

Instrumentation Engineering

Newsletter 2021-2022

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. **Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
4. **Conduct investigations of complex problems:** Use research –based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
7. **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and teamwork:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. **Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one’s own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
12. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Department Activities

1. Research Projects and Consultancy

Sr .No	Achievements	Name of Faculty
1	Ongoing Consultancy project	1. Prof. Dr. Shilpa Sondkar 2. Prof. Dr. Jayant Kulkarni and Dr. Sanika Patankar
3.	Ongoing Funded Research Projects	Prof. Dr. Jayant Kulkarni
4.	Ongoing Research Projects	Dr. Manisha Mhetre

5. Semester Internships for AY 21-22 SEM-1

Sr. No.	Name of the Student	Company Name
1	AADITYA SARMA	Ethosh Designs
2	ADDEPALLI SRI SAI Sampat BHARGAV	Kokban Automation
3	APTE ADWAIT VINAYAK	Ethosh Designs
4	ARAVIND S PARAKKAL	Concord Technologies
5	BANSODE SHUBHAM GORAKH	Automate Engg
6	BERI ISHA NACHIKET	AIS-Auto Intell Service
7	BHAGWAT SUYASH SATISHKUMAR	Srijan Technologies Pvt. Ltd.
8	BHALERAO KRISHNAKANT LAXMIKANT	Kokban Automation
9	BULKUNDE AKSHAY DEEPAK	Quiesta Technologies
10	CHIPADE SALONI SANTOSH	ISOBEX
11	CHOUGULE YUTIKA MAHESH	ARAI
12	DAMLE ANAY YATIN	Desai Product
13	DANDEKAR HARSHAL VIJAY	NTU
14	DHOME OMKAR POPAT	Kokban Automation
15	DATE SHRUTI KEDAR	ARAI
16	DEO SHIVANGI ABHAY	ARAI
17	DESAI HRUSHIKESH SURESH	Thermax
18	DESHMUKH SAMEER SANJAY	Innoglobal Automation
19	DUBAL VAISHNAVI SHIVAJIRAO	Ryka
20	CHOPADE UTKARASH PRAMOD	Organics Limited
21	GAIKWAD SNEHAL RAJENDRA	Saj Test Plant
22	DULE BRISHTI ASHOK	Wuum Health Pte Ltd,
23	BHONGLE SUYASH NARENDRA	NIV
24	GHAMANDE PARTH SHRINIVAS	ARAI
25	GOKHALE PARESH PRADEEPAKUMAR	Yun Solutions
26	INAMDAR ISHAN CHANDRASHEKHAR	ARAI
27	INAMDAR MAYURESH SANDEEP	ARAI
28	INAMDAR SHARDUL SATISH	Redhat India
29	JADHAV DIPRAJ CHANDRAKANT	Explu Solutions

30	JADHAV HARSHAL SATISH	Kokban Automation
31	JAPKAR GAURI RAMESH	Shiramne software
32	JESTE MANASI MAHENDRA	ARDE-DRDO
33	JHA AKSHADKUMAR MADANKUMAR	Intell process solutions
34	KEDARE NAMRATA VILAS	Tranz Techonogy ,Pune
35	KUMBHAR SAMRUDDHA RAJKUMAR	BIG Animation (I) Pvt. Ltd.(Reliance Animation)
36	KUMBHAR SWARAJ DILIP	JSW Steel ,Tarapur MIDC ,Boisar
37	KUTE PRAYUKTA RAJENDRA	ISOBEX
38	LAD MOHINI KUMAR	Bhad Engineers
39	LOKHANDE SWAPNIL KESHAV	Automate Engineering
40	MALEGAONKAR SAMRUDDHI NAGORAO	RNS World Wide
41	MANE MANASI NAGNATH	Saj Test Plant
42	MANE SWAPNIL SHANKAR	Aarshiti Group
43	MESHARAM SIDDHANT CHANDRAKANT	ISOBEX
44	MOHOL PRANAV ANAND	ARAI
45	MULI PRATHAMESH PRAVINRAO	Thermax
46	MUNDHE TANVI SUDHAKAR	Hof University of Applied Science
47	NALAWADE SAYALI NITIN	Concord Technologies
48	PADASE SURAJ SURESH	Thermax
49	PARDESHI OMKAR PRUTHVIRAJ	Ethosh Designs
50	PATIL KOMAL DATTATRAY	AIS-Auto intell Service
51	PATIL VEDANT GUNWANT	Orion Instruments
52	PATOLE RAKESH RAMESH	Primal Infosys
53	PETHE ADITYA SHEKHAR	ARAI
54	POKHARKAR ABHIJIT PRASHANT	ISOBEX
55	RATHOD PRASHANT PRAKASH	ISOBEX
56	RAUT GIRISH AVINASH	ARAI
57	RODE AJINKYA AVINASH	Ryka
58	SAHASRABUDHE NEERAJ AMIT	Infineon
59	SALUNKHE HRITWIK ASHOK	Concord Technologies
60	SAYED ABDUL RAHIM HYDER	RPM Motors
61	SAYYAD SHAHID LIYAKAT	Sunuvo Tech System
62	SHATAKSHI KAISHORI	SBEM
63	SHIRGAONKAR ANWAY PRASAD	ARAI
64	SHISODE AMIT MAHENDRASING	Quiesta Technologies
65	SHRIRAM DNYANESHWARI KUNDLIK	Shirasmane software solutions
66	SONE AMEY RAJESH	Orion Instruments
67	SURYAVANSHI ADITYA SANTOSH	Innoglobl Automation
68	THAKUR AMIT GANESH	Comau India Pvt Ltd
69	THETE SUSHRUT HEMCHANDRA	Dhara Instruments
70	VAISHNAVI MAHESHKUMAR NAGDE	ISOBEX
71	VEDAK SAURABH NITIN	Aegis Logistics Ltd
72	VEER SANKET HANUMANT	RNS Worldwide MSSP Pvt Ltd
73	VHATKAR VIRAJ MAHADEO	Orion Instruments
74	WAGHMARE GAURAV SANTOSH	Intellect Process Solutions
75	WALNUSKAR RAJ DINESH	Sudarshan chemical
76	YADAV PRATIK SHARAD	ZekeLabs Technologies Pvt. Ltd.

