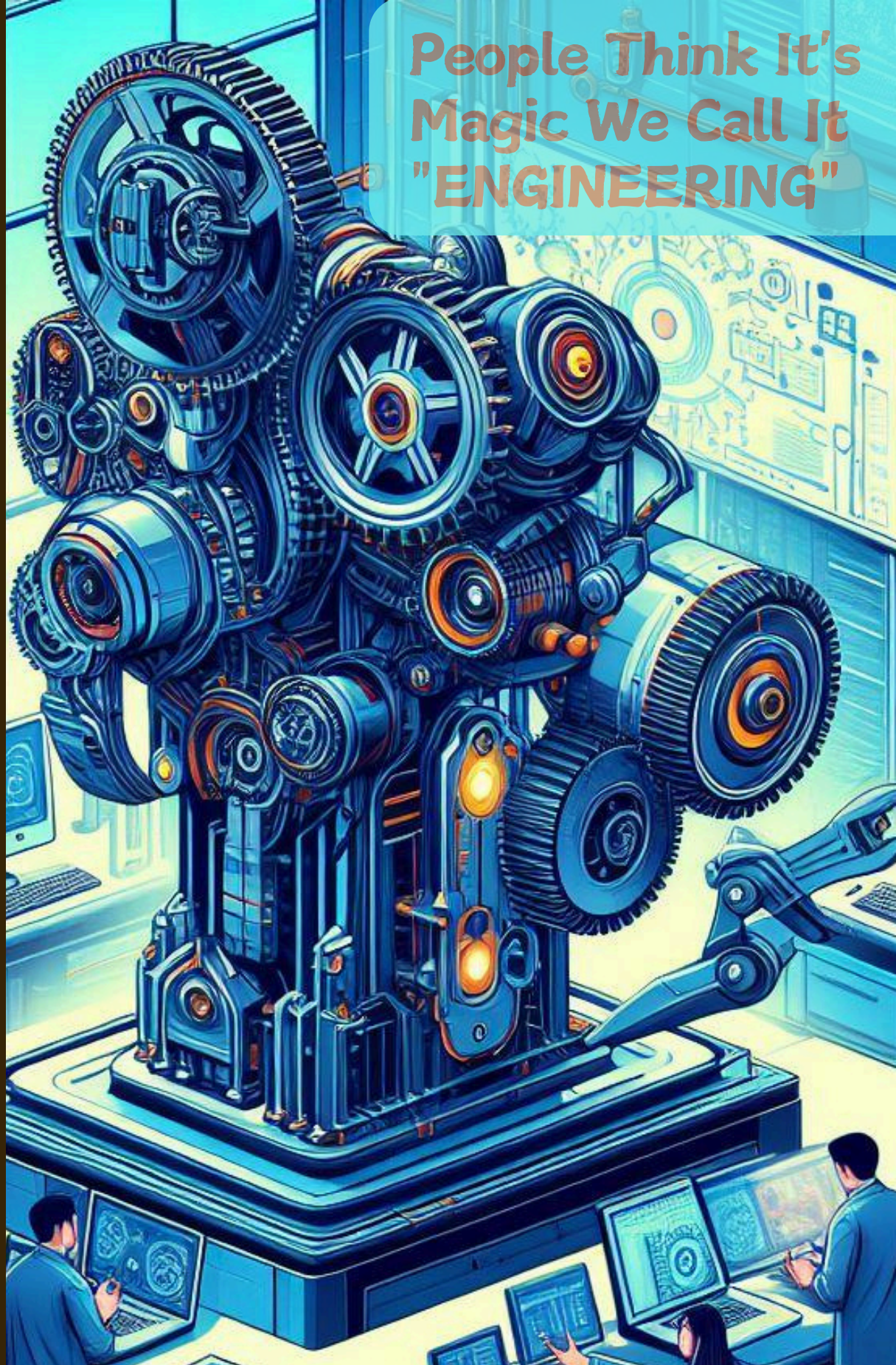


MECH-ZINE

EDITION 23



People Think It's
Magic We Call It
"ENGINEERING"

MAHARASHTRA
INSTITUTE OF
TECHNOLOGY

2K
24



Forward From Editorial Team

Mechzine stands as the flagship quarterly newsletter and magazine representing the **Department of Mechanical Engineering**. As members of the editorial board, we take great pleasure in offering our readers a diverse array of articles spanning various fields. The active participation and achievements of our students have inspired our writers to explore a multitude of captivating topics for your enjoyment.

