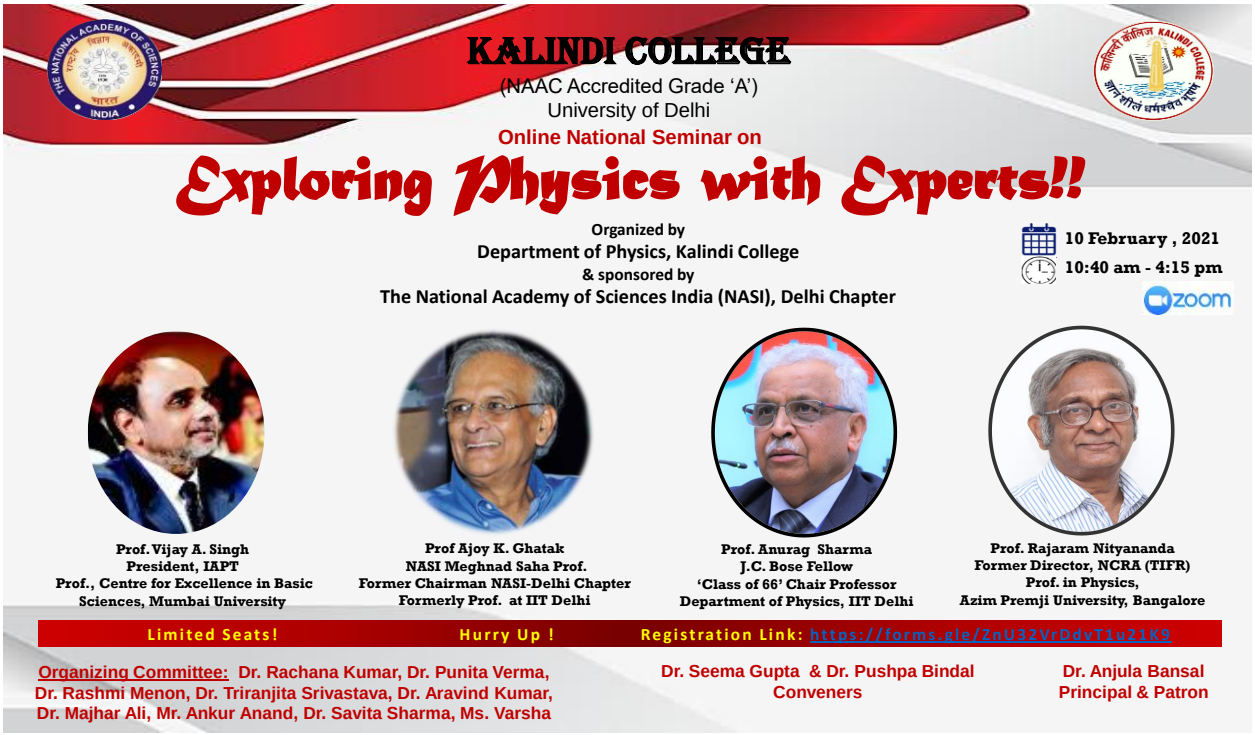
Department of Physics has organized following National workshops and seminar during academic year 2020-21.

1. National Seminar on “Exploring Physics with Experts!” on Feb 10, 2021.
2. A 3 days online National workshop on “Challenges of Teaching Physics Laboratory Courses in Online Mode” held on 22-25 Jan, 2021.
3. A two day workshop on “Skill enhancement by ICT Learning in the period of online knowledge exchange” held on 9-10 Dec. 2020.

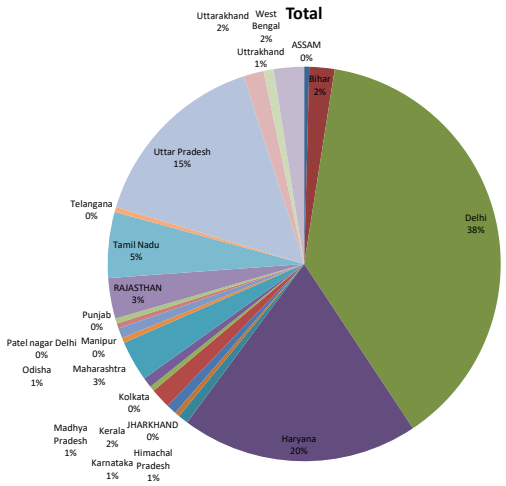
Report of online National Seminar on

"Exploring Physics with Experts!!"



An online one day National Seminar on **"Exploring Physics with Experts"** was held on 10th February 2021. This seminar was organized by the Department of Physics, Kalindi College, University of Delhi, with sponsorship by NASI DELHI CHAPTER, under the convenership of Dr. Seema Gupta, T-I-C and Dr. Pushpa Bindal, Department of Physics, Kalindi College. The organizing committee members were Dr. Rachana Kumar, Dr. Punita Verma, Dr. Triranjita Srivastava, Dr. Rashmi Menon, Dr. Mazhar Ali, Dr. Aravind Kumar, Mr. Ankur Anand, Dr. Savita Sharma and Ms. Varsha. The seminar was beneficial for faculty as well as students of Physics all over India.

In total, 177 candidates from different parts of India participated in the seminar. Out of which 39 were faculty members and 138 were students (97 from Kalindi College and 41 from outside).



This National Seminar aimed to discuss the basic concepts in detail which are used by the different university courses in teaching physics to any course.

