



MIT

Academy of
Engineering

(An Autonomous Institute Affiliated to Savitribai Phule Pune University)

अभियंता

Newsletter of

**Mechanical Engineering
Department,**

**MIT Academy of
Engineering, Alandi,
Pune.**

(July 2023 to Jan 2024)

Vision:-

To become the advanced center of learning by synergizing teaching, learning and cutting-edge research activities to produce ethical and competent Mechanical Engineers with exposure to multidisciplinary knowledge.

Mission:-

- 1. To prepare industry-ready students through quality education thereby enhancing their cognitive and non-cognitive skills.**
- 2. To flourish and profuse ecosystem to accomplish the highest levels of engineering competency.**
- 3. To impart and facilitate a state of the art education for multidisciplinary research.**

1. MOUs signed

- MOU signed between MITAOE- School of Mechanical Engineering and QLSS Business Consulting, Pune on 21/12/2023 for internship, YLIP, projects, industrial visits etc.



- MOU between Devrai Art Village and MIT AOE signed on 21/10/2023 for Indian Knowledge System: Indian Metallurgy for imparting training, student internship, collaborative project, expert lecture, faculty development. which is coordinated by Dr. P. C. Jikar & Dr. A. R. Nagargoje.



- School of Mechanical Engineering signed a MOU with TKT Consultancy Pvt. Ltd. for YLIP/SLIP on 18/09/2023 coordinated by Mr. V. P. Kulkarni.



2. Workshops/FDPs/Conferences :

- Mr. S. B. Powar completed the AICTE Evaluated 2- Week Patent Course organized by Turnip Innovations and facilitated by Dr. Rahul Kapoor during 25/09/2023 to 08/10/2023.



- Dr. Prashant Jikar, has completed the One week Faculty Development Programme on NEP 2020 Orientation & Sensitization under “Malaviya Mission Teacher Training Programme (MM-TTP)” of University Grants Commission (UGC) Organized by UGC -Malaviya Mission Teacher Training Centre (Formerly UGC Human Resource Development Centre) Savitribai Phule Pune University, Pune -411007 from 15/12/2023 To 29/12/2023



- Mr. R. A. Patil attended one week FDP on “Machine Learning Applications for Mechanical Engineers “organized by CVR College of Engineering during 18-23 Dec 2023.



- Mr. Sudesh B Powar participated in International Conference on “Mechanical and Energy Technologies (ICMET-2023)” organized by Mechanical Engineering of Galgotias College of Engineering & Technology, Greater Noida on 07-08 December, 2023 and presented a paper entitled “Structural And Vibration Analysis of Lattice Type Truss Bridge”.



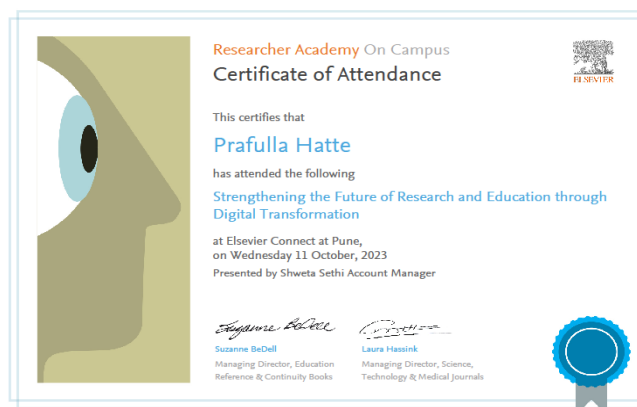
- Dr. Renu Kiran Shastri participated in the AICTE Recognized Faculty Development Programme on “Applications of VR/AR in manufacturing” Conducted by Mechanical Engineering Department from 18/12/2023 to 22/12/2023 (One Week) at NITTTR, Chandigarh.



- Dr. Renu Kiran Shastri participated in 10 Hours National Faculty Development Program on “ChatGPT and Prompt Engineering” organized by Bharati Vidyapeeth College of Engineering - Navi Mumbai, NRI Institute of Technology - Vijayawada and Sreenidhi Institute of Science & Technology – Hyderabad in Collaboration with ExcelR Edtech Pvt. Ltd. Date: 18th Dec to 22nd Dec 2023.



