MECHAZINE
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Mr. A. A. Lingayat
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Department Vision

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

Department Mission

1. To establish state of the art facilities in department enabling effective training of students and creating research environment

2. Evolve competent technical professionals through effective delivery of curriculum and contents beyond, which fulfil the needs of industry and society.

3. To inculcate sense of social responsibility and human values amongst the students.

Program Specific Outcomes (PSOs)

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.

Highlights of Department

- Intake BE : 120, ME (Machine Design):18
- Total 560 students on roll
- 30 Highly qualified faculty members from institutes like IIT, NIT, VJTI, etc.
- Post graduate course (ME Mechanical with specialization in Machine Design)
- 16 Spacious and state of the art laboratories
- Departmental library facility
- Advanced licensed software’s like ANSYS, CATIA, Autodesk Inventor, Ideas, Solid Works, Cam Works
- Departmental computing facility with 80 computers
- SAE, ISHRAE, ASHRAE, ASME and FSAI student chapters
- ICT class rooms
- GATE forum
- Industry tie-ups for training, projects, internships and industrial visits of students
The department of Mechanical Engineering conducted a Seminar on Project Management on 10\textsuperscript{th} January, 2018 for B.E. students of Mechanical, Electronics and Electronics & Telecommunication Engineering. Mugdha Dhupkar, Business Development Manager at MCommunications, Pune was invited to conduct the session.

Mugdha Dhupkar addressing the audience

FAMT ISHRAE Student Chapter organized two K-12 STEM (Science Technology Engineering Mathematics) activities on 12\textsuperscript{th} and 15\textsuperscript{th} January 2018 in four Zilla Parishad schools. Total 134 students from Zilla Paishad Purn Prathamik Shala No.01, Kelye-Majgaon and 135 students from Zilla Parishad Purn Prathmik Shala No.01 Dande-adom, Zilla Parishad Shala No.02 Dande --adom(Varchi Wadi) and Zilla Parishad Shala No.03, Dande- adom(Karkar wadi) participated in these activities.

FAMT ISHRAE Student Chapter members with participants

The department of Mechanical Engineering conducted seminar on “Tools for CAD/CAE” on 15\textsuperscript{th} January, 2018 for the students of third year Mechanical Engineering. Mr. Kishanlal Sahoo, CAD Engineer at IFS Academy, Pune conducted the seminar. He explained the basics of CAD/CAE techniques, its importance and their wide applications in industrial field. He also guided the students for different application oriented courses in detail.

Mr. Kishanlal Sahoo addressing the audience
An Industrial Workshop was organized by the department of Mechanical Engineering in association with MITSUBISHI Electric India at Andheri, Mumbai on 9th February, 2018. The main objective of the workshop was to give thorough knowledge of AC (Air Conditioning) System to the students. Total 35 ISHRAE student members from S.E. and T.E. Mechanical participated in the workshop.

An Industrial Seminar on Radiant Cooling Systems was organized at GIACOMINI, Water-E-Motion; Thane on 9th February, 2018 for ISHARE student members of S.E. and T.E Mechanical. The seminar was delivered by Mr. Naitik Shah (Business Head- GIACOMINI, Water-E-Motion).

An industrial visit was organized to KRUGER VENTILATION INDUSTRIES (INDIA) PVT LTD, Kalamgaon, Shahapur, Thane on 10th February, 2018. 35 student members of ISHRAE Students Chapter from S.E. and T. E. Mechanical visited the industry. The purpose of this visit was to provide industrial exposure to participants in the field of ventilation.

An industrial visit was organized to Aboo Baker Ice & Cold Storage, MIDC, Mirjole, Ratnagiri on 9th and 10th February, 2018 for the students of final year Mechanical Engineering for the subject “Refrigeration and Air-Conditioning”. The students gained knowledge about an Ice plant working on vapour compression refrigeration system.
The Department of Mechanical Engineering conducted a workshop on “Maintenance of Refrigeration and Air-Conditioning Systems” on 10th February, 2018 for the students of final year Mechanical Engineering in association with M/s J. J. Engineering Works, Mirjole MIDC, Ratnagiri. Workshop included the information about basic components of Refrigeration and Air-Conditioning Systems, working of Reciprocating, Rotary and Linear Compressor, Window Air Conditioner, Portable Air Conditioner, Deep Freezer and Domestic refrigerator.