The Seminar started with the inaugural address of Prof. Ajoy K Ghatak, Prof. Meghnad Saha Fellow of NASI, followed by Prof. Anurag Sharma, Chairman NASI DELHI CHAPTER, on **10th February 2021** at 10:40 AM. They explained that how important it is to have a clear vision on basics. Prof. Ajoy K Ghatak welcomed the participants and appreciated the seminar. The Conveners Dr. Seema Gupta and Dr. Pushpa Bindal welcomed Prof. Ajoy K Ghatak for his talk on **The Fiber Optics Revolution**. The following 4 sessions were conducted:

Session 1
The Fiber Optics Revolution

(https://youtu.be/RSFZSC7Z0zo and https://youtu.be/HLroSaAwtqo **)**

Resource person: Prof. Ajoy K Ghatak, NASI Meghnad Saha Distinguished Prof. (Formerly Prof. of Physics at IIT Delhi)

Prof. Ajoy Ghatak started the session with the point that why study of light has become so important. Starting from the development of first laser, Prof. Ghatak discussed the properties of Lasers and it's different applications. He also covered a wide range of topics in fibre optics including optical fibre, laser induced fusion, optical tweezers, chirped pulse amplification and LIGO etc. He also enlightened us about solar light optical lighting process which is very useful to the regions where electricity crisis exists.

Session 2
Four Faces of Entropy

(https://youtu.be/RSFZSC7Z0zo and https://youtu.be/HLroSaAwtqo **)**

Resource person: Prof. Rajaram Nityananda, Former Director, NCRA (TIFR), Prof. in Physics, Azim Premji University, Bangalore

Prof. Rajaram Nityananda begin his talk by explaining the topic relevance in the field of Statistical Physics, Thermal Physics, Communication Systems. He gave every basic idea about bits, Shannon entropy, the mathematical theory of communication, Boltzmann entropy, Clausius-Carnot Entropy, irreversible expansion etc.

Session 3
Concepts in Optics

(https://youtu.be/uY3aC8IjaXY **)**

Resource person: Prof. Anurag Sharma, J.C. Bose Fellow, 'Class of 66' Chair Professor, Department of Physics, IIT Delhi

Prof. Anurag Sharma started his talk on fundamentals of optics, Fermat principle, Huygens principle, Huygens-Fresnel principle. He also talked about the evolution of physics in optics from early to modern theory. Everyone appreciated his presentation.

Session 4
The Golden Ratio, the Centre of Mass and Aesthetics

(https://youtu.be/Z-JO8QvbL8g **)**

Resource person: Prof. Vijay A. Singh, President, IAPT, Prof., Centre for Excellence in Basic Sciences, Mumbai University

Prof. Vijay A. Singh started his talk on history of mathematics, Indian origin of mathematics, various examples of golden ratio in arts to science. He also gave many examples of physics problems contains golden ratio in circuits, bohr's quantization, center of mass etc. He very beautifully explained the concept of Fibonacci Sequence and Golden ratio being used all around us in nature, architecture, human body and various traditional designs and paintings. The famous painting of Mona Lisa by Leonardo da Vinci is a great such example. This session was very well enjoyed and appreciated by all the participants.

Valedictory session

(https://youtu.be/Z-JO8QvbL8g?t=3956)

Dr Pushpa Bindal and Dr Seema Gupta gave vote of thanks at last of the session to all the Resource person and Team members for the successful completion of the workshop.

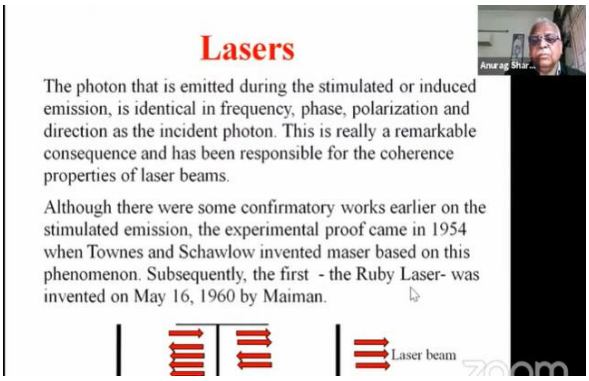
Formal closure of the program is followed by group pictures.

