



MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR (M.P.), INDIA

माधव प्रौद्योगिकी एवं विज्ञान संस्थान, ग्वालियर (म.प्र.), भारत

DEEMED UNIVERSITY

(Declared under Distinct Category by Ministry of Education, Government of India)

NAAC ACCREDITED WITH A++ GRADE

DEPARTMENT OF MECHANICAL ENGINEERING

WINTER 2025 E-NEWSLETTER

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Vision

"To develop innovative and creative Mechanical Engineers catering the global industrial requirements and social needs"

Mission

- To prepare effective and responsible graduate engineers for global requirements by providing quality education.
- To enhance knowledge through project and internship in the field of Mechanical and allied engineering.
- To guide students in acquiring career- oriented jobs in the field of Mechanical engineering.
- To provide academic environment of excellence, leadership, ethical values and lifelong learning to cater the need of society by sustainable solutions.

**“विद्या ददाति विनयं, विनयाद् याति पात्रताम् ।
पात्रत्वात् धनमाप्नोति, धनात् धर्मं ततः सुखम् ॥”**

CHAIR'S LETTER

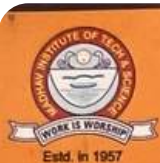
I am happy to note that the Department of **Mechanical Engineering** is releasing its Newsletter for **Winter 2025 (January - March)** enumerating the various activities and achievements of our faculty and students. Department of Mechanical Engineering is one of the oldest departments established in 1957 at **MITS Gwalior**. The department endeavors to produce confident professionals tuned to real time working environment. The department offers excellent academic environment with a team of highly qualified faculty members to inspire the students to develop their technical skills and inculcate the spirit of team work in them. The department has been steadily growing into an impressive dimension, which strives to encourage excellence in academic and co-curricular activities. I congratulate the entire Mechanical Engineering department faculties, staff and students for their contribution to department activities and look forward for future developments. The department focuses on the holistic development of the students and to engage them in creativity, innovation, entrepreneurial/start up activities.

I wish a good learning to all the students!
Warm Regards.



Dr. Chandra Shekhar Malvi
(Head of the Department)

– **Dr. Chandra Shekhar Malvi**
Head of the Department
Mechanical Engineering
MITS Gwalior



MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute, Affiliated to R.G.P.V. Bhopal)

Vision & Mission of Department of Mechanical Engineering

VISION

“To develop innovative and creative Mechanical Engineers catering the global industrial requirements and social needs”

MISSION

- M1** To prepare effective and responsible graduate engineers for global requirements by providing quality education.
- M2** To enhance knowledge through project and internship in the field of Mechanical and allied engineering.
- M3** To guide students in acquiring career-oriented jobs in the field of Mechanical engineering.
- M4** To provide academic environment of excellence, leadership, ethical values and lifelong learning to cater the need of society by sustainable solutions.

EVENTS AND ACTIVITIES



National Service Scheme

cyber security campaign by

Madhya Pradesh Police Cyber Cell Gwalior

10 February 2025

4:00 PM - Seminar Hall

MITS-DU Gwalior

National Service Scheme (NSS) and Madhav Institute of Technology and Science deemed University (MITS-DU) Gwalior organised a Seminar on the occasion of Safe Internet Day.



Officers of Cyber Cell Gwalior, Madhya Pradesh Police were invited to educate students about Cyber Security. Under the campaign Safe Click, the officers explained the students what are cyber crime activities and their punishments. Dr. Surendra Kumar Chourasiya, Assistant Professor, Mechanical Engineering was the event coordinator.



EVENTS AND ACTIVITIES

Sham-e-Ulfat

16 February 2025

Colloquium

MITS-DU Gwalior

The flagship event of Hindi Samiti, **Sham-e-Ulfat** was organised on 16 February 2025 in Madhav Institute of Technology and Science deemed University (MITS-DU) Gwalior. Padmashri Dr. Kapil Tiwari and former IAS and writer Manoj Shrivastava were invited as judges.



Shreya Sharma member of Hindi Samiti, Archana Prajapati and Harsh Bhardwaj students of Mechanical Engineering second year and the students of MITS and other institutes participated with great enthusiasm.