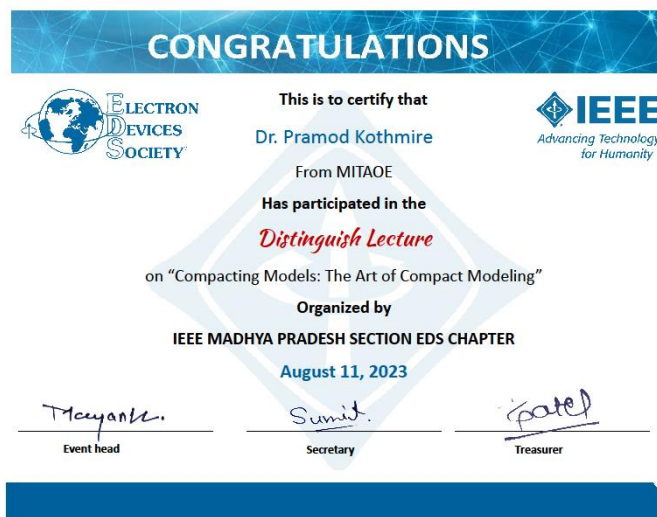
- Dr. Maya Charde attended Faculty Development Program on "Outcome-based Education" on 14th, 15th and 18th Dec 2023 under CELT, MIT Academy of Engineering. The speaker for the said FDP was Dr. Shaila Subbaraman (PhD-IIT Bombay and Retired Prof from Walchand COE, Sangli).
- Dr. Maya Charde attended Faculty Development Program on "Outcome-based Education" on 14th, 15th and 18th Dec 2023 under CELT, MIT Academy of Engineering. The speaker for the said FDP was Dr. Shaila Subbaraman (PhD-IIT Bombay and Retired Prof from Walchand COE, Sangli).
- Mr. S. B. Powar participated in the NPTEL E-awareness workshop on 30/11/2023.
- Dr. Prafulla Hatte attended the Elsevier event "Strengthening the Future of Research and Education through Digital Transformation" on 11th October 2023.



- Dr. V. A. Bhosale completed online IUCEE course on “Engineering Education Research Course” during 29/9/2023 to 30/09/2023.



- Dr. Pramod Kothmire participated in the Distinguished Lecture on "Compacting Models: The Art of Compact Modeling" organized by the IEEE Nanotechnology Council Student Chapter Indian Institute of Technology Indore and the IEEE Sensors Council Student Chapter Indian Institute of Technology Indore on 11/08/2023.



- Dr. M. M. Charde, Mr. S. B. Powar has successfully completed Five Days Faculty Development Program on "Recent Trends in Exergy and Sustainability" organized by IICHe Students' Chapter, School of Chemical Engineering, MITAOE during 21 August to 25 August 2023.



- Dr. Prafulla Hatte completed 7 days course on "Product Management" from 9th to 15th August organized by Turnip Innovations.



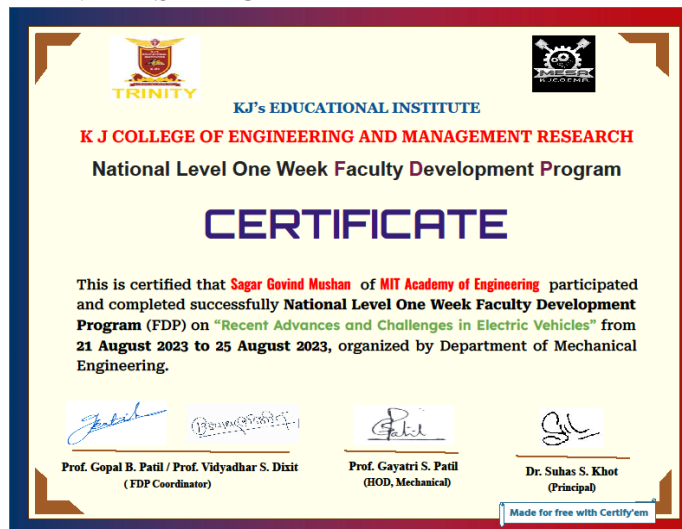
- Mr. N. S. Rashinkar and Dr Maya M Charde has successfully attended one week industrial training during 07/08/23 to 13/08/23 on "Material testing and procurement" at High Design Technologies Pune.
- Mr. S. B. Powar participated in 5 Days Online International Faculty Development Program on "NLP and ChatGPT APPLICATIONS" organized by SECAB Institute of Engineering & Technology in Collaboration with ExcelR Edtech Pvt. Ltd. during 14th Aug to 19th Aug 2023



