



# AISSMS

COLLEGE OF ENGINEERING  
ज्ञानम् सकलजनहिताय



The newsletter of Department Mechanical Engineering

## MECHPULSE

Academic Year 2021-22 Term II

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Head of Dept.: Dr. B D Bachchhav

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### *Our Inspiration*

**Shri Shahu  
Chhatrapati Maharaj  
President, AISSMS**



### *From Principal's Desk:*



**DR. D S Bormane**

AISSMS college of engineering has successfully completed its 29-year long journey since it's establishment in its academic year 2020-2021. Our institute has been bestowed with the prestigious Grade A+ accreditation by the National Assessment and Accreditation Council (NAAC), which brings me great pride and joy.

AISSMS College of Engineering remains at the forefront of academic excellence, consistently producing exceptional University gold medalists and top-performing students in diverse engineering fields. The dedicated faculty actively drives research and development endeavors, further elevating the college's standing in the academic community

After the lockdown the energy with which students and faculty has engaged itself in the process of learning and adapting to change is stupendous! Students opting for internships as per the new curriculum has predominantly helped them understand the industry environment. The efforts put by the faculty and staff to provide the students with industry visits and practical sessions has largely benefited the students of mechanical department.

All such and many more remarkable achievements have been presented in the Mechanical Department Newsletter 'MECHPULSE'. I would like to express my sincere congratulations to the Mechanical Department for their outstanding initiatives. I extend my best wishes to all the ambitious students, employers, and stakeholders associated with the Mechanical Department, encouraging them to strive for success in accomplishing their goals.

**“Be willing to be beginner every single morning.”**

**Meister Eckhart**

## FORM EDITORS DESK....

It gives us great pleasure to hand over to you "MECHPLUSE" the newsletter of Mechanical engineering department.

The department runs two undergraduate programs viz. Mechanical Engineering, Mechanical Engineering (Sandwich) and two PG programs with Automotive and Design Engineering as specialization. Department also run research Centre leading to Ph.D. Program. The department vision is to be excellence in value based on Mechanical Engineering Education.

Mechanical Engineering Sandwich pattern programme emphasizes on industrial training to students within four years of the study. Students are placed for training in the industry as per the curriculum of Savitribai Phule Pune University. The student learns industrial practices and also professional ethics.

MECHPLUSE is platform to communicate and underline department actions towards students development. Hope you will find this newsletter informative. Your suggestions for improvement in the newsletter are welcome.

Editors

## FROM HOD'S DESK...



A hearty welcome to the Department of Mechanical Engineering at AISSMS COE, Pune. The department has well qualified and dedicated faculty. The objective of the department is to prepare students for a successful career in industry, Research and Academics.

For the overall development of the student; department of mechanical engineering is associated with memberships of professional bodies such as SAEINDIA, Institution of Engineers (India), ISHRAE, FPSI. We formulated a Mechanical Engineering Students association i.e. MESA. Various activities of these chapters provide student to gain knowledge and interact with students and staff of other colleges/universities as well as Industry Engineers.

With end of this semester due to pandemic situation mode of learning goes online, which we took positively for continues learning of students. We start exploring opportunity in this inferior conditions face worldwide. Our students develop few solutions for COVID circumstances. MECHPLUSE is showcase of continuous progress of department towards excellence

## BE M/S STUDENTS 2021-22



## Staff Achievement

Completion of PhD

**Dr. S. R. Patil & Dr. M. R. Dahake**

Congratulations...

### Department Vision

- To be recognized as a premier centre in the field of Mechanical Engineering Education.

### Department Mission

- To strive continuously for an advancement of academics and lifelong learning through effective teaching learning process.
- To strengthen industry-institute interface, association with professional societies to develop leadership, team work and industry oriented attributes through internship.
- To develop skill based mechanical engineering professionals for sustainable development through project based learning and active research.