SEM-2

Sr.No	Name of Studnets	Company Name
1	ABHISHEK KUMAR JHA	Greencraft Labs,
2	ADDEPALLI SRI SAI SAMPAT BHARGAV	Kokban Automation
3	AMEYA VINAY PANCHPOR	Xu Lab ,Carnegie Mellon University, Pittsburgh
4	AMRUTKAR KAUSHAL CHANDRAKANT	MetaMorphoSys Technologies Private Limited
5	ANSARI MOHAMMAD ADEEBUDDIN MOHAMMAD RAFIQUDDIN	QSpiders Deccan Pune
6	ATHARVA BALLAL	The Math Company
7	AUNDHEKAR KRUSHNA ANILRAO	Forbes Marshall
8	BAGALE GAURAV GANGADHAR	Butsugen Technologies Private Limited
9	BAMANE ISHWAR NANDKUMAR	Quiesta Technologies Private Limited
10	BANSODE SHUBHAM GORAKH	Automate Engineering
11	BHALERAO KRISHNAKANT LAXMIKANT	Kokban Automation
12	BHOSALE ASHUTOSH SUNIL	Persistent
13	BIDKAR CHAITANYA ANAND	9Works
14	BULKUNDE AKSHAY DEEPAK	Quiesta Technologies Private Limited
4	CHAUDHARI PRITESH DHARMENDRA	Tailshire Pet Essentials LLP.
16	CHAUDHARI RUSHIKESH VIDYADHAR	RNS Worldwide MSSP Private Limited
17	CHAURE ROHIT DATTATRAY	Cognizant
18	CHAVAN ABHISHEK PANDIT	Quiesta Technologies Private Limited
19	CHIPADE SALONI SANTOSH	Cognizant
20	CHOLE SACHIN PRAKASH	Techport Solutions Pvt Ltd
21	CHOUGULE YUTIKA MAHESH	ARAI
22	DANGE VARAD UDAY	Cognizant
23	DHOME OMKAR POPAT	Kokban Automation
24	DANI MANAS ANANT	Cognizant
25	DATE SHRUTI KEDAR	Bugsmirror Research Private Limited
26	DAWARE SHARWARI GIRISH	eInfochips Private Limited
27	DEO SHALAKA ATUL	ARAI
28	DEO SHIVANGI ABHAY	ARAI
29	DESHMUKH PAYAL DNYANDEO	Godwit Technologies Pvt. Ltd,
30	DUBAL VAISHNAVI SHIVAJIRAO	Ryka Engineeing solutions
31	DESHMUKH SHEKHAR HANAMANTRAO	Acmegrade Pvt. Ltd.
32	DESHPANDE CHINMAY MILIND	Stanley Black and Decker
33	DESHPANDE VAISHNAVI PRAVIN	Persistent
34	DESHMUKH NEHA NITIN	Octagon Software Solutions
35	DULE BRISHTI ASHOK	Cognizant
36	DURGAPUROHIT SMRITI NINAD	iPAC Automation
37	GAJARE MANSI MHALASAKANT	Persistent
38	CHAMLE MAYURI RAJENDRA	Cognizant
39	GHULE SIDDHANT SANJAY	Cognizant
40	GRANTHI JAIDEV SINGH GURUBACHAN SINGH	lobot Technologies India Private Limited
41	HASABNIS PARTH SAGAR	Siemens
42	GHADGE ABHISHEK SURYAKANT	Logicon Technosolutions Pvt Ltd
43	HINGNEKAR REWA RAVINDRA	Cognizant
44	HULSURE VIJAY ARUN	Butsugen Technologies Private Limited
45	INAMDAR ISHAN CHANDRASHEKHAR	Persistent
46	INAMDAR MAYURESH SANDEEP	Visteon Technical and Services Centre Pvt. Ltd.
47	INAMDAR SHARDUL SATISH	Red Hat
48	JADHAV DIPRAJ CHANDRAKANT	Cognizant
49	JADHAV HARSHAL SATISH	eInfochips Private Limited
50	JADHAV RUTUJA RAJU	Wipro
51	JADHAV SOURABH AVINASH	Sprint Consys Pvt Ltd
52	JADHAV SURAJ NAGNATHRAO	Cognizant