‘माना एक लड़की हूँ, मगर कमजोर नहीं,
बातों से दब जाऊँ, मैं वो दस्तूर नहीं।
बिजलियाँ गिरा दूँगी मैं एक मुस्कान से
और शेरनी की दहाड़ हूँ, कोई मजबूर नहीं।’

- Shreya Sharma

EVENTS AND ACTIVITIES

Prabhat Murti Kala Kendra

Outreach Activities

28 February 2025

Kala Kendra

Moti Jheel Gwalior

Some bright students of Mechanical Engineering department, Madhav Institute of Technology and Science (MITS-DU), Gwalior were shortlisted on the basis of their marks of the subject Design of Machine Elements (DOME) to go on an



Educational trip to Prabhat Murti Kala Kendra, Moti Jheel Gwalior. At Kala Kendra, students observed skilled artisans crafting intricate statues using traditional techniques and tools. The experience sparked curiosity about material properties, design precision, and real-world manufacturing processes.

EVENTS AND ACTIVITIES

Hackathon 2k25

Code Coalescence

28 February 2025

College Campus

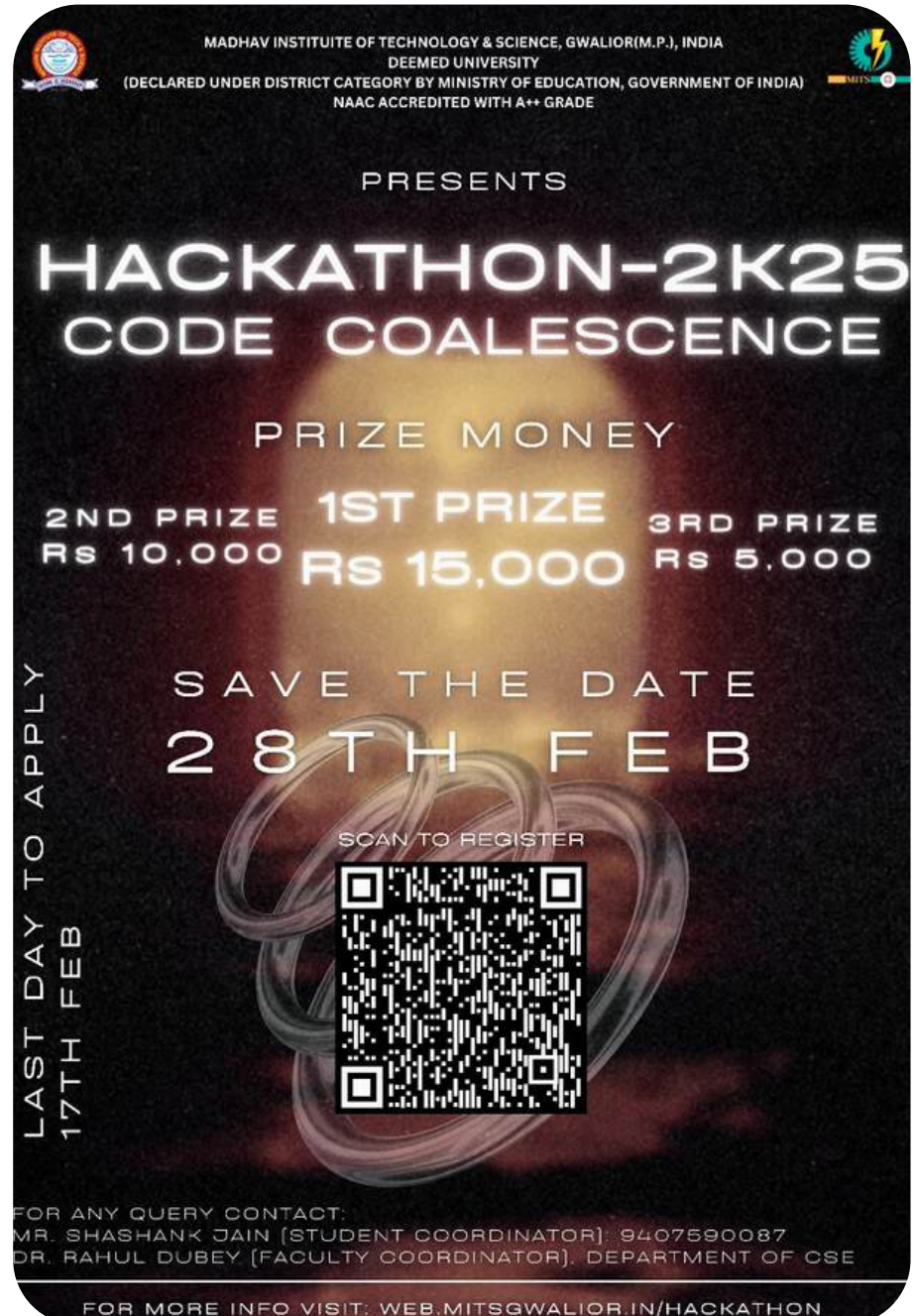
MITS-DU Gwalior

Madhav Institute of Technology and Science (MITS-DU), Gwalior organised a Hackathon - **Code Coalescence** with a prize pool of Rs. 30k. Students were given problem statements and had to **code** the solution for them.

It was a 12 hour Hackathon. Dr. Rahul Dubey, Department of CSE was the Co-ordinator of the event. Students participated with great enthusiasm.