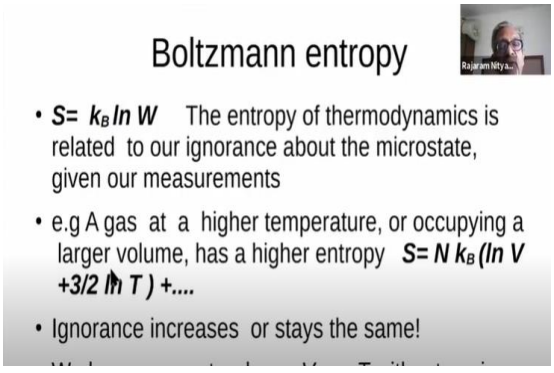
Feedback from participants

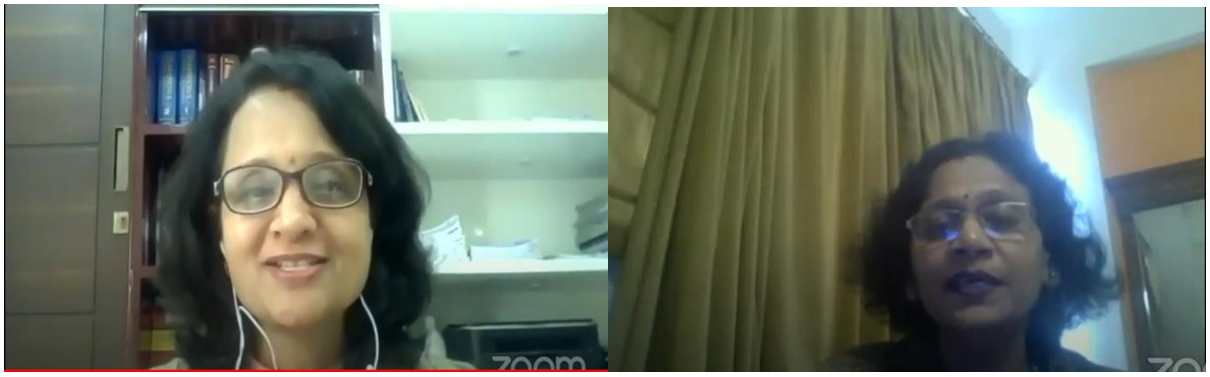
The feedback form is collected from the participants on google form (total-173 entries) and the summary of responses is as followed

Questions asked	Responses
Was the session useful for you?	Very useful – 132 Useful - 41
Did the session meet your expectation?	High – 142 Moderate - 31 Low – Nil
Did today's session help with new learning or knowledge?	High – 141 Moderate - 30 Low – 2
Overall how satisfied are you with the session?	Very Satisfied – 129 Satisfied - 44

Most of the audience has appreciated the event and they has expressed the wish that more such events must happen, large audience has reflected positive gestures for our initiative.








View
Dr. Seema Gupta
NASI Learning Phy...
Punita Verma
Pushpa Bindal
Dr Arvind Kumar
Rachana Kumar
Dr. Monika Gupta
Majhar Ali
Lavish Kumar
Kanchan
Sakshi Gupta
Komal Jindal
Vanshika Singh
Soumyajit Biswas
Dr. Savita Sharma
27_diksha
Dr. Monika Bassi
Mansi Mann
NIDHI VASHISHTA
Arya Gouri
Mansi Gupta
26_shweta_loshali
E. NARAYANAN
14_Amita Pilania
20_Prachi Kadiy...
1/3
1/3
Unmute
Start Video
Security
Participants
61
Chat
2
Share Screen
Record
Reactions
More
End

Organizing Committee

Dr. Triranjita Srivastava

Dr. Rashmi Menon

Dr. Majhar Ali

Dr. Aravind Kumar

Mr. Ankur Anand

Ms. Varsha

Report of National Seminar "Challenges of Teaching Physics Laboratory Courses in Online Mode"

Report of National Seminar "Challenges of Teaching Physics Laboratory Courses in Online Mode"

A three day National Seminar on the topic **"Challenges of Teaching Physics Laboratory Courses in Online Mode" was organized from 23rd – 25th January, 2021** for the faculty of Physics all over India. The workshop was organized by the Department of Physics under the aegis of IQAC of Kalindi College in association with the Department of Physics and Astrophysics, University of Delhi, under the convenership of Dr. Seema Gupta, T-I-C, Physics Department, and Dr. Punita Verma which was partially sponsored by the NASI DELHI CHAPTER. Dr. Triranjita Srivastava, Dr. Rashmi Menon, Dr. Mazhar Ali, Dr. Aravind Kumar, Mr. Ankur Anand, and Ms.

Varsha were the organizing committee members. In total, 211 registrations were done from different parts of India like 2 from Bihar, 153 from Delhi, 8 from Haryana, 2 Himachal Pradesh, 1 from Jharkhand, 6 from Karnataka, 4 from Madhya Pradesh, 2 from Maharashtra, 9 from Odisha, 6 from Punjab, 2 from Rajasthan, 2 from Telangana, 10 from Uttar Pradesh and 2 from Uttarakhand, and **1 from Italy**. 5 students and 1 Tutor also registered so they were offered to attend via YouTube. This National Seminar aimed to discuss the different ways/methods used by the different university during the pandemic in online teaching mode and discuss among themselves so that all can come together on the same footing and work toward the same goal in a better way.

The Seminar started with the inaugural address of Prof. Ajoy K Ghatak, currently, Prof. Meghnad Saha Fellow of NASI, followed by Prof. Anurag Sharma, Chairman NASI DELHI CHAPTER, and Prof. Brajesh Chaudhary, HOD Department of Physics and Astrophysics, University of Delhi on 23rd January at 10 AM. They explained that how important it is to share the ideas so that the teaching fraternity can work more efficiently and make learning more interesting and accessible to students even living in remote areas of the country. Dr. Seema Gupta invited the Principal, Kalindi College, Dr. Anjula Bansal to address the gathering followed by coordinator IQAC, Kalindi College, Dr. Rakhee Chauhan. Principal mam welcomed the Participants and appreciated the efforts of Dr. Seema Gupta and Dr. Punita Verma and congratulated the whole Physics Department for organizing this National Seminar. Dr. Rakhee Chauhan, IQAC coordinator also welcomed the participants and appreciated the seminar. The Conveners Dr. Seema Gupta and Dr. Punita Verma then welcomed Mr. Prateek Sharma, Sr. Field Engineer at Virtual Labs, IIT DELHI. He explained the vision behind the virtual labs which is an initiative of MHRD under the aegis of NMEICT is working toward the goal of skilled learning of the different field laboratories even when many universities can’t have heavy and costly apparatus. Virtual labs not only provide the one to one kind of interaction with apparatus virtually but also ensure learning in a fun way. Virtual labs not only ensure quality education for all but also help students to learn at their own pace. Dr. Seema Gupta and Dr. Punita Verma then briefed the schedule of the seminar to the participants. On the first day, the following 4 sessions were conducted:

Challenges of Teaching Physics Laboratory Courses in Online Mode

Organized by

Department of Physics, Kalindi College, Under the aegis of IQAC

in association with

Department of Physics and Astrophysics (University of Delhi)

and partially sponsored by

The National Academy of Sciences India (NASI), Delhi Chapter

Organizing Committee

Dr. Rakhee Chauhan
IQAC Coordinator

Dr. Seema Gupta
Convener

Dr. Punita Verma
Convener

Dr. Anjula Bansal
Principal

Organizing Committee

Dr. Triranjita Srivastava

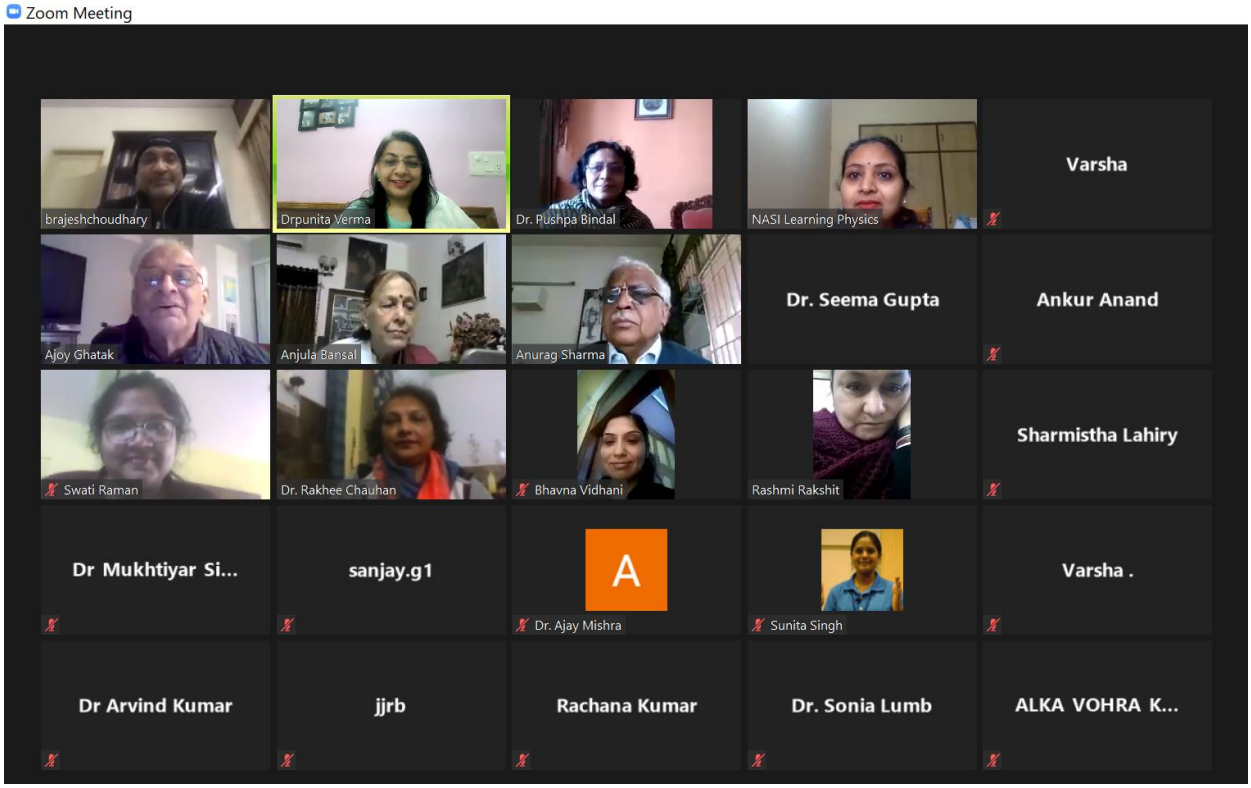
Dr. Rashmi Menon

Dr. Majhar Ali

Dr. Aravind Kumar

Mr. Ankur Anand

Ms. Varsha



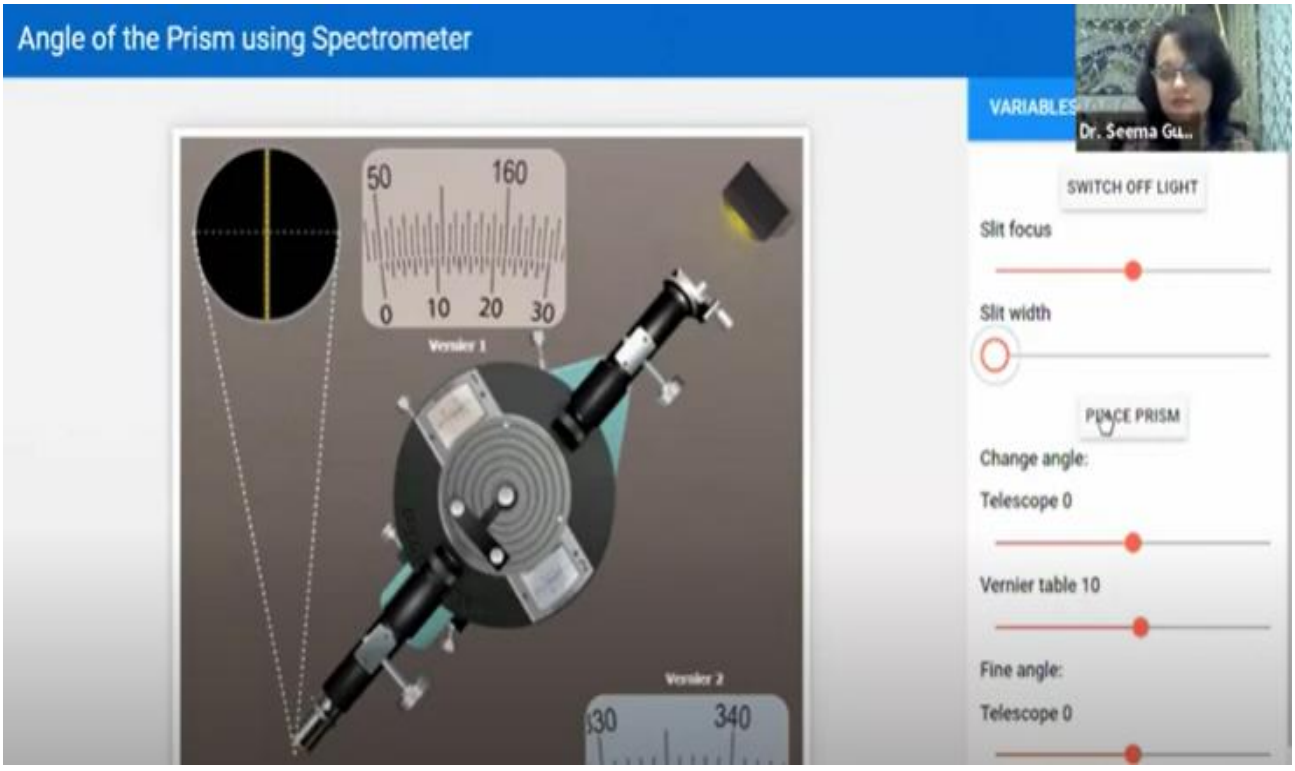
Screenshot of zoom meeting at inauguration on 23rd Jan

Day-1: 23rd Jan 2020

Session 1
Waves and Optics Laboratory
