

St. John College of Engineering and Management, Palghar

(Approved by AICTE, Recognized by DTE and

Affiliated to Mumbai University)

NAAC Accreditation with A Grade

MECHATRON 5.0

(Departmental Newsletter)

Department of Mechanical Engineering

(June-2023)



Chairman's message



Mr. Albert W. D'Souza

I am happy to see the second edition of newsletter/magazine of the Mechanical Engineering department **"MECHATRON 5.0"** June 2023 of St. John College of Engineering and Management, Palghar.

The newsletter/magazine is a communication medium for all students, staff, parents and friends to know the recent activities and developments that are taking place at the departmental level.

I congratulate the HOD, staff, students and the editorial team for coming up with this new issue of newsletter/magazine for the department.

At St. John, we remain committed to give very best to the students under our assistance. I want to extend my heartfelt gratitude to all the parents, students, stakeholders who have put their trust in us and been a part of this wonderful journey of St. John Technical Campus.

Let's come together to work with vision of Trust "Excellence in Serving to Educate and Educating to Serve".

Principal's Message



Dr. G. V. Mulgund

I am very pleased to see the second edition of newsletter/magazine of Mechanical Engineering department "**MECHATRON 5.0**" June 2023.

The newsletter contains all the information related to student activities, achievements, faculty achievements, workshops and other activities conducted at the departmental level.

Indeed it is a canvass that has taken its forum through the contribution of all the concerned in the department.

I would like to congratulate the Head of Department as well as staff and students.

I wish many more activities, academic pursuits, and achievements coming across our path as we journey together to conquer the milestone with St. John technical Campus.

HOD Message



Dr. Kishor Rambhad

(Ph.D Mechanical Engineering)
Associate Professor & Head

The department has a team of highly experienced and motivated faculty members who are in process of tuning the young minds to make them globally competitive. The strength of the department is highly motivated students who understand the dynamics of the industry and upgrade their skills accordingly. Depending upon the interest of the student, he/she may choose to go for higher studies or if employed can choose to do research, development, design, production, application, testing or management in the Information Technology industry.

In our department we not only give emphasis on study but also apply our knowledge in understanding the real life hands on experience by industry personnel because almost more than 30000 MSME companies are located in and around Palghar in the radius of 40km. We are encouraged to see many industries coming back to our department, which reinforces our belief in the effectiveness of our curriculum and its suitability to meet the dynamic corporate world.

Through innovative teaching-learning process a teamwork approach and leadership building experience, our students gain vital communication and critical-

thinking skills. Our institution provides a platform for the students to enhance their employability skills through Industry Institute Collaboration.”

With this brief introduction, I welcome you to be a part of our journey towards being a world-class centre of excellence in education, training, and research.

Editor Message



Mr. Ambeprasad Rushwaha

I am tremendously glad to present the second edition of newsletter/magazine "**MECHATRON 5.0**".

A lot of effort has gone into the making of this issue. We hope you enjoy reading the magazine.

This newsletter/magazine will continue to be a vehicle for promoting fluent communication among all members of the college. We have accounted for momentous achievements, events activities of the Students and staff of Mechanical department.

Our main endeavour is to spread knowledge and excellence which our team is working and progressing to achieve the best.

I would like to sincerely thank to the editorial team for their constant contribution and support into bringing this newsletter/magazine.

I also acknowledge my sincere thanks to our Chairman, Mr. Albert W. D'Souza, Principal, Dr. G.V.Mulgund and HOD, Dr. Kishor Rambhad for their encouragement and Support to prepare the this issue of annual newsletter/magazine "**MECHATRON 5.0**".

Departmental Vision

"To be a centre of high repute providing quality education and conducive environment for research leading to innovations in the field of Mechanical engineering."

Departmental Mission

- To impart quality education to the students and enhance their skills to make them globally competitive.
- To develop linkages with research and development organisations and Industries to create state of art facilities for teaching-learning and research.
- To inculcate habit of creative design and developing innovative products.

Program Educational Objectives (PEO's)

- To demonstrate their expertise in areas of design, manufacturing and thermal engineering to solve real life problems.
- To pursue higher education, research and entrepreneurship and do it ethically.
- To engage in lifelong learning and exhibit leadership quality.

