



Hope Foundation's  
**Finolex Academy of Management & Technology, Ratnagiri**



Volume 5 Issue 1  
(1<sup>ST</sup> JANUARY 2021 TO 30<sup>TH</sup> JUNE 2021)

# Department of Mechanical Engineering

## **MECHAZINE**

*Bi Annual Bulletin*

### **Editors:**

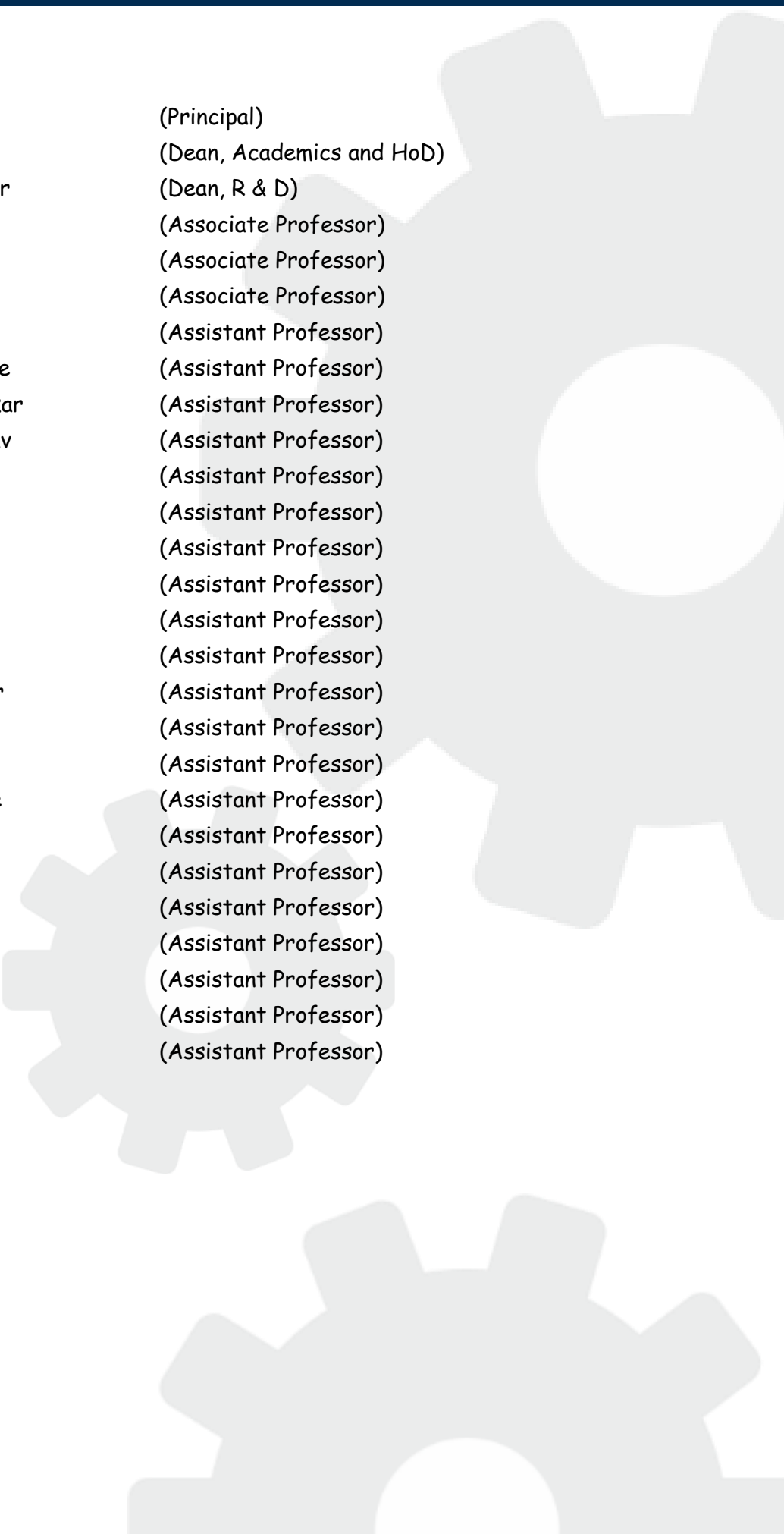
**Prof. Rushikesh M. Rasal**  
(Assistant Professor, Mechanical Engineering)