The Hackathon served as a great motivation for students to test and showcase their coding skills under pressure. It encouraged creative problem-solving and teamwork, helping participants gain confidence in

real-time development. Harsh Bhardwaj, student of Mechanical Engineering, Krishna Kant, student of ECE and Prathmesh Gaur student of IT IOT participated in the preliminary round and pitched their idea of 'real time end-to-end trackable delivery system for India Post'.



EVENTS AND ACTIVITIES

Great Personalities at MITS

Aarunya - Annual Fest

7 March 2025

College Campus

MITS-DU Gwalior



Shrimant Mahanaaryaman J. Scindia was invited as the chief guest at the inaugural ceremony of Aarunya 2025. Renowned singer Rahgir performed his beautifully written tracks and DJ Aaliya made students of MITS-DU dance on her beats in the DJ night. It's been a majestic event, a night full of excitement, ebullience and high spirits. A day worth remembering.

‘मैं काम कर रहा हूं मेरी सारी खामियों पे
कल ये मारेंगे ताली मेरी कहानियों पे’

Rahgir



EVENTS AND ACTIVITIES

Lafz-e-Bayan

Nazm Canvas

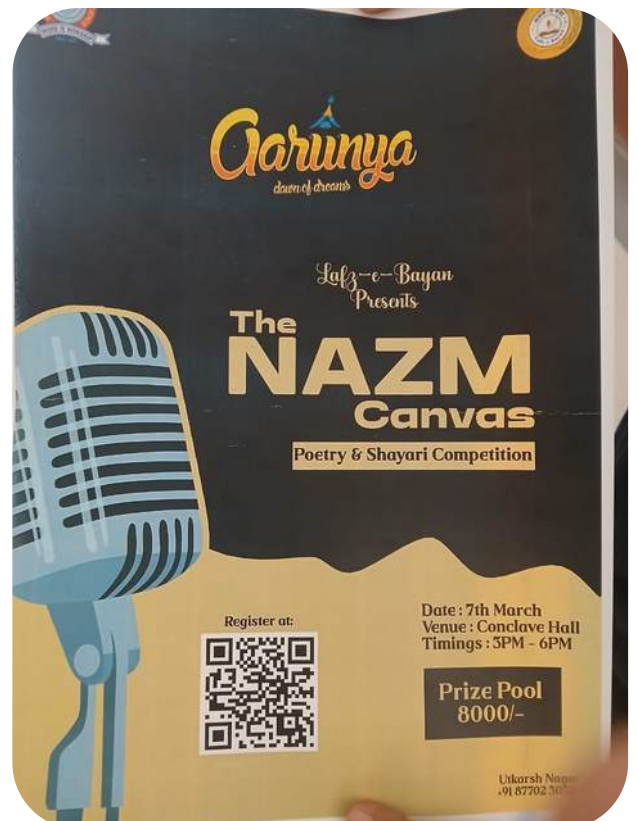
8 March 2025

Seminar Hall 10

MITS-DU Gwalior



Lafz-e-Bayan Club organised The Nazm Canvas - Poetry Competition in Aarunya 2025. Harsh Bhardwaj student of Mechanical Engineering secured second position.