Program Outcomes (PO's)

- Engineering graduates will be able to apply the basic knowledge in mathematics, sciences and engineering fundamentals for solving problems in mechanical engineering.
- Apply knowledge, techniques and skills to design mechanical and thermal systems or processes as per requirements.
- Demonstrate the ability to design and conduct experiments and standard tests to interpret and analyse data and results.
- Identify, formulate and design complex mechanical engineering problems in their future profession.
- Select and use modern engineering software tools and equipments to analyse mechanical engineering problems.
- Appreciate social and cultural values, assess the health, safety and legal issues and practices.
- Understand the impact of professional engineering solution for sustainable development.
- Understand the professional as well as ethical responsibilities and norms of different countries.
- Function effectively within multidisciplinary team as leader or member.
- Communicate effectively within engineering community and society at large by means of report writing, presentation and documentation.
- Demonstrate knowledge and understanding of engineering and management principles for effective project management.
- Educate and clearly understand and implement the value of lifelong learning.

TEACHING STAFF



**HOD Mechanical &
Associate Professor**



Prof. Vinod Surange



Prof. Ambeprasad Kushwaha



Prof. Rajesh Bisane



Prof. Vivek Narnaware



Prof. Rakesh Shinde



Prof. Sangam Rane



Prof. Parag Nikam



Prof. Chirag Kale



Prof. Avinash Chavan



Prof. Janak Suthar



Prof. Kiran Beldar



Prof. Pranit Mehta



Prof. Hrishikesh Kulkarni



Prof. Uday Prajapati

Faculty Activities (Workshops, seminars, STTP/FDP attended by faculty)

S.N.	Name of Faculty	Title of training	Date	No. of days	Organization
1	Mr. Chirag Kale	FDP On “Research Potential in the Field of Solar Energy”	02/01/2023 to 06/01/2023	5	St. Francis Institute of Technology, Borivali

Faculty Publication (Patent/Book/ Book Chapter/ IC/IN/NC/IC)

Sr. No	Name of Faculty	Publication Details
1	Dr. K. S. Rambhad	Research Paper: Two-wheeler tyre pressure monitoring through K-nearest neighbours algorithm trained using wheel hub vibrations acquired using ADXL335 accelerometer, International Journal of Vehicle Noise and Vibration, 2022 Vol.18 No.3/4, pp.232 - 246, DOI: 10.1504/IJVNV.2022.10053307 (16 Jan 2023) (Inderscience, Scopus).
2	Dr. K. S. Rambhad	Conference: “Thermal Analysis of Hybrid Nanofluid flowing inside the Automobile Radiator” Indo-European Conference on Advanced Manufacturing and Materials Processing (IECAvmaMAP-2023), 06-08 February 2023. (Will be published in Material Today: Proceeding, Scopus)
3	Dr. K. S. Rambhad	Conference: “Development and Investigation of Thermal Composite Investigation from Environmentally Hazardous Waste Fly Ash”, Indo-European Conference on Advanced Manufacturing and Materials Processing (IECAvmaMAP-2023), 06-08 February 2023. (Will be published in Material Today: Proceeding, Scopus)
4	Mr. Vinod G. Surange	Research Paper: Modeling Interactions Among Critical Risk Factors in the Indian Manufacturing Industries Using ISM and DEMATEL, Journal of The Institution of Engineers (India): Series C (Springer), 02 January 2023
5	Mr. Vinod G. Surange	Research Paper: Criticality prioritisation of risk factors in the Indian manufacturing industries using TOPSIS, International Journal of Business Continuity and Risk Management, 31 August 2022 (Inderscience Publishers, Scopus)
6	Mr. Vinod G. Surange	Conference: Research paper titled “Cost of Quality Reduction Roadmap with Integrated Lean Six Sigma and Knowledge Management” accepted for Logistics and Industrial Systems Engineering (LISE), Multi Conferences -

	Advances in Science and Engineering Technology International Conferences (ASET), Dubai, Feb. 20 - 23, 2023 (IEEE Xplore Scopus indexed)
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Faculty Citations

