralized management of student data, making credential verification faster and more reliable. By improving transparency and reducing fraud, blockchain also enhances collaboration between institutions, supporting lifelong learning and global recognition of qualifications.

MR.MUNTASHIR

ASST. PROFESSOR
DEPARTMENT OF CSE

OUR STUDENTS MESSAGE

Data Science and Al! Generative Al is making significant strides, from creating art to realistic simulations, and it's now influencing civil engineering. Al and data science are enhancing infrastructure design and maintenance by providing predictive insights and optimizing resource management. Advanced Al models are improving the accuracy of structural assessments and simulations, leading to safer and more efficient construction practices. Data-driven approaches are revolutionizing project management, helping to forecast potential issues and streamline workflows. As Al technologies advance, there's also a growing emphasis on ethical considerations, ensuring that these tools are used responsibly and transparently. Privacy and security measures are crucial as the use of data becomes more prevalent. Quantum computing is on the horizon, promising even greater capabilities for data analysis and problem-solving in civil engineering.

Alok

Leachate is a liquid byproduct that forms when water percolates through waste in landfills, picking up contaminants that pose significant environmental risks, including groundwater pollution and ecosystem damage. Effective leachate management is crucial for mitigating these risks. Recent advancements in leachate treatment include technologies like reverse osmosis, membrane bioreactors, and advanced oxidation processes, which enhance the removal of contaminants. Case studies from various waste management facilities demonstrate successful strategies such as using multi-layered landfill liners and effective drainage systems to control and treat leachate efficiently. Regulatory frameworks are evolving, with stricter standards being implemented to ensure safer leachate management practices. Staying updated on these regulations is essential for compliance and environmental protection.

As the construction industry evolves, Green Building is emerging as a critical approach to creating environmentally

responsible and resource-efficient structures. These buildings prioritize energy efficiency, water conservation, sustainable materials, and improved indoor environmental quality. By integrating renewable energy sources, utilizing systems like rainwater harvesting, and employing recycled or locally sourced materials, Green Buildings significantly reduce their carbon footprint. Not only do they offer lower operational costs and enhanced comfort for occupants, but they also contribute positively to environmental preservation. As awareness of climate change grows, so does the adoption of Green Building practices, leading the charge toward a more sustainable future. Civil engineers have a pivotal role in this transformation, ensuring that our built environment supports a healthier planet for generations to come.

Aamir Haque

Haque 21/CE/01

As digital threats continue to evolve, it is essential to stay informed. Phishing scams are becoming more sophisticated, so always verify the sender before clicking links. Ransomware attacks are also on the rise—ensure you regularly back up your data to minimize loss. To enhance your online security, use strong, unique passwords and enable two-factor authentication on your accounts. Keeping your software updated is vital for protecting against vulnerabilities Phishing scams are becoming increasingly sophisticated, often mimicking trusted sources to trick users into revealing personal information. Always verify the sender's email address and think twice before clicking on any links. Additionally, ransomware attacks are on the rise, targeting individuals and organizations alike. To protect yourself, make sure to regularly back up your data to an external drive or cloud service.

Mehar Hassan 23/CSE/04

21/CE/06







UPCOMING EVENTS

- Academic Achievement Award
- Quiz Contest
- Cultural Activities & many more..