EVENTS AND ACTIVITIES

Annual Fest MITS-DU

Aarunya 2025

Annual fest of MITS-DU Aarunya (7 to 9 March 2025) was filled with many amazing cultural, traditional, technical and literary events ranging from quiz, essay writing, letter writing, research poster, speech, CAD, Go Kart, content creation, podcast and meditation to singing, dance, nukkad natak, poetry, debate, gaming, pottery, open mic, treasure hunt and the performance of **Bandish - Music Club** of MITS Gwalior. It was a great experience. After the Valedictory Ceremony the function was concluded with the DJ Night.



"Raw hands, real art."



EVENTS AND ACTIVITIES

Extra Curricular Activities

Meritocracy Award

10 March 2025

College Campus

MITS-DU Gwalior

Divyansh Gupta, student of Mechanical Engineering MITS Gwalior received Meritocracy award which is presented for significant contribution in quality improvement as he served as the head of videography and photography team.



Students receive meritocracy awards from colleges for demonstrating **exceptional abilities** and achievements. Demonstrated ability to **lead and inspire** others in extracurricular activities, student organizations, or community involvement . These awards are based on the principle of meritocracy, where individuals are recognized and rewarded for their **talent, skills, and hard work**, rather than factors like social standing, background, or personal connections

STUDENTS NEWS

Cognizance IITR

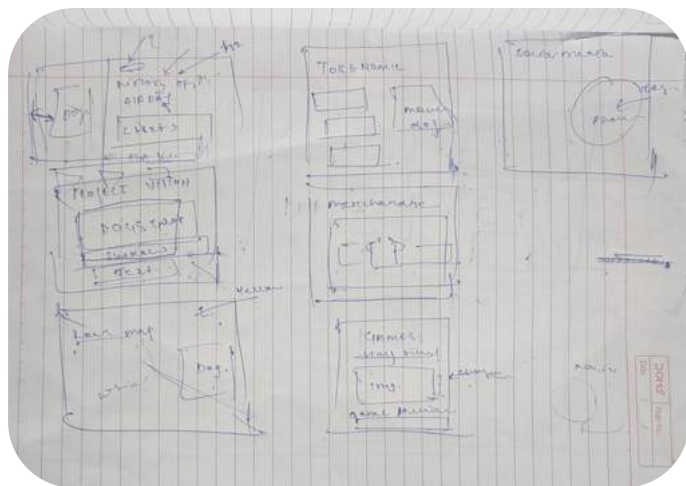
Outreach Club

12 February 2025

Centre for AI dept

MITS-DU Gwalior

Outreach Club of Madhav Institute of Technology and Science (MITS-DU), Gwalior and Centre of Artificial Intelligence (CAI) of Indian Institute of Technology (IIT), Roorkee organised a preparatory round for the Cognizance, IIT Roorkee General Championship (GC) 2025. There were two events namely Snap Syntax and



student of Mechanical Engineering 2nd year pitched the idea of Harsh Bhardwaj, student of Mechanical Engineering 2nd year, secured third position and got selected to pitch the business idea in Cognizance at IIT Roorkee.