Sr. No	Name of Faculty	Google Scholar					Scopus				
		Citation	h-index	i10-index	citation in 2022	citation in 2023	Citation	h-index	i10-index	citation in 2022	citation in 2023
1	Dr. K. S. Rambhad	202	06	02	77	19	131	04	02	49	11
2	Mr. Vinod G. Surange	194	07	05	27	07	51	07	03	14	04
3	Mr. Upendra Maurya	32	04	01	16	10	11	01	00	07	09
4	Mr. Chirag Kale	43	01	01	24	02	06	02	00	01	00
Total		471	18	09	144	38	199	14	05	71	24

Faculty interaction with outside world

Sr. No	Faculty Name	Date	Activity	Organization
1	Dr. Kishor Rambhad	Winter 2022	Question paper setting Semester: 8	G. H. Raisoni College of Engineering (Autonomous), Nagpur
2	Dr. Kishor Rambhad	14 November 2022	Research paper Reviewed Title: Performance of CO2 mixture cycled energy storage system: thermodynamic and economic analysis	Applied Thermal Engineering (Elsevier)
3	Mr. Vinod G. Surange	21 November 2022	Delivered expert session on "Subtractive and Additive Manufacturing Processes"	SJCEM Polytechnic, Palghar
4	Mr. Vivek Narnaware	Nov-Dec. 2022	Question paper setting Semester: 3, 6, 7	University of Mumbai

Industrial Visits

S.N.	Name of Industry	Faculty Name	Students	Date of Visit
1	Industrial Visit at "Printania Offset Pvt. Ltd, Palghar"	Mr. Chirag Kale Mr. Uday Prajapati	SE 24	02/03/2023
2	Industrial Visit at "KLT Automobile and Tubular Products Ltd. Palghar"	Dr. Kishor Rambhad Mr. Vivek Narnaware Mr. Ambepasad K. Dr. Rajesh Bisane	TE-A 34 TE-B 32	12/10/2022
3	Industrial Visit at "Durian Pvt. Ltd, Palghar"	Dr. Rajesh Bisane Mr. Ambepasad K. Mr. Parag Nikam Mr. Sangam Rane	BE-A 38 BE-B 42	27/09/2022

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S.N.	Name of Industry	Date	Duration
1	Perfect Engineering Works, Vasai Road	01/02/2023	5 Years

