Volume: 1 Issue: 2
Jul-Sept 2026

In pursuit of Excellence

MORADABAD
INSTITUTE OF TECHNOLOGY

AICTE IDEA LAB

AICTE IDEALab

LEARN
CREATE
COLLABORATE
INNOVATE
GROW

IDEAS
DESIGN
BUILD
INNOVATION

NEWSLETTER

INNOVATE • PROTOTYPE • TRANSFORM



INNOVATION STORIES
Ideas, Projects and Prototypes

STUDENT SPOTLIGHT
Learners, Makers and Achievements

FACULTY INITIATIVES
Guidance, Research and Mentorship

AICTE APPROVED

www.mitmoradabad.edu.in
/mit-mbd-aicte-idea-lab/

MIT Moradabad
Uttar Pradesh, India

Young Innovators in Making: Future Academy Students Explore AICTE IDEA Lab at MIT Moradabad

8th June, 2026



Students exploring advanced fabrication and prototyping facilities at the AICTE IDEA Lab, MIT Moradabad

The Visit

On 8th June 2026, a group of enthusiastic students from The Future Academy, Sirsi (Sambhal), embarked on an inspiring journey of technological exploration at the AICTE IDEA Lab, Moradabad Institute of Technology (MIT), Moradabad. The visit offered an exciting opportunity to discover the world of advanced manufacturing, digital fabrication, electronics, and rapid prototyping, bringing classroom concepts to life through real-world engineering applications.

Rooted in the philosophy of "Learning by Doing," the AICTE IDEA Lab serves as a dynamic platform where creativity meets technology. It empowers young minds to transform imaginative concepts into tangible innovations through hands-on experimentation, scientific inquiry, and practical application of STEM principles.

Hands-on Exposure

Under the guidance of faculty members and technical staff, students explored the lab's state-of-the-art facilities and learned about the capabilities of modern prototyping equipment. The demonstrations offered a glimpse into the processes that shape ideas into functional products.

- CNC Router: Showcased precision cutting and carving of materials using computer-guided designs.
- CO_2 Laser Cutting Machine: Demonstrated intricate cutting and engraving for models, components, and creative designs.
- 3D Printer: Brought digital designs to life by building three-dimensional objects layer by layer.
- Soldering and Electronics: Introduced students to assembling electronic components and building functional circuits.

Each demonstration revealed a different dimension of the product-development process, enabling students to appreciate how digital designs, engineering precision and creative thinking converge to produce innovative solutions.

Learning Beyond the Classroom

The visit evolved into an interactive learning experience as students enthusiastically explored the equipment, raised insightful questions and discovered the practical applications of emerging technologies. Discussions on prototype development, engineering career opportunities, innovation and entrepreneurship broadened their understanding of the possibilities that science and technology offer.

The visit gave students valuable practical knowledge and showed them how a conceptual idea becomes a functional prototype. It is expected to encourage them to explore innovative solutions and to take a deeper interest in science, technology, and entrepreneurship.

Harnessing Nature and Technology for Sustainable Desalination

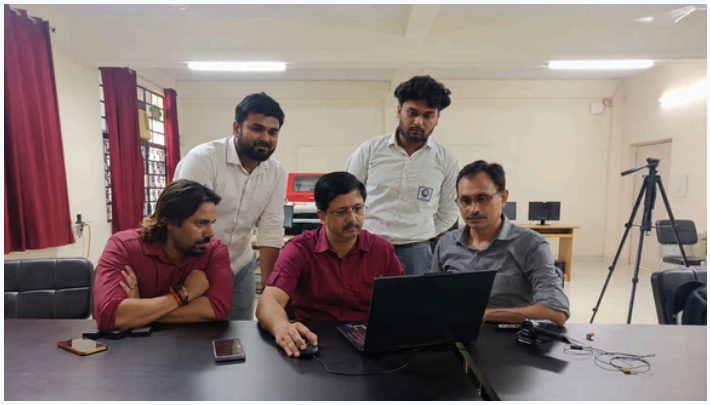


Dr. Pravesh Chandra demostrating the 3D-Printed structure developed for the solar evaporator project