53	JAGADALE MANTHAN NITIN	Bharat Forge
54	JAGTAP CHINMAY ANIL	Butsugen Technologies Private Limited
55	JAIWAL ASHISH SHAILENDRA	Curiosity Innovations
56	JAPKAR GAURI RAMESH	Cognizant
57	JESTE MANASI MAHENDRA	ARAI
58	JEURKAR VAISHNAVI SHRINIVAS	Persistent
59	JHA AKSHADKUMAR MADANKUMAR	Intellect Process Solutions
60	JHA ASHISHKUMAR GAURISHANKAR	Greencraft Labs,
61	JOSHI DHANANJAY SUNIL	Curiosity Innovations
62	JOSHI PRATHAMESH ANANT	Innovative Automation Pvt Limited
63	KALE PRATIK PRALHAD	Altizon Systems Pvt. Ltd.
64	KALE PRATIKSHA DATTA	iPAC Automation
65	KAMBLE SIDHODHAN KIRAN	Jguru and Ramrekha Foundation
66	KASETWAR ROHAN TUKARAM	Cotmac Electronics Pvt.Ltd
67	KHANDELWAL ANIKET PANKAJ	Curiosity Innovations
68	KHATIK SHUBHAM ANNASAHEB	Karpe Industries.
69	KIWANDE PUNIT SUBHASH	Curiosity Innovations
70	KOKATE PRATHMESH BABURAO	Butsugen Technologies Private Limited
71	KULKARNI ANIRUDDHA TRIMBAK	Cognizant
72	KULKARNI ATHARVA SUDHAKAR	Ernst & Young LLP
73	KULKARNI GAJENDRA SHASHIKANT	Cognizant
74	KULKARNI PRADYUMNA SUDHIR	Wipro
75	KULKARNI VENKATESHPRASAD VINAYAK	Thyssenkrupp
76	KUTE PRAYUKTA RAJENDRA	Cognizant
77	LOHADE DARSHAN SHANTIKUMAR	Raja Software Labs
78	LOKHANDE SWAPNIL KESHAV	Automate Engineering
79	LONKAR KALYANI RAJESH	Persistent
80	MAHAJAN SAURABH RAJENDRA	Wipro
81	MALEGAONKAR CHAITANYA NAGORAO	Gibsons Technologies India Pvt
82	MALEGAONKAR SAMRUDDHI NAGORAO	RNS Worldwide MSSP Private Limited
83	MANATHKAR AMEY VIVEK	Cognizant
84	MANDAKHALIKAR SAMRUDDHI NAGESH	Persistent
85	MANE TANMAY ASHOK	Panchayat Samiti, Walwa.
86	MATKAR SAGAR BABASAHEB	AutoIntell Services.
87	MAWALE ABHISHEK DNYANESHWAR	Butsugen Technologies Private Limited
88	MESHARAM SIDDHANT CHANDRAKANT	Jguru and Ramrekha Foundation
89	MIHIR RAVINDRA KUMAR KULKARNI	Persistent
90	MOHAMMED WALEED SAEED MEHDHAR	Butsugen Technologies Private Limited
91	MOHOL PRANAV ANAND	Cognizant
92	MULEY ROHAN NITINCHANDRA	Cognizant
93	MULGIR NIKHIL ASHOK	Cognizant
94	MUNDHE TANVI SUDHAKAR	Autodeco Components Pvt Ltd
95	NAVANDAR SOHAM MUKUND	SOrigin Solutions LLP
96	NICHIT ONKAR SHRIKANT	Karpe Industries.
97	NIGADE LAULESHA GANESH	Acmegrade Pvt. Ltd.
98	PADASE SURAJ SURESH	Cognizant
99	PADHI IPSITA GOPAL	Cognizant
100	PANGAVHANE MADHULI DILIP	Phoenix Engineering
101	PATIL GAURAV BALWANT	Butsugen Technologies Private Limited
102	PATIL GAURAV KISHOR	Micro Systems
103	PATIL INDRAJIT NAGNATH	Panchayat Samiti, Walwa.
104	PATIL RUCHA PRASHANT	Borderless Softtech Pvt. Ltd.
105	PATIL SHUBHAM NILESH	Curiosity Innovations
106	PAWAR ROHIT NANA	Green Freedom Pvt Ltd
107	PAWTEKAR ABHISHEK RAVINDRA	AutoIntell Services.
108	PHUKANE DHAVAL NITIN	Forbes Marshall
109	PIMPLE TEJAS RAJESH	Epione Healthcare Private Limited
110	POKHARKAR ABHIJIT PRASHANT	Jguru and Ramrekha Foundation

111	PRANISHA PRAMOD RATNAPARKHI	Curiosity Innovations
112	RAHATE SHREEYASH SWAPNIL	Nemesis Consultants LLP
113	RAJGURE HRISHIKESH SANJAY	Butsugen Technologies Private Limited
114	RAJPURE SWARAJ VIKAS	Smallcase
115	RANBHARE NIKHIL VASANTRAO	Exception Solvers
116	RATHI RUSHIKESH GOPIKISHAN	Persistent
117	RATHOD PRASHANT PRAKASH	Cognizant
118	RODE AJINKYA AVINASH	Ryka Engineeing solutions
119	RUGALE VIVEK CHANDRASHEKHAR	Cognizant
120	SAGAR PRANJALI SURESH	Yun Solutions LLP
121	SAHASRABUDHE NEERAJ AMIT	Infineon
122	SANDIKAR PRATHAMESH JAITIRTH	Quiesta Technologies Private Limited
123	SANER NEHA CHANDRAKANT	Great Ideas In Action LLP
124	SANYOGITA ABHIJIT TILAK	Pragmasys Consulting
125	SATHE SHUBHAM VILAS	Accumax Products
126	SATHWANE PRATIK VIJAYKUMAR	Divish Mobility
127	SATYAJEET DAYANAND SAWANT	EXception Solvers
128	SAWANT TAPAN DATTATRAY	Quiesta Technologies Private Limited
129	SHAIKH ABDUL HASEEB ABDUL LAIQH	Persistent
130	SHIRGAONKAR ANWAY PRASAD	ARAI
131	SHISODE AMIT MAHENDRASING	Quiesta Technologies Private Limited
132	SONE AMEY RAJESH	eInfochips Private Limited
133	SONWANE SUNIL NAVNATH	Cognizant
134	SUKALE SHIVANI DHANANJAY	iPRIMED Education Solution Pvt Ltd,
135	SURYAVANSHI ADITYA SANTOSH	Cognizant
136	SWARAJ SHIVASHANKAR PATWARI	Ethosh Digital
137	TARE SHRAWANI VIVEK	Metronome Technologies Pvt Ltd
138	UMREDKAR SANKET GAJANAN	Persistent
139	VAISHNAVI MAHESHKUMAR NAGDE	Wipro
140	VANSHI RAINA	Cognizant
141	VEER SANKET HANUMANT	RNS Worldwide MSSP Private Limited
142	VHATKAR VIRAJ MAHADEO	Photo Legal
143	VIDYE ATHARVA ANIL	Pi Grass Labs
144	WAGH PARIKSHIT SUBHASH	Cognizant
145	WAGHMARE GAURAV SANTOSH	Cognizant
146	WAGHMARE RAM RAVIKIRAN	Persistent
147	WALDE SHARVARI VISHWAS	MDB Electrosoft pvt ltd
148	WASKAR ATHARVA JAGDISH	Siemens
149	YADAV PRATIK SHARAD	UniVon LLP
150	YADAV SUMIT SUHAS	Bamboo India Pvt Ltd
151	ZINE MANISH CHANDRAKANT	Cognizant

3. Students Achievements

1. Following students from Third Year Instrumentation won the Best paper of the track award in 7th National conference on advancements in communication, computing and electronics technology ACCET 2021 held at Pune.

Paper Title: Image Caption Generator in Text using neural networks
 Authors: Sanket Veer and Dr. Archana Chaudhari

Paper Title: Designing IOT Face recognition Robot
 Authors: Sanket Veer, Shreenivas Telkar, Omkar Thombare, Atharva Vidye, Parikshit Wagh, Dr. Archana Chaudhari



Two Best Paper of conference track award winners

2. Second Year Instrumentation students Aditya Aundhekar, Tanmay Askar, Pawan Ambhore, Shruti Belhekar won the national level online Hackthon 2021 organized by Walchand Institute of Technology, Solapur.



