"TECH BEACON"

NEWSLETTER

DEPARTMENT OF MECHATRONICS ENGINEERING

Academic Year 2022-23

Volume 01, Issue 1

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Dr. S. A. Khot
Principal

HOD's Words

Dr. S. K. Shikalgar
Head of Department

It is pleasure to introduce you to the Department of Mechatronics Engineering, which is an emerging multidisciplinary branch of engineering that focuses on electronic and mechanical systems, and also includes a combination of robotics, electrical, computer, telecommunications, control engineering.

Today, Mechatronics Engineers are the most demanded in the automation industries. Mechatronics Engineering will continue to grow in demand as more businesses advance their technologies and turn to sophisticated intelligent systems and robotics. We strive to increase our knowledge, enhance critical thinking, motivate innovative projects, and develop entrepreneurial skill. We impart knowledge through a highly competent team of faculty. The diversity of expertise of the faculty helps the students to acquire skill in all disciplines. Our laboratories are equipped as per the norms of AICTE and motivate students to do projects related to automation, robotics, and societal development. We focus to nurture our students to become world class professionals and/or future entrepreneurs.

Vision and Mission of Institute

Vision

To be a center of excellence in technical education by using cutting edge technology that produces competent engineers of today and tomorrow to serve the society.

Mission

- To impart quality education by implementing state-of-the-art teaching-learning methods to enrich the academic competency, credibility and integrity of the students.
- To facilitate a conducive ambience and infrastructure to develop professional skills and nurture innovation in students.
- To inculcate sensitivity towards society, respect for environment and promote high standards of ethics.

Vision and Mission of Department

Vision

To be center of excellence in Mechatronics engineering education to prepare professionally competent engineers with lifelong learning attitude for the accomplishment of ever growing needs of society.
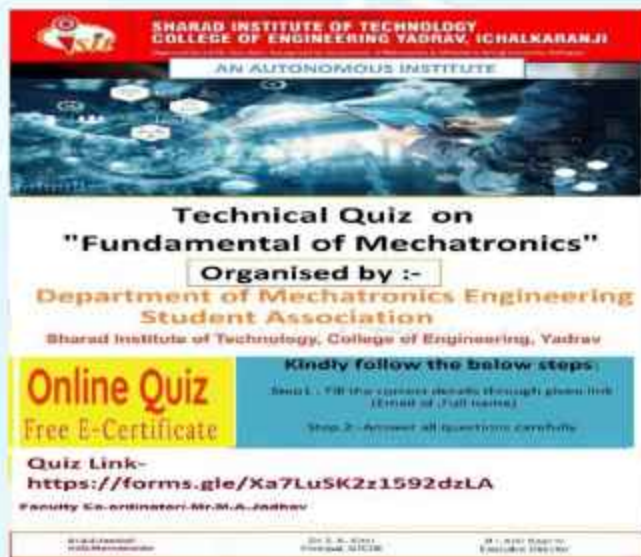
Mission

- To prepare technically and professionally competent engineers by imparting quality education through effective teaching learning methodologies and providing stimulating environment for research and innovation.
- To develop professional skills and right attitude in students that will help them to succeed and progress in their personal and professional carrier.
- To imbibe moral and ethical values in students with concern to society and environment.

Inside

- **Student Activities**

- **Achievements by Students**

- **Guest/Expert Lectures**

- **Industrial Visits**

- **PBL Activity**

- **Toppers List**

- **Faculty Achievements**

- **ATAL FDPs :**

- **EduSkills training programme**

- **Patents**

- **Research Proposal**

Students Activities

➤ Technical Quiz -2022 on "Sports Day"

➤ Industrial visit

➤ IMPETUS 2k22

➤ Guest Lectures

➤ PBL activity - Miniproject presentation

➤ C and Aptitude training in curriculum

Achievements by Students

- Secured 3 Rank in **Paper Presentation** by

  1. Band Virendra

  2. Havale Pruthviraj

- Secured 3 Rank in **Design with Fusion 360** by

  1.Ghorpade Rohit Tanaji

Guest/Expert Lectures

Sr. No.	Topic for Expert Talk	Expert Name & Designation	Date of Expert Talk	Class
1	IoT Based applications in Signals & Systems	Dr.P.K.Kharat, Associate Professor, Walchand college of Engineering, Sangli	26/08/2022	TY
2	Career Guidance	Mr.Vitrag Shah, RS Labs, Pune	10/9/2022	TY
3	Hydrogen fuel & its application for Evs & Opportunities in Industrial Process Automation.	Mr.Anand Thakar, Principal Consultant, CADCAMGURU, Pune	21/09/2022	SY & TY
4	Presentation Skills	Mrs. Harshal Kajave, Entrepreneur, Kolhapur	23/09/2022	SY
5	Foundary Technology	Mr. Kiran Mali, Quality Head, Mane Foundary, Ichalkaranji.	24/09/2022	SY
6	How to get Government jobs as per students Education.	Mr. Vishnu Bhosale	03/10/2022 & 04/10/2022	SY, TY

Few Glimpses of Guest Lectures

Industrial Visits

Sr. No.	Name of Company	Class	No. of Students
1	Innovista, Shiroli	TY	70
2	Advance Measuring Systems, Gokul Shirgaon	TY	70
3	GEM Ltd, Yadrav	SY	39
4	TOP Gear Industries, Hatakangle	SY	39
5	Perfect Plastic (India) , Yadrav	SY	39
6	Samarth Industries Pvt. Ltd. Hatakangle	SY	39
7	Ved Industries ,Hatakangle	SY	39
8	Acuara Foundries, Hatakangle	SY	39
9	Shriram Industries Pvt. Ltd. Hatakangle	SY	39