The department of Mechanical Engineering organized a two days Workshop on 3D Printing Technology. Mr. Niraj Patidar, the resource person for the workshop enlightened the students about the importance, applications and opportunities in context with the 3D printing technology. He also showed the practical demonstration on 3D printing machine by means of various useful jobs.

MECH@NOVA2K18 & AUTOTECH was organized at Finolex Academy on 22nd and 23rd February 2018 by Mechanical Engineering Students Association [MESA]. MECH@NOVA 2K18 included events like just in time, model making, bechanakya, reuse or lose, turn table, tech-selfie, minimilitia, packaging, slowcycling, neon football, the machinist, technical damchardes, and assemble if you can. AUTOTECH 2k18 was organized to spread information of basic systems of automobiles, BS IV technology and concept of BS VI, concept cars, vehicle counseling and recent trends.
A Visit to South Asia's largest exhibition HVAC - ACREX INDIA 2018 was organized at BIEC, Bengaluru on 22nd February, 2018 for ISHARE Student Members of Second, Third and Final Year Mechanical Engineering. Total 34 Students visited the exhibition. ACREX India 2018 covered HVAC, Refrigeration and Building Automation Systems. More than 600 exhibitors from more than 30 countries including Belgium, China, Czech Republic, Egypt, France, Germany, Italy, Japan, Korea, Malaysia, Saudi Arabia, Singapore, Spain, Switzerland, Taiwan, Netherlands, UAE, UK, Ukraine and USA participated in this exhibition.

A visit to International Trade Fair for plumbing, sanitation and home automation systems in India was organized on 24th February, 2018 at BIEC, Bengaluru. Total 35 ISHRAE Students members from Second, Third and Final Year Mechanical Engineering visited the fair. Society of Hydraulics (SH) India displayed the wide product addressing the needs of both, "Front of the wall" & "Back of the wall" solutions. ISH-India was powered by IPA (Indian Plumbing Association).

An educational visit was organized to Visvesvaraya Industrial & Technological Museum, Bengaluru, on 25th February, 2018. 18 student members of ISHRAE Students Chapter from S.E. and T.E. Mechanical visited the museum, a great zone of learning for engineering students. The main purpose of visiting museum was to inspire the engineering students to engage themselves in research and development activities.
The department of Mechanical Engineering of Finolex Academy of Management and Technology, Ratnagiri conducted a two-days workshop on “ATV Design & Manufacturing” from 04th to 05th March, 2018 for the students of Second Year & Third year Mechanical Engineering. It was conducted by Mr. Avinash Singh, CEO, DIY guru along with his two colleagues Mr. Nishant Kar & Mr. Bhishnupratap Singh.

The department of Mechanical Engineering in association with ISHRE Students' Chapter and Women Development Cell organized a seminar on Developing and Enhancing Social Identity of Women' on International Women's Day.

Ms. Annu Yadav, Deputy Commandant, Air Traffic Control, Coast guard, Ratnagiri Addressing the gathering

The department of Mechanical Engineering arranged one day Workshop on “Homologation and Type Approval of vehicles with ARAI, ICAT, VRDE, GARC” on 10th March, 2018. Mr. Nachiket Deshpande (Manager, Volkswagen India Pvt Ltd. Pune), was invited to guide the students.

Mr. Nachiket Deshpande delivering the session
The department of Mechanical Engineering conducted a 40 hours workshop on “Primavera P6 Software” from 15th to 18th March, 2018 for the students of final year Mechanical Engineering. Primavera P6 is a widely used software in a field of Project management.

The Department organized an Expert Lecture on “Micromachining”. In two sessions of lecture, Dr. Uday Dabade enlightened the students about the importance, applications and opportunities in context with micromachining technology. The specimens manufactured by different micro machining technologies were also shown to the students.

The department organized three days industrial visit to Finolex Industries Limited, Ratnagiri, for Third year Mechanical Engineering students. This visit was organized to bridge the gap between theory in the subject of Thermal and fluid power Engineering (Sem. VI) and industry practices. Total 128 students visited the plant and they saw steam boiler, steam turbine, steam condenser, cooling tower along with overall operation of thermal power plant and electrical power generation.