National level online Hackthon 2021 winners

3. Third Year students Akshat Verma, Ishwar Wani, Ritesh Wankhede, Radha Thakare, along with faculty Dr. Sanika Patankar received Best Paper Award titled Sentiment Analysis using Transformer Based Pre-Trained Models for the Hindi Language at IEEE SCEECS 2022 held at Bhopal in online mode in Feb 2022.



4. Third year students Saurabh Shedge and Pratik Narawade along with Prof. Anil Kadu received 5th Rank in winners of Tech Expo 2022, National Level project competition organized by Pravara Rural Engineering college, Loni in association with Institution's Innovations Council (Ministry of HRD Initiative) for the project titled Webcam based Intelligent Surveillance System held on 2nd May 2022 at Pravara Rural Engineering college, Loni. Title of the project Web cam Based Intelligent Surveillance system



5. Faculty Achievements

1. Prof. Pramod Kanjalkar along with Third Year students for Plastics Hackthon by Ministry of environments on 5th April 2022 at Delhi



6. Professional Body Activities

A. International Society of Automation

1. Curtain Raiser Event

Name of The Program: Blog Competition and curtain raiser event

Date: 29/09/2021

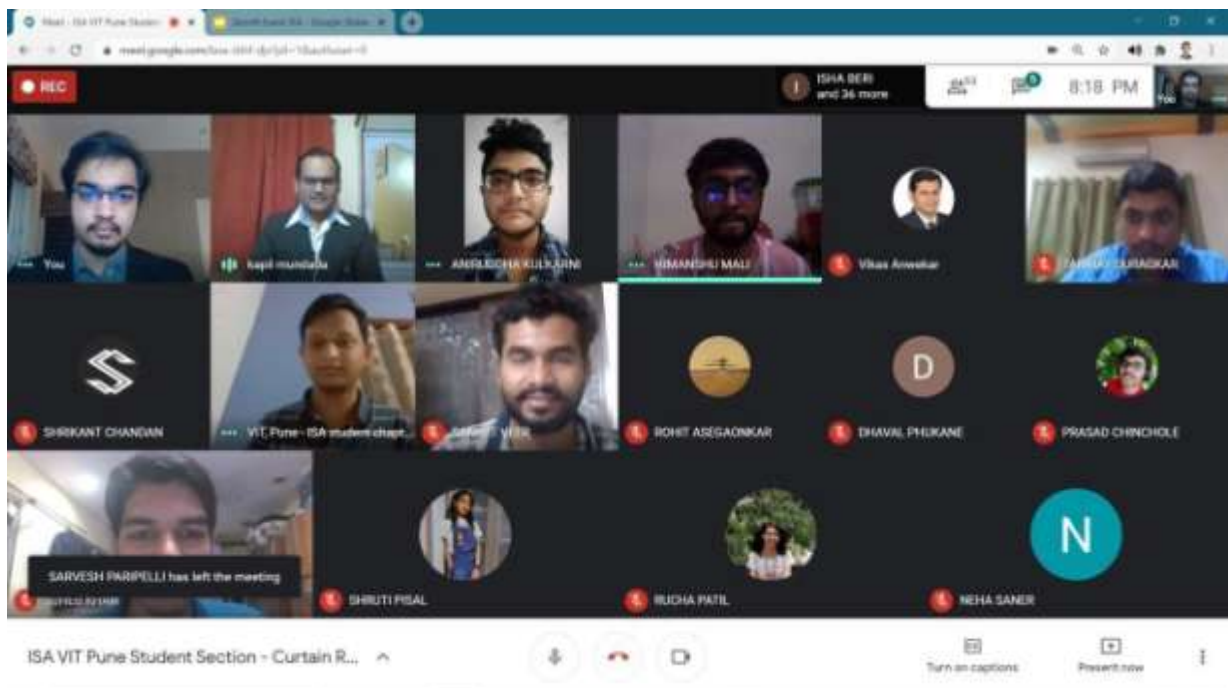
Mode: Online

No. of students participated: 150 No. of Faculty participated: 1

Description: One person can submit as many articles as they want to. However, only one article submitted by an individual in a week will be considered for the prize money. But, submitting more articles will increase your chances of winning. We hope that this competition will help in motivating our contributors to write good articles and get them published on ISA website.

Objectives of the Program: The goal of this Blog competition is to make students good in writing their thoughts by their hands. Also it helps us to achieve our goal or dreams if we wrote it on paper. Students can express their positive thoughts in this blog competition

Benefits to students and Faculty: Students will become more productive and efficient. Also they will gain awareness of the reality. If you write down what you have in mind each day, what you expect to achieve and how you feel according to this, you won't need a psychologist to explain you who you are. You will realize yourself.



Photograph



2. Industrial Visit

Details of the Industrial Visit are as below Name: Systech Solution

Date of Visit: 27Th November 2021

Students: 30 students

Industry Profile

The Company has started in the year 2006, at Pune (Maharashtra, India). “Systech Solutions”, is one of the leading names, engaged in manufacturing and supplying a wide collection of Control Panel Cabinets. They also offer Design and Drafting, Graphics Design, Engineering Services, Panel Wiring, GA Wiring, and Testing, etc. Products offered by them are effective in catering to various requirements of heavy-duty industries. These are manufactured using optimum quality raw material and sophisticated technology in order to meet international standards. Products offered by them are widely appreciated for their features like Maximum Accuracy, Easy to use and Install, Shock-Proof Finish, Resistant to fire. As per the varied requirements of clients, these can be availed by them in both standards as well as in customized specifications. Apart from this, they have established a wide distribution network all across the nation. They have a hard-working team of highly skilled professionals who have gained immense expertise in their respective fields of operation.

Their effective team is deeply indulged in manufacturing high-quality products for our valuable clients. Some of their esteemed clients were Honeywell Automation Ltd., Invensys Ltd., Emerson India, SKF Engineering Ltd., Amber Group India., Forbes Marshall, and Petrofac India.

Purpose of Industrial Visit

Industrial visit is observed as one of the tactical methods of teaching. The main reason behind this industrial visit was to let students know things practically through interaction, working methods, and employment practices. Moreover, it gives exposure from an academic point of view. The main aim of industrial visits is to provide exposure to students about the practical working environment. They also provide students a good opportunity to gain full awareness about industrial practices.