### Department Goals

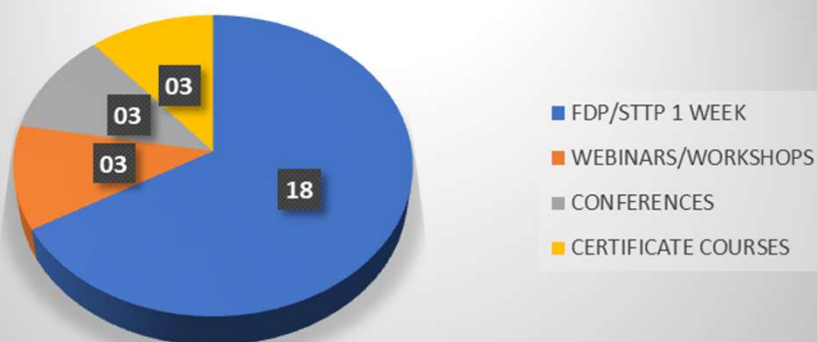
#### Short Term Goals

- To enhance interaction with industry
- To strengthen association with professional bodies
- To establish a research centre
- To increase number of value added courses
- To modernize laboratories.

#### Long Term Goals

- To establish centre of excellence.
- To improve the qualification of faculties
- To help students for academic excellence to reach global standards.
- To maximise entrepreneurship development activities.
- To obtain accreditation from reputed bodies

## Faculty contribution



## STAFF PUBLICATIONS

Sr. No.	Faculty Name	Publication Detail	Year
1.	Dinesh Y. Dhande, Chandrakishore S. Choudhari	Prediction of spark ignition engine performance with bioethanol-gasoline mixes using a multilayer perception model, Vol. 40, Issue 2, 2021,ISSN 1099-6466, Petroleum Science and technology, Taylor & Francis	2022
2.	Mangesh R Phate	Analysis of Seat to Head Transmissibility of the Seated Human Body using Artificial Neural Network, ISSN [2250-0545], Springer	2022
3.	Mangesh R Phate	Multi-response Optimization and Analysis of Al/B4Cp MMC EDM using Grey Relational Analysis, , ISSN [1823-5514], Journal of mechanical Engineering	2022
4.	P S Gajjal, G.S. Lathkar	Fault diagnosis in an optimized rolling bearing using an intelligent approach, <a href="https://doi.org/10.1007/s00419-022-02134-0">https://doi.org/10.1007/s00419-022-02134-0</a> , Archive of Applied Mechanics	2022
5.	P S Gajjal, S Y Gajjal	A Novel Tuned Antlion-Grey Relational Dry Sintered Bearing for Bore Application Journal of the Brazilian Society of Mechanical Sciences and Engineering	2022
6	Bachchhav, B.D. and Kathamore, P.S.	Wear behavior of environment friendly trimethylolpropane trioleate-based lubricant", Industrial Lubrication and Tribology, <a href="https://doi.org/10.1108/ILT-12-2021-0469">https://doi.org/10.1108/ILT-12-2021-0469</a>	2022
7	Bachchhav, B.D. and Kathamore, P.S.	Tribological investigations of trimethylolpropane trioleate bio-based lubricants, <a href="https://doi.org/10.1108/ILT-05-2021-0157">https://doi.org/10.1108/ILT-05-2021-0157</a> , Industrial Lubrication and Tribology, Vol. 73 No. 7	2022
8	Dr S V Chaitanya Dr D Y Dhande	Complex assembly Analysis for Geometric and Dimensional Tolerance to obtain selective assembly from partitioned bins using a multi-objective approach to control clearance variation of IC Engine, ISSN :2250-0545, Journal of The Institution of Engineers (India): Series C, Springer	2022
9	M P Bauskar	“Design And Development of Ultrasonic Plastic Welding Machine”, ISSN2582-742, International Journal of Research Publication and Reviews	2022
10	N N Gotkhindikar	A Novel FDM Based Additive Manufacturing of PLA Components Using Optimized Deep Learning Strategy, ISSN 2321-9653, International Journal for Research in Applied Science & Engineering Technology	2022

