

Vidya Prasarak Mandal's
**MAHARSHI PARSHURAM COLLEGE OF
ENGINEERING, VELNESHWAR**



**Report on
DISHA 2017**

Organized by

Department of Instrumentation Engineering

17th & 18th March 2017

In Association With

College of Engineering, Pune (COEP)

&

Instrument Society of India (ISOI)

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HOD, Instru DBATU Lonere

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Principal VPM's Poly. Thane

ORGANIZING COMMITTEE

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Principal (VPMMPCOE)

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HOD, (Mechanical)

Prof. Amit Mane
HOD, (Ash)

Prof. Sandeep Dwivedi
HOD, (Electronic & Telecommunication)

Prof. Kailas Karnekar
HOD, (Computer)

Prof. Satish Ghorpade
HOD, (Electrical)

Prof. Shekhar Sawant
HOD, (Civil)

Mr. Santosh Chaturbhuj
Librarian

Prof. Ganesh Dive
Ash, (Communication Skill)

RESOURCE PERSONS

- Dr. S. D. Agashe
Professor & Principal Investigator Virtual Laboratory Project
College of Engineering Pune
- Dr. D. N. Sonawane
Associate Professor (Instrumentation)
College of Engineering Pune

Virtual Labs @ MPCOE

In association with COEP

Interactive tool for Virtual Experimentation

VPM Thane has started a state of art engineering college namely Maharshi Parshuram College of Engineering (MPCOE). The college is at Velneshwar which is spread on the shore of an Arabian sea. The college is affiliated to University of Mumbai and is recognized by AICTE, New Delhi and DTE. It offers degree courses in Mechanical, Electrical, Computer, Instrumentation, Civil and Electronics & Telecommunication.

College of Engineering, Pune (COEP) was established in the year 1854 and is one of the oldest and premier institutes in the country. It has completed 156 years of its service to technical education. Besides IIT's & other leading technical institutes of country, COEP is a part of National Mission on Education through ICT Programme supported by MHRD, Govt. of India.

The objective of Virtual Lab is to create a virtual experimentation environment to cater the needs of engineering & science aspirants. MPCOE is a recognized nodal center of Virtual Lab.

About DISHA 2017

“DISHA 2017” explores all the ideas to provide a direction that would help all the students to choose their future career path. Don't start a new career without knowing your career anchor. The process of finding a new career direction is like making a mosaic, you keep adding little tiles of information, gradually the picture of what you are meant to do gets clearer and clearer, then it's time to take an action and use quick, low risk ways to find out if the picture is really right for you. Get closer to knowing your core, your sense of purpose and what will make you feel truly engaged.

Let us think of “DISHA 2017” as the means of developing our greatest abilities, because in each of us there is a private HOPE AND DREAM which fulfilled, can be translated into benefit for everyone and greater strength for our nation. Dreams transform into thoughts and thoughts result in action with proper direction. Do your BRAND NEW START with “DISHA 2017”

1. About Virtual LAB

What is VLab?

- To provide remote-access to Labs in various disciplines of Science and Engineering. These Virtual Labs would cater to students at the undergraduate level, post graduate level as well as to research scholars
- To enthuse students to conduct experiments by arousing their curiosity. This would help them in learning basic and advanced concepts through remote experimentation.
- To provide a complete Learning Management System around the Virtual Labs where the students can avail the various tools for learning, including additional web-resources, video-lectures, animated demonstrations and self evaluation.
- To share costly equipment and resources, which are otherwise available to limited number of users due to constraints on time and geographical distances.

1.1 Industrial Automation Lab

- Study hardware and software platform for DCS.
- Develop and implement the logic for specific application.
- Perform the experiment and simulate using function blocks.

1.2 FPGA and Embedded System Lab

- Learn the state of art fast prototyping platforms like FPGA and ARM.
- Provide virtual environment for learning Verilog as hardware description language and to learn architecture design on FPGA platform.
- Provide virtual open source platform like Linux, embedded Linux and to learn system-on-chip development using ARM tool chain.
-

1.3 Micro-manufacturing Lab

- Provide the information about the basic technologies like Nano and Micro fabrication which are used to produce miniaturized components.
- Provide learning experience of nano/micro fabrication either by conventional means or non-conventional means.

1.4 Programmable Logic Controller Lab

- Learn hardware and software platform of Programmable Logic Controller. Enhance the problem solving abilities in PLC domain.
- Acquire skills for troubleshooting and maintenance of PLC

1.5 Fab Lab

- Technological empowerment to peer-to-peer project-based technical training, local problem-solving to small-scale high-tech incubation to grass-roots research.
- Enhance the awareness about Digital fabrication and its implementation. Acquire hands on experience on various digital fabrication facilities such as Laser cutter, CNC router, vinyl cutter and PCB fabrication with assembly and testing.