- Through industrial visits, we got awareness about new technologies. Visiting different Manufacturing outlets helped Us to build a good relationship with the industry.
- We know building relationships with companies always will always help to gain a good job in the future. After visiting an Industry gained a combined knowledge about both theoretical and practical.
- To interact the students with actual industry personals.
- To make them aware of the industrial procedures required to enter any company.
- The working environment in the industry and visualize all the important Departments in the Industry.
- Interaction of students with the people of all important departments.
- To prepare the students for the selection of carrier paths in different departments of the industry

Description of the Visit:

On the 27th of November 2021, 19 members of ISA VIT, Pune. Along with Core members of

ISA, VIT Pune visited Systech Solutions. The reporting for the event was 9:30. The event started around 10 am. Students arrived at 10 and were divided into two groups for ease of teaching. Both the groups were taught about PLC panels their hardware components, electrical supply requirements. They also showed the PLC installation process. There are different PLC were there so selecting PLC is totally dependent on client demand. They gave detailed knowledge about PLC Panel components. They gave us knowledge about the safety protocols while visiting the industry. They showed us some instruments which were highly useful during the commissioning process. They showed us the detailed procedure of PLC commissioning. . This was very helpful for the students to understand the development, working, and updating of such knowledge and the technologies used by the developers.



Ground report

According to the route and time plan students were reached till 9.30 pm and the visit started at 10 am, the staff welcomes the students enter into the training rooms. The training room was very sophisticated where the tea and biscuits were served for the students during the presentation. The PPT presentation was very informative with the introduction of the company profile. The importance of every field they were explained. They cover each and every small aspect of the design of materials, PLC components, instruments, PLC commissioning. Many students have asked the queries and the instructor has solved them very cleverly and politely.



3. Android App Development in Flutter Workshop 2021

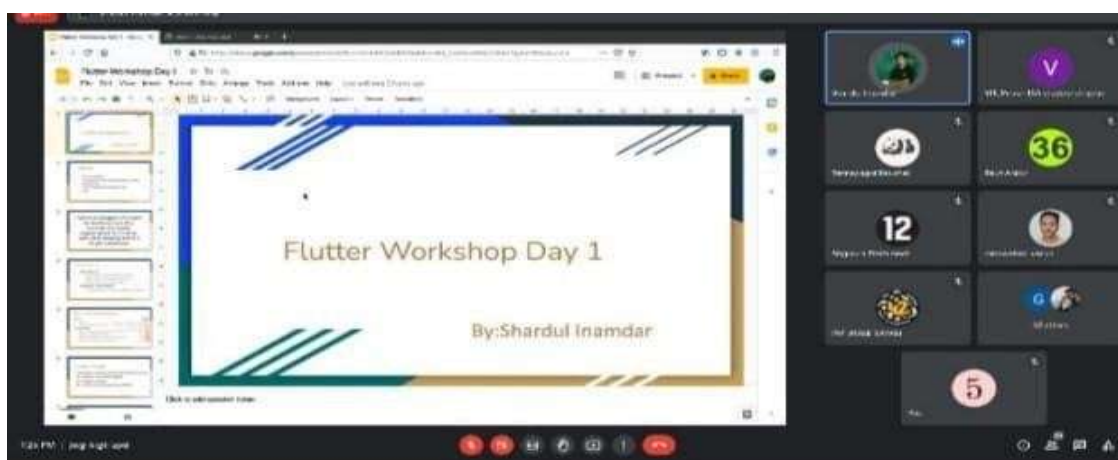
Name of The Program: Android App Development
Workshop Report Date: 29th30th and 31st October 2021
Mode: Online
No. of students participated: 40
No. of Faculty participated: 2

ISA VIT Pune student Section is conducting a three-day online workshop on Android Application Development on 29th, 30th, 31th of October 2021. Whole workshop focused on developing the skills in students needed for android application development. Helping students overcome fear of app development. ISA VIT Pune conducted a workshop on android app development. It was a 3 day event and was taught by 1 instructor on a three day. Participants of the workshop gained hands-on coding experience for app development. It was an interactive session with important QnA rounds conducted throughout the event. All the required softwares were pre-installed by participants. Instructions for the same were already given and all doubts were resolved. Instructors for this session were Shardul Inamdar. The workshop held virtually via Google meet.

This workshop is focused on developing the skills in students needed for android application development. The schedule for the workshop is as follows –

Opening Ceremony (29 th October)	19:00 to 19:15 hrs.
30 th 31 th October 2021	09:00 to 13:00 and 16:00 to 17:00 hrs.
Closing Ceremony (31 th October)	17:00 to 19:00 hrs.

We are very happy to receive a wonderful response from **participants** for this workshop. The participants are not only from VIT, Pune but from various colleges spread out different regions. This workshop definitely finds too helpful to students.





4. Python Workshop

Name of The Program: Python programming

Workshop Date: 6/01/2021 to 7/01/2022

Mode: Online

No. of Faculty participated 1

Description: Participants of this workshop gained the knowledge of programming and were able to solve all coding problems given to them. The workshop was interactive with many Q&A sessions.

Objectives of the Program: To clear basic concepts of python programming and develop their interest in coding.

Benefits to students and Faculty: 98% students felt satisfied with the content and had all their doubts solved for the workshop. They learn the open source language.

5. INGENIOUS 2022 - A NATIONAL LEVEL HACKATHON

International Society of Automation VIT Pune organized 'INGENIOUS 2022 - A National Level Hackathon's from 18th April 2022 to 29th April 2022. The event was sponsored by the ISA Pune Section and partners such as RigBetel Labs (Title Sponsor and Merchandise Partner), CEOP's BHAU Institute (Ecosystem Partner), and SMN Events (Aesthetics Partner). The final round was held at Vishwakarma Institute of Technology, Pune and it was followed by project EXPO and Award Ceremony. The event featured 20 finalists' teams presenting their projects in the EXPO visited by start-up funders, an incubation cell, technocrats, faculty members, and students. It was a sheer delight to have the CEO of BHAU Institute and the President of the ISA Pune Section as the day's chief guests.



There were 90+ teams participated across the country. Participants identified a variety of problem statements being faced under domains like Robotics and Automation, Internet of



Things, Vision Based Systems, Data Science (AI/ML) and Augmented/Virtual Reality. The "Abstract Submission Round" was the first round of the Hackathon, followed by the "Idea Briefing Round," from which the final 20 teams were shortlisted. Domain experts who mentored and judged the teams were Mr.Pranshu Tople, Mr.PrateekNagrass , Mr.Suyash Inamdar, Mr. Gaurav Vikhe and Mr. Lalit.