Dr. Pravesh Chandra, Department of Mechanical Engineering, Moradabad Institute of Technology (MIT), Moradabad, is undertaking an ongoing research project titled "Bio-Inspired 3D-Printed Solar Evaporator for Brine Water Desalination" using AICTE IDEA Lab facilities. The project involves designing and fabricating nature-inspired palisade and honeycomb structures using 3D printing to explore improved solar-driven water evaporation. Currently at the prototype development and demonstration stage, the research integrates biomimicry, additive manufacturing, and renewable energy to explore sustainable desalination solutions. The team has also demonstrated the prototype to students, providing practical insights into innovative engineering applications.

Powering Innovation: A Student-Developed Fast-Charging Power Bank



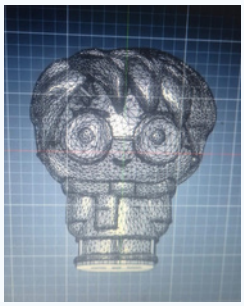


An innovative portable charging solution, "Exclusive Power Bank," has been developed by Aks Saxena and Shaurya Jeet Bhatnagar, third-year Data Science students, at Moradabad Institute of Technology (MIT), Moradabad, using the AICTE IDEA Lab facilities in September 2026.

Featuring a 25,000 mAh battery with Power Delivery (PD) and Quick Charge 3.0 (QC 3.0) support, the device combines fast-charging capabilities with a distinctive Harry Potter-inspired exterior. Its customized enclosure, fabricated using 3D printing technology, showcases the creative potential of additive manufacturing in personalized product design.

The project involved hands-on experience with electronic components, soldering, charging modules, 3D printing, and prototype assembly, enabling students to translate their ideas into a functional product.

The Exclusive Power Bank exemplifies student-led innovation at MIT, demonstrating how technical knowledge, creative thinking, and the AICTE IDEA Lab's facilities can come together to transform an idea into a practical, personalised solution.





Technology in Action: Young Minds of MIT World School at AICTE IDEA Lab

17th July, 2026



Students engaging with technology and innovation at the AICTE IDEA Lab, MIT Moradabad.

On July 17, 2026, students of MIT World School, Moradabad, visited the AICTE IDEA Lab at Moradabad Institute of Technology, Moradabad, for a one-day workshop focused on emerging technologies and innovation-driven learning.

The workshop introduced students to digital fabrication, electronics, the Internet of Things (IoT), robotics, and product prototyping through interactive sessions and practical demonstrations. Faculty members and the IDEA Lab team highlighted the applications of these technologies and their role in transforming creative ideas into functional prototypes.

The session also familiarized students with the innovation and product-development process, encouraging them to identify real-world challenges and explore technological solutions. Interactive discussions and a question-and-answer session further stimulated their interest in innovation, entrepreneurship, and creative problem-solving.

The workshop provided valuable learning beyond the classroom, inspiring students to think creatively, experiment confidently, and transform their ideas into meaningful technological solutions.

WORKSHOP HIGHLIGHTS

Welcome and Orientation Session:
Briefing about the objectives and schedule of the workshop.

Presentation on AICTE IDEA Lab:
Overview of facilities, objectives, and role in promoting innovation.

3D Printing Technology:
Fundamental, applications and live demonstration.

CNC Router and CO_2 Laser Cutting:
Working principles and applications of CNC and laser cutting.

IoT and Embedded Systems:
Concepts, application and innovative prototypes.

Interaction and Hand-on Exposure:
Hands-on experience with tools and prototypes.

Q&A and Discussion Session:
Discussion on innovation, entrepreneurship and product development.









