



**Academic Year 2019-20 (EVEN Semester)
(October 2019 to March 2020)**

1. Faculty Contributions

- **Courses Attended by faculty**
 - Workshop / Short Term Training Program
 - Orientation Program

- **Workshops/Courses Conducted by faculty**

- **Skill Enhancement activity**
 - NPTEL Certification

- **Research Forum Activities**
 - Expert Talks
 - Minor Research Grant Proposals
 - Research Papers Published

2. Student Portfolio

- **Student Achievements**

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- **Student Participation**

- Summer School
- Finishing school
- Workshops/Seminars
- Entrepreneurship / R&D Project
- Internship

- **Alumni Interaction**

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FACULTY CONTRIBUTION

● **Workshop/Courses Conducted by Faculties**

Sr. No.	Conducted by	Course Description	Organized by	Date	Number of days
1	Nilima Warke, Prasad Godse, Kadambari Sharma, Kanchan Chavan, Kader Shaikh	VESIT-AIA Integrated Automation Basic course	VESIT	8/1/20 to 23/1/20	10 days

● **Courses Attended by Faculty**

Sr. No.	Attended By	Course description/Syllabus Revision	Organized by	Date	Number of days
1	Sangeetha Prasanna Ram	Machine Learning & Deep Learning	VESIT-EXTC DEPT in association with NSS IIT-Roorkee	30/12/19 to 4/1/20	6 days
2	Kader Shaikh	Faculty Development Programme on "Signal Perspectives in Wireless Communication" sponsored by AICTE	EXTC Dept of Babasaheb Naik College of Engg, Pusad	19/12/19 to 28/12/19	10 days

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3	Kanchan Chavan	International Conference on New Frontiers in Nuclear Physics	Dept of Physics, Banaras Hindu University, Varanasi	14/10/19 to 17/10/19	4 days
4	Sangeetha Prasanna Ram	International Conference on New Frontiers in Nuclear Physics	Dept of Physics, Banaras Hindu University, Varanasi	14/10/19 to 17/10/19	4 days
5	Sangeetha Prasanna Ram	Mumbai University Syllabus Revision Meeting	RAIT, VCET	13/2/20 & 2/3/20	2 days
6	Kanchan Chavan	Mumbai University Syllabus Revision Meeting	RAIT	3/3/20	1 day
7	Nilima Warke	Mumbai University Syllabus Revision Meeting	RAIT	13/2/20 & 2/3/20	2 days
8	Kader Shaikh	Mumbai University Syllabus Revision Meeting	RAIT	2/3/20	1 day
9	Deepti Khimani	One-week STTP on Machine Learning & Deep Learning	VESIT-EXTC Dept in collaboration with EduxLabs in association with NSS IIT-Roorkee	30/12/19 to 4/1/20	6 days
10	Dr. M. D. Patil	One-week STTP on Machine Learning & Deep Learning	VESIT-EXTC Dept in collaboration with EduxLabs in association with NSS IIT-Roorkee	30/12/19 to 4/1/20	6 days
11	Dr. J. M. Nair	Mumbai University Syllabus Revision Meeting	VESIT	5/3/20	1 day

● NPTEL Certifications

Sr. No.	Name of the Faculty	NPTEL Course Description	Organized by	Period	Score
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1	Mugdha Jogalekar	NPTEL Online Certification for the course "Introduction to Research"	IIT-Madras	8-week course (Aug-Oct 2019)	62
2	Namrata Bonde	NPTEL Online Certification for the course "Introduction to Research"	IIT-Madras	8-week course (Aug-Oct 2019)	70
3	Madhumati Khuspe	NPTEL-AICTE Faculty Development Programme – course on "Introduction to Internet of Things"	IIT Madras	12 weeks (Jul-Oct 2019)	76
4	Jayashree R	NPTEL Online Certification Course on "Digital Circuits"	IIT Kharagpur	12-week course (Jul-Oct 2019)	79
5	Jayashree R.	NPTEL Online Certification Course on "Developing Soft Skills and Personality"	IIT Kanpur	8-week course (Aug-Oct 2019)	94 (Topper)
6	Amudha Senthilkumar	NPTEL Online Certification Course on "Introduction to Internet of Things"	IIT Kharagpur	12 weeks (Jul-Oct 2019)	82 (Topper)

Research Forum Activities

• **Expert Talks**

Sr. No.	Date	Name of the Expert	Designation & Organisation	Topic	Attended By
1	25th September 2019	Dr. Parmeshwar Birajdar	Assistant Professor, Electronics Department, VESIT	Introduction to Latex for beginner's	UG student, teaching staff

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• Minor Research Grant Proposals

Sr. No.	Name of Faculty	Title of Project	Domain	Sanctioned Amount
1	Mrs. Mugdha Joglekar	Parallel Synthesizer with Independent temperature control	Instrumentation and Control	Rs. 40000/= (Applied)
2	Mrs. Namrata V. Bonde	Programmable Computer Controlled Active Analog Filters	Signal Processing in Electronics & Instrumentation	Rs. 26,000/- (Applied)