1.6 Vibration and Acoustics Lab

- Provide learning experience to the students at distant educational or other institutes interested in experiments in sound and vibration through web-enabled virtual experimental set-ups.
- Provide demonstration on experimental set-ups available in sound and vibration laboratory.
- Share knowledge and skills related to experimentation in sound and vibration through discussion by web-conferencing.

1.7 Electrical Machine Lab

- Demonstrate how various electrical machines can be tested using regenerative dynamometer.
- Demonstrate the current industrial technology in the domain of electric drives.

1.8 Physical Science : Oscillation

- Virtual Lab to illustrated oscillations and related phenomena such as harmonic motion, resonance etc

1.9 Chemical Science : Organic Chemistry

- Organic chemistry is a discipline within chemistry which involves the scientific study of the structure, properties, composition, reactions,

and preparation (by synthesis or by other means) of chemical compounds that contain carbon.

2. BE Projects poster presentation:-

- All BE students of VPM's MPCOE Velneshwar will present their final year project work in poster format.
- This presentation is open for all diploma students only

Date: 18th March 2017

Time: 2.30 PM to 4 PM

- Instrumentation
- Mechanical
- Electrical
- Civil
- Electronics & Telecommunication

Detailed program for the Event

“DISHA 2017”

17th & 18th March, 2017

Computer Center, Shripati Building, Ground Floor, MPCOE, Velneshwar

Date	Time	Particulars
17 th March 2017	9.30 AM to 10.30 AM	Registration – Nana Fadnavis Hall
	10.30 AM to 11.30 AM	Inauguration Function– Nana Fadnavis Hall
	11.30 AM to 11.45 AM	Tea Break
	11.45 AM to 1.15 PM	Introduction of Virtual Labs
	1.15 PM to 2.15 PM	Lunch
	02.15 PM to 04.00 PM	VLAB Session
	04.00 PM to 04.15 PM	Tea Break
	4.15 PM to 5.15 PM	Practice Session
	5.15 PM	Certificate Distribution
Date	Time	Particulars
18 th March 2017	9.00 AM to 10.00 AM	Registration
	10.00 AM to 10.45 AM	Inauguration Function
	10.45 AM to 11.15 AM	Tea Break
	11.15 AM to 1.15 PM	Industry Perspective on Objectives
	1.15 PM to 2.15 PM	Lunch
	02.15 PM to 04.00 PM	Academia Perspective on Objectives
	04.00 PM to 04.15 PM	Tea Break
	4.15 PM to 4.30 PM	Conclusion & Vote of Thanks

EVENT OBJECTIVE:

The aim of the one-day workshop was to expose the concept of virtual Laboratories, being developed MHRD, Government of India, to the faculty members of various Diploma colleges. This was the first step in making aware about the virtual lab and its advantage.

STRUCTURE:

Virtual Lab workshop will be conducted in following categories:

1. Sensor Modeling and Simulation Lab
2. PLC Lab
3. Industrial Automation Lab

Inauguration function

Inauguration functions of DISHA 2017 under ISOI student chapter. We organize one day workshop on Virtual Lab and 1st Industry Academia Meet on 17th & 18th March 2017.

On 17th of March these are the Chief Guests:

Dr. Vilas Gaikar (Vice-Chancellor DBATU Lonere),

Dr. Vijay Bedekar (Chairman VPM Thane)

Dr. D. N. Sonawane (COE Pune)

Dr. Avinash M. Chincholkar (Principal MPCOE Velneshwar)

Mr. Sudhir Panditrao (San techno mentors Pvt. Ltd. Pune.)

Mr. Santosh Mestry (SIT Mumbai)