PBL Activity

Project-based learning boosts classroom engagement *and* has a direct impact on how well students are prepared to enter the workforce once they graduate. A growing focus on 21st century skills and critical thinking means project-based learning is gaining steam in education. In addition, PBL can help educators:

- Teach students personal responsibility and critical time management skills
- Design assignments that hit higher-order stages in Bloom's taxonomy like analysis, synthesis and evaluation
- Provide multiple ways of assessing students at different stages of the project, whether through a portfolio, annotated bibliography, outline, draft product or finished project

When students leave school, they'll need to understand that work isn't as straightforward as lectures and homework. It's more aligned with a project-based approach, where employees are expected to prioritize, manage their time and deliver work on a deadline. Project-based learning helps teach students:

- Creative problem-solving skills
- The importance of collaboration
- How to find the right tools for the job
- How to build independent learning and project management skills
- How to use relevant technology to find resources, communicate and produce a final product

Project-based learning is important because it helps students approach meaningful learning opportunities with curiosity, while also giving them real-world skills they'll use for the rest of their lives.

Toppers List

SY Semester IV

Sr. no.	Name of Students	CGPA
1	Daryawardi Rooman S	9.06
2	Desai Sandesh B.	8.75
3	Mullani Sadam Baban	8.6

FY Semester II

Sr. no.	Name of Students	CGPA
1	Kadam Aditya Amar	8.46
2	Chavan Soham Shivaji	8.36
3	Chougule Pranali Bhalchandra	8.08

Faculty Achievements

Biomedical
Signal Processing
and Control

Paper Published in Elsevier Journal:
Author :Dr S K Shikalgar
Paper Title: Optimized Active Contor Segmentation Model for Medical Image Compression in Biomedical Signal Processing and Control.

ATAL FDPs :

Artificial Intelligence, Cyber security, Robotics, Internet of Things, Machine Learning, Data science, Block Chain, Advanced communication Engineering etc.

Sr. No.	Name of Faculty	No. of Courses	
1.	Dr. S. S. Tamboli	4	
2.	Mrs. R. S. Sajane	4	
3.	Mrs. K. V. Joshi	4	
4.	Mr. S. S. Sajane	4	
5	Mr. V. V. Khandare	4	
6	Mr. P. J. Patil	4	

EduSkills training programme

Sr. No.	Name of Faculty	Courses completed	
1.	Dr. S. S. Tamboli	CCNA	
2.	Mr. Babar M. M.	Microchip	

Patents

1. Dr. S. S. Tamboli:

- ➤ Monitoring Milk quality Using Mobile App (Image Processing Technology) Ref. No. 202121006118 Dated 13/02/2021

- ➤ A System For Regulated Distributed Deep Learning In Cloud And Smart Mobile Devices Application No. 202121025112 Dated:06/06/2021

Mrs. Joshi K.V.:

- ➤ Monitoring Milk quality Using Mobile App (Image Processing Technology) Ref. No. 202121006118 Dated 13/02/2021

Research Proposal

Dr. S. S. Tamboli:

- ▪ UGC funding for research proposal on Faculty Development Program on Machine Learning Sensors and IoT approved by AICTE (7 Lakhs).

- ▪ One week FDP on "Machine learning and its applications" Sponsored by TEQIP, DBATU, Lonere

Editor's Message…

It is with great pleasure that we bring you the Volume 01, Issue 1 Academic Year 2022-23 of the newsletter "Tech Beacon" of Mechatronics department of Sharad Institute of technology, college of engineering. Please let me start by conveying my regard to the entire Mechatronics engineering faculty members who supported me for making this happen. The news letter is published twice in a particular academic year. The current newsletter highlights the vision, mission, and activities of our students and the achievements of Students during the past semester. This newsletter also throws light on the different activities incorporated during the semester.

I do hope that this newsletter will encourage many more students to come forward and express their talent and creativity. The intent of newsletter is to disseminate information about our Institute, and we hope that the readers find the issues informative and useful. We are thankful to the faculty and staff of our department for their valuable inputs, and we welcome suggestions and feedback that will help us improve further.

Mr.S.S.Sajane
Assistant Professor,
Mechatronics Engineering Department

From Student Editor's Desk

It is with immense enthusiasm that we present Volume 01, Issue 1 of "Tech Beacon", the official newsletter of the Mechatronics Department, Sharad Institute of Technology, College of Engineering. This newsletter serves as a platform to showcase the achievements, innovations, and activities of our fellow students, highlighting the dedication and passion within our department. Through this issue, we aim to bring forth insights into student projects, technical events, workshops, and competitions that have shaped our learning journey. It is inspiring to witness the creativity and technical excellence displayed by our peers, and we hope this newsletter motivates everyone to explore new ideas and innovations.

We extend our sincere gratitude to our faculty members for their continuous guidance and encouragement in making this newsletter a reality. A special thanks to all the students who contributed their work and experiences. We look forward to more engaging contributions, innovative ideas, and active participation from students in the future. Your suggestions and feedback are always welcome as we strive to improve with each edition.

Sandesh Desai
Student, TY Mechatronics Engineering Department