GC 2025 IIT Roorkee - MITS DU

Team Nostalgic Universe

Harsh Bhardwaj - Co Founder and CEO (ME MITS Gwalior)

Krishna Kant - Co Founder and CTO (ECE MITS Gwalior)

Luv Kushwah - Co Founder and Product Manager (IT Amity Gwalior)

Krishna Shukla - Co Founder and Graphic Designer (ECE ITM Gwalior)

Dhruv Tomar - Co Founder and UI/UX Designer (CSE HCST Agra)

Presented by Team BYTE ME

Shreya Sharma - 0901ME231088 (ME MITS Gwalior)

Harsh Bhardwaj - 0901ME231040 (ME MITS Gwalior)

Krishna Kant - 0901EC231065 (ECE MITS Gwalior)

Prathmesh Gaur - 0901IO231044 (IT IOT MITS Gwalior)

Sumit Thakur - 0901AI231071 (AIDS MITS Gwalior)

Innowave. In Snap Syntax, students were shown a website for 10 seconds to draw and were given 3 hours to code the website. In Innowave students had to pitch their startup Ideas. Dr. Ankit Tiwari, Startup Cell, MITS Gwalior was the judge of the event. Students participated with great enthusiasm in teams of 5 and pitched great business ideas. Team BYTE ME, under the leadership of Shreya Sharma,



STUDENTS NEWS

Cognizance Certificates



Congratulations
and best wishes!

STUDENTS NEWS

Aarunya Prize Distribution

9 March 2025

Colloquium

MITS-DU Gwalior

Lafz-e-Bayan Club organised The Nazm Canvas - Poetry Competition in Aarunya 2025. Students from MITS and other institutes participated in the event. Dr. Chandra Shekhar Malvi, Head of Mechanical Engineering



department and renowned poet Nazeer Nazar were invited as the judges. Harsh Bhardwaj, student of Mechanical Engineering second year secured second position in the competition and got the honour to receive the trophy, certificate and cash prize from Dr. R.K. Pandit, Director, MITS and all the dignitaries.



‘इस सब के बावजूद भी वो नई उम्मीद ले आता है होती है बस दो घड़ी वो फिर सब पे छा जाता है’

- Harsh Bhardwaj

STUDENTS NEWS

Compound Gear Train

IV Sem Project

24 March 2025

Welding Shop

MITS-DU Gwalior

Students of Mechanical Engineering 4th Semester, Madhav Institute of Technology and Science (MITS-DU), Gwalior made Skill based mini projects (SBMP) of the subject Dynamics of Machines (DOM).



Some projects worth paying attention were Gear box, Vibration analysis apparatus etc. One such project was Compound Gear Train made by the group of four students, Shreya Sharma, Shivani Bhagel, Priyanka Narwariya and Harsh Bhardwaj. A compound gear train consists of multiple gears mounted on the same shaft, allowing



higher speed reduction or increase in a compact space. It combines simple gear trains to transfer motion and torque efficiently. These systems are used where large velocity ratios are needed, such as in watches, automobiles, and machinery. Torque and speed can be adjusted precisely.



ALUMNI NEWS

ISRO Scientist Visit

Alumni Seminar

28 January 2025
Conclave Centre
MITS-DU Gwalior



Madhav Institute of Technology & Science, Gwalior (M.P.), INDIA
Deemed University
NAAC ACCREDITED WITH A++ GRADE

GALACTIC HORIZON
EXPLORING THE FRONTIERS OF SPACE RESEARCH!!

- ✓ INTERACTION WITH A LEADING EXPERT
- ✓ OPPORTUNITIES IN SPACE EXPLORATION
- ✓ RESEARCH INITIATIVES
- ✓ INSIGHTS INTO ISRO'S LATEST SPACE MISSIONS

Mr. Akhilesh Sharma
Scientist(SG)
Space Application Centre, ISRO
MITS Batch (1995-1999)

Venue
Conclave centre

Date - Time
28th Jan 4:00 P.M.

Join Now!

Shubhra Singh 96191317726



The Aerospace Club of Madhav Institute of Technology and Science (MITS-DU), Gwalior organised a Seminar on Space Research and Exploration - Galactic Horizon. MITS Batch (1995-1999) alumni Mr. Akhilesh Sharma, Scientist (SG) Space Application Centre, ISRO was invited as the speaker. He shed some light on the opportunities in space exploration,

research initiatives and ISRO's latest space missions. He inspired and guided students to research and innovate in the field of space. Head of the Department Dr. Chandra Shekhar Malvi, Assistant Professor Dr. Nitin Upadhyay and event Co-ordinator Dr. Surendra Kumar Chourasiya were present during the event.