Beyond academic pursuits, our students are deeply engaged in numerous extracurricular activities and organizations. This edition radiates with energy, particularly highlighting the vibrant activities of **MESA** and **MCED**. Additionally, our newly introduced photography section promises to be a repository of captivating imagery, showcasing monumental moments.

We trust that this visually captivating edition of "**MechZine**" will captivate and inspire our readers.



DR. A. J. KECHE
(PATRON EDITOR)

PROF. M. N. FAROOQUI
(EXECUTIVE EDITOR)



President And Editors Note!

The Department of Mechanical Engineering proudly introduces the **MECHZINE** Committee, an integral part of our departmental magazine initiative. **MECHZINE**, short for Mechanical Engineering Magazine, is dedicated to nurturing student engagement and development within our academic community.

MECHZINE aims to cultivate interactive skills, problem-solving abilities, time management, and various personality and socializing skills among students. It strives to be a cornerstone in the holistic development of students as engineers through a spectrum of co-curricular and extra-curricular activities. **MECHZINE** endeavors to instill awareness and appreciation of diverse disciplines within its readership.

The **MECHZINE** Committee was established with the welfare of departmental students in mind, with office bearers selected through personal interviews for various positions. It operates under a structured hierarchy comprising a President, Chief Editor, and Heads of Multidisciplinary Activities. Guided by Prof. M.N. Farooqui, the Faculty Advisor of **MESA & MECHZINE**, the committee meticulously plans its yearly calendar of events and activities to benefit its readership and contribute to their overall growth.



GANESH MALI
(President)



CHIRAGDEEP PATIL
(Chief Editor)



MECH-ZINE OFFICE BEARERS

Editor-in-Chief

CHIRAGDEEP PATIL

Creative Editor

ADITYA PHULBADVE

ANUJA WAGHMARE

Typography Editor

MAYUR RAKDE

SUJAY JAGDALE

SUDARSHAN SALVE

Technical Lead

DIPALI PAWAR

AKSHAY RATHOD





CONFERENCE PUBLICATIONS

01

Sameer Pitale, Ashok J. Keche, Swamini Chopra

Title Of Paper: Investigations on the Effect of Vapor Smoothing Process in Trichloromethane(Chloroform) on the Surface Characteristics, Mechanical Properties and Chemical Structure of 3D Printed Poly-lactic-acid (PLA)

02

Prajakta Mane, Ashok J. Keche, Swamini Chopra

Title Of Paper: Correlation of Wear Behavior of PBT/PC Blend with Crystallographic Structure: A Comprehensive Study on Wear Rate and Crystal Structure

03

Sanjay S.Surwase, Santosh P. Bhosle, Ashok J Keche

Title Of Paper: A Simulation Study of Residual Stress and Distortion in Laser-Welded Joints of Structural Steel

04

Dattatray Sadashiv Doifode, Ashok J. Keche

Title Of Paper: Investigating Hydrogen's Role in CI Engine Performance Enhancement Through Varied Approaches for Sustainable Future

05

Prashant H. Jain, Santosh. P. Bhosle, Ashok J Keche

Title Of Paper: Comparison of non-linear vibration of outer race defective ball bearing using two defect functions



BOOK PUBLICATIONS

01

I.A. Glover and P.M. Grant (Authors)

Title Of Book: Digital Communications

02

Dr. Swamini Chopra (Editor)

Title Of Book: Extraction Metallurgy - New Perspectives

INVENTION

01

Swamini Chopra

Title Of Invention: A blend of Poly Trimethylene Terephthalate and Poly Propylene and Process for preparation