## MOU'S Signed with the industries

Sr. No.	Faculty Coordinator	Name of Industry	Date of MoU Signed	Valid upto (00/00/0000)
1	Dr. B. D. Bachhav Dr. C. S. Chaudhari Dr. P. S. Gajjal	Setco Spindles India (Pvt) Ltd Pune	18/02/2022	17/02/2025
2	Dr. B. D. Bachhav	Stead Solve Design and Manufacturing Solutions LLP Pune	23/02/2022	22/02/2025
3	Dr. S H Wankhade	UB Cryogenic Solutions LLP, Pune	04/03/2022	03/03/2025
4	Dr. B. D. Bachchhav	Institute of Systems Pune.	04/04/2022	03/04/2025
5	Dr. B. D Bachchhav Dr S V Chaitanya	SSIG Manufacturing Advancements Pvt Ltd. Pune	27/04/2022	26/04/2025



## Activities



Expert talk by Mr. Kiran Nawathe, Engineering Cluster Pune on Design Thinking and value Engineering (12/05/2022)



Project exhibition from Final year Mechanical engineering students at AISSMS COE, Pune



## Industrial Visits



## Awards & Recognition



**AISSMS COLLEGE OF ENGINEERING**  
TCS Sustainathon Pune 2021

Students from TE Mechanical Department has won 1st consolation award (15000 Rs. + certificates) in grand finale of tcs Sustainathon Pune 2021. Designed and optimized new bins and large containers for waste collection system and introduced reward based system to Empower the waste handlers.

**Team Members-**  
Divya Dharmal  
Tejas Lot  
Vinaya Gholap  
Pratik Kenche

**Organised by**  
Tata Consultancy Services  
Sustainathon Pune

**Our Mentor**  
Mr. Milind Swami Assistant Professor, faculty Mentor, Mic innovation ambassador AISSMS COE Pune  
Dr. B D Bachchhav Head of Department  
Dr. D S Bormane Principal  
Mechanical Engineering AISSMS COE

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Team Garudashwa SAE Aerodesign won Globally first in Technical Design Report & Globally Second in Overall Performance

Resonance Racing m-Baja attended National Level Competition which was SAEINDIA BAJA 2022 won 8 prizes.

Winners in TCS Sustainathon Pune 2021

**NPTEL swayam DOMAIN CERTIFICATE**

This is to certify that **ABHISHEK SANTOSH CHAVAN** has successfully completed all the requirements for **SWAYAM NPTEL Domain Certification in Product Design (Mechanical Engineering)**. The courses were completed in the period Oct 2021.

Sl. No.	Course Name	Credits	Starting Date	Completion Date	Score (out of 100)	Grade
1	Product Design and Design Process	6 credits	05 Nov 2021	05 Nov 2021	95	A
2	Product Design and Manufacturing	12 credits	07 Nov 2021	07 Nov 2021	88	B
3	Design Process	6 credits	07 Nov 2021	07 Nov 2021	79	C
4	Production Design: Design and Manufacturing	12 credits	07 Nov 2021	07 Nov 2021	96	A
5	Design Process - II	6 credits	07 Nov 2021	07 Nov 2021	80	B
6	Engineering Relations Analysis	6 credits	07 Nov 2021	07 Nov 2021	79	C
7	Manufacturing Processes - Casting and Forging	6 credits	07 Nov 2021	07 Nov 2021	82	B
<b>Total Marks</b>					<b>849</b>	

### GATE 2022 EXAM SUCCESS

<b>RUPASHREE GAJBE</b> Stream: ME AIR: 8898	<b>YASH ANECHA</b> Stream: ME AIR: 8898	<b>SHREYAS PARCHURE</b> Stream: ME AIR: 10276	<b>RUSHIKESH BHASME</b> Stream: ME AIR: 10835
<b>VISHWA SHAH</b> Stream: ME AIR: 12824	<b>SAHIL SHELAR</b> Stream: ME AIR: 14808	<b>TEJAS LOT</b> Stream: ME AIR: 19226	<b>RUSHIKESH BHASME</b> Stream: XE AIR: 1877

NPTEL EXAM DOMAIN EXPERT

GATE EXAM RANKERS 2022

“Scientists dream about doing great things. Engineers Do them.”

James A Michener.