



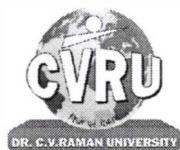
**A BRIEF REPORT
ON
ONE WEEK FDP
ON
“EXPERIMENTAL DOMAINS IN PHYSICS”**

- 1) **Name of the Event/Activity:** EXPERIMENTAL DOMAINS IN PHYSICS
- 2) **Organized By:** Department of Physics
- 3) **Date:** 5-10.12.2021
- 4) **Venue:** Dr. C. V. Raman University, Kargi Road, Kota, Bilaspur
- 5) **Collaboration/Association:** In Collaboration with Wadhvani Foundation
- 6) **Sponsored Body (if Any):** IAPT RC-10
- 7) **Duration in Nos.:** One Week
- 8) **Total No. of Participants:** 57
- 9) **Mode of Conduction (Offline/Online):** Online
- 10) **Type/Nature & Level of the Event:** FDP
- 11) **Brief Description:**

Prog. Date: 5-10.12.2021

Report Date: 17.12.2021

A Week FDP On Experimental Domains In Physics was organized on 5th and 10th December 2021 for teachers by Physics Department and Internal Quality Assurance Cell (IQAC), with of Dr. C. V. Raman University, Kargi Road Kota, Bilaspur Chhattisgarh which is Centre for Excellence and ‘B+’ grade accredited by NAAC. The FDP was sponsored by Indian Association of Physics Teachers RC-10.



Resource persons of the program were **Dr. Awanish Upadhyay**, Associate Professor, GEC, Raipur along with **Dr. Lakhpati Patel** Assistant Professor, Govt. College Bagbahra Chhattisgarh at the centre and **Dr. A. K Shriavastava** President of IAPT RC-10.

On the first day of Program (5th December 2021) the aim of the event is to understand fundamentals. The FDP was inaugurated by **Hon'ble Vice Chancellor Dr. R. P. Dubey**.

Chairperson of the program was **Hon'ble Pro-Vice Chancellor Prof. Jayati Chaterjee Mitra**.

In his inaugural speech Dr. A. K. Shrivastava stated that, aim of experimental domains is to understand fundamentals of the subjects. Ordinary men have made important discoveries.

Simple experiments do useful Job. Convener of the FDP Dr. Ashutosh Pandey introduced the guests and presented theme of the FDP.

Our Keynote Speaker **Dr. Awanish Upadhyay**, Associate Professor, GEC, Raipur told in his presentation that to learn something a small effort is needed in right direction. Innovative ideas can be put to experiments that make theory understandable easily. He demonstrated and provided some experimental models using 3-4 parallel sets to be performed by the participants. He explained the basics in detail to the participants. These experiments included

- (1) Study of resistance of different bulbs and estimate their temperature.
- (2) Study of R-L, R-C and L-C-R using A. C. power supply.
- (3) Study of magnetic interaction using ring magnets
- (4) Study of thermal conductivity using soldering iron
- (5) Optical diffraction using diode lasers



- (6) Self adjustments of molecules
- (7) Rutherford scattering
- (8) Barrier penetration
- (9) Crystal defects
- (10) Pendulum with time period of more than 2 seconds.

He told the participants to actively engage in innovations. In his welcome speech Dr. M. Z. Khan told that it is a rare opportunity for the participants to learn what are experiments and what are experimental domains.

Program on other day 8th December 2021 Principle learnt through experiment always remains in memory Principle learnt through experiment always remains in memory. Theory evolves through experiment and experiments in turn through theory. Experiments must be qualitative and quantitative both and this is seen practical in this innovative FDP. These were the views expressed by **Dr. Lakhpati Patel**.

On the next and final day our Resource Person joined the FDP who was Dr. A. K. Shrivastava President, IAPT RC-10. He demonstrated and provided 5 innovative experiments to the participants. experiments included

