



**St. John College of Engineering and Management, Palghar**

(Approved by AICTE, Recognized by DTE and Affiliated to Mumbai University)

**NAAC Accreditation with 'A' Grade**

**Department of Mechanical Engineering**



# MECHATRON 2.0

**June - 2020**



## CHAIRMAN'S MESSAGE

**Mr. Albert W. D'Souza**

I am happy to see the second edition of newsletter/magazine **"MECHATRON 2.0" June 2020 edition** under Mechanical Engineering department 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 2.0" June 2020 edition.**

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. Ajoy Kumar** (Ph.D Mechanical Engineering)  
Professor & Head Dean Academics, Vice-Principal

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 MES 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 center of excellence in education, training, and research.

## EDITOR MESSAGE

**Mr. Abhishek Kumar**



I am tremendously glad to present the first edition of newsletter/magazine **"MECHATRON 2.0" June 2020 edition.**

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. Ajoy Kumar for their encouragement and Support to prepare the first issue of annual newsletter/magazine **"MECHATRON 2.0"**.

## 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 life long 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, asses 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



**Dr. Ajoy Kumar,**  
HOD



**Dr. V. Sivabharthi**  
(Prof. and Head)



**Dr. Hitesh Thakare**



**Prof. Shivaji Shelar**



**Prof. Vinod Surange**



**Prof. Rajesh Bisane**



**Prof. Ambeprasad  
Kushwaha**



**Prof. C. Ganesh**



**Prof. Vivek Narnaware**



**Prof. Bhushan Sonawane**



**Prof. Arif Upletawala**



**Prof. Rakesh Shinde**



**Prof. Avinash Chavan**



**Prof. Parag Nikam**



**Prof. Kiran Beldar**



**Prof. Abhishek Kumar**



**Prof. Sangam Rane**



**Prof. Gaurav Bhawde**



**Prof. Chirag Kale**



#memories #SJCEM #nostalgia

**Mr. Sandeep Sankhe, Mr. Sachin Kandi, Mr. Gyanchand Yadav, Mr. Chetan Kudu,  
Mr. Alpes Naik and Mr. Neeraj Mishra (From Left to Right)**





## B. E. MECH - A



#memories #SJCEM #nostalgia



## B. E. MECH - B



#memories #SJCEM #nostalgia





## T. E. MECH - A



#memories #SJCEM #nostalgia



## T. E. MECH - B



#memories #SJCEM #nostalgia





S. E. MECH - A



#memories #SJCEM #nostalgia



S. E. MECH - B



#memories #SJCEM #nostalgia

## GUEST LECTURES / WORKSHOPS ORGANIZED

Technical Seminar on Alternative fuel in vehicles & Electricity Conservation by Er. Sudhir Sah, Faculty Adviser, PCRA, Govt. of India on 15th January 2020, for BE Mechanical - 59 students participated.



Dr. Rajesh Jaware (Professor & Head Mechanical) “**Scope of Industrial Engineering and Management in Industry 4.0**” on 15th February 2020





## PAPERS PUBLISHED / PRESENTED BY FACULTIES

### Papers Published / Presented by Faculties :

Sr. No.	Title of paper	Author	Journal Title	Year of Publication
1.	Design and fabrication of test rig to determine helium permeability through fabric	Mr. Bhushan Sonawane	International Journal of Mechanical and Production Engineering Research and Development (IJMPERD) Scopus Journal	21st September 2019
2.	Development of a thermal storage type cooker for high temperature cooking using solar salt	Mr. Chirag Kale	Solar Energy Material Science Cells (ELSEVIER) SCI & Scopus Journal Impact Factor: 6.019	7th January 2020
3.	Experimental investigation of Ranque Hilsch vortex tube and techno - economical evaluation of its industrial utility	Dr. Hitesh Thakare	Applied Thermal Engineering (ELSEVIER) SCI & Scopus Journal Impact Factor: 4.026	10th January 2020