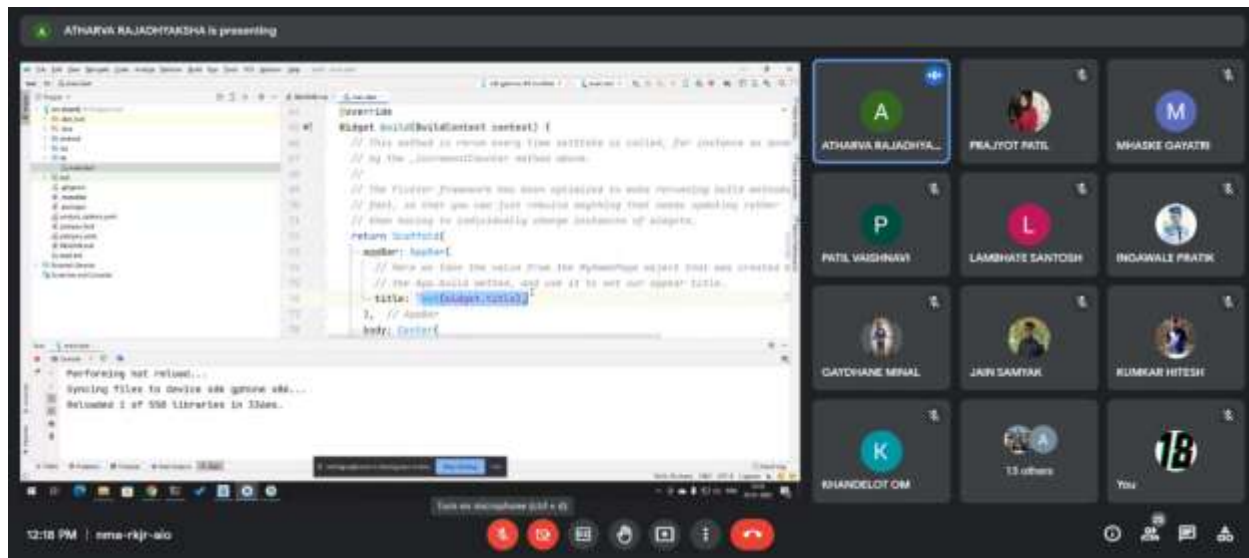
Students were graded based on criteria such as design innovation and novelty, project realization/feasibility, prudent use of components/tools and innovative choices made, project execution, and project demonstration. The hackathon was won by Team SAM from Pune, who received a prize of Rs. 30,000. The first runner-up, Team Josephites from Chennai, received a prize of Rs. 20,000. Team Socialites from Pune finished second runner-up position and received a prize of Rs. 10,000. Along with these, Team -1404 from Bangalore finished third runner-up and Team MED from Mumbai finished fourth runner-up. The event was a grand success under guidance of Prof. Dr. Shilpa Sondkar (Head of Department) and Prof. Kapil Mundada (Faculty Advisor). Sanket Veer (President, ISA VIT Pune) lead the organizing committee.



B. IEEE IMS VIT Students Chapter Activities

1. Workshop on Android App Development

Overview



A workshop was organized by The IEEE Pune section, IMS Pune chapter on Android App Development. The instructor for the event was *Atharva Rajadhyaksha* who is a TY Engineering student at Vishwakarma Institute of Technology, Pune. The workshop started with the introduction of IEEE members namely Mr. Anirudhha Barve (Treasurer IEEE IMS), Prof. Mandar Khurjekar (Chairman IEEE IMS), Prof. Shilpa Sondkar, and the office bearers of the IEEE IMS student chapter namely Prajyot Patil (Chairman), Harsh Bhutada (Vice Chairman), Aditya Gurav (Treasurer), Hitesh Kumkar (Secretary).



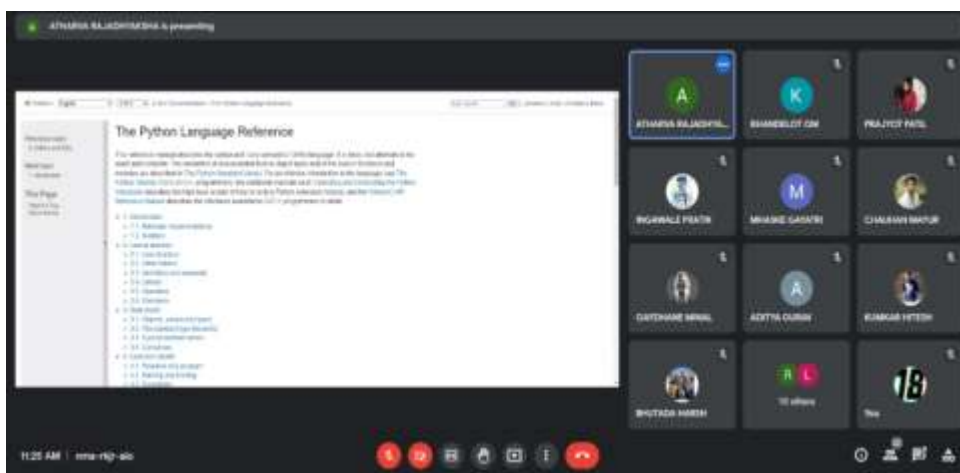
Workshop

Android software development is the process by which applications are created for devices running the Android operating system. Android apps can be written using Java, Flutter, Kotlin, and C++ languages using the Android software development kit (SDK), while using other languages is also possible.

Since Java is an Object oriented language, a few basics of Python programming were discussed to understand the basic concept of OOP. After the basic introduction to OOP concept was completed, the Android development was started and its basics were cleared. Also a small application was made using Flutter where many aspects were taught like the AppBar and its properties, text formatting, layouts, etc. The session was quite interactive as students shared their difficulties in programming and were addressed by the instructor. The workshop carried out by the IEEE IMS members was attended by 25 students and it ended with a discussion session where doubts regarding android development and other programming languages were resolved by the instructor.

2. Hands On Python Workshop

Python workshop was organized by The IEEE IMS Pune section in collaboration with AI Adventures, on the 15th of March 18, 2022 on “Python Programming language”. As the event was not branch exclusive, students from E&TC, Mechanical & chemical branches also attended it enthusiastically. The event was carried out in presence of Prof. Dr. Shilpa Sondkar, Prof. Dr. Archana Chaudhari and Prof. Vivek Deshpande who made the event even more special. A total of 40 students attended the workshop coming from different branches.