JOURNAL PUBLICATION

01

Prashant H. Jain, Santosh. P. Bhosle, Ashok J Keche

Title Of Journal: Noise and Vibration Worldwide

Title Of Paper: Comparison of non-linear vibration of outer race defective ball bearing using two defect functions

BOOK CHAPTER

01

Prashant H. Jain, Santosh. P. Bhosle, Ashok J Keche

Title Of Book: Recent Advances in Mechanical Engineering, Volume 1

Title Of Chapter: Analysis of Vibration of a Rotor-Bearing system caused by Radial Clearance. Number of Balls & Rotor Speed



एमआयटी महाविद्यालयात आयोजित विशेष प्रशिक्षणाच्या समारोप कार्यक्रमात विद्यार्थ्यांसह उपस्थित मान्यवर.

१६ विद्यार्थ्यांना विशेष प्रशिक्षण

लोकमत न्यूज नेटवर्क
छत्रपती संभाजीनगर : एमआयटी
महाविद्यालयातील यंत्र
अभियांत्रिकीमध्ये शिक्षण घेणाऱ्या १६
विद्यार्थ्यांना उद्योग क्षेत्रातील
अत्याधुनिक तंत्रज्ञानाची माहिती देणारे
१५ आठवड्यांचे प्रशिक्षण देण्यात
आले. या विद्यार्थ्यांना मान्यवरांच्या
हस्ते प्रमाणपत्रही देण्यात आले.

एमआयटी महाविद्यालयात खासगी
उद्योगाच्या मदतीने 'एलिट
मॅन्युफॅक्चरिंग मास्टरी प्रोग्राम'चे
आयोजन केले होते. १५ आठवड्यांचे हे
प्रशिक्षण नकतेच पूर्ण झाले.

उद्योगातील तज्ज्ञ राजीव कुलकर्णी
यांनी इंडस्ट्री ४.०, क्यूसीटूल्स, ड्रॉइंग,
झापिंग, जिडी अँड टी, लीन
मॅन्युफॅक्चरिंग, रोबोटिक्स, ऑटोमेशन,
हिट ट्रीटमेंट, क्युएमएस या विषयांवर
मार्गदर्शन केले. या प्रशिक्षणाचा
समारोप एमआयटीचे महासंचालक डॉ.
मुनीश शर्मा, उद्योजक मैथिली
तांबोळकर, जॉर्डि फ्रिक्सा, संचालक
डॉ. नीलेश पाटील, राजीव कुलकर्णी
यांच्या उपस्थितीत झाला. यंत्र
अभियांत्रिकी विभागप्रमुख डॉ. अशोक
केचे यांनी प्रास्ताविक केले. प्रा. संतोष
कलकर्णी यांनी सत्रसंचालन केले.



**UNVEILING
BRILLIANCE:
CONCLUSION OF
THE ELITE
MANUFACTURING
MASTERY
PROGRAM**

The Elite Manufacturing Mastery Program has reached its conclusion, marking the end of an incredible journey for 17 bright students from the Mechanical Engineering Department. Over the past 15 weeks, these students have poured their hearts and minds into mastering the modern manufacturing, demonstrating both passion and skill along the way.

Their collaborative efforts have been nothing short of inspiring, as they pooled their collective intelligence to overcome challenges and seize opportunities. With determination in their hearts and endless possibilities in their minds, they're ready to embark on the next phase of their journey, eager to leave their mark on the world. Congratulations to the trailblazers of the Elite Manufacturing Mastery Program



GLOBAL PERSPECTIVES: INSIGHTS INTO HIGHER EDUCATION OVERSEAS

Seminar on Study Abroad Opportunities

KC overseas[®] education



KC Overseas Education
In Association with
**Maharashtra Institute of Technology
Ch. Sambhajinagar**
Department of Mechanical Engineering