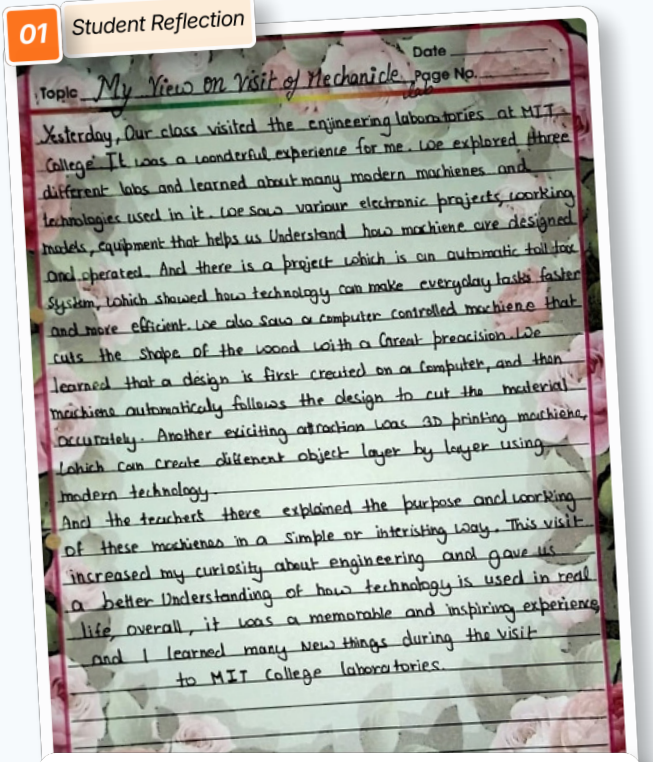
STUDENT VOICES

Reflections from the AICTE IDEA Lab Visit

> *Hands-on learning today, brighter innovations tomorrow.*

Students of MIT World School share their key takeaways and memorable experiences from their visit to the AICTE IDEA Lab at MIT.

01 Student Reflection



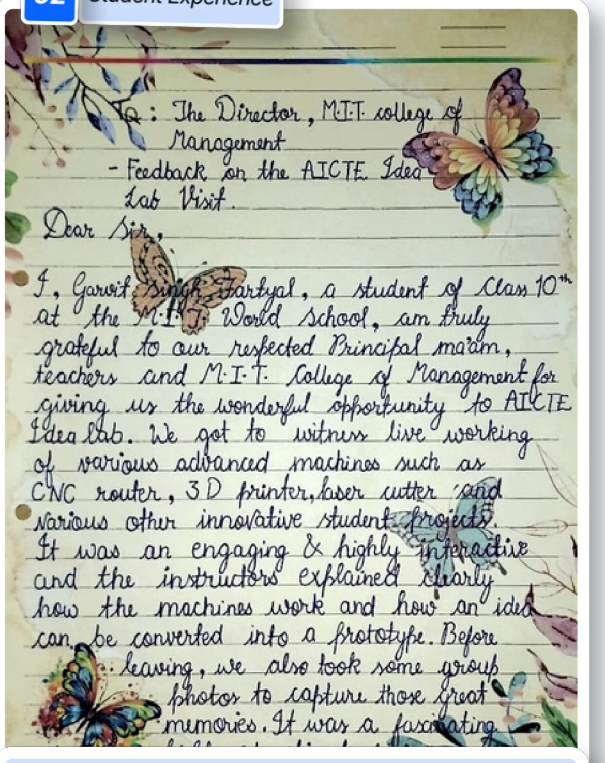
Topic: My View on Visit of Mechanicle Lab

Yesterday, Our class visited the engineering laboratories at MIT College. It was a wonderful experience for me. We explored three different labs and learned about many modern machines and technologies used in it. We saw various electronic projects, working models, equipment that helps us Understand how machine are designed and operated. And there is a project which is an automatic toll tax System, which showed how technology can make everyday tasks faster and more efficient. We also saw a computer controlled machine that cuts the shape of the wood with a Great preacision. We learned that a design is first created on a computer, and then machine automatically follows the design to cut the material accurately. Another exiciting attraction was 3D printing machine, which can create different object layer by layer using modern technology.

And the teachers there explained the purpose and working of these machines in a simple or interisting way. This visit increased my curiosity about engineering and gave us a better Understanding of how technology is used in real life. overall, it was a memorable and inspiring experience and I learned many new things during the visit to MIT College laboratories.

