



WORKSHOP on Virtual Laboratory
December 18 – 19, 2012
<http://vlab.co.in/>



PDPM IIITDM Jabalpur is organizing a two day Workshop on “Virtual Laboratory” at its campus on December 18-19, 2012.

Development of Virtual Laboratories is part of a project supported by the Ministry of Human Resources Development (MHRD) under the National Mission on Education using Information and Communication Tools (ICT). This activity is being carried out under main phase of the project, to develop simulation based experiments on various laboratory courses of Mechanical Engineering. The idea is to share costly equipment and resources available with limited number of users at the premier Institutes of engineering, among all engineering students.

Virtual Labs have been developed keeping the following objectives in mind:

1. Virtual Labs work in a complementary fashion to NPTEL in the sense that to teach the student the basic concepts, as well as trigger their imagination and inquisitiveness.
2. Virtual Labs will be effective as an instructional tool as well as a self-learning tool. However, Virtual Labs can never truly replace an actual laboratory or the ‘touch and feel’ of actual lab experiments.
3. The result of an experiment is provided in one of the following form:
 - a. Modeling the physical phenomenon by a set of equations and carrying out simulations to yield the result of the particular experiment. This can, at-best, provide an approximate version of the ‘real-world’ experiment.
 - b. Providing a corresponding measurement data for the Virtual Lab experiment based on previously carried out measurements on an actual system. This will be closer to the ‘real-world’ experiment.

Apart from availability of manuals of simulation experiments, the web pages of laboratory courses also provide background material, additional web-resources and self-evaluation. IIITDM Jabalpur has developed two such labs, namely VLab on Mechatronics and VLab on Manufacturing. The spirit of Virtual component of the laboratories is maintained through simulation/ animation/ experimental videos and photographs of individual components and the experimental setups.

We hope that the workshop will help the participants from specially Mechanical Engineering discipline to get a glimpse of various virtual labs developed by renowned faculty from premier Institutes. The names of laboratory courses covered in the workshop are given in the attached tentative schedule of the workshop.

For registration and further details kindly visit www.iiitdmj.ac.in or contact the undersigned.

Professor Tanuja Sheorey
Professor Vijay Kumar Gupta
Coordinators



**Virtual Laboratories Presentations
Tentative Workshop Schedule
December 18-19, 2012**



December 18, 2012	
Registration: 9:45 AM to 10:00 AM Venue: L7	
Lab Topic	Time
<i>Session 1: Introduction to VLabs Theme</i> by: Prof. C. S. Kumar Email: kumar@mech.iitkgp.ernet.in	10:00AM to 10:30AM
<i>Session 2: Kinematics and Dynamics of Mechanism</i> By Prof. C S Kumar Professor, IIT Kharagpur Email: kumar@mech.iitkgp.ernet.in	10:30AM to 11:30PM
Tea Break	
<i>Session 3: Materials- Thermal Processing and Micro Structural characterization (Material testing lab)</i> By Dr. Kantesh Balani Email: kbalani@iitk.ac.in	11:45PM to 12:45PM
<i>Session 4: Remote triggered virtual lab demonstration</i> By Prof S. Sanghal Email: sangals@iitk.ac.in	12:45 to 1:30
Lunch Break	
<i>Session 5: Manufacturing Lab</i> Prof. V.K.Gupta Professor, IIITDMJ Email: vkgupta@iiitdmj.ac.in	2:30PM to 3:30PM
Tea Break	
<i>Session 6: Micro Manufacturing Laboratory</i> Dr Sujit Pardeshi College of Engineering, Pune - 411005 Email: ssp.mech@coep.ac.in	3:45PM to 4:45PM
<i>Session 6 FAB Laboratory</i> by Dr S Pardeshi COE PUNE 411005 Email: ssp.mech@coep.ac.in	4:45 PM To 5:45 PM
December 19, 2012	
<i>Session 7: Mechatronics Lab</i> Tanuja Sheorey Professor, IIITDMJ Email: tanush@iiitdmj.ac.in	10:00AM to 11:00 AM

<i>Session 8: Metal Forming Lab</i> by Rahul Swarup Sharma Dayalbagh Educational Institute Dayalbagh 282110 Email: rahul@rediffmail.com	11:00 AM to 12:00 Noon
<i>Session 9: Feedback Session</i>	12:00 to 12:30 PM