



**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

**December - 2019**



## CHAIRMAN'S MESSAGE

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

I am happy to see the first edition of newsletter/magazine of the Mechanical Engineering department **"MECHATRON 2.0" December 2019 edition** under 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 first edition of newsletter/magazine of Mechanical Engineering department **"MECHATRON 2.0" December 2019.**

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 issue of annual newsletter/magazine "**MECHATRON 2.0**".

This newsletter/magazine will continue to be a vehicle for promoting fluent communication among all members of college. We have accounted 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

## STUDENTS INTERNSHIP DETAILS

➤ 143 students completed an internship in winter-2019 vacations details as below -

Duration	No. of students
01 Week	36
02 Weeks	81
03 Weeks	10
04 Weeks	9

In company CR Workshop- Matunga, HPCL- Kurla, BPCL- Kurla, ADTPS- Dahanu, Mahindra & Mahindra Ltd- Kandivali, J.S.W.-Boisar, Mazgaon Dock Shipbuilders- Mumbai, L&T- Powai, Apollo Pipe Manufacturing-Thane.

➤ 7 students completed 12 Days course on “Solar Panel Installation and Maintenance in association” with TPSDI, Trombay, 09th - 23rd December 2019.

### Student's Publications/ Project

➤ Vishal Darji, Bhavendra Jha, Ankit Korgaonkar, John Rebeiro Published research paper in SCOPUS indexed International Journal of Mechanical and Production Engineering Research and Development (IJMPERD) accepted date- 21st Sep 2019

### Student's Participation

- Group of 25 students participating in SUPRA - 2020 Competition with Faculty Coordinator Mr **Ambeprasad Kushwaha**.
- Group of 10 students participating in **ISHRAE Students Technical League (ISTL)-2020** with Faculty Coordinator **Mr Rajesh Bisane**.
- 19 Students of BE Mechanical completed **Diploma in CAD (200 hours course)** at **CEMS (IRS, Govt. of India), Powai**.
- 07 students completed 12 Days course on **Solar Panel Installation and Maintenance in association** with **TPSDI, Trombay** between 09th to 23rd December 2019.
- 03 Students of BE Mechanical completed for Diploma in PLM (200 hours course)
- 56 Students of TE and BE Mechanical participated in the workshop on “**Automobile Engines conducted**” by **Baba Automobiles Jaipur, organized at SJCEM Palghar** (19th - 21st September 2019).





## GUEST LECTURES / WORKSHOPS ORGANIZED



- Expert lecture for B.E. students by **Mr Amardeep Kalaskar (Executive Engineer in Custom Capsules Pvt. Ltd. Boisar)** for “**Basic Knowledge of VMC Tooling and Programs preparation**” on 19th Sep 2019 and lecture Learning outcomes are “Use of latest CNC Tools and Programming”.



- Expert lecture for B.E. students by **Mr Kenneth D'Souza** for “**Social Entrepreneurship**” on 30 th Sep 2019 and lecture Learning outcomes are “Understanding the Need for self-employment in villages”.



- Expert lecture for S.E. students by **Mr Aadesh Singh and Mr Ajit Singh** for “**Career Opportunities in NDT**” on 10 th Oct 2019 and lecture Learning outcomes are “Understanding Industrial aspects of NDT”.

- Expert lecture for S.E. students by **Dr Madhuri Khaparde** for “**Basic Concepts of Nanomaterials**” on 10th Oct 2019 and lecture Learning outcomes are “Overall improvement in subject of Material Technology”.

- Expert lecture for B.E. students by **Ms Snehalata Athaide** for “**Stress Management**” on 10th & 11th Oct 2019 and lecture Learning outcomes are “Workplace stress management”

## GUEST LECTURES / WORKSHOPS ORGANIZED



Skill Training Employability Program (STEP) Course on **ANSYS** was conducted by APTECH staff **Mr Ganesh S. Katke**. The topic was covered in course are Basics of Strength of Material (SOM), Stress, strain diagram introduction and discussion, Statistical Structure, Basics of ANSYS-Workbench, Assembly, Meshing Complete Analysis etc on Date: 12th December 2019 to 20th December 2019 for T.E. Mechanical Engineering students at CAD/CAM Lab with faculty coordinator **Mr Bhushan Sonawane and Mr Arif Upletawala**.



- Skill Training Employability Program (STEP) Course on **Solidworks** was conducted by **APTECH** staff **Mr Sumit Dubey** who is working as **Sr. Mechanical Design Engineer in Victora Lifts Pvt. Ltd., Mumbai**. The topic was covered in course are Solid works window introduction (user interface, commands etc.), Part design assembly and drafting (Belt Roller Support, Main Frame assembly, Machine Mounting base channel), Sheet Metal, Welding etc on Date: 12th December 2019 to 20th December 2019 for T.E. Mechanical Engineering students at SPA Lab A-Wing first floor -SJCEM with faculty coordinator- **Mr Vinod Surange and Mr Bhushan Sonawane**.
- Workshop organized for T.E. & B.E. students by Mr Nimesh Baba CEO BABA Automobile Pvt. Ltd. Jaipur) for "Automobile Engine" on 19th & 21st Oct 2019 and lecture Learning outcomes are "Detailed Assembly of Engines of Mercedes, Audi and BMW".



## Expert Lectures

The following industry experts and academicians has delivered the lectures:-

- 01 lecture by Dr Sanjay Kumar. ( Prof. at TCOE, Kandivali Mumbai)
- 01 Lecture by Mr. Shilpak Khadake(Asst. Manager, AYM Syntex Ltd. Boisar )
- 02 lectures by Dr S. N. Teli. (Prof.at BVCOE, Kharghar, Navi Mumbai)
- Mr Reuben Buthello has conducted 12 lectures for subject Automobile Engineering of BE Mechanical

## Industrial Visit



- Industrial Visit organized successfully at **Shipra Stampings Pvt. Ltd. Pune** on 4th Oct 2019 and learning outcomes are “Details of Industrial Stamping Process”



- Industrial Visit organized successfully at **Diesel Loco Shed, Pune** on 5th Oct 2019 and learning outcomes are “Periodic Overhauling of Diesel Engines”

## Faculty Achievements

- **Mr. Vinod Surange** (9.63 SPI) and **Mr. Rajesh Bisane** (8.31 SPI) completed Ph. D. Coursework in September 2019 from University of Mumbai.
- **Mr. Kiran Beldar** completed Online course on **“Best Practices in Design & Implementation of Solar Power Plants with an Overview of Techniques in Energy Yield Estimation / Forecasting”**, offered by National Institute of Wind Energy, R&D Institution under Ministry of New and Renewable Energy, Government of India.
- **Mr. Avinash Chavan** completed an online course on **“Product Design using Value Engineering”** offered by IIT Roorkee **through NPTEL Certification**
- **Mr. Rakesh Shinde** completed an online course on “Design Thinking- A Primer” offered by IIT Madras **through NPTEL Certification.**

## Papers Published/ Presented by Faculties

- **Mr. Bhushan Sonawane** published paper on **“Design and fabrication of test rig to determine helium permeability through fabric ”** in **International Journal of Mechanical and Production Engineering Research and Development (IJMPERD) Scopus Journal** in Sep 2019.