THURSDAY
🕒 16th February '24
🕒 2:15 pm to 3:15 pm

Speaker 🗣️



Mr. Vipin Mokadam
Assistant Vice President
Branch Operations

In the Presence of Honourable

Director: Dr. Nilesh Patil
HOD, Mechanical: Dr. Ashok Keche
Faculty Co-ordinator: Mr. Abhay Gore



KC Ch. Sambhajinagar
1st Floor, Lodha Tower, Behind Gopal Cultural Hall, Opp. AP heights,
New Osmanpura, Ch. Sambhajinagar- 431005
Contact : 90283 87666 | Email: sambhajinagar@kcoverseas.com



Glimpse

The expert lecture was organized by Mechanical Engineering department on 16th January 2024. The speaker was Vipin Mokadam (Assistant Vice President) Branch Office, KC Overseas Education. The speaker highlighted the importance of higher education abroad. And answered queries about various study destinations and accessibility to resources for students.

The event was coordinated by Prof. A.S.Gore and Prof.M.N.Farooqui. The event started by felicitation of the speaker and address by Head of Department Dr.A.J.Keche. The event was attended by students of TY and B.Tech Bamu as well as BATU.

NAVIGATING MECHANICAL ENGINEERING CAREERS:

Seminar Insights



Glimpse

**WORKSHOP ON
SAP**

**THE LARGEST JOB
OPPORTUNITIES IN THE WORLD**

In The Presence of Honorable
 Director: Dr. Nilesh Patil
 Dean Training and Placement Cell: Dr. Saurabh Tayade
 Head Of Mechanical Department: Dr. A.J. Keche
 Training and Placement Head: Trishul Kulkarni

Speakers
G-TEC MEMBERS
Mr. BINU MATHEW | **Mr. JAYAKUMAR MITTU**
 DIRECTOR | SAP TRAINER

Maharashtra Institute of Technology (MIT), Aurangabad
DATE: 12 -FEB-2024 | TIME: 2:15 PM
G-TEC JAINx EDUCATION
 First Floor, Sai Trade Center, Near Railway Station, RTO Road, Aurangabad.
 ☎ 91 98225 98576, 89569 95327, 89066 63009, 89569 95326.

On February 15th, 2024, the Mechanical Engineering department hosted a seminar in collaboration with CAD-CAM Guru, focusing on the diverse career opportunities within the field. Coordinated by Professors M.N. Farooqui and A.S. Gore, the event drew students from various academic levels, eager to explore their future paths. Head of Department, Dr. A.J. Keche, set the tone with an opening address, emphasizing the importance of informed decision-making.

The seminar delved into domains ranging from automotive design to aerospace engineering, offering a comprehensive view of potential career trajectories. Through engaging discussions and expert insights, students left the seminar equipped with newfound clarity and inspiration, ready to navigate their way towards rewarding careers in mechanical engineering.



EV INSIGHTS: Advancing Thermal Management Techniques



I Recently Attended the "2 Day Proficiency Improvement Programme on Thermal Management of EV Battery" at ARAI-FID in Chakan, Pune, and It Was an Enriching Experience. The Program Provided a Comprehensive Overview of Thermal Management Techniques Specifically Tailored for Electric Vehicle (EV) Batteries.

The Sessions Were Well-Structured and Covered a Wide Range of Topics Including Heat Generation Mechanisms in EV Batteries, Various Thermal Management Strategies Such as Active Cooling, Passive Cooling, and Phase Change Materials, as Well as Real-World Case Studies and Practical Demonstrations.

The Instructors Were Highly Knowledgeable and Experienced in the Field, and They Effectively Conveyed Complex Concepts in an Understandable Manner. The Interactive Nature of the Sessions Encouraged Participation and Facilitated Learning.

Overall, I Found the "2 Day Proficiency Improvement Programme on Thermal Management of EV Battery" to Be Extremely Beneficial. It Equipped Me with the Necessary Knowledge and Skills to Tackle Thermal Management Issues in EV Battery Systems Effectively. I Would Highly Recommend This Program to Anyone Involved in the Design, Development, or Maintenance of Electric Vehicles.

Chiragdeep Ishwar Patil
SY-A