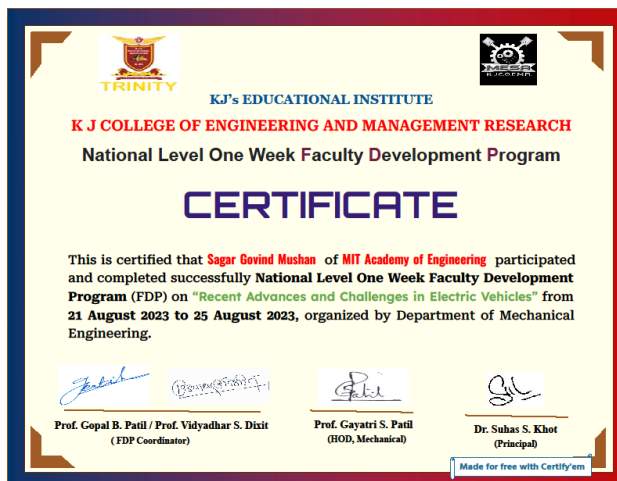
- Dr Prashant Jikar has participated in the Two-Day FDP on "Implementation of Indian Knowledge System (IKS) for NEP 2020" organised on 8th and 9th August 2023.
- Dr. M. P. Joshi attended 10 days Idea to Patent Course by Turn-ip Innovations Pvt. Ltd. from 09/08/2023 to 18/08/2023.



- Mr. S. G. Mushan Completed successfully National Level One Week Faculty Development Program (FDP) on “Recent Advances and Challenges in Electric Vehicles” from **21 August 2023 to 25 August 2023**, organized by K J COLLEGE OF ENGINEERING AND MANAGEMENT RESEARCH



- Dr. V.A. Bhosale and Mr. A. J. Asalekar attended Online One Week course on “Recent Advances and Challenges in Electric Vehicles” at K J COLLEGE OF ENGINEERING AND MANAGEMENT RESEARCH during 21 August 2023 to 25 August 2023.



- Dr. Maya M. Charde attended One Week FDP (Hybrid Mode) organized by DEPARTMENT OF MECHANICAL ENGINEERING, SVERI's College of Engineering, Pandharpur on "UNLOCKING INNOVATION: EXPLORING RESEARCH INNOVATIONS AND PATENTS" from 17th July to 22nd July 2023.
- Dr. Maya M. Charde attended the workshop "Generative Design: Unlocking the Power of Innovation" on 26.07.2023 in online mode.
- Dr. M. P. Joshi attended one week national online FDP on "Research Paper Writing & Publishing" during 1/7/2023 to 7/7/2023 organised by HI Learn edutech institute, Karnataka.



- Mrs. S. P. Kharat completed “Energy Literacy Training- 12 modules” under Energy Swaraj Foundation on 12/07/2023.

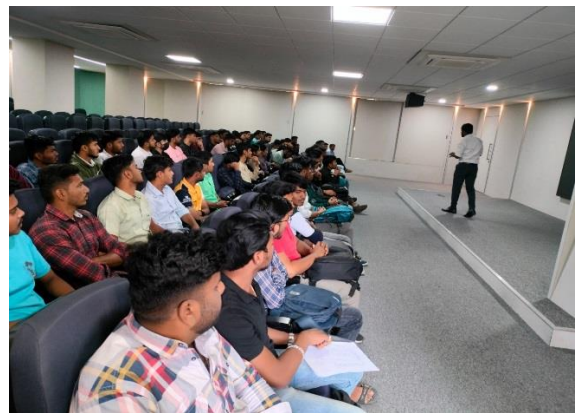


- Mr. R. K. Patil attended 5 days workshop on “Energy Systems and Modelling” organized by NIT Calicut during 26th to 30th June 2023.



3. Guest Lectures/Seminars/Webinars

- Mr. Ganesh Sakhalkar, 2020 Mechanical Engineering alumni, Executive Engineer, Reverse Engineering, TATA technology, delivered a talk on “Role of Costing and procurement Engineer in Core Industry” at Vishwajyoti Auditorium, CRPC, MITAOE on 24 January 2024.



- Mr. Rohit Daptardar, alumni from Mechanical 2017 batch, M.S. in Business Administration Australia, Sr. Executive Business Development at TUV Pvt. Ltd. delivered a talk on “Certification in Quality standards follow in Tier 1 and Tier 2 industry” for TY Mechanical engineering students on 15th January 2024.



