



An MHRD Govt of India Initiative



# VIRTUAL LABS WORKSHOP

BY **MBM Engineering College** in association with **IIT ROORKEE**  
Under the National Mission on Education through ICT  
(MHRD Government of India)

- Civil Engineering
- Chemical Engineering
- Computer Science Engineering
- Electrical Engineering
- Electronics & Communication Engineering
- Mechanical Engineering
- Mining Engineering
- Production and Industrial Engineering

3<sup>rd</sup> & 4<sup>th</sup>

April 2019

## Co-ordinators of the Workshop:

Prof. Naveen Kumar, 9116416044, nksuniya02@gmail.com

Prof. Umesh Kumar, 9887870538

Prof. Naginder Singh, 9034993969

## Nodal Co-ordinator Virtual Labs

Prof. Arvind Kumar Verma, 9414918856

Organised by MBM Engineering College, Jodhpur

[To Register, download the workshop pdf file from the conference webpage of the www.jnvu.edu.in website and click this link to open the Google](#)

## Introduction

Physical distances and the limited availability of resources often put restrictions on conducting experiments especially when they involve sophisticated instruments. Virtual Labs have been designed to provide remote access to labs in various disciplines of Science and Engineering. These Virtual Labs cater to students at the undergraduate level, post graduate level as well as to research scholars. Virtual Labs enable the students to learn at their own pace and enthruse them to conduct experiments. Virtual Labs also provide a complete learning management system where the students can avail various tools for learning, including additional web-resources, video-lectures, animated-demonstrations and self-evaluation. Virtual Labs enable the users to perform the experiments remotely as an on-demand service over the web. The Virtual Labs are being jointly developed by IIT Delhi, IIT Bombay, IIT Madras, IIT Guwahati, IIT Roorkee, IIT Kanpur, IIT Kharagpur, IIIT Hyderabad, Amrita Vishwa Vidhyapeetham Coimbatore, College of Engineering Pune, Dayalbagh Educational Institute Agra and NITK Surathkal.

### The basic concept of virtual labs

Virtual Lab does not require any additional infrastructural setup for conducting experiments at user premises. One computer terminal with broadband internet connectivity is all that is needed to perform the experiments remotely. More than 100 Virtual Labs are currently ready for use and available at one common website [www.vlab.co.in](http://www.vlab.co.in).

### Objective of the Virtual Labs

1. 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.
2. To enthruse students to conduct experiments by arousing their curiosity. This would help them in learning basic and advanced concepts through remote experimentation.
3. 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.
4. To share costly equipment and resources, which are otherwise available to limited number of users due to constraints on time and geographical distance.

### GENERAL REMARKS

1. **No registration fee** will be charged.
2. Pre-registration is mandatory for this workshop.
3. Registrations can be done by online registration Google form.
4. **No lodging/boarding charges or TA/DA will be provided.**
5. Certificate of participation will be given to the participants.
6. Last date of registration is 1<sup>th</sup> April 2019 by 3:00 pm.

### Broad Areas of Virtual Labs

Electronics & Communications, Computer Science & Engineering, Electrical Engineering, Mechanical Engineering, Chemical Engineering, Biotechnology and Biomedical Engineering, Civil Engineering, Physical Sciences, Chemical Sciences

### Resource Persons

Mr. Chetan (Project Associate), Mr. Amit Sharma (Project Associate), Mr. Abhilash Sundriyal (JRF)  
Virtual Labs, IIT Roorkee, Roorkee

### Workshop Schedule and Venue

**Venue: Computer Centre, MBM Engineering College  
Introductory session at 85-International Seminar hall**

3 <sup>rd</sup> April 2019	
Time Slot	Topic
9AM-10AM	Introductory Session
10AM-12NOON	Demo and Hands On
12:15PM - 2:15PM	Demo and Hands On
4 <sup>th</sup> April 2019	
9 AM- 11AM	Demo and Hands On
11:15AM- 1:15PM	Demo and Hands On