(https://youtu.be/YLvn_PmIZgc)

Resource person: Dr. Rachana Kumar (Associate Professor) and Dr. Seema Gupta (Associate Professor), Department of Physics, Kalindi College.

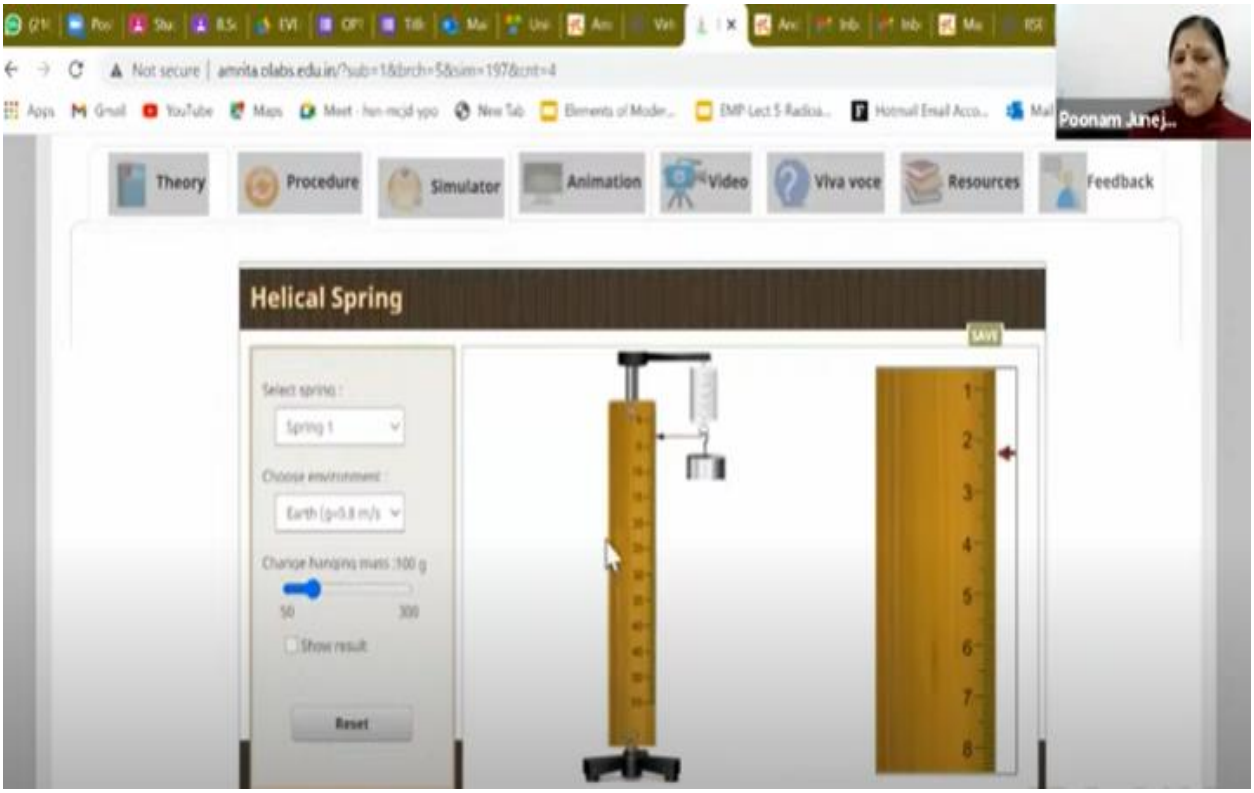
Dr. Seema Gupta started the lecture by introducing a Spectrometer and how different components work to perform any experiment with the help of a spectrometer. Dr. Seema covered experiments like to find the angle of the prism, to find refractive index of a prism, to determine Cauchy's constant. Dr. Rachana Kumar explained experiments like: To determine the dispersive power of material of given prism, determine wavelengths of mercury spectrum using a diffraction grating, to find the wavelength of sodium light using Newton's ring. The simulations of these were explained in great detail using vlab.