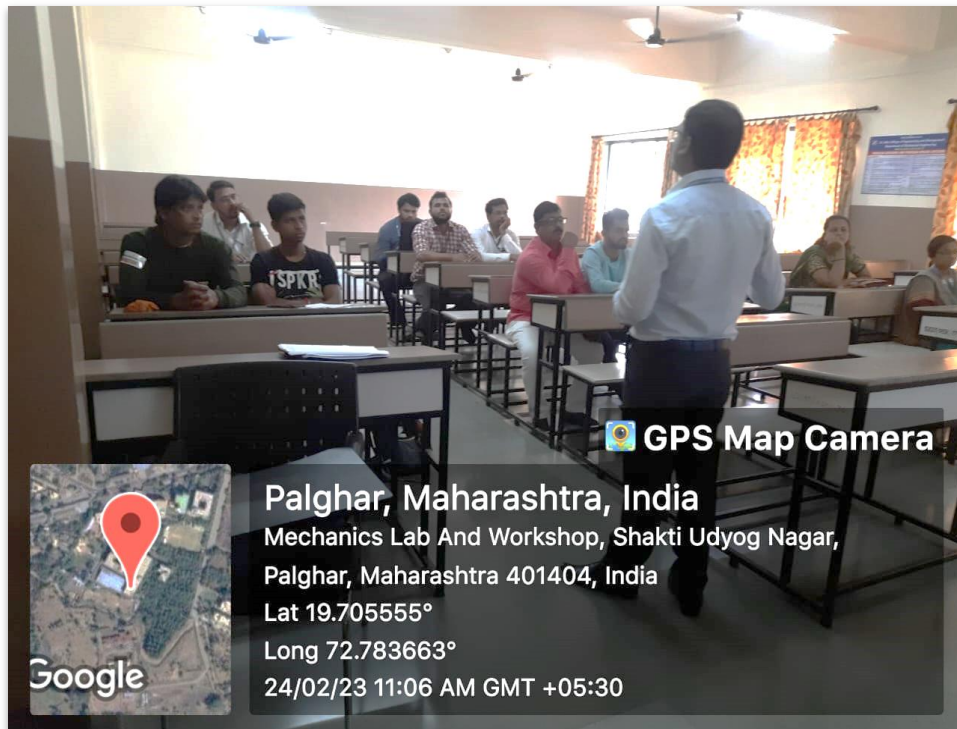
Activities Conducted

S.N.	Name of Activity	Date	Participants
1	Parents Teachers Meeting	24/02/2023	18
2	Alumni Meet	24/02/2023	32
3	Alumni Talk	09/02/2023	124
4	Industry Visit to Printania Offset Pvt. Ltd., Palghar	02/03/2023	24
5	Industry Visit to "KLT Automobile and Tubular Products Ltd. Palghar"	12/10/2022	66
6	Industry Visit to Durian Ind. Pvt. Ltd., Palghar	27/09/2022	80

Parents Teacher Meeting

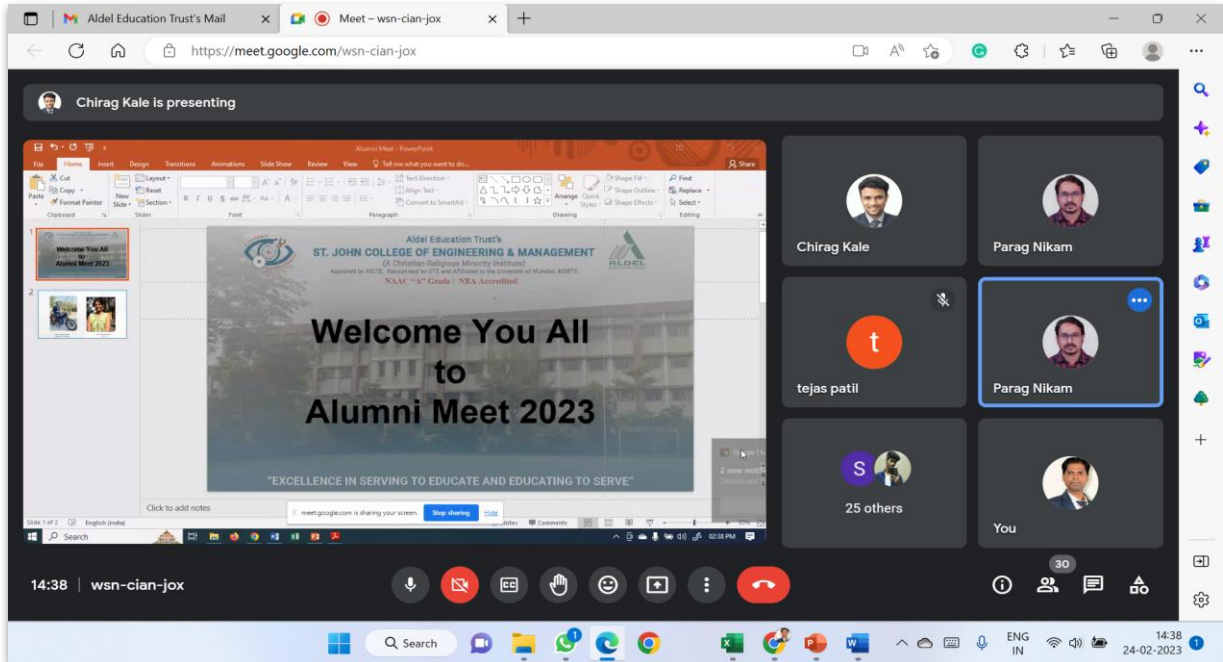
A Parents Teachers Meeting is Conducted on Friday on 24th February 2023 for SE/TE/BE

Parents Present –18



Alumni Meet

Alumni Meet is Conducted on Friday on 24th February 2023, about 32 Alumni attended alumni meet.



Alumni Talk

Alumni Talk on Topic How to get GME, by Mr. Reynoldo Dias (BE, Mechanical & GME from METI, Kochin Shipyard Limited), Held on 09/02/2023



Industrial Visits

Industrial Visit to Printania offset Pvt. Ltd., Palghar



KLT Automotive and Tubular Product Ltd., Palghar



Durian Industries Pvt. Ltd., Palghar