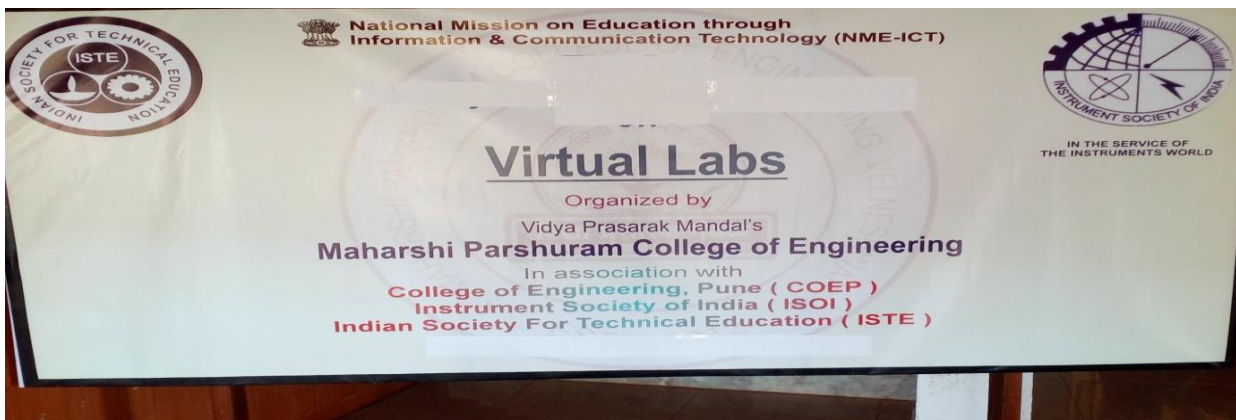
Inauguration of Disha 2017 by Dr.Gaikar, Dr.Bedkar, Dr.Sonawane, Dr.Chincholkar



Dr. Vilas Gaikar has given very inspiring speech to motivate Diploma students.



Dr. D. N. Sonawane (COE Pune) has address to Diploma students about Virtual Lab





Dr. Vijay Bedekar, Chairman of VPM'S Thane address to diploma students.



Dr. Avinash M. Chincholkar, Principal of MPCOE Velneshwar address to diploma students.

Feedback from Diploma Students:

WORKSHOP FEEDBACK FORM

Your feedback is critical for us to ensure we are meeting your educational needs. We would appreciate if you could take a few minutes to share your opinions with us so we can serve you better.

Please return this form to the instructor or organizer at the end of the workshop. Thank you.

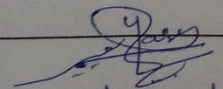
	Strongly agree				Strongly disagree
1. The content was as described in publicity materials	①	2	3	4	5
2. I will recommend this workshop to other conservators	①	2	3	4	5
3. The program was well paced within the allotted time	①	2	3	4	5
4. The instructor was a good communicator	1	2	3	4	⑤
5. The material was presented in an organized manner	1	2	3	④	5
6. The instructor was knowledgeable on the topic	1	2	3	4	⑤
7. I would be interested in attending a follow-up, more advanced workshop on this same subject	1	2	3	④	5
8. Given the topic, was this workshop:	<input type="checkbox"/> Too short	<input checked="" type="checkbox"/> Right length	<input type="checkbox"/> Too long		
9. In your opinion, was this workshop:	<input type="checkbox"/> Introductory	<input type="checkbox"/> Intermediate	<input checked="" type="checkbox"/> Advanced		
10. Any suggestions for improvement?	No.				
	Saurabh S. Bhandari ⑧herle Signature with Name				

WORKSHOP FEEDBACK FORM

Your feedback is critical for us to ensure we are meeting your educational needs. We would appreciate if you could take a few minutes to share your opinions with us so we can serve you better.

Please return this form to the instructor or organizer at the end of the workshop. Thank you.

	Strongly agree	1	2	3	4	5	Strongly disagree
1. The content was as described in publicity materials		1	2 ✓	3	4	5	
2. I will recommend this workshop to other conservators		1	2 ✓	3	4	5	
3. The program was well paced within the allotted time		1 ✓	2	3	4	5	
4. The instructor was a good communicator		1	2 ✓	3	4	5	
5. The material was presented in an organized manner		1	2 ✓	3	4	5	
6. The instructor was knowledgeable on the topic		1 ✓	2	3	4	5	
7. I would be interested in attending a follow-up, more advanced workshop on this same subject		1	2 ✓	3	4	5	
8. Given the topic, was this workshop:	<input type="checkbox"/> Too short		<input checked="" type="checkbox"/> Right length		<input type="checkbox"/> Too long		
9. In your opinion, was this workshop:	<input type="checkbox"/> Introductory		<input checked="" type="checkbox"/> Intermediate		<input type="checkbox"/> Advanced		
10. Any suggestions for improvement?							