- Mr. Shani Deshmukh, alumni from Mechanical 2017, Lead Quality Engineer, Research centre, TATA motors Pvt. Ltd. delivered a talk on "Driving Innovation: Charting the Future of the Automotive Industry with Insights from Our Esteemed Alumni" for Mechanical engineering students on 17th January 2024.



- Mr. Akshay Narad, Alumni from 2018 Mechanical batch Sr. Design Engineer, Daimler Truck Ltd Bangalore, delivered a talk to TY Mechanical regarding “Opportunities for Mechanical engineers in Automotive sector industries” on 4th Jan 2024 at 11.25 am in room no H011.



- Dr. Maya Charde, Mr N. S. Rashinkar and Mr. Sunil Devalwar celebrated Constitution Day, Janjatiya Gaurav diwas and death anniversary of Mahatma Phule on 28th Nov 2023 under "Equal Opportunity Centre". Session was conducted by Mrs. Shital Bandgar (Project officer , Pune District, Social Justice Department, BARTI). 80 students (E1 div and E3C batch) and (Bhagyashri Allhat and Dr. Kunjan Jungare) 2 faculties were present for the program.



- Mr. Mehul Patil, 2020 Alumni, Computer Engineering, Associate Software Engineer TIBCO Pune, delivered a talk on the “Impact of Data Science” for Mechanical engineering students on 26/10/2023.



- Mr. Pravin Wanjare an alumni of Mechanical Engineering 2018 batch working as Assistant Manager at JSW Steel Alibaug presented a talk on “Role of Supply chain management in the Fabrication Industry” on 13/10/2023 for Mechanical Engg. students.



- Mr. Deepak Waykar an alumni of 2019 batch of Mechanical Engg. delivered a talk on “EV Batteries Development and Simulink MATLAB to develop models” for Mechanical Engg. students on 07/10/2023.



- Mr. Krunal Jagtap –Founder & CEO of HAB Biomass Pvt. Ltd. delivered an expert lecture on “Failure mode effect analysis” on 11/10/2023 for the TY Mechanical Engg. students .

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In Association with Alumni Association School of Mechanical Engineering

Organising Expert talk on,
FAILURE MODE EFFECT ANALYSIS

Date :
 11th October 2023
At :
 08.30 AM
Location:
 H111, H Wing, MITAOE

MR. KRUNAL JAGTAP
 FOUNDER AND CEO

HAB BIOMASS PVT LTD

- Mr. Edwin Rajeev (Ph. D- CFD Coastal Engineering, M.S. - Aerospace Engineering at University of Florida & currently working as Project Engineer at Cummins USA) an alumni student delivered a motivational talk on “Career in CFD and abroad education” for Mechanical Engineering students on 05/10/2023.



- ROTARACT Club of MITAOE in collaboration with ROTARY Club of Pimpri Elite has organized a medical health check up by Pristine Ayur India Foundation on 5.9.2023 for all faculty & staff.



4. Industrial visit

- Dr. N. B. Totla & Dr. Ganesh Shete arranged an industrial visit to FLASH ELECTRONICS, Chakan, in association with ROTORACT Club of MITAOE and Rotary Club of Pimpri Elite on 13/01/2024 for TY Mechanical Engineering students.

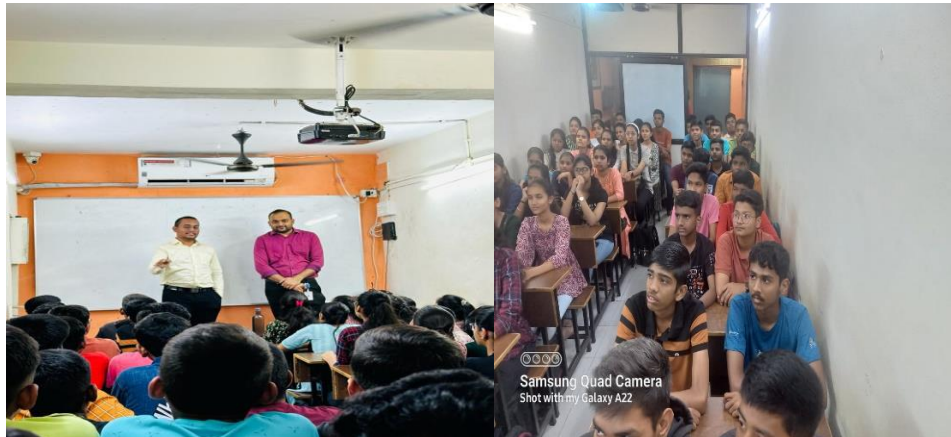


6. Departmental Achievement (Faculty)

- Mr. B. R. Patil invited as a judge for an event “Vigyantram” robotics event held at IIT Bombay during 20/01/2024 to 21/01/2024.