**Prof. Mandar S. Padhye**  
(Assistant Professor, Mechanical Engineering)

**A Project by- Finolex**

# Team Mechanical

## Faculty Members



⚙ Dr. Kaushal K. Prasad	(Principal)
⚙ Dr. Milind S. Kirkire	(Dean, Academics and HoD)
⚙ Dr. Shashikant S. Goilkar	(Dean, R & D)
⚙ Dr. Milind S. Yadav	(Associate Professor)
⚙ Mr. V. MuraliMohan	(Associate Professor)
⚙ Mr. Vikram S. Chougule	(Associate Professor)
⚙ Mr. Sachin S. Mestry	(Assistant Professor)
⚙ Mr. Vidyasheel S. Bagade	(Assistant Professor)
⚙ Mrs. Gayatri J. Abhyankar	(Assistant Professor)
⚙ Mrs. Abhilasha S. Jadhav	(Assistant Professor)
⚙ Mr. Sumit S. Malusare	(Assistant Professor)
⚙ Mr. Harshal R. Salvi	(Assistant Professor)
⚙ Mr. Hemant V. Chavan	(Assistant Professor)
⚙ Mr. Amar S. Yekane	(Assistant Professor)
⚙ Mr. Jayesh S. Anavkar	(Assistant Professor)
⚙ Mr. Mahadev L. Naik	(Assistant Professor)
⚙ Mr. Shodhan U. Mayekar	(Assistant Professor)
⚙ Mr. Vikram V. Nagale	(Assistant Professor)
⚙ Mr. Sachin S. Gurav	(Assistant Professor)
⚙ Mr. Prabodh B. Horambe	(Assistant Professor)
⚙ Mr. Tushar V. Kavatkar	(Assistant Professor)
⚙ Mr. Sagar N. Sakharkar	(Assistant Professor)
⚙ Mr. Rushikesh M. Rasal	(Assistant Professor)
⚙ Mr. Abhijit M. Date	(Assistant Professor)
⚙ Mr. Pratik R. Kamble	(Assistant Professor)
⚙ Mr. Malhar D. Malushte	(Assistant Professor)
⚙ Mr. Mandar S. Padhye	(Assistant Professor)

## Staff Members

- ⚙ Mr. R. V. Utekar
- ⚙ Mr. L. G. Patil
- ⚙ Mr. A. V. Nhivekar
- ⚙ Mr. A. A. Lingayat
- ⚙ Mr. V. V. Lohar
- ⚙ Mr. D. Y. Mestry

# Contents



Department Vision



Department Mission



Program Specific Outcomes (PSOs)



Program Educational Objectives (PEOs)



Programs organized by the Department



Faculty Achievements

# VISION

- ⚙️ To become a center of quality education by developing competent engineers who can address challenges in the field of mechanical engineering.

# MISSION

- ⚙️ To establish state of the art facilities in department enabling effective training of students and creating research environment
- ⚙️ Evolve competent technical professionals through effective delivery of curriculum and contents beyond, which fulfil the needs of industry and society.
- ⚙️ To inculcate sense of social responsibility and human values amongst the students.

# PROGRAM SPECIFIC OUTCOMES

- ⚙️ Students will be able to investigate problems in the fields of design, thermal and manufacturing processes through application of statistical techniques
- ⚙️ Students will be able to provide computer based automation solutions to manufacturing and process industries.

# PROGRAM EDUCATIONAL OBJECTIVES

- ⚙️ To prepare the stakeholder to exhibit leadership qualities with demonstrable attributes in lifelong learning to contribute to the societal needs.
- ⚙️ To make ready the stake holder to pursue higher education for professional development
- ⚙️ To help the stakeholder to acquire the analytical and technical skills, knowledge, analytical ability attitude and behavior through the program
- ⚙️ To prepare the stakeholders with a sound foundation in the mathematical, scientific and engineering fundamentals
- ⚙️ To motivate the learner in the art of self-learning and to use modern tools for solving real life problems and also inculcate a professional and ethical attitude and good leadership qualities
- ⚙️ To prepare the stakeholder to be able to 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.