Workshop Details The workshop was carried out in collaboration with AI adventures under the guidance of Prof. Vivek Deshpande who is also the Chief Operations Officer in AI Adventures. The lecturers for the event were Yatin Deshpande and Tanmay Deshpande and Prajval Kalambe happened to be the volunteer.



3. IEEE IMS Pune Chapter's National Level Project Competition

IEEE IMS Pune Chapter and the team successfully organized its first-ever national event conducted in an online mode. The event was organized by **IEEE IMS Student Chapter** Vishwakarma Institute of Technology, Pune in association with the **IEEE Pune section** of **IEEE**



IMS Pune chapter of the department of instrumentation engineering. The event was all about a National Level Project Competition. Students from various parts of the country participated in the competition.

The domains for the project competition were as follows

- Sensor and sensor design
- Industry 4.0
- Smart Cities/Agriculture/Energy/Healthcare
- Embedded Systems and Measurements, HMI/Industry Protocols
- Artificial Intelligence and the Internet of Things

The total of **82** teams had registered for the competition among which **25** teams made it to the second phase and **13** groups made it to the final phase. The whole event was conducted in 3 phases. Students had to register their group to enter the competition. The first phase which was open till 10th May 2022, included the submission of the idea followed by a presentation. Various problem statements were brought by the students and their vision was to find a solution to the real-life problem faced by people. In the second phase which was held between 12th May 2022 to 20th May, 2022 students had to submit their idea in the form of a video. Students came up with a prototype of the projects. Phase 3 was the final round which was conducted on 3rd June 2022. The 3rd round was conducted online through Google meet. Students demonstrated their hardware projects in front of the judges and the jury members.

Three teams were declared winner, runner up and second runner up. Prizes worth **Rs.35000/- along with IEEE memberships were awarded to the winners.** The participants were awarded a certificate of participation. Following are the details of the winners

Sr. no	Name of Student	Prize	Name of Institute
1	Luvai Darwajawala	Winner	K J Sommaiya College, Mumbai
2	Pavan Bhadane	First runner up	Vishwakaram Institute of Technology Pune
3	Sukhpreet Bhatti		
4	Maruti Patil		
5	Siddhant Pawar		
6	Ruchita Chaudhari		
7	G Arun Prabhakar	Second runner up	Francis Xavier Engineering College, Tamilnadu
8	R. Issac John Brighton		
9	S. Aishwarya		
10	P. Harries Pandi		
11	V J Venkatesh Babu		



Few snapshots of the event



National Level Project Competition

IEEE INSTRUMENTATION & MEASUREMENT SOCIETY Student Chapter VIT, Pune

IEEE INSTRUMENTATION & MEASUREMENT SOCIETY Pune Chapter

IEEE Pune Section

PHASE - 1
IDEA & PPT SUBMISSION
Upto 05/ 05/22

PHASE - 2
PROJECT VIDEO SUBMISSION
10/05/22 to 15/05/22

PHASE - 3
GRAND FINALE
On 03/06/22

ENTRY FEES: Rs. 200/- Per group

Prizes: Rs. 50,000, Certificates and Much More

Scan QR For Submission

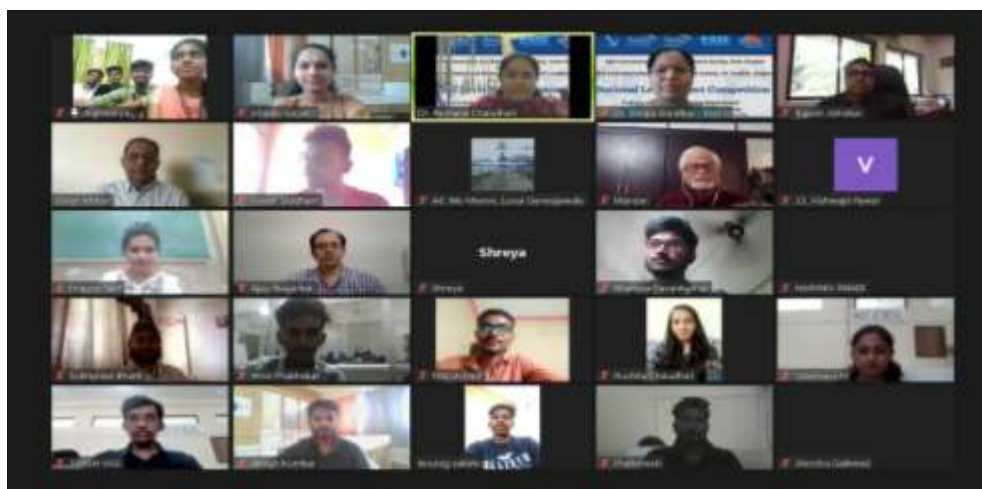
CONTACT US :
Samarth Tiwatane : 9284639312
Pushkar Choudhari : 9359815300

Registration (Rs. 200/-per group) is mandatory for all the shortlisted students for Phase 2

Registration: ieee.ims@vit.edu

Registration: [ieee_ims_student_chapter_vitp](https://www.instagram.com/ieee_ims_student_chapter_vitp)

Registration: [IEEE IMS Project Competition](https://www.facebook.com/IEEE-IMS-Project-Competition)





We would like to mention our heartfelt thanks to the director of Vishwakarma Institute of Technology, **Dr. Rajesh Jalnekar** sir for providing us with this opportunity to conduct this event. We would like to thank the chairman of the IEEE IMS Pune chapter, **Prof. Mandar Khurjekar** sir, and **Girish Khilare** sir, chairman Of the IEEE Pune section for their helping hands. This wouldn't have been possible without the support of **Dr. Shilpa Sondkar** madam (HOD of Instrumentation and Control department & secretary of IMS Pune Chapter). Special thanks to our faculty guide, **Archana Chaudhari** madam, whose guidance has helped us during this event.

Thank you so much **Ajay Nagarkar**, ACCONET for sponsoring our event. Last but not least we would like to thank the entire team of IEEE IMS Student Chapter VIT Pune for executing the whole event successfully. A total of **50** people were present in the event out of which **13** were IEEE IMS student members, three IEEE Faculty members and remaining non IEEE members.