Session 2
Mechanics Laboratory
(https://youtu.be/7XW7MFp9nyE)

Resource person: Dr. Poonam Juneja, Associate Professor, Department of Physics, Maitreyi College.

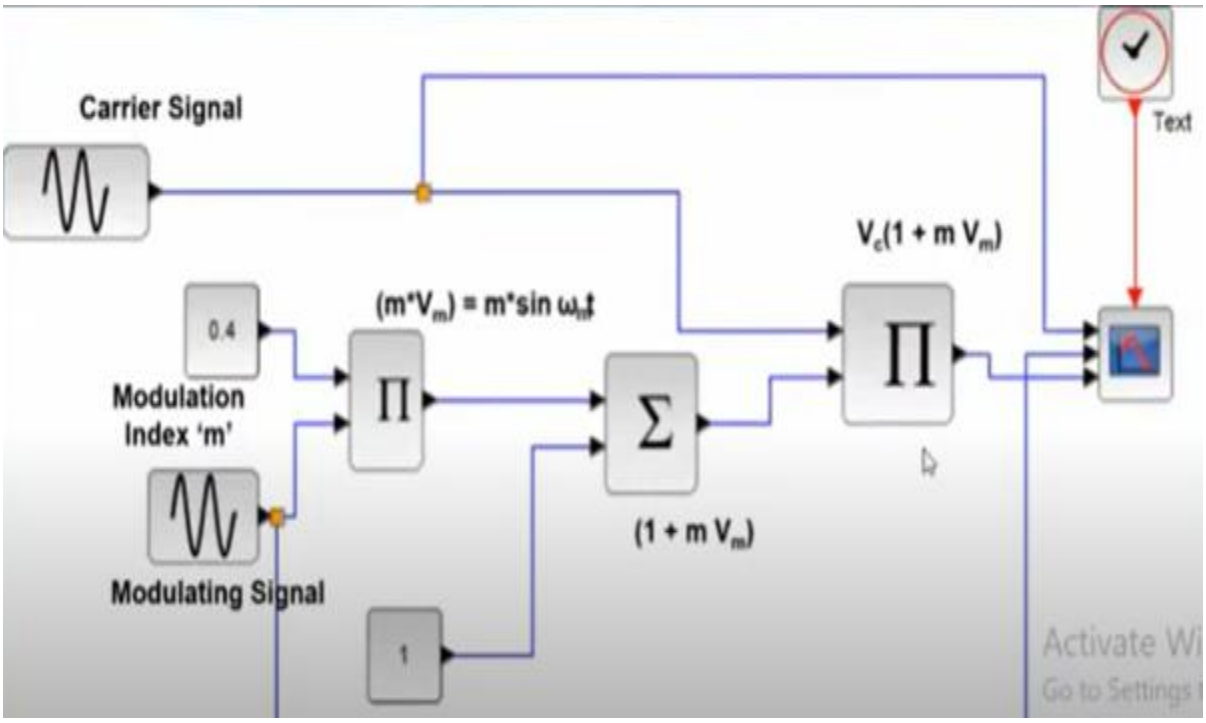
Dr. Poonam Juneja presented to determine the spring's constant using the statical method and dynamic method. She explained the detailed physics behind the experiment along with the simulation using vlabs.



Session 3
Communication System Laboratory
(https://youtu.be/JaqcfrLNWw8)

Resource person: Dr. Neetu Agrawal (Assistant Professor), Department of Physics, Daulat Ram College, Dr. Triranjita Srivastava (Assistant Professor), Department of Physics, Kalindi College