• Research Papers Published

Publication - Author List	Publication - Affiliation of Authors	Publication - Date	Publication - National / International	Publication - Journal / Conference	Publication - Name of The Journal / Conference	Publication - Organised By	Publication - Venue	Publication - Publisher	Publication - ISBN Number
Kanchan Chavan, Dr. P.P. Vaidya, Dr. Mrs. J.M. Nair	INST DEPT VESIT	Oct 2019	International	Conference	“High Resolution Nuclear Timing Spectroscopy System based on New Method of Free Running Ramp and Tracking ADCs”	International Conference on New Frontiers in Nuclear Physics	Varanasi	Kanchan Chavan, Dr. P.P. Vaidya, Dr. Mrs. J.M. Nair	
Kanchan Chavan, Dr. P.P. Vaidya, Dr. Mrs.	INST DEPT VESIT	November 2019.	International	Journal	“Programmable Time to Digital Converter for Nuclear	International Journal of Engineering Research			ISSN : 2278 – 0181

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J.M.Nair					Timing Spectroscopy System”	h & Technology,			
Nilima Warke, J.M. Nair. P. P. Vaidya,	INST DEPT VESIT	December 2019	International Journal	Journal	“New Computer Controlled High Resolution Programmable Validation System for Research in Electronics Hardware”	International Journal of Innovative Technology and Exploring Engineering (IJITEE)			ISSN: 2278-3075
Nilima Warke, J.M. Nair. P. P. Vaidya,	INST DEPT VESIT	October 2019	International Journal	Journal	“Common Mode Voltage Removal using New Balancing Technique for Extraction of Low-Level Differential Signals Embedded in Large Common Mode Voltages”	International Journal of Engineering and Advanced Technology,			ISSN:249 – 8958
Sangeetha Prasanna Ram, J. M. Nair	INST DEPT VESIT	Oct 2019	International	Conference	“Measurement of 100Mo (n, 2n) 99Mo reaction cross section and covariance analysis using	International Conference on New Frontiers in Nuclear Physics	Varanasi		

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					extended unscented transformation technique at the effective incident neutron energy of 13.9 MeV”				
Sangeetha Prasanna Ram, J. M. Nair	INST DEPT VESIT	11 February 2020			“Error Propagation using Extended Unscented Transformation Technique in Micro-correlation method for covariance analysis of efficiency of a HPGe detector”	Nuclear Instruments and Methods in Physics Research - Section A		Elsevier	
Sangeetha Prasanna Ram, J. M. Nair	INST DEPT VESIT	January 2020.	International	Conference	“Application of Extension of Unscented transformation technique to nonlinear case of error propagation”	International Conference on Inventive Systems and Control (ICISC-2020),	JCT College of Engineering, Coimbatore,		

- Alumni Interaction
- Session I

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On 15th February 2020 Department of Instrumentation conducted its convocation. The chief guests were Mr. Sandesh Gala, Associate-JP Morgan Chase specialized in IT/Finance Sector who is an alumni of 2006 batch of Instrumentation and Mr. Chandramouli Iyer-Chief Engineer, Tecnimont from Core Process Instrumentation, who is also an Alumni of 2003 batch of Instrumentation Engineering. After the convocation the chief guests had a panel discussion with the third-year students of instrumentation. Mr. Chandramouli Iyer first talked about the large number of opportunities we have as an Instrumentation Engineer and about different companies which offer instrumentation jobs. He also talked about the current market conditions in the domains in which an Engineer can work. He said that Instrumentation is a growing field and the amount of scope we have is widespread to many domains. He talked about technologies like Iot, AR, VR, Pharmacy, Automation and Robotics, the requirement of an instrumentation Engineer in all those fields.

Mr. Sandesh Gala, who is working in the IT sector discussed about the programming and coding languages. He told the students how he was good in Structured Programming in his second semester and then later how it eventually ended becoming his career. Students also asked questions to the guest after the talk and overall, it was an interactive session which helped students to understand current scenarios in the field of Instrumentation.



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● Session II

The 2nd Alumni session by the Instrumentation Department was conducted on 25th January, 2020. Mrs Pratiksha Bhanti and Mrs. Manisha Visave from the 2009 batch of Instrumentation Engineering shared their experiences about life after graduation. Mrs Pratiksha Bhanti, is an experienced management consultant and strategy professional who has successfully delivered consulting and procurement engagements to fortune 500 clients at national and international levels in mining, telecom, pharma, banking, oil & gas industries. Adept at analysing a problem and quickly developing a solution. Earned an MBA in Strategy and Operations. University rank holder in engineering. Certified Six Sigma Green Belt. Total work experience of 5+ years (KPMG, GEP Worldwide, Aker Powergas).

Mrs Manisha Visave, B.E AND M.E in Instrumentation from VESIT followed by 2.5+ years' experience in designing and developing LabVIEW based applications using LabVIEW toolkits like, DCS, Signal Processing, Data Communication etc. Responsible for designing, analysing and evaluating assigned projects by using engineering principles and adhering to business standards, practices, procedures and product / program requirements.