7. List of Research Publications and Patents by Faculty:

SCI and Scopus indexed papers list for Department

Sr. No	Name of Faculty as Author	Title of Research Paper	Title of Journal	Year of Publication	Indexing
1	Dr. Shilpa Sondkar	Comparison of Machine Learning Algorithms for Bearing Failures Classification and Prediction	Advances in Electrical and Computer Technologies. Lecture Notes in Electrical Engineering. Vol 881	2022	Scopus Conference series
2	Archana Chaudhari and Dr. Jayant Kulkarni	Adaptive Bayesian filtering based restoration of MR images	Biomedical Signal Processing and Control		SCI Journal
3	Pramod Kanjalkar	Computer Vision Based Weed Removal System using Object Detection based on Convolutional Neural Network	YEMR	2021	Scopus Journal
4	Pramod Kanjalkar	Vegetation Analysis of RGB, Multispectral and Hyperspectral images using ENVI, QGIS and Python	GIS Science Journal	2022	Scopus Journal



5	Dr. Manisha Mhetre and Prof. Anil Kadu	Real Time Electric Hazard Detection System Using Thermal Imaging	2022 4th International Conference on Smart Systems and Inventive Technology (ICSSIT)	2022	Scopus Conference
6	Dr. Manisha Mhetre	IoT-Based Smart Solar Monitoring System	Intelligent Sustainable systems	2022	Scopus Conference
7	Dr. Manisha Mhetre and Prof. Anil KADu	Digital tracking of Migrants Children Health Status by using Face Recognition Systems	2022 4th International Conference on Smart Systems and Inventive Technology (ICSSIT)	2022	Scopus Conference
8	Dr. Manisha Mhetre	Chatbot for Anxiety Disordered Patients	DICKENSIAN JOURNAL	VOLUME 22, ISSUE 4, 2022	Scopus Journal
9	Dr. Manisha Mhetre	Medical Emergency System	IEEE International Conference on Communication information and Computing Technology (ICCICT), June 25-27, 2021, Mumbai, India	2021	Scopus Conference
10	Dr. Sanika Patankar	Sentiment Analysis using Transformer Based Pre-Trained Models for the Hindi	IEEE SCEECS 2022	2022	Scopus Conference
11	Vijaykumar Bhanuse	Safety of Coal Miners using IoT	2nd International Conference on IoT Based Control Networks and Intelligent Systems (ICICNIS 2021)	2021	Scopus Conference
12	Vijaykumar Bhanuse	Multiple disease detection from Chest X-Rays and storing the records in Blockchain using Deep Learning Techniques	GIS Science Journal	2022	Scopus Journal
13	Kapil Mundada	Early Fire Detection Using Deep Learning	2021 International Conference on Artificial Intelligence and Machine Vision	2021	Scopus Conference



			(AIMV)		
14	Dr. Archana Chaudhari	Home Décor Application using Augmented Reality	Journal of Huazhong University of Science & Technology	2021	Scopus Journal
15	Dr. Archana Chaudhari	Smart Recording of Hand Washing by Hospital Staff	GIS Science Journal	2022	Scopus Journal

UGC Care list papers

Sr. No	Name of Faculty as Author	Title of Research Paper	Title of Journal	Year of Publication	Indexing
1	Dr. Manisha Mhetre	Innovative Sanitization Chamber for Covid19	International Research Journal of Engineering and Technology (IRJET)	2021	UGC Care List
2	Jitendra Gaikwad	Bearing Fault Detection Using DWT and CNN	International Journal of Scientific Research in Computer Science, Engineering and Information Technology	2021	UGC Care List
3	Vijaykumar Bhanuse	Diabetes Prediction using BMI	International Journal for Research in Applied Science & Engineering Technology (IJRASET)	2022	UGC Care List
4	Vijaykumar Bhanuse	Customized Automated Email Bot	International Journal for Research in Applied Science & Engineering Technology (IJRASET)	2022	UGC Care List
5	Dr. Archana Chaudhari	Image Caption Generator in text and audio using Neural Networks	IOSR Journal of Engineering (IOSRJEN)	2021	UGC Care list Journal
6	Dr. Archana Chaudhari	Blockchain Based Platform for Supply Chain Management	IOSR Journal of Engineering (IOSRJEN)	2021	UGC Care list Journal
7	Dr. Archana Chaudhari	Designing IoT Face Recognition Robot	IOSR Journal of Engineering (IOSRJEN)	2021	UGC Care list Journal
8	Archana Chaudhari and Dr. Jayant Kulkarni	Noise estimation using single coil MR images	Biomedical Engineering Advances, Elsevier	2021	Directory of Open Access Journals



List of patents

Sr. No	Name of Faculty Title of Patent	Patent Title	Application No	Publication date	Patent No
Patents Granted					
1	Pramod Kanjalkar	Two stage Automatic Macro and Micro floating plastic debris water filtering system		2021210345961st Aug 2021 Published	
2	Dr. Manisha Mhetre	A multipurpose Sanitization Chamber		25th June 2021	2021103619
3	Dr. Manisha Mhetre	A Haptic Response Glove for virtual reality and Augmented Reality	202121026272	12th June 2021	387042
4	Vijaykumar Bhanuse and Dr. Shilpa Sondkar	A self Defense and Location tracking device for Women Safety	2021/10405	14th Dec 2021 Awarded	Granted
Patents Filed and Published					
5	Dr. Manisha Mhetre	An IOT based system for detecting faults in Domestic Appliances	202121028703	25th June 2021	Published
6	Dr. Archana Chaudhari	IOT enabled Smart Face Shields	202121042306	18th Sept 2021	Published
7	Dr. Archana Chaudhari	A Portable, Wearable Smart Medicine Pouch	202121050676	4th Nov 2021 Published	Published

8. FDP Conducted in Department

Report on Faculty development program organized by Department of Instrumentation Engineering

Topic of FDP : Internet of Things and Applications

Date : 24th Aug to 28th Aug 2021

Mode : Hybrid mode 24th to 27th Aug 2022 Online and 28th Aug 2022 Offline hands on

Conducted by: Prof. Dr. Shilpa Sondkar and Dr. Archana Chaudhari

Attendees: Faculty members of First Year and Second Year of Vishwakarma Institute of Technology participated in the same.

Few Glimpses of the FDP