"That's one small step for a man,
one giant leap for mankind"

- Neil Armstrong



STUDENT WRITINGS

The Return of the Dire Wolves: Science Reawakens an Extinct Legend

are we ready for what comes next?

In April 2025, an American biotechnology and genetic engineering company, Colossal Biosciences, publicly announced that they had brought back the “Dire Wolf”—an animal we had only read about in books or seen in movies. These prehistoric wolves went extinct around 12,500 to 13,000 years ago during the Late **Pleistocene period**. Now, with the help of science, they have been revived and brought back into the world.

The Dire Wolf (Scientific name: *Aenocyon dirus*) was a powerful predator during the **Ice Age**. Dire wolves were bigger, stronger, and heavier than normal wolves. They were known to hunt animals even larger than themselves, like bison and mammoths. People may have seen the Dire Wolf in the world-famous TV series **Game of Thrones**. In the show, each Stark child had their own dire wolf. The dire wolf was also the symbol of House Stark, representing their strength and loyalty.

Scientists at Colossal studied the **DNA** from two fossil samples of the dire wolf—a 13,000-year-old tooth and a 72,000-year-old ear bone. They then compared this DNA with the DNA of modern wolves and dogs.

They found 14 important **genes** responsible for the dire wolf’s large body size, strong jaws, and fur color. After that, they made 20 gene edits in the embryos of domestic dogs, which led to the birth of puppies that look like dire wolves.



In October 2024, two genetically modified Dire Wolf pups were born—Romulus and Remus. Then, in January 2025, another pup was born—**Khaleesi**. The names Romulus and Remus were taken from **Roman mythology**. The name Khaleesi was inspired by the **Game of Thrones** character Daenerys Targaryen.

The return of the Dire Wolf is a major **scientific achievement**. In the future, we might be able to revive other species that are going **extinct**. But it’s also possible that one day, this could become dangerous for us. Only time will tell.

-Divyanshu Bhadouriya

ME 2nd Yr.

STUDENT WRITINGS

Proof that passion, simplicity, and staying curious can truly change the world

The Man Who Thought Different: Steve Jobs

Steve Jobs was born on February 24, 1955. He is best known as the man who created Apple, the company behind the iPhone, iPad, and Mac. But Steve was more than just a tech genius—he was a dreamer who changed the way we live.

Many people know him as the face of Apple, but not many know that he once dropped out of college because he didn't want his parents to spend money on something he didn't enjoy. Instead, he followed his curiosity. He learned **calligraphy**, which later helped make the Mac's fonts beautiful. He was also fired from Apple, the company he started, but he didn't give up. He built another company called NeXT and also helped **Pixar** become a big name in animation.

Steve believed in keeping things simple and putting love into every product. He said, "**Stay hungry. Stay foolish.**" That means never stop learning and always be open to new ideas.



Jobs was not perfect, but he showed the world that passion, focus, and believing in your vision can lead to magic. He taught us that it's okay to be different—as long as you stay true to yourself.

His story inspires us to think big and never stop chasing our dreams.

"The people who are crazy enough to think they can change the world are the ones who do."

PROGRAM OUTCOMES

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

- Graduates of the program will be able to have successful professional career.
 - Graduates of the program will be able to develop attitude of learning and become adaptable to dynamic industrial and social environment.
 - Graduates of the program will be able to design and develop mechanical system by using skills and knowledge of core competency along with allied engineering skill.
 - Graduates of the program will be able to undertake interdisciplinary research needed to build a sustainable society.
-
- Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
 - Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
 - The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
 - Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
 - Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PROGRAM OUTCOMES (POs)

Mechanical and Automobile Engineering Graduates will be able to:

- Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

NEWSLETTER COMMITTEE



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‘अकेला ही चला था जानिब-ए-मंज़िल मगर,
लोग साथ आते गए और कारवाँ बनता गया”

- मजरुह सुल्तानपुरी



Darpanam

दर्पणम्



**We welcome your recent news for
inclusion in our next newsletter.
Please email your updates to
rescuebird18@gmail.com**

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