

Instrumentation Engineering

Newsletter 2025-2026

Vision statement of Department

To be recognized as leading contributor in imparting technical education and research in Instrumentation & Control engineering for development of the society.

Mission statement of Department

- 1.To deliver knowledge of Instrumentation and Control Engineering by strengthening involvement of Research institutions and industries in academics
2. To build conducive environment for advanced learning through participation of faculty and students in collaborative research, consultancy projects, student exchange programs and internships
- 3.To develop competent Engineers with entrepreneurial skills to address socio-economic needs.

Program Educational Objectives (PEO)

The Graduates would demonstrate

1. Core competency in Instrumentation and Control Engineering to cater to the industry and research needs.
2. Multi-disciplinary skills, team spirit and leadership qualities with professional ethics, to excel in professional career and/or higher studies.
3. Preparedness to learn and apply contemporary technologies for addressing impending challenges for the benefit of organization/society.
4. Knowledge of recommended standards and practices to design and implement automation solutions.

PEO – Mission Mapping

	M1	M2	M3
PEO1	3	2	2
PEO2	2	3	2

PEO3	2	3	3
PEO4	2	3	3

Program Specific Outcomes (PSOs)

Graduates shall have the ability to:

1. Evaluate the performance of suitable sensors / Process components/ Electronic / Electrical components for building complete automation system.
2. Analyze real-world engineering problems in the area of Instrumentation and Control.
3. Design or Develop measurement / electronic / embedded and control system with computational algorithms to provide practical solutions to multidisciplinary engineering problems.

Program Outcomes

Engineering Graduates will be able to:

1. PO1: Engineering Knowledge: Apply knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to solve complex engineering problems.
2. PO2: Problem Analysis: Identify, formulate, research literature, and analyze complex engineering problems to reach substantiated conclusions.
3. PO3: Design/Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet specified needs.
4. PO4: Conduct Investigations: Conduct investigations of complex problems, considering design, usability, and safety.
5. PO5: Modern Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering tools.
6. PO6: The Engineer and The World: Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal, and cultural issues, and the consequent responsibilities relevant to professional engineering practice, understanding the impact of engineering solutions in societal and environmental contexts, and the need for sustainable development.
7. PO7: Ethics: Apply ethical principles and commit to professional ethics, responsibilities, and norms of engineering practice

8. PO8: Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams and multidisciplinary settings
9. PO9: Communication: Communicate effectively on complex engineering activities with the engineering community and society at large
10. PO10: Project Management and Finance: Demonstrate knowledge and understanding of engineering and management principles and apply them to one's own work, as a member and leader in a team, to manage projects and financial resources
11. PO11: Lifelong Learning: Recognize the need for, and have the ability to engage in, independent and lifelong learning in the context of advancing technology

Department Activities

1. Industry Connect of the Department

Following two courses are conducted by Emerson Engineering Export Centre from Jan 2026 to July 2026.