### Faculty Contributions Outside Campus :

Sr. No.	Author	Title of paper	Journal Title	Year of Publication
1.	Mr. Parag Nikam	Industrial Training and Designing of Pressure Vessel, ANFD, Mixing Tank.	Servotex Engineers, Naigaon	19_ 23rd February 2020
2.	Mr. Chirag Kale	Design and Development of Electric and Hybrid Vehicle	COE, Pune	24-28th February 2020
3.	Dr. Ajoy Kumar	Syllabus revision for University of Mumbai	L. T. College of Engineering, Koparkhairane	29th February 2020
4.	Dr. Hitesh Thakare	Session chair for MULTICON - 2020	TCET, Kandivali, Mumbai	29th February 2020



## INDUSTRY - INSTITUTE INTERACTION



### Industry - Institute Interaction

**Following faculty members visited Custom Capsules Ltd. Boisar on 7th November 2019**

Dr. G. V. Mulgund

Dr. Ajoy Kumar

Dr. A. Astankar (Training and Management)

Dr. Hitesh Thakare

Mr. Rajesh Bisane

Mr. Ravi Verma

### Points Discussed

1. Industrial Visit for ISHRAE Students
2. Project support
3. Industry associated lab equipment
4. Internship and Training
5. MOUs
6. Technical Problems and Statistical Analysis

### Outcome -

1. Er. Santosh Bhagat, Plant Head attended DAB meeting on 24th January 2020.
2. Mr. Ravi Verma is helping industry in statistical data analysis.



## CONTRIBUTION TO UNIVERSITY WORK

### Contribution to University work

Sr. No.	Name of Teacher	Name of Event	Name of Subject	Date
1.	Mr. Vinod Surange	Attended orientation programme at VCET Vasai Mumbai	Project Management (VIII Sem - CBCGS - Rev. 2016)	16th January 2020
2.	Mr. Parag Nikam	Orientation program for subject Industrial Engineering and Management	Terna College of Engineering, Nerul Mumbai	15th January 2020
3.	Dr. Ajoy Kumar	Attended Orientation programme at RGIT Versova Mumbai	Power Engineering (VIII Sem - CBCGS - Rev. 2016)	23rd January 2020
4.	Dr. Ajoy Kumar	Syllabus revision from Sem-III onwards invited by Chairman, Board of Study Mechanical Engg. University of Mumbai	Mechanical Engineering	29th February 2020

### MOUs with Industry

Sr. No.	Name of Industry	Nature of Interaction / Outcome
1.	Indian Registrar of Shipping (IRS). Center of Excellence in Maritime And Shipbuilding (CEMS) Powai	1. Industrial Visit. 2. Industrial training on NX and PLM
2.	Tata Power Skill Development Institute (TPSDI) Trombay.	1. Industrial Visit 2. Industrial training programme on Solar Panel Installation and Maintenance

# DEPARTMENT ADVISORY BOARD MEETING

## Department Advisory Board Meeting (Held on 24th January (2020))

Sr. No.	Name of Member	Affiliation	Designation
1.	Dr. G. V. Mulgund	Principal, SJCEM Palghar	Special Invitee
2.	Dr. Ajoy Kumar	Vice Principal and HOD Mechanical, SJCEM Palghar	Chairperson
3.	Dr. Vivek Sunnapawar	Chairman, Board of Studies (BOS), Mechanical Engineering, University of Mumbai & Principal, L. T. College of Engineering, KoparKhairane, Navi Mumbai	Member
4.	Dr. Sanjay Bokade	Member, Board of Studies (BOS), Mechanical Engineering, University of Mumbai & In-charge Principal, Rajiv Gandhi Institute of Technology, Mumbai	Member
5.	Dr. S. N. Teli	Professor, Department of Mechanical Engineering, Bharati Vidyapeeth College of Engineering, Navi Mumbai.	Member
6.	Er. Santosh Bhagat	Plant Head, Custom Capsules Ltd. Boisar	Member
7.	Er. Shilpak Khadke	Asst. Manager, AYM Syntex Ltd. Boisar	Member
8.	Er. Parag Patil	Alumni, SJCEM Palghar (Preparing for MBA)	Member
9.	Mr. Vinod Surange	Assistant Professor, Department of Mechanical Engineering, SJCEM Palghar	Coordinator