- Dr. Prafull Hatte has been shortlisted by TradeFlock Magazine for ‘Best Education Leaders in India 2024’.
- Dr. A. R. Nagargoje delivered A career guidance seminar titled "Mapping the Best Engineering Stream" on Monday, December 11, 2023, for the school students of Shree Swami Vivekananda Coaching Classes.



- 12 lacks grant received from AICTE PMKVY for 240 student Skill course project under the faculty coordinator Mr. V. N. Deshmukh.
- ISHRAE SRPG 1Lakh Grant shortlist at National Level Faculty advisor Prof. V N Deshmukh.
- MIT AOE collaboration with Rotary Club of Pimpri Elite is considered by Rotary International Foundations and has been given an ID along with district ID and the club title is Rotaract club of MITAOE with RC Pimpri.
- A patent has been granted to Dr. M.M. Charde & Mr. N. S. Rashinar on 10/11/2023 entitled “System and Method for Forces Measurement in Combined Face and Shoulder Grinding Operation.
- Grant received on 13/09/2023 for a Patent titled “Temperature measurement technique for combined face & shoulder grinding operation” filed by Dr. M. M. Charde & Mr. N.S. Rashinkar.



- A patent published by Dr. A.M. Malge along with Simran Mondal, Abhijit Amrutkar, Aditya Surve, Shruti Girhe 24 November 2023 entitled “Excreta Collecting and Dispensing Device and Method Thereof” with Application No.: 202321032844 filed on 09 May 2023.
- Dr. V. A. Bhosale completed NPTEL course on "Accreditation and Outcome Based Learning" with a Score of 67%.
- Dr. V. A. Bhosale completed successfully 12 weeks NPTEL course on “Social Innovation in Industry 4.0” with a Score of 85%.



NPTEL-AICTE Faculty Development Programme

(Funded by the MoE, Govt. of India)



This certificate is awarded to

VISHAL ASHOK BHOSALE

for successfully completing the course

Accreditation and Outcome Based Learning

with a consolidated score of **67 %**

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras



(Aug-Oct 2023)

Roll No: NPTEL23GE46S745102858

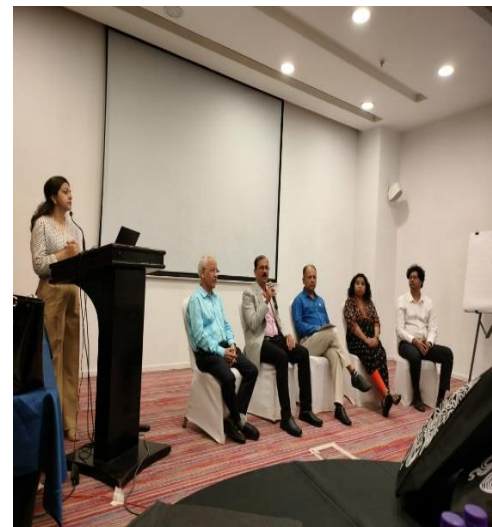
Duration of NPTEL course : 8 Weeks

The candidate has studied the above course through MOOCs mode, has submitted online assignments and passed proctored exams. This certificate is therefore acceptable for promotions under CAS as per AICTE notifications dated 24th July 2018, similar to other refresher / orientation courses. F.No. AICTE / RIFD / FDP through MOOCs / 2017-18

- A patent has been granted to Dr. P. R. Hatte on 09/11/2023 entitled “Fuel Blender For Use in Gasoline Engine for Blending Ethanol and Gasoline Fuel” for the term of 20 years from 10/03/2017.



- Dr. Prafulla Hatte was honored to be the Panelist in the Elsevier Connect Seminar on 11th October 2023 conducted by Elsevier at Hotel Crowne Plaza, Pune.



- IUCEE Student Chapter of MITAOE got considered as Consortium institute or organization from IUCEE Students foundations at International level on 7/10/2023.