It was an interactive session where-in students of Instrumentation got to clear their queries regarding appearing for the CAT exam and Job profiles in this field. The speakers also shared their experiences on how to cope up with Entrance and University Examinations at the same time. They shared the importance of having a Job experience before going for higher studies. The session was greatly benefited and indeed proved to be an enriching one for the Instrumentation students.

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● Session III

A 3rd Alumni interaction session was conducted on 1st February 2020 by Ms. Suprita especially for the students of third year instrumentation. Ms. Suprita is an alumna of VESIT - BE (Instrumentation) 1994 batch and she is currently working with NPCC Engineering Ltd. as Sr. Chief Engineer – Design Department.

The session commenced with Ms. Suprita giving us a brief introduction about herself. She later briefed about the different job fields in which the Instrumentation engineers are required. She also gave a brief idea about each Instrumentation engineering field and what are the skills sets required to satisfy that job's criteria. After briefing about the fields, there was an interactive session in which Ms. Suprita answered all the questions which were put forward by the students and cleared all their doubts. She also told us about the two latest running softwares - AVEVA and SPI which are used by the Instrumentation engineers in the industry. She later then told us about the importance of communication skills and the ways to improve them. The session ended on a high note with Ms. Suprita quoting, 'The best way to learn is to teach'. The students of the third year

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utilized the opportunity to interact with Ms. Suprita to the fullest and inculcated themselves with knowledge and experience which was given to them.



STUDENT ACHIEVEMENTS

- Student Participation
- Workshops/Seminars

Sr. no.	Name of the Workshop	Conducted By	Participants
1	Rpi and Python	ISA Staff Incharge – Mr. N. Gopalakrishnan	Harsh Suvarna, Tanmay Shrivage
2	Arduino	ISA Senior student council members – Mr. Prajwal More, Mr. Abhishek Chandorkar	Yugandhara Kadam, Rutwik Pendse, Rohan Bhor,

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3	PLC	Inst Faculty – Mrs. Nilima Warke, ISA student members- Mrunmayee Gokhale Vishakha Marathe	Prithvi Shetty B.Shubhangi Kirtiraj Dipak Khape Varad Rane Suhas Kamat Advait Shirvaikar Sarang Kulkarni Tejashree Bhitale Aditya Ganesh
4	Web Designing	Mr. Aditya Ganesh Mr. Nilesh Talreja Mr. Prateek Mehta	Sheetal patil Neha sutar Aditya vinod Dhurandhar Suhas Kamat Prajakta Dhopat Aparna Singh Onkar Raut Shivshankar Sahu Trupti Salunke Anushka gadgil Ivan phillip Varad Rane Pooja Kulkarni Shivam Yadav

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5	WSN	Mr. Aditya Ganesh Mr.Prithvi Shetty	Yugandhara Kadam Rohan Bhor SHIVASHAKTI PILLAI Amogh Mopkar ROHAN PANCHAL Sejal Attarde Manish Patil Sanskruti jadhav
6	Analog Workshop	Mr. Aditya Ganesh Mr.Prithvi Shetty	Rizwan Shaikh Yugandhara Kadam Saurav Bhosale Rohit Mhatre Aditya Kadam Gayatri Rane Rohan Bhor Amogh Mopkar Manish Patil SHREYAS PORE Sejal Attarde Suyash Koshti

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			Prachay kadam KUNAL BHOIR
7	Embedded Systems	Mr. N. Gopalakrishnan	Aditya Ganesh Prithvi Shetty Aditya Kale

● Industrial Visit

Industry Visit - Company Name	Industry Visit - Location/Venue	Industry Visit - Start Date	Industry Visit - Duration	Industry Visit - Description
1.Vikram Sarabhai Space Exhibition (VSSE) 2.AMUL DAIRY	Ahmedabad Anand,Gujarat	From January 1,2020 to January 5,2020	5 days	ETRX and INST department jointly organized Industrial Visit to Ahmedabad with Electronics (46 students) and Instrumentation (41students) with 4 faculty members accompanying them. The Industries visited were: 1:Vikram Sarabhai Space Exhibition (VSSE) 2:AMUL DAIRY

V. E. S Institute of Technology, Chembur, Mumbai

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Department of Instrumentation**● Project Innovations**

Sr. No.	Title of Project	Name of Students	Project Objective	Project Mentor
1	Drowsiness and other eye movement detection using Electrooculogram (EOG) and Machine Learning	Raj Anchan, Ashwin Pillay, Aniket Bhadricha, Aditya Kale	To develop a device capable of detecting drowsiness with a complete onboard system mounted on an ergonomic headband worn by the user while making it economically suitable for people to buy.	Mrs. Sangeetha Prasanna Ram

● Industry / Collaboration Projects

Sr. No.	Name of the Industry	Title of Project	Name of Students	Project Objective	Project Mentor
1	Aditya Jyoth Foundation	Classification and Severity Prediction of Eye Diseases using Fundus Images and Machine Learning.	Sonali Gaitonde Anurag Sarang Mradul Mundra Mayuresh Shelar	Classifying the retinal images into two classes - Normal Eye Images and Eyes affected with Diabetic Retinopathy.	Mrs. Sangeetha Prasanna Ram