1. Batch Process Control (BPC)
2. Industrial Project Engineering (IPE)

Few Glimpses of the Inauguration 6th Jan 2026



3. Details of Students Six months Internships of Final Year students

SEM -II

Name of Student	Name of Company
Atharva Ajay Ansingkar	Aignous Ai
Ajinkya Sunil Kaulwar	Honeywell Pvt Ltd
Sarthak Ishwarprasad Biyani	Emerson Pune
Sarvesh Vaibhav Bajare	Honeywell Pvt Ltd
Atharva Prashant Debre	Thyssenkrupp Industrial Solutions
Dnyaneshwari Ghuge	Emerson Pune
Vivek Manoj Jha	Emerson Innovation Centre
Vaishnavi Gaikwad	Emerson measurement system and solutions
Anup Kadam	Emerson measurement system and solutions
Aditya Umesh Gavate	Techmake Pvt Ltd
Vaishnavi Mahindrakar	Emerson Pune
Kashish Meshram	Emerson Pune
Vaishnavi Godase	Ryka Engineering Solutions
Naresh Rajam Nagraj	Emerson Pune
Meet Pritam Nahar	Emerson Pune
Ved Kedar Kapre	Honeywell Pvt Ltd
Viraj Datta Mane	Emerson Pune
Aarya Rohit Keskar	Honeywell Pvt Ltd
Vaishnavi Deshmukh	Emerson Pune
Monika Gaikwad	Honeywell Pvt Ltd
Sakshi Vipin Hingmire	Emerson Pune
Tejas Santosh Jagtap	Burns and Mcdonnell Pvt Ltd
Pooja Sanjay Kandepalli	Emerson Pune
Parth Shridhar Madnurkar	Philips
Ganesh Uttam Masal	Emerson Pune
Omeshwarsingh Pardeshi	Dorle control
Sahil Nimse	Emerson Pune
Revati Bhalchandra Pathak	Honeywell Pvt Ltd
Sahil Shevade	Thyssenkrupp India Private Limited India
Shweta Dattatray Sawant	Honeywell Pvt Ltd
Gaurav Nathuram Thamke	Honeywell Pvt Ltd
Atharva Rajesh Mhetre	Emerson Pune
Rushi Gajanan Mahamune	Wabag Pvt Ltd
Ahmed Hatem Ahmed	Techtrol
Urvi Prashant Kshirsagar	Philips
Rushikesh Uday Sonar	SMS Group
Rajesh Jivtode Sushmit	Emerson innovation center

Ananya Pankaj Sharma	Philips
Shravani Manik Tambe	Alitizon Pvt Ltd
Siddhant Ramesh Telgote	Johnson control Pvt Ltd
Narayanji Randad Vivek	Emerson measurement system and solutions
Rohan Bhagwat Zombade	Pallwin Automation Pvt Ltd
Harsh Vaijanath Maske	Emerson , Mumbai
Sumit Ananda Arjune	Ryka Engineering Solutions

SEM –I

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Dnyaneshwari Ravindra Ghuge	Emerson Pune
Vivek Manoj Jha	Emerson Innovation Centre
Anup Sureshrao Kadam	Emerson measurement system and solutions
Vaishnavi Sushil Mahindrakar	Emerson Pune
Kashish Moreshwar Meshram	Emerson Pune
Naresh Rajam Nagraj	Emerson Pune
Meet Pritam Nahar	Emerson Pune
Viraj Datta Mane	Emerson Pune
Vaishnavi Santosh Deshmukh	Emerson Pune
Monika Shantaram Gaikwad	Honeywell Pvt Ltd
Sakshi Vipin Hingmire	Emerson Pune
Tejas Santosh Jagtap	Burns and Mcdonnell Pvt Ltd
Pooja Sanjay Kandepalli	Emerson Pune
Ganesh Uttam Masal	Emerson Pune
Sahil Rajendrakumar Nimse	Emerson Pune
Sahil Deepak Shevade	Thyssenkrupp India Private Limited India
Shweta Dattatray Sawant	Honeywell Pvt Ltd
Gaurav Nathuram Thamke	Honeywell Pvt Ltd
Atharva Rajesh Mhetre	Emerson Pune
Ahmed Hatem Ahmed	Techtrol
Urvi Prashant Kshirsagar	Philips
Shantanu Pradip Patil	NA
Ananya Pankaj Sharma	Philips
Harsh Vaijanath Maske	Emerson , Mumbai

4. Faculty Achievements

Faculty Research for Academic Year 2024-25

Sr. No	Publications	Total
1	SCI/WOS/Scopus Journal Publications	8
Patents		
1	Granted	2
2	Filed and Published	28
Research Proposal/Industry Projects		
1	Number of Research Proposals submitted	7
2	Number of Industry projects ongoing	3