Yasir Jalgaonkar.
Signature with Name

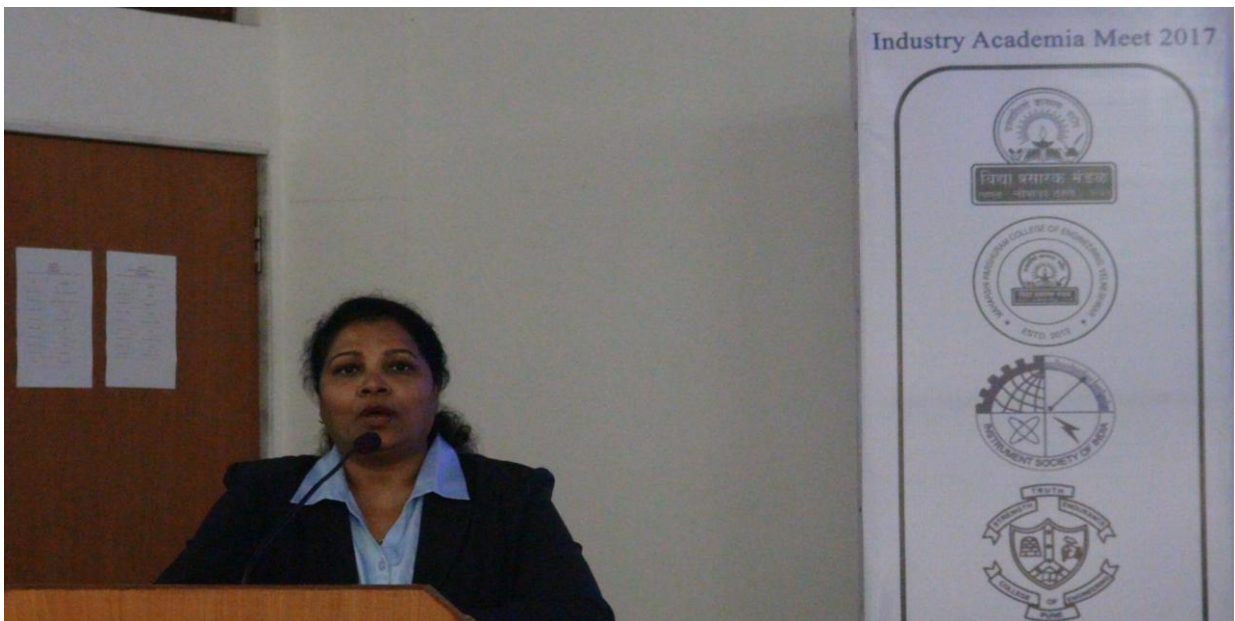
Industry Academia Meet 2017:

Objectives of Industry academia meet:

- Integration of industrial trainings and other inputs from industry with teaching-learning process. The interaction develops student's awareness on job functions in the industries, attitude to adapt industrial environment, proper practical and relevant knowledge, skills and competencies etc.
- Participation of experts from industry in career guidance.
- Interaction should include emerging framework, robust high quality long term relations based on two way investments of time and resource through regular discussions and exchange of views on the matter related to the prepared ness of skilled manpower for the workforce
- Creating job opportunities based on the current technologies being used in industries. Example. Use of ERP Software, PLCs, Production processes, Design methods
- Arranging visits for both faculties/students to various industries.
- Training and knowledge update through faculty exchange.
- Arranging Engineers from industry to deliver Guest Lectures
- Joint R & D activities.
- Internship for students.
- Organizing workshops, seminars by Industry Experts.
- Undertaking B.E Projects work with industries under joint guidance of the faculty and experts from industry.



Mr. Sudhir Panditrao, CEO of San techno mentors Pvt. Ltd. Pune Shares knowledge on Industry Perspective objectives.



Mrs. Presi Castelino, SIT Mumbai Shares her views on EPC (Engineering procurement & Contracting).



Mr. Suraj Vhaval, SV Multi ventures Shares his views on Industrial Automation.



Mr. Nitin Satpute, Equinox Engineering India Ltd. Shares his views on Different companies in Industrial Automation.

Academia Perspective:



Mr. Narendra Gole, Ex. BARC Scientist Shares his views on student skill development.



Dr. Aneesh Gangal, Principal of RSCOPE Pedhambe Shares his views on student skill development & what they expect from Industry people.



Mr. Rahul Dandage, Faculty of RMCT Deorukh Shares his views on Training & Placement of students in Industry.



All industry & Academic personnel along with Principal Dr. Avinash M. Chincholkar.

Conclusion

During current academic year one day Workshop on “**Virtual Lab**” is arranged for Diploma students. It is very useful for students.

In Industry Academia meet following points agreed by Industry & Academia People

1. Industrial Visit
2. BE Live Projects
3. Opportunities in Placements
4. Expert Lectures by Industry Peoples.
5. Faculty will contribute in research work.