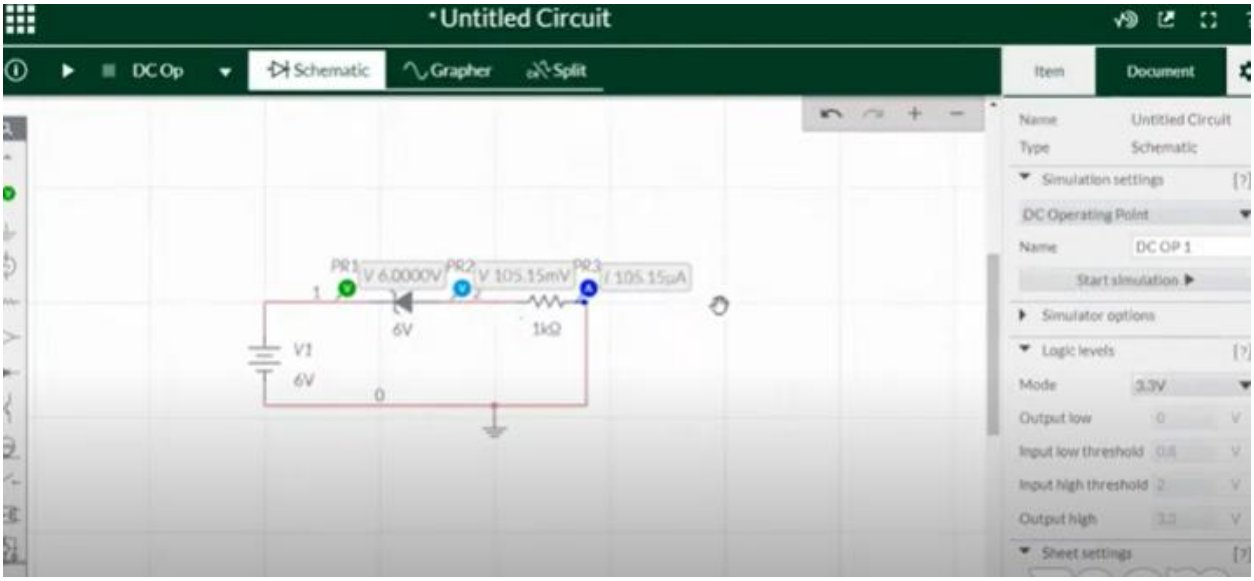
Dr. Neetu Agrawal talked about Introduction and working on XCOS in Scilab and how it can be used for communication lab experiments. She discussed Amplitude Modulation (AM). Dr. Triranjita Srivastava explained the designing of Frequency Modulation (FM), Pulse Amplitude Modulation(PAM), Amplitude shift keying(ASK), Frequency Shift Keying(FSK), and Phase Shift Keying(PSK) using XCOS.



Session 4
Analog System and Application Laboratory
(https://youtu.be/-l34XWuvkjE)

Resource person: Dr. Geetika Jain (Associate Professor), and Dr. Vandana Kumari(Assistant Professor), Department of Electronics, Maharaja Agrasen College

Dr. Geetika starts the session by giving the introduction of the simulation software Multisim which helps to design the analog circuits. Dr. Geetika and Dr. Vandana explained Resistive circuit, an RC filter circuit, and the frequency response study, Zener diode characteristics, Common base transistor configuration, common emitter transistor configuration, transistor biasing circuit(Voltage divider), common emitter amplifier, inverting and non-inverting amplifier using Opamp, Adder, and Subtractor using Opamp, Differentiator circuit using Opamp, Integrator circuit using Opamp, Astable Multivibrator using 555 Timer using Multisim Software.

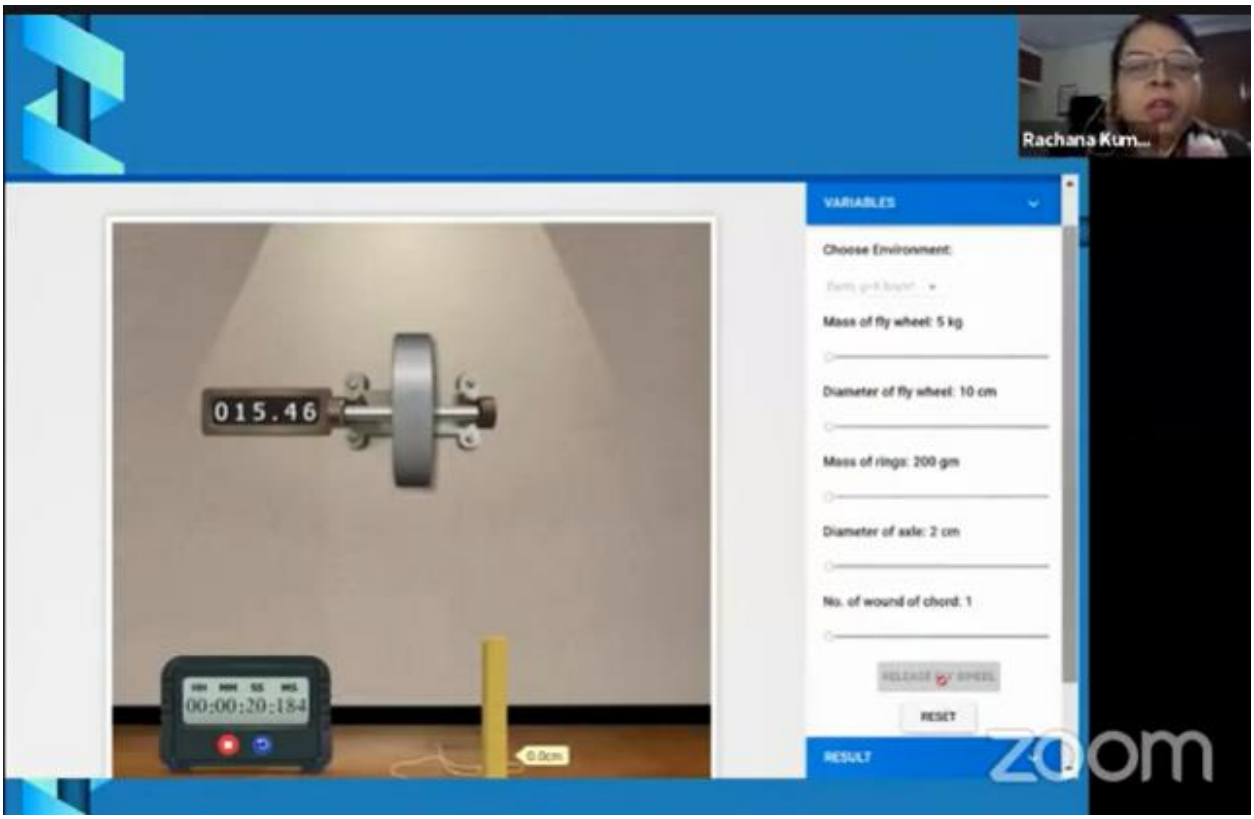


Day 2, 24th Jan 2020

Session 1
Mechanics Laboratory-II
(https://youtu.be/qw_4nBdUxx4)

Resource person: Dr. Rachana Kumar(Associate Professor), and Dr. Pushpa Bindal (Associate Professor), Department of Physics, Kalindi College

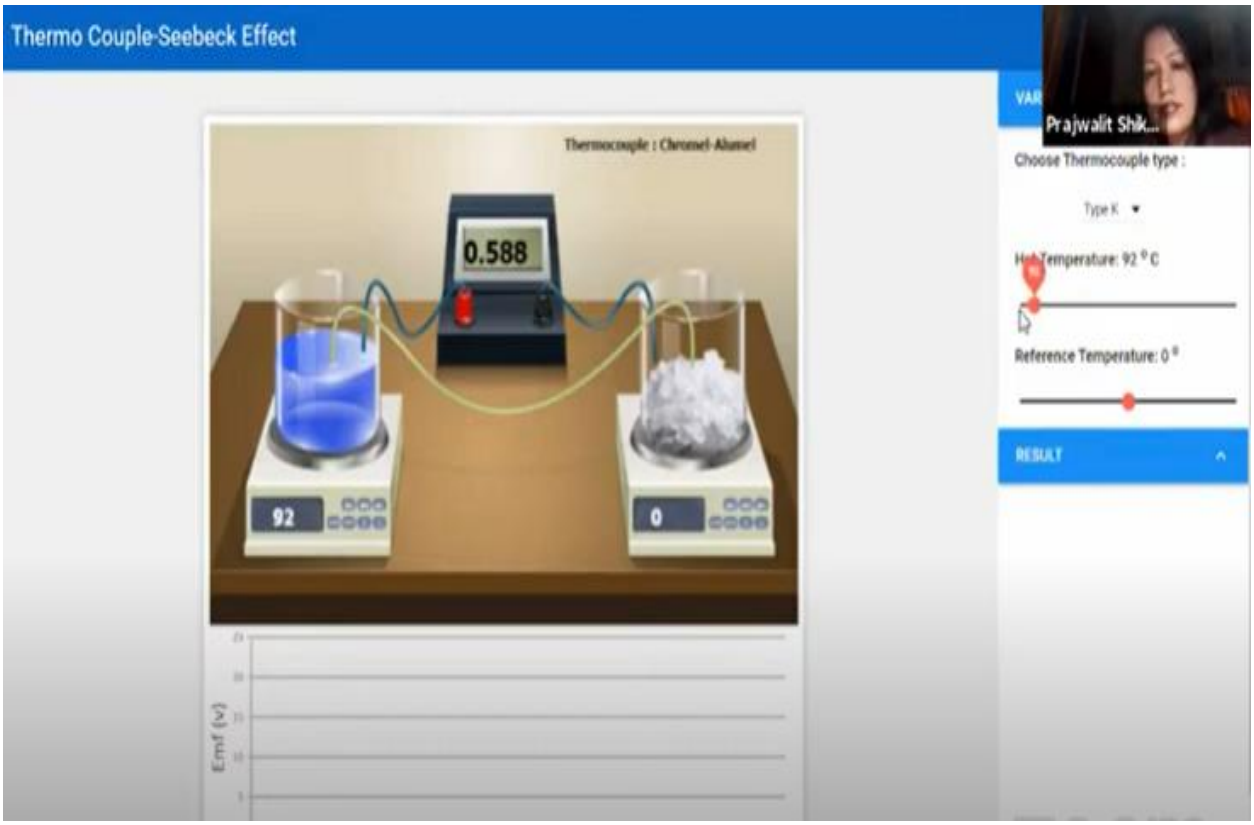
Dr. Rachana Kumar started the lecture with the importance of basic instruments of the lab i.e. screw gauge and vernier caliper and explained them very well with simulation. Dr. Rachana Kumar and Dr. Pushpa Bindal explained the majority of mechanics experiments like the moment of inertia of the flywheel, random errors, elastic constant by Searle's method, Bar pendulum, Kater's pendulum, and spring constant with simulation with the help of vlabs and masses and spring basics website.



Session 2
Thermal Physics Laboratory
(https://youtu.be/RN84vwjQwNc)

Resource person: Dr. Prajwalit Shikha, Assistant Professor, Department of Physics, Maitreyi College

