Report on Virtual Lab Workshop

Organized by Department of Computer Science & Engineering

Khwaja Moinuddin Chishti Language University (KMCLU), Lucknow

Date: 8 April 2026

1. Introduction

A one-day Virtual Lab Workshop was successfully conducted on 8 April 2026 at Khwaja Moinuddin Chishti Language University (KMCLU), Lucknow for engineering students. The workshop aimed to provide practical exposure to simulation-based learning through virtual laboratories, enabling students to perform experiments remotely and enhance conceptual understanding.

The session was conducted by **Mr. Chetan Dhiman** and **Mr. Rohan Wadhawa** from Indian Institute of Technology Roorkee.

2. Objectives of the Workshop

The primary objectives of the workshop were:

- To introduce students to the concept of **Virtual Labs**
- To demonstrate the use of online lab platforms for performing experiments
- To bridge the gap between theoretical knowledge and practical application
- To promote self-learning and remote experimentation
- To familiarize students with simulation tools across engineering domains

3. About Virtual Labs Initiative

The **Virtual Labs** project is an initiative of the Ministry of Education under the National Mission on Education through ICT (NMEICT). It provides remote access to laboratory experiments in various disciplines such as Computer Science, Electronics, Mechanical Engineering, and more.

Students can perform experiments anytime and anywhere, making it especially useful where physical lab infrastructure is limited.

4. Resource Persons

- **Mr. Chetan** – Virtual Labs Expert, IIT Roorkee
- **Mr. Rohan Wadhawa** – Research Associate, IIT Roorkee

Both resource persons delivered insightful sessions combining theoretical explanation with live demonstrations.

5. Workshop Proceedings

Session 1: Introduction to Virtual Labs

- Overview of Virtual Labs platform
- Importance of simulation-based learning
- Benefits for engineering education

Session 2: Hands-on Demonstration

- Live demonstration of experiments in different domains
- Step-by-step guidance on accessing and performing experiments
- Explanation of simulation tools and user interface

Session 3: Discussion and Q&A

- Students asked queries regarding experiment design and applications
- Discussion on integrating Virtual Labs into academic curriculum

6. Participation Details

- Participants: Engineering students from various branches
- Faculty members were also present to gain insights for academic integration
- The workshop witnessed enthusiastic participation and active engagement

7. Learning Outcomes

After attending the workshop, students were able to:

- Understand the concept and utility of Virtual Labs
- Perform experiments using online simulation platforms
- Analyze results and interpret experimental data
- Gain confidence in self-paced and remote learning environments

8. Feedback and Response

The workshop received **positive feedback** from students and faculty members. Participants appreciated:

- Practical exposure through live demonstrations
- Easy-to-use interface of Virtual Labs
- Clarity of explanation by resource persons
- Relevance to academic and research needs

9. Conclusion

The Virtual Lab Workshop conducted on **8 April 2026** at KMCLU, Lucknow was highly informative and beneficial. It successfully enhanced students' understanding of simulation-based experiments and promoted the adoption of digital learning tools in engineering education.

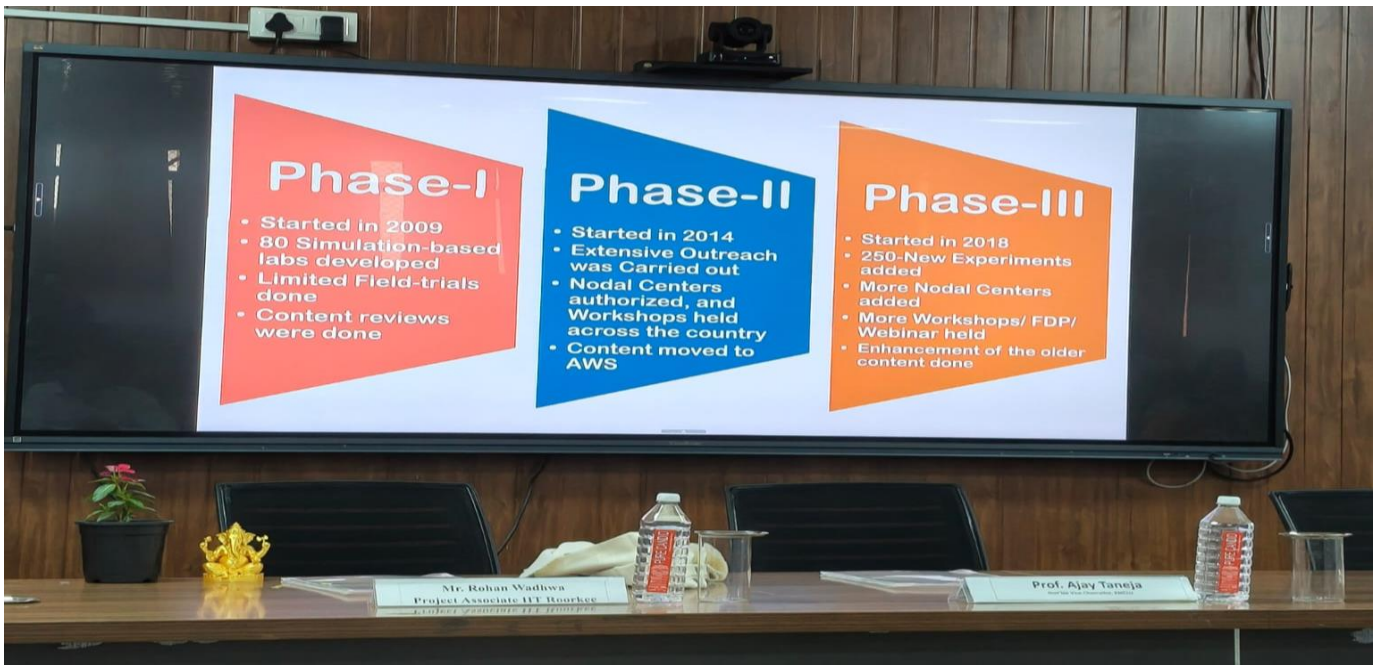
The university extends its sincere gratitude to **Mr. Chetan** and **Mr. Rohan Wadhawa** from IIT Roorkee for their valuable contribution and looks forward to organizing more such workshops in the future.

Glimpse of the workshop

attendance.pdf


Virtual Labs
Mr. Rohan Wadhwa
Project Associate IIT Roorkee


Website: www.vlab.co.in


Phase-I
Started in 2009
80 Simulation-based labs developed
Limited Field-trials done
Content reviews were done
Phase-II
Started in 2014
Extensive Outreach was Carried out
Nodal Centers authorized, and Workshops held across the country
Content moved to AWS
Phase-III
Started in 2018
250-New Experiments added
More Nodal Centers added
More Workshops/ FDP/ Webinar held
Enhancement of the older content done
Mr. Rohan Wadhwa
Project Associate IIT Roorkee
Prof. Ajay Taneja


VIRTUAL LABS

Virtual Labs
An MoE Govt of India Initiative

WORKSHOP REPORT - 2026

NCID | Nodal Centre: KMCLU Lucknow

Workshop Date: 8/4/26

Workshop Type (Online/Offline): offline

Time	Discipline	Lab / Experiment Demonstrated	No. of Students	No. of Faculty Members	Usage
Session1	B.Tech AIML-DS, CSE, BT, ME	5/8	181	20	40x181 =7240
		TOTAL	181	20	7240

* NOTE: The following documents are to be submited along with the workshop report

1. Atendance Sheet
2. Two photographs, one of the online/offline session and one of the workshop notification (poster/banner/flyer etc.)

Nodal Coordinator: (Dr. Hemant Kumar Singh)

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Nodal Coordinator 8/4/26
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