List of SCI/Scopus/WOS publications published

Sr. No	Name of Faculty as Author	Title of paper	Title of journal	Year of publication	ISSN number	DOI
1.	Dr. Archana Chaudhari	Deep learning based 3D residual convolutional and Multi-Head Attention (3D-RMA) for lip-reading	Results in Control and Optimization	2025-26	2666-7207	https://doi.org/10.1016/j.rico.2025.100608
2.	Dr. Archana Chaudhari	A Comprehensive Review of Reinforcement Learning Based Routing Algorithms for Wireless Sensor Networks	International Journal of Computer Networks and Applications	2025-26	2395-0455	10.22247/ijcna/2025/28
3.	Dr. Archana Chaudhari	Energy-efficient threshold-based reinforcement learning for WSN routing	Pollack Periodica	2025-26	1788-1994	https://doi.org/10.1556/606.2025.01336



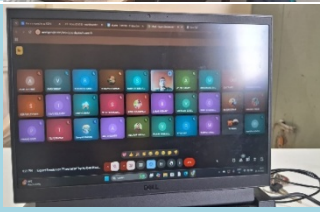
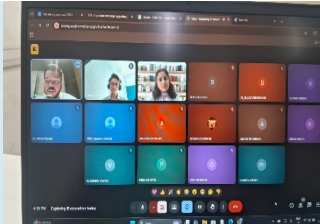
4.	Dr. Archana Chaudhari	An analysis of cyber threats in distributed energy power attacks	International Journal of Basic and Applied Sciences	2025-26	2227-5053	10.14419/0cz1w646
5.	Dr. Archana Chaudhari	Change detection in synthetic aperture radar images using spatial fuzzy clustering based on the similarity matrix	International Journal on Smart Sensing and Intelligent Systems	2025-26	1178-5608	10.2478/ijsis-2025-0026
6.	Prof. Anil Kadu	Deep reinforcement learning-based approach for control of Two Input–Two Output process control system	International Journal on Smart Sensing and Intelligent Systems 18(1)	2025-26	1855-0452	10.2478/ijsis-2025-0029
7.	Prof. Anil Kadu	Optimized decentralized PID controller for TITO systems using grey wolf optimization with experimental application	Engineering Research Express 7(4)	2025-26	2631-8695	10.1088/2631-8695/ae192b
8.	Dr. Vijaykumar Bhanuse	A Lightweight MobileNet-Based Framework for Multi-Class Skin Cancer Classification with Data Augmentation	Ingénierie des Systèmes d'Information	2025-26	1633-1311	https://doi.org/10.18280/isi.301021

5. Industrial Visit to Katraj Doodh Dairy

Total 11 students from SY instrumentation visited Katraj Doodh Dairy on 14th of August from 2.00pm onwards and understood different process of pasteurization and sensor installation.



6. Glimpses of Alumina Sessions conducted in the Department conducted by Dr. Manisha Mhetre

Sr No	Date of Activity	Select Activity	Title of the Activity	Name of Alumni involved , pass out batch and branch	Affiliation of the alumni	Number of students	Photo
1	11 th August 2025	Session on Building Automation	Pre company interview talk	Toufiq Rahatwilkar 2023 Instrumentation and Control	Honeywell Automation	30 students from SY and final year Instrumentation	
2	4 th August 25	Session on career opportunities in Embedded system	Session	Manisha Badarakhhe 2006 Instrumentation	ARM	30 SY Instrumentation students	
3.	10 th October 2025	Session on Flow measuring sensors	session	Yogesh Gilbale Mtech Instrumentation 2013	Forbes Marshall	44 SY Instrumentation students	
4	13 th October	Session on "Exploring US Education today"	Online session	Atharva Puranik 2021 E&TC Shilpa Roy 1999 Instrumentation	WPP media USA Infosys, USA	16 students from all branches and from both campus	

5	5 th January 26	Session on “career guidance ”	Offline session	Abijit Murgund e Instrume ntation 2014	Cognizant	27 students, SY Instrume ntation	
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7. Biomedical Workshop on 13th Oct 2025

Department of Instrumentation in association with Department of Electronics and Telecommunication, IEEE Sensor council, IMS chapter and Biomedical company Medifacts Inc. conducting a Biomedical workshop on Biomedical Devices: A Practical Approach on 13th October , Monday from 12.00 noon to 3.00pm. Topics such as ECG, BP, EEG and Bedside monitors with theory and practical demonstration of devices were covered.