> *It was a wonderful and inspiring experience. I learned many new things and developed a better understanding of how technology experience is used in real life.*

02 Student Experience



To: The Director, M.I.T. college of Management

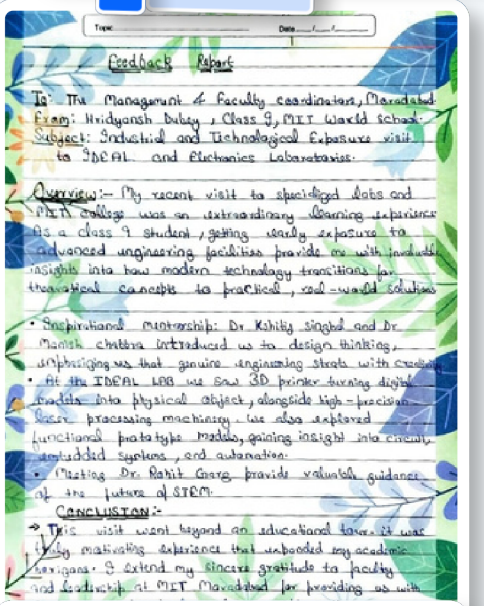
- Feedback on the AICTE Idea Lab Visit.

Dear Sir,

I, Garvit Singh Partyal, a student of class 10th at the M.I.T. World school, am truly grateful to our respected Principal ma'am, teachers and M.I.T. College of Management for giving us the wonderful opportunity to AICTE Idea lab. We got to witness live working of various advanced machines such as CNC router, 3D printer, laser cutter and various other innovative student projects. It was an engaging & highly interactive and the instructors explained clearly how the machines work and how an idea can be converted into a prototype. Before leaving, we also took some group photos to capture those great memories. It was a fascinating

> *It was a fascinating and highly educational experience. We got to see CNC router, 3D printer, laser cutter and many innovative student projects.*

03 Feedback Report



Feedback Report

To: The Management & Faculty coordinators, Maradabad

From: Hridyansh Bakey, Class 9, MIT World school.

Subject: Industrial and Technological Exposure visit to IDEAL and Mechanics Laboratories.

Overview:- My recent visit to specialized labs and MITA college was an extraordinary learning experience as a class 9 student, getting early exposure to advanced engineering facilities provide me with invaluable insights into how modern technology transitions for theoretical concepts to practical, real-world solutions.

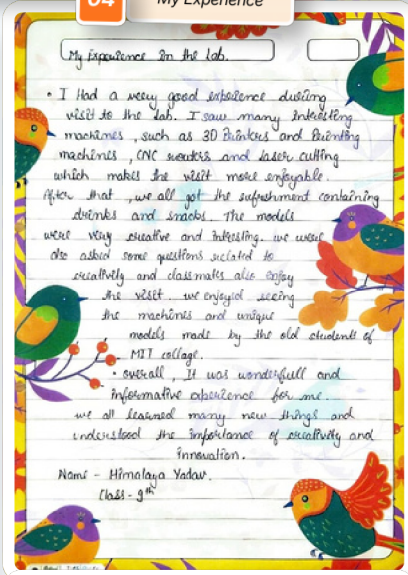
- Inspirational mentorship: Dr. Kshitij Singhal and Dr. Manish Chitara introduced us to design thinking, emphasizing us that genuine engineering starts with creativity.
- At the IDEAL LAB we saw 3D printer turning digital models into physical objects, alongside high-precision laser processing machinery. We also explored functional prototype models, gaining insight into circuits, embedded systems, and automation.
- Meeting Dr. Rohit Gnare provide valuable guidance of the future of STEM.