# Programs Organized by department

## Faculty Development Program On “CNC Milling: Programming and Training”

Three days faculty development program on CNC Milling: Programming and Training was organized by Department of Mechanical Engineering on 31<sup>st</sup> January 2021 to 2<sup>nd</sup> February 2021. Mr. Jagadish Pandurangaiah (Marketing Head) and Mr. Shridhar Appaji (Technical Expert) from Control Technics Ltd. Bangalore were interacted and demonstrated hands-on on (MACH 3) CNC Mill Controller and CNC Mill (PIMENTO MODEL) machine.

Faculty development program was focused on learning, preparing and performing G and M codes part programming in control panel and controlling movements of machine during machining operations. Training program was helped to participants to read and handle numerical part programs and control panel for in build modification in CAM works. Participants were understanding part programming related issues and new techniques of program verification using simulation in dry run. Machine programming knowledge will be helpful for participants for future product manufacturing and research work.



**Dr. M. S. Kirkire (HoD,Mech.) along with CNC trainers and participants**

## K-12 Activity: Quiz on Renewable Energy and Energy Conservation

ISHRAE FAMT Students Chapter conducted an Online Quiz on ‘Renewable Energy and Energy Conservation’ on 2nd February 2021. The quiz was conducted to improve and test participants’ knowledge.

The quiz consisted of 25 Multiple Choice questions carrying 2 marks each. The questions were asked about different topics related to renewable energy resources and energy conservation. In total, 32 students from various colleges near Pandurtitha, Kolhapur, Vetore attempted the test. The students received certificates upon satisfying the passing criteria.

The program was coordinated by FAMT ISHRAE Students Chapter members under the guidance of Faculty Advisors Prof. Vidyasheel Bagade and Prof. Shodhan Mayekar, Dr M. S. Kirkire, Dean Academics and HoD Mechanical Department and Dr Kaushal Prasad, Principal.



**Quiz Certificate**

## K-12 Activity: Career Guidance

FAMT Students Chapter conducted a Career Guidance session for 10<sup>th</sup> students on 2<sup>nd</sup> Feb 2021 at New English School, Dapoli. This was an hour-long session from 11 am to 12 pm and was done while taking care of all the necessary COVID guidelines. The activity started with an introductory speech of Mr. Gosavi, the class teacher of the 10<sup>th</sup> standard. It was followed by an introduction of ISHRAE by Chapter President Mr. Avadhut Soman



# Programs Organized by department

The activity proceeded with the main subject of the discussion. Mr. Soman gave a brief insight into a career after 10<sup>th</sup> standard. He also gave information about different branches of studies in which students can pursue their education. He also gave information about current Engineering branches and career opportunities that these fields withhold.

The 2<sup>nd</sup> part of the activity was a Q & A session. The students asked some very interesting questions which were answered by Mr. Soman. After the Q & A session, Mr. Gosavi gave a vote of thanks to ISHRAE FAMT Chapter team for conducting a wonderful session. Mr. Soman, on behalf of ISHRAE FAMT Chapter, also thanked the Principal and Mr. Gosavi for allowing conducting the session.

In total, 42 students of 10<sup>th</sup> standard of New English School, Karanjali, Dapoli, were present for the session. The program was coordinated by FAMT ISHRAE Students Chapter members under the guidance of faculty advisor Prof. Vidyasheel Bagade and Prof. Shodhan Mayekar, Dr M. S. Kirkire, Dean Academics and HoD Mechanical Department and Dr Kaushal Prasad, Principal.



**Mr. Avadhut Soman guiding students**

## K-12 Activity: Quiz on Covid-19

ISHRAE FAMT Students Chapter conducted an online quiz on the topic 'COVID - 19 to spread awareness about the ongoing pandemic from 5<sup>th</sup> February 2021 to 12<sup>th</sup> February 2021. The quiz was conducted to improve and test participants' knowledge about the pandemic.

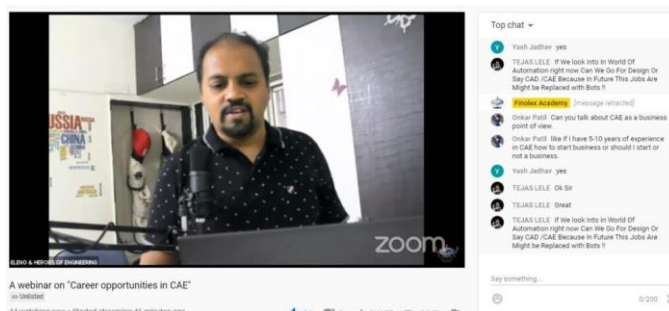
The quiz consisted of 20 Multiple Choice questions carrying 1 mark each. The questions were asked related to COVID-19. In total, 50 students from various schools/colleges of Kudal, Ratnagiri and Vengurla attempted the test. Students received the certificates upon satisfying the passing criteria.