- Dr. M. P. Joshi awarded with best Teacher of the Department, Mr. B. R. Patil awarded with Best outgoing performance of the Auto sports club, Dr. N. B. Totla, Dr S. B. Patil and Dr. G. V. Shete got appreciation for Readathon at MITAOE on the occasion of Teachers Day on 7/9/2023.
- Dr. Prafulla Hatte worked as a Session Chair in the International Conference on Innovations in Mechanical & Civil Engineering on 18th August. The conference was hosted by Pimpri Chinchwad College of Engineering, Akurdi, Pune.



- Dr. Prafulla Hatte conducted a one-day workshop on "Active Learning Approaches" for the faculty members of Vishwaniketan Institute of Management Entrepreneurship and Engineering Technology, Khalapur on 19th August.
- Dr. P. P. Kothmire presented a Technical talk on Electrocoalescer: Design Aspects for the following audience in the Student Mobility program i.e. Explore Engineering 2023 at the University of Putra, Serdang Malaysia on 25th August 2023.



- Dr. Prafulla Hatte conducted a spiritual session on “Happy Life” for the staff and workers of Pragati Press Tool Pvt Ltd on 21st August 2023 at the company premises.
- Mr. B.R. Patil & Mr. V.P.Kulkarni got the consultancy from Tejas Polymers, Bhosari MIDC of Rs. 17500/- for Problem statement: Design of trolley to vertical mixer.
- Certificate of appreciation awarded to Mr. Sudesh Powar for performing quality check of the translated files (e-content) in Marathi language for Applied Thermodynamics for Engineers (112103275) by NPTEL Swayam on 3/7/2023.



- A certificate of appreciation is awarded to Dr. V. A. Bhosale, Mr. V. N. Deshmukh in recognition of their role as Mentor for NPTEL online certification courses “Product Design & Manufacturing” and “Introduction to Industry 4.0 & Industrial Internet of Things” respectively during Jan-April 2023.



- Dr. Prafulla Hatte completed a certification training of Mentoria and is now a "Certified Career Counselor". This certification is completed at Ascend Level (Highest Level) with Gold Standard.



- Dr. S. B. Patil completed Module 6: Student Assessment & Evaluation of National Initiative for Technical Teachers Training organized by AICTE.



- Mr. S. G. Mushan has successfully completed IUCEE International Educator Certification Program fall 2023.



- MITAOE-ISHRAE Student chapter installation done at COEP Technological University, Pune on 26/10/2023 under the guidance of Mr. V. N. Deshmukh.



- Mr. B. R. Patil won prestigious “Dronacharya Award” in IKR 2023 held during 12th to 16th Oct 2023 at Delhi organized by ISIE India.
- Dr. Maya M. Charde received Best Case Study Award in the track Problem and Project based learning during Faculty Conclave 2023 organized by Center for Excellence in Learning and Teaching (CELT) in association with School of Mechanical Engineering and School of Civil Engineering at MIT Academy of Engineering (MIT AOE), Alandi, Pune on 7th July 2023.
- A patent has been granted to Dr. P. R. Hatte along with students Mr. Sumit Khobragade, Mr. Akshay Nimbokar, Mr. Rupesh Waje for an invention entitled MECHANISM FOR REMOVING LEAVES AND THORNS FROM ROSE FLOWER STEM for the term of 20 years from the 14th day of February 2019 in accordance with the provisions of the Patents Act, 1970.



6. Books published

- Advanced CFD 2022-23 batch - 9 papers are published as a Book Chapter at Fluid Mechanics and Fluid Power Volume 3, Springer Nature Scopus by the Mechanical Students under the guidance of Dr. P. P. Kothmire.

7. Research Publications

- A research paper published in American Chemical Society's I & EC journal by Dr. Pramod Kothmire entitled "Interplay of Residence Time Distribution and Electric Chaining Tendency due to Distributor Design Determine Electrocoalescer Performance".
- A research paper published by Dr. G. V. Shete titled "Effect of cutting parameters on various output responses for cryo-treated INCONEL X750 alloy" in : International Journal on Interactive Design and Manufacturing (IJIDeM) with Impact factor: 2.1.
- A research paper published by Mr. Amol J. Asalekar and Dr. V. A. Bhosale, titled "Convolutional Neural Network-Based Recognition of Human Hand Gestures for Smart Elevator Control," in 2023 International Conference on Network, Multimedia and Information Technology (NMITCON), Bengaluru, India, 2023, pp. 1-6, DOI: 10.1109/NMITCON58196.2023.10276075.