CONCLUSION:-

This visit went beyond an educational tour, it was truly motivating experience that unbeaded my academic horizons. I extend my sincere gratitude to faculty and leadership at MIT Maradabad for providing us with

> *A truly motivating experience that expanded my academic horizons.*

04 My Experience



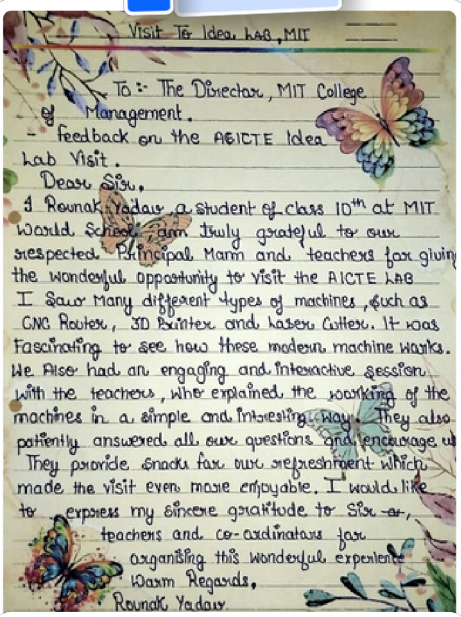
My experience in the lab.

- I Had a very good experience during visit to the lab. I saw many interesting machines, such as 3D Printers and Printing machines, CNC routers and laser cutting which make the visit more enjoyable. After that, we all got the refreshment containing drinks and snacks. The models were very creative and interesting. we were also asked some questions related to creativity and classmates also enjoy the visit. we enjoyed seeing the machines and unique models made by the old students of MIT college.
- overall, It was wonderfull and informative experience for me. we all learned many new things and understood the importance of creativity and innovation.

Name - Himalaya Yadav.
Class - 9th

> *I learned many new things and understood the importance of creativity and innovation.*

05 Visit to IDEA Lab



Visit To Idea. LAB, MIT

To:- The Director, MIT College of Management.

- Feedback on the AICTE Idea Lab Visit.

Dear Sir,

I Rounak Yadav a student of class 10th at MIT World School am truly grateful to our respected Principal Mam and teachers for giving the Wonderful Opportunity to visit the AICTE LAB I Saw many different types of machines, such as CNC Router, 3D Printer and Laser Cutter. It was Fascinating to see how these modern machine works. We Also had an engaging and interactive session with the teachers, who explained the working of the machines in a simple and Intresting way. They also patiently answered all our questions and encourage us. They provide snacks for our refreshment which made the visit even more enjoyable. I would like to express my sincere gratitude to Sir-s, teachers and co-ordinators for organising this Wonderful experience.

Warm Regards,
Rounak Yadav

> *It was fascinating to see how these modern machines work.*

Innovation in Action: Government Polytechnic Students Explore the AICTE IDEA Lab

15th September, 2026





Government Polytechnic student, observed the demonstration of fabrication and prototyping facilities at the AICTE IDEA Lab, MIT Moradabad.

On 15th September 2026, the AICTE IDEA Lab at Moradabad Institute of Technology (MIT), Moradabad, hosted a one-day workshop and exposure visit for 55 students and three faculty members from Government Polytechnic. The programme offered valuable insights into innovation, design thinking, prototyping, and emerging technologies.

Dr. Munish Chhabra, Coordinator, AICTE IDEA Lab, introduced the students to the IDEA Lab's objectives and facilities, highlighting how creative ideas can be transformed into functional prototypes and how prototyping streamlines product development. Dr. Kshitij Shinghal, Dean Academics and Coordinator, AICTE IDEA Lab, conducted an interactive session on "Design Thinking," demonstrating its role in identifying real-world challenges and developing practical, innovative solutions.

Dr. Pravesh Chandra, Tech Guru, AICTE IDEA Lab, demonstrated the applications of 3D printing and Fused Deposition Modeling (FDM), sharing insights from his work on a 3D-printed solar evaporator. Students also observed demonstrations of advanced fabrication technologies and explored the lab's electronic components and prototyping facilities.

The programme concluded with an interactive discussion in which students and faculty members exchanged experiences and queries with the IDEA Lab team. Dr. Rohit Garg, Director, MIT Moradabad, and Chief Mentor, AICTE IDEA Lab, encouraged students to utilize the lab's facilities for experimentation, innovation, and product development.