The quiz was coordinated by FAMT ISHRAE Students Chapter members under the guidance of Faculty Advisors Prof. Vidyasheel Bagade and Prof. Shodhan Mayekar, Dr M. S. Kirkire, Dean Academics and HoD Mechanical Department and Dr Kaushal Prasad, Principal.



**Quiz Certificate**

## Webinar on 'Career Opportunities in CAE'



**Mr. Nachiket Phadke delivering the session**

A Webinar on Career Opportunities in CAE was organized by Department of Mechanical Engineering on 4<sup>th</sup> March 2021. Dr. Milind S. Kirkire, Dean Academics and HoD Mechanical Department felicitated the speaker, Mr. Nachiket, Training head & Counsellor at ELENOR Engineering Learning Center, Pune

# Programs Organized by department

## A Webinar on “Unfolding the Potential of Additive Manufacturing”

A Webinar on Unfolding the Potential of Additive Manufacturing was organized by Indian Women Scientists' Association Vashi, Sponsored by BENS-DAE in association with Department of Mechanical Engineering on 20<sup>th</sup> March 2021. Dr. Sunita Mahajan, Chairperson of Board of Trustees Indian Women Scientists' Association motivate and highlights women empowerment in science and technology. Dr. C. P. Paul, Dean – Student Affairs, HBNI and Head Laser Additive Manufacturing at Raja Ramana Center for Advance Technology, interacted with the students via the ZOOM meet platform and answered their queries after the session. The webinar focused on creating awareness about recent development in additive manufacturing, as a future career and research options for students and faculties.



**Dr. C. P. Paul Guiding students**

The total count of attendees was 68 from all segment fields of mechanical engineering. Dr. C. P. Paul emphasized on understanding importance of additive manufacturing, research on laser assisted additive manufacturing, Jetting technology and Direct metal deposition technology. Future trends, emerging applications discussed in Additive manufacturing.

The event was initiated by HoD Mechanical Engineering, Dr. M. S. Kirkire and organized by Prof. Sagar N. Sakharkar. All Participants expressed interest in attending and benefiting from more such seminar.

## Webinar – Unfolding the applications of Advanced Technologies in Mechanical Engineering

Department of Mechanical Engineering has planned a webinar for the students by educational and industry experts. Mr. Kapil Borkar (Vice President- Kinenco Kaman Composites India Private Limited) delivered webinar on Unfolding the applications of Advanced Technologies in Mechanical Engineering, on Monday 5<sup>th</sup> April 2021.

Mr. Kapil Borkar has completed his PG Diploma International Business (Foreign Trade) and currently working with Vice President- Kinenco Kaman Composites India Private Limited. He is having 17 years of industry experience.

Mr. Kapil Borkar, during his session, explained how to build career in composite material and aerospace sector. He explained about scope, basic concepts and knowledge about application of composite material in aerospace technology. The takeaway of the talk was to which content of mechanical branch is important for making career in this specific domain. He shared his experience in corporate field, organization and also explained which type of skill sets are required to acquire career in same domain



**Mr. Kapil Borkar Guiding students**



# Programs Organized by department

## MESA Organized MECHANOVA 2k21

MECHANOVA 2K21 was organized in the Finolex Academy of Management & Technology on 16<sup>th</sup> and 17<sup>th</sup> April 2021 by Mechanical Engineering Students Association [MESA]. Taking into consideration the global pandemic situation, this year the entire event was completely organized & conducted through online mode. The inauguration ceremony was held online through Google meet platform. Honorable Principal Dr. Kaushal Prasad inaugurated the event. MESA administered the event under the guidance of Dr. Milind S. Kirkire [HoD Mechanical Engineering Department & Dean Academics], Prof. Tushar V. Kavatkar [MESA Faculty In charge] and Prof. R. M. Rasal [Assistant MESA Faculty In charge]. MESA Head Mr. Aniket Wadkar, Ladies Representative Ms. Prarthana Bhatkar, Assistant MESA Head Mr. Viraj Malap, Event Management Head, Mr. Tejas Bandbe and other student's Coordinators strived hard to make the event a grand success.

Mr. Anand Bhise, Director, Mechatrol Engineering Solutions, Pune delivered the session on industry sponsoring projects. He explained about the COVID-19 impacts on Mechanical Engineering and project scope during COVID-19 in various industries. He has highlighted few project topics. Total 95 students were present for the session.

The program was coordinated by project coordinator Prof. V. S. Bagade under the guidance of Dr. M. S. Kirkire, Dean Academics and the Head of Mechanical Engineering Department and Dr. Kaushal Prasad, Principal.



**Mr. Anand Bhise, delivering session**

## Webinar on Solar installation, commissioning & current government policies

The department of Mechanical Engineering organized a webinar on 'Solar installation, commissioning & current government policies' under the guidance of Dr. M. S. Kirkire (Dean Academics and Head of Mechanical Engg. Dept.) on 6<sup>th</sup> May 2021 for BE Mechanical Engineering students. Total 41 students attended the webinar.

The webinar began with introductory speech by Prof. R. M. Rasal (Assistant Professor, Mechanical Engg. Dept.). Dr. M. S. Kirkire expressed his vote of thanks to **Mr. Rhishikesh S. Kondekar** (Proprietor-Saurmandal Solar) the resource person for the webinar.



**Hope Foundation's**  
**Finolex Academy of Management & Technology, Ratnagiri**  
(Approved by AICTE, Recognized by All Maharashtra, Affiliated to University of Mumbai)



ESTD. 1906

## Department of Mechanical Engineering

**CONTENT CREATION**

1. NATURE / DESTINATION REELS  
ANJULA JIGALEKAR (CC): 7046753642  
SHUBHAM VARTAK (ACC): 8646274469  
PARTICIPANT - 1

2. DANCE VIDEO  
SNEHAL SURVE (ACC): 9552606892  
PRINAY SAWANT (ACC): 9075758652  
PARTICIPANT - 1

**TOTAL PRIZE WORTH Rs. 1600/-**



**PHOTOGRAPHY CONTEST**

MAYUR CHAVAN (CC): 8007834433  
1. HIGH LIFE PHOTOGRAPHY  
NAYSHWEN PALAY (ACC): 8865586158  
PARTICIPANT - 1

2. REFLECTION PHOTOGRAPHY  
NUMAIR NAGALEKAR (ACC): 7758917924  
PARTICIPANT - 1

**TOTAL PRIZE WORTH Rs. 1000/-**

# MECHANOVA 2021

**AUTOMOTIVE STYLING**

SHRIKANT KANT (CC): 9889965417  
SNEHESH PANDHAR (ACC): 9075300688  
PARTICIPANT - 1

**TOTAL PRIZE WORTH Rs. 1000/-**

**TECH TALK**

DO'S & DON'TS IN YOUR FIRST JOB  
SPEAKER: DR. RAJESH KUMHAR  
ASSISTANT MANAGER  
MODERNIZATION DESIGN CENTRE  
SCHRIENDER, INDIA

**MOCK PLACEMENT DRIVE**

NINAD MANJUNATH (CC): 9903157839  
ADITHYAN SOMAN (ACC): 8658940838  
SHUBHAM SHINDE (ACC): 7709914821  
PARTICIPANT - 1

**TOTAL PRIZE WORTH Rs. 1200/-**

**LOGO DESIGNING**

GAURAV CHINDARKAR (CC): 9067154325  
NIRAL PARAB (ACC): 7768899494  
PARTICIPANT - 1

**TOTAL PRIZE WORTH Rs. 1800/-**

**NO ENTRY FEE**

**16<sup>th</sup> & 17<sup>th</sup> APRIL 2021**

**TOTAL PRIZE WORTH Rs. 5000/-**

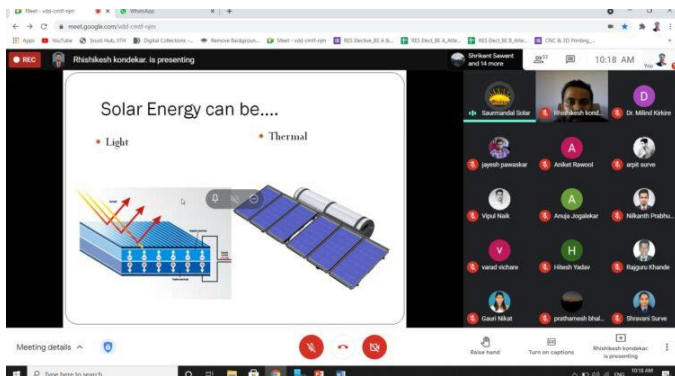
### Details of Events organized under MECHANOVA 2K21

## Online Session on “Let the final year project speak for you”

Department of Mechanical Engineering organized a session- Let the final year project speak for you for T E Students for their B E projects on 18th April 2021.

# Programs Organized by department

Mr. Rhishikesh Kondekar enlightened the students about the importance of renewable energy sources. He also guided students regarding the installation of solar power plant, its components, power calculations for choosing the solar inverter & type of systems like on-grid system, off-grid system & hybrid system. He also guided students regarding the government policies & agreement to be made with the MSEB. Prof. R. M. Rasal (Assistant Professor, Mechanical Engg. Dept.), Prof. H. V. Chavan (Assistant Professor, Mechanical Engg. Dept.), Prof. S. N. Sakharkar (Assistant Professor, Mechanical Engg. Dept. coordinated the webinar successfully.



**Mr. Rhishikesh Kondekar Explaining students**

# Faculty Achievements

## **Dr. Milind S. Kirkire**

- Delivered Expert session on "Case Study Based Research" in the event organized by Vishwatmak Om Gurudev College of Engineering, Shahapur in Association with Indian Institution of Industrial Engineering, NHQ CBD Belapur.
- Delivered Expert session on "Maintenance 4.0: Schizophrenic, Strategic and Improving for Ph.D. and M.Tech. students" in the event organized by K. J. Somaiya College of Engineering, Somaiya Vidyavihar University, Mumbai.
- Session Chair in International Conference on "Chemical, Mechanical and Environmental Sciences" organized by KPR Institute of Engineering and Technology, Coimbatore.

## **Dr. Milind S. Yadav**

- Published a paper on "Vibration Analysis of Twin Cylinder Diesel Engine Fueled with Blends of Cottonseed Oil in Comparison with Diesel at Fixed Compression Ratio and Injection Time" in international journal

## **Prof. Gayatri J. Abhyankar**

- Completed online Three days faculty development program (FDP) on "Blockchain Technologies - Applications & Opportunities".
- Attended online National Level Workshop on "Strategic Issues in IPR and Innovation".

## **Prof. Abhilasha S. Jadhav**

- Attended online Four Week's "Women Entrepreneurship Development Program" organized by Innovations & Entrepreneurship Development Cell, SITRC, Nashik & Sandip Foundation's Sandip Institute of Technology and Research Centre, Nashik.

## **Prof. Sumit S. Malusare**

- Published paper on "Vibration Analysis of Recycled Plastic Brick" in International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET).
- Published paper on "Design and Analysis of Integrated Solar Charging Station With Fuel

# Faculty Achievements

- Attended workshop on “Excel at MS Excel for Effective Organization of Quantitative Metrics data of NAAC” organized by Vidyalkar Institute of Technology (VIT), Mumbai.

### **Prof. Amar S. Yekane**

- Attended National Workshop on E-waste Management” organized by CMET & CDAC Hyderabad.

### **Prof. Jayesh S. Anavkar**

- Published paper on “Design and Mass Optimization of Brake Pedal Using Topology Optimization Technique” in International Research Journal of Engineering and Technology (IRJET).

### **Prof. Mahadev L. Naik**

- Published paper on “Identification of job cards using Radio Frequency” in Journal of Emerging Technologies and Innovative Research (JETIR).

### **Prof. Tushar V. Kavatkhar**

- Published paper on “Analysis of Hair Reinforced Composite Fiber” in Journal of Emerging Technologies and Innovative Research (JETIR).
- Completed online faculty development program (FDP) on “Sustainability Engineering” organized by ATAL Academy.

### **Prof. Rushikesh M. Rasal**

- Attended online Half Day workshop on “Additive Manufacturing for Competitiveness” organized by National Institute of Industrial Engineering

### **Prof. Mandar S. Padhye**

- Attended National Level One Week Faculty Development Program on “Dimensional Management as per ASME Y.14.5.1994 & 2009 Standard” organized online.
- Published a paper on “Experimental investigation of Eddy current based braking system” in International Research Journal of Engineering and Technology (IRJET)