- Mr. Amol M. Kolhe presented paper Titled - "Development of Automation Based Gauging System using Internet of Things", during ICMME-2023 jointly organized by department of mechanical engineering, GLA University, Mathura (India) UFRGS, Porto Alegre (Brazil) held on 13th-14th October 2023.



- Dr. Pritam Kalos Published SCIE research papers as a part of collaborative research on “Solar irradiation-driven synthesis of biodiesel from composite oil using biomass catalyst and process parameters optimization”, Biofuels, Taylor and Francis, ISSN: 1759-7277. SCIE, impact factor 2.5. Research work is carried out in association with the Coimbatore Institute of Engineering and Technology, Coimbatore and Sri Krishna College of Engineering and Technology, Coimbatore, Tamil Nadu, India.
- Dr. Pritam Kalos Published SCIE research papers as a part of collaborative research on "Experimental and theoretical analysis of exhaust manifold by uncoated and coated ceramics (Al₂O₃, TiO₂ and ZrO₂)", Case Studies in Thermal Engineering ,Elsevier, Volume 50, 2023, 103465, ISSN: 2214-157X, SCIE, Impact Factor 6.8. Research work is carried out in association with the faculty of School of Aerospace Engineering, Universiti Sains Malaysia, Nibong Tebal, Penang, Malaysia and School of Mechanical Engineering, Vellore Institute of Technology, Vellore, India

8. Departmental Achievement (Student)

- MIT AOE Drone Team is the winner 🏆 at Government College of Engineering Avsari. Aurangabad in Dronix Event conducted during 19th & 20th January 2024.



- Rohit Kanherkar, Pranav Lohar, Yash Tajane, Varsha Auti, Sohan Londhe, Aashish Athavale, Ashutosh Gaikwad, Pratik Bendre, Kaustubh Shinde, Mayur Chaudhari, Poonam Rathod, Shivam Kapure, Pratham Nagarhalli, Satyam Lomate, Shaunak Inamdar, Vaishnavi Katkade, Ashish Kumavat, Sarthak Deshmukh along faculty coordinator Dr. Pramod Kothmire presented a total of 19 papers at FMFP 2023 10th International and 50th National Conference organized by IIT Jodhpur spanning various tracks such as CFD, Multiphase, Fluid Dynamics, among others. The students had the valuable opportunity to explore the IIT Jodhpur lab facilities and engage in insightful discussions with esteemed professors, offering them valuable insights for higher education and research pursuits during 20-22nd Dec 2023.



"FMFP 2023: A Journey Full of Unforgettable Experiences and Learning."



- Mr. Shreyash Meshram & Akhilesh Mishra in recognition of their outstanding performance in 'Avishkar,' a project competition organized by the research & development cell at mit academy of engineering, Alandi (d) on 27th September 2023.



- Team Niyudhrath Karting participated in IKR 2023 held during 12th to 16th Oct 2023 at Delhi organized by ISIE India and won :Championship: AIR- 1; Endurance: AIR- 1; Cross pad: AIR- 2; Acceleration : AIR- 2.



- Shivam Kapure a final year student of Mechanical Engineering won second prize of Rs. 5000/- at RefInnovate 2023 organised by ISHRAE PCCOE Student chapter on 14/09/2023 for “Idea Presentation” under the guidance of Mr. V. N. Deshmukh.



- Drone team of MITAOE won first prize at AISSMS on 22/09/2023 under the guidance of Mr. R. K. Patil.



- MIT Aero team has achieved AIR 1 in Design Report AIR 3 in Technical presentation at SAEISS Drone Development Challenge 2023 held at Chennai during 21/7/2023 to 23/7/2023.



- Mr. Pratik Desai a Direct second year students of Mechanical Engineering got appreciation from Dr. Imran Bashir a faculty of FHEA UK for his summer internship on “CAN BUS (Controller area network) at Teesside University Middleborough, United Kingdom.
- Mr. Sagar Borole – last year pass out student of Mechanical Engg. Got admission for Master program at Indian Institute of Technology Kharagpur in Industrial Engineer.
- Mr. Omkar Manapure – last year pass out student of Mechanical Engg. Got admission for Master program at Indian Institute of Information Technology Allahabad in Machine Learning (qualified GATE in Computer Engg.

Dean
School of Mechanical Engineering

Visibility Coordinator
Nitasha Chaudhari