The visit provided a valuable learning experience, inspiring students to apply design thinking, explore emerging technologies, and transform their ideas into practical solutions.

> *Innovation begins with curiosity and grows through hands-on experience.*



Connecting Minds, Sharing Knowledge, Inspiring Innovation



Demonstration of 3D printing and FDM by Dr. Pravesh Chandra.

Nurturing Innovation: Internal Hackathon for SIH 2026 at MIT Moradabad

16th September, 2026



SIH BANNER


Address from Director MIT


Winning Team


Recognition Award

The Smart India Hackathon (SIH) is a national initiative that encourages students to develop innovative, technology-driven solutions to real-world challenges. In line with this vision, the Department of Computer Science & Engineering (CSE), in association with the AICTE IDEA Lab, Moradabad Institute of Technology (MIT), Moradabad, organized an institute-level internal hackathon on September 16, 2026, as part of SIH 2026.

The event was inaugurated by Prof. (Dr.) Rohit Garg, Director, MIT Moradabad, and Chief Mentor, AICTE IDEA Lab, who served as the Patron. In his address, he urged students to think beyond conventional approaches and transform creative ideas into practical solutions with the potential to address real-world challenges.

Dr. Kshitiz Singhal, Dean Academics and Coordinator, AICTE IDEA Lab, highlighted the importance of systematic problem-solving and innovative thinking in addressing emerging technological challenges. Dr. Munish Chhabra, Coordinator, AICTE IDEA Lab, encouraged participants to leverage the lab's facilities, tools, and equipment to develop, test, and prototype their ideas.

A total of 27 student teams participated in the hackathon, presenting solutions across a diverse range of problem statements. Of these, four teams focused on hardware-based challenges, while the remaining teams explored software-based solutions. The participating teams demonstrated technical competence, creativity, collaboration, and a solution-oriented approach while working on problems with practical applications. The teams were shortlisted for consideration for nomination to SIH 2026.

The hackathon provided a valuable platform for students to move beyond theoretical learning and apply their knowledge to practical challenges. By encouraging experimentation, interdisciplinary thinking, and prototype development, the initiative reinforced MIT's commitment to nurturing innovation and preparing students to develop impactful solutions for a technology-driven future.

In pursuit of Excellence

MORADABAD INSTITUTE OF TECHNOLOGY
AICTE IDEA LAB



The 2001 batch of Electronics & Communication Engineering (ECE) of MIT contributed ₹1,00,000 to the AICTE IDEA Lab during their Silver Jubilee Alumni Meet. MIT appreciates the thoughtful contribution of the 2001 ECE batch and acknowledges their valuable support towards strengthening the institute's innovation ecosystem. The gesture exemplifies the spirit of "Giving Back to the Alma Mater" and is an inspiration for the entire MIT alumni community.

EDITORIAL BOARD



Ms. Ruchika Gupta
(Asst. Professor, CSE)



Ms. Damini Dhawan
(Asst. Professor, CSE)



Vishwas Pandey
(CSE-IoT, 3rd Yr)

ADVISORY BOARD



Dr. Rohit Garg
Director, MIT



Dr. Munish Chhabra
HoD (ME)



Dr. Kshitij Singhal
HoD (ECE)

ABOUT AICTE IDEA LAB

Every great innovation begins with an idea, and every idea holds the potential to shape the future. At Moradabad Institute of Technology (MIT), the AICTE IDEA Lab provides a dynamic platform where creativity meets technology. Through hands-on experimentation, prototyping, and collaborative learning, it empowers students to transform innovative concepts into practical solutions. By nurturing design thinking, problem-solving, and an entrepreneurial spirit, the lab inspires young minds to explore new possibilities and create meaningful solutions for a smarter tomorrow.

OUR LOCATION



Ram Ganga Vihar, Phase-II
Moradabad- 244 001 (Uttar Pradesh)

CONTACT US @

+91 94119 10030
+91 99270 93913
+91 70178 73260

FOLLOW US

"Great ideas start here. Let's build the future together!"