Department organized an industrial visit to Lighthouse & DGPS Station Ratnagiri on 20th April, 2018 for the students of B.E. Mechanical Engineering. The visit was organized for the subject Renewable Energy Source to get knowledge about Solar Electrical Energy Plant.
Social Events organized by the Department

The Blood Donation Camp was arranged in FAMT on 31st January 2018 by Mechanical Engineering Students Association [MESA] as a part of FOUNDERS DAY CELEBRATION in association with RED CROSS, Ratnagiri. The camp received a huge response from the students as well as the faculty members as 57 donors participated in the camp.

The department of Mechanical Engineering organized a “One Day Workshop on Carpentry” at Abhyankar Mook Badhir Vidyalaya, Ratnagiri under the guidance of Dr. M. S. Kirkire, on 21st February, 2018 for the differently abled students. Mr. Deepak Mestry demonstrated various useful carpentry jobs practically on wood turning lathe machine. Along with hands on training on wood turning lathe, different wooden mechanisms based on different scientific concepts were also showcased to the students.
Student’s Achievements

1. Team Saurveg from FAMT secured 3rd place in country's second edition of National solar vehicle Challenge out of 37 teams and grabbed 2nd runner-up & the lightest vehicle award and a total prize money of Rs. 25000/-

2. Team Matadors from FAMT has secured 3rd rank in the first edition of NEKC out of 25 teams and grabbed in total 6 prizes for Build quality, Innovation, Best Driver, Maneuverability, Autocross and Drag race.

3. Team Matadors from FAMT secured 3rd place in second edition of Electric National Kart Racing Championship, out of 54 teams and grabbed 2nd runner-up & the Maneuverability prize.
4. Mr. Rushikesh Dale (TE- Mech) secured fourth positions in the State Level Elocution Competition held as a part of Sir Vishweshwaraiyya Smruti Karandak organized by College of Engineering, Pune on 3rd and 4th February, 2018.

**Student’s Publications**


7. Arish Makandar, Siddhesh Manerikar, Prathmesh Malik and Ganesh Mane published paper entitled as “Optimization of process parameters in TIG welding using Taguchi of 5086 Aluminium alloy International Journal of Creative Research Thoughts.”


Faculty Achievements

NPTEL Online Certification Courses

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Faculty</th>
<th>Course Name</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Prof. Pratik P. Kamble</td>
<td>Product design and development</td>
<td>Gold</td>
</tr>
<tr>
<td>2.</td>
<td>Prof. Dipak V. Patil</td>
<td>Product design and development</td>
<td>Gold</td>
</tr>
<tr>
<td>3.</td>
<td>Prof. Abhilasha S. Jadhav</td>
<td>Introduction to research</td>
<td>Elite</td>
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<td>4.</td>
<td>Prof. Girish D. Pandit</td>
<td>Basics of finite element analysis</td>
<td>Elite</td>
</tr>
<tr>
<td>5.</td>
<td>Prof. Dipak V. Patil</td>
<td>Basics of finite element analysis</td>
<td>Elite</td>
</tr>
<tr>
<td>6.</td>
<td>Prof. Vikram S. Chougule</td>
<td>Outcome based pedagogic principles for effective teaching</td>
<td>Successfully completed</td>
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</tbody>
</table>

Journal Publications

1. Prof. V. MuraliMohan published paper entitled as “Design of Rack And Pinion Steering System for an All-Terrain Vehicle”, in International Journal of Creative Research Thoughts.


5. Prof. V. S. Bagade published paper entitled as “Performance Investigation of Refrigerants R290 and R134a as an Alternative to R22”, in International Journal for Research in Applied Science & Engineering Technology (IJRASET)


7. Prof. G. J. Abhyankar published paper entitled as” Investigation of influence and optimization of various process on springback in UHMWPE”, in International Journal for Scince and advances Reserch in Technology.


Conference Publications


**Award**

Prof. Hemant Vasant Chavan, Assistant professor in Mechanical Engg Department, received appreciation for exceptional contribution as a ISHRAE Faculty Advisor from ISHRAE Thane Chapter for the year 2017-18.

Prof. Hemant Vasant Chavan, Assistant professor in Mechanical Engg Department, receiving appreciation for exceptional contribution
‘फिनोलेक्स’चे इलेक्ट्रिक गोकार्त रसिगमध्ये यश

कक्षानंतर इलेक्ट्रिक गोकार्ट रसिगमध्ये यश अर्जलेल्या फिनोलेक्स अंकित संस्थेने अर्जी केलेल्या गोकार्टच्या स्वतःचे विकल्प बनवलेल्या फिनोलेक्स विभागाची प्रशस्ती म्हणून जनतेनुसार समायोजित केलेल्या सेमिनारात प्रस्ताव म्हणजेच फिनोलेक्सच्या इलेक्ट्रिक गोकार्ट रसिगमध्ये यशाच्या वेळेत दिसलेली या प्रशस्ती म्हणून फिनोलेक्स विभागाच्या अंकित संस्थेची उपस्थिती दिसली.

‘फिनोलेक्स’च्या विद्याध्यायाच्या यश

फिनोलेक्सच्या विद्याध्यायाच्या यशानंतर फिनोलेक्सच्या विभागाच्या अंकित संस्थेच्या यशाच्या वेळेत दिसलेली या प्रशस्ती म्हणून फिनोलेक्स विभागाची उपस्थिती दिसली.

नवीन विद्यालयाच्या नेतृत्वाने नवीन विद्याध्यायाच्या यशानंतर फिनोलेक्सच्या विभागाची उपस्थिती दिसली.

नवीन विद्याध्यायाच्या यशानंतर फिनोलेक्�xsच्या विभागाची उपस्थिती दिसली.
‘फिनोलेक्स‘च्या विद्यार्थ्याचे वक्रतुच स्पर्धेत यश

रत्नगिरी / वाचक:
कोल्हापूर शहर: फिनोलेक्स पूने मध्ये स्थापित असलेल्या सर्वसाधारण स्फूर्तिकर्तव्याने रेकॉर्ड केलेल्या वक्रतुच स्पर्धेत फिनोलेक्स ऑर्डरमीटी या जगातील राष्ट्रीय व राज्यस्तील यांनी उपलब्ध केलेलेत वतीलेलेत विद्यार्थी यांनी ग्रेट यशस्वी यश येणारी बघत केले आहेत.

दर्शवार्याप्रमाणे येथील सर्वसाधारण स्फूर्तिकर्तव्याने रेकॉर्ड केलेल्या वक्रतुच व वादिवाद स्थानावर नृत्याच्या कॉन्सेप्ट उपकरण, इंजिनियरिंग, मॅनेजमेंट या संस्थेतील प्रशिक्षणाचे मुख्य निर्माण करणारा आहेत.

फिनोलेक्स ऑर्डरमीटी
कार्यशाळेत त्यांनी प्रतिसाद

तालिगे:
प्रतिनिधी:
फिनोलेक्स ऑर्डरमीटी अस्थायी कार्यशाळेत 40 विद्यार्थी यांनी प्रतिसाद केले. त्यांनी प्रतिसादाने यशस्वी प्रदर्शन केले. त्यांनी प्रतिसादाने यशस्वी प्रदर्शन केले. त्यांनी प्रतिसादाने यशस्वी प्रदर्शन केले.
फिनोलेक्स ऑक्डमीच्या बतीनेच अभ्यासकर मूकबॉधिर विद्यालयात कार्यरताचा

रस्तापट्टी / वर्ताहर:
फिनोलेक्स ऑक्डमी लाभ संयोजन अंड टेक्नोलॉजी, रस्तापट्टी या भारतातील महाविद्यालयाच्या बतीनेच अभ्यासकर मूकबॉधिर विद्यालयात (रस्तापट्टी) येथे हुनूकेच।

तसेच, बुध टॉपिंग मशीनबाउन लकडी बस्ता ज्यामध्ये प्रशिक्षणाची वेळ, प्राणांनी एकाडेमियात आली.

फिनोलेक्स ओर्स-डिस्केतल विषयाची कार्यक्रमां मध्ये प्रमुख प्रा. अभ्यासक केरलाच्या प्रांगणात व दोपक मेहराब प्रमुख प्रा. संभालताना उत्साहित.

फिनोलेक्स ऑक्डमी मध्ये ‘ऑटोमोबाईल इंजिनिअरिंग’ विषयाची कार्यशाळा उत्साहरत