- (1) Centre of gravity
- (2) Anti gravity and Boyle's Law



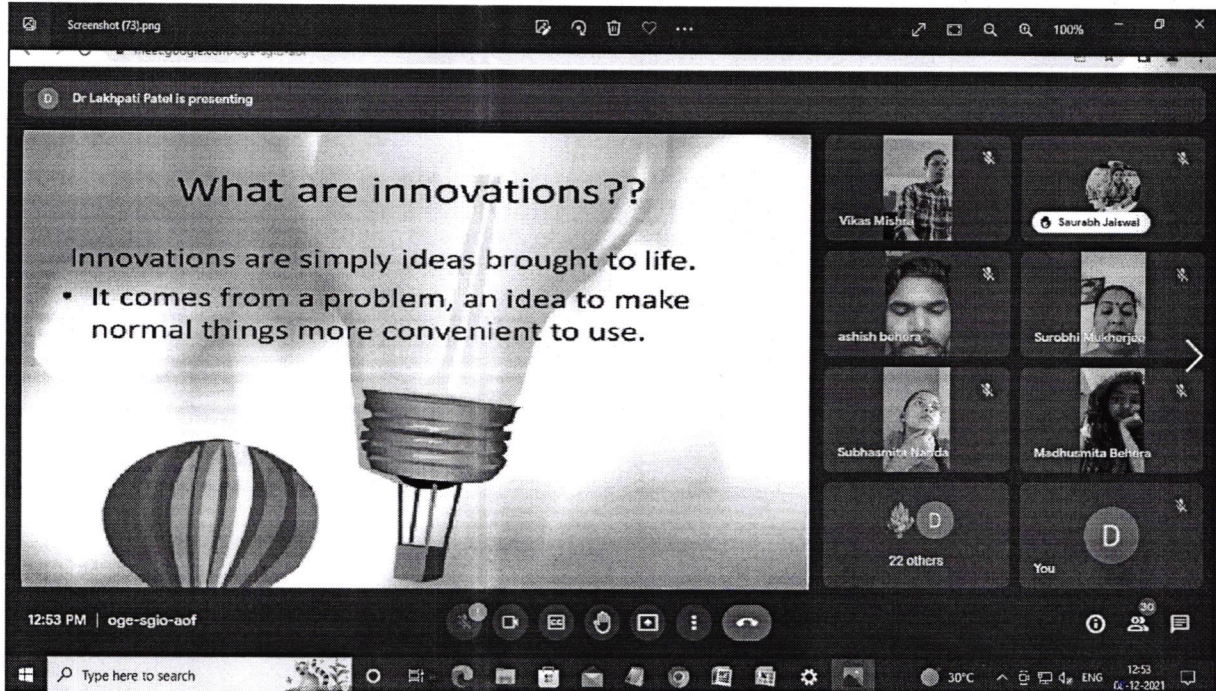
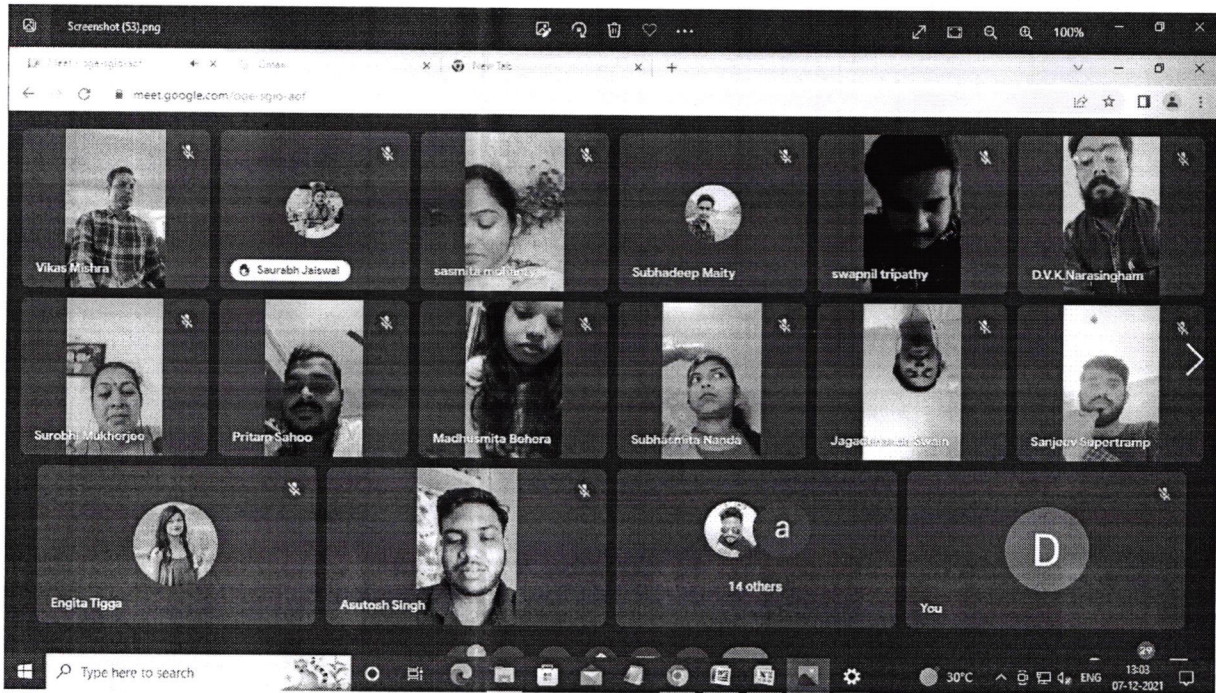
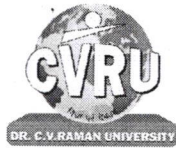
- (3) Lorentz Force
- (4) Balancing stick
- (5) Ring magnets.

Participating students and teachers appreciated the FDP very much, they learned basic principles of physics in a simple and joyful way. They got firsthand experience of performing innovative experiments in the FDP.

Chairperson of the program **Hon'ble Pro-Vice Chancellor Prof. Jayati Chaterjee Mitra** told that this FDP was interesting and knowledgeable. She also accepted the suggestion of establishing an Innovation Hub in the college.

Convener of the program Dr. Ashutosh Pandey presented the report of the FDP. He narrated that nearly 15 innovative experiments were provided to students and teachers in multiple sets that were performed by them in the FDP.

In the feedback session participating teachers and students told that in the FDP we grasped physics in a simple way. Dr. Ratnesh Tiwari, Mr. Ravish Gupta, Mr. Vikas Mishra, Mr. D. V. K. Narasingham expressed their views in the feedback session. Guests distributed certificates to the participants. Vote of thanks by convener Dr. Ashutosh Pandey. All the members of teaching staff were present. More than 57 teachers are participated on the FDP.



Dr. Lakhpati Patel Presenting his Video



Ashish Singh
Professor & Head
Department of Physics
Dr. C.V. Raman University
Kota, Bilaspur (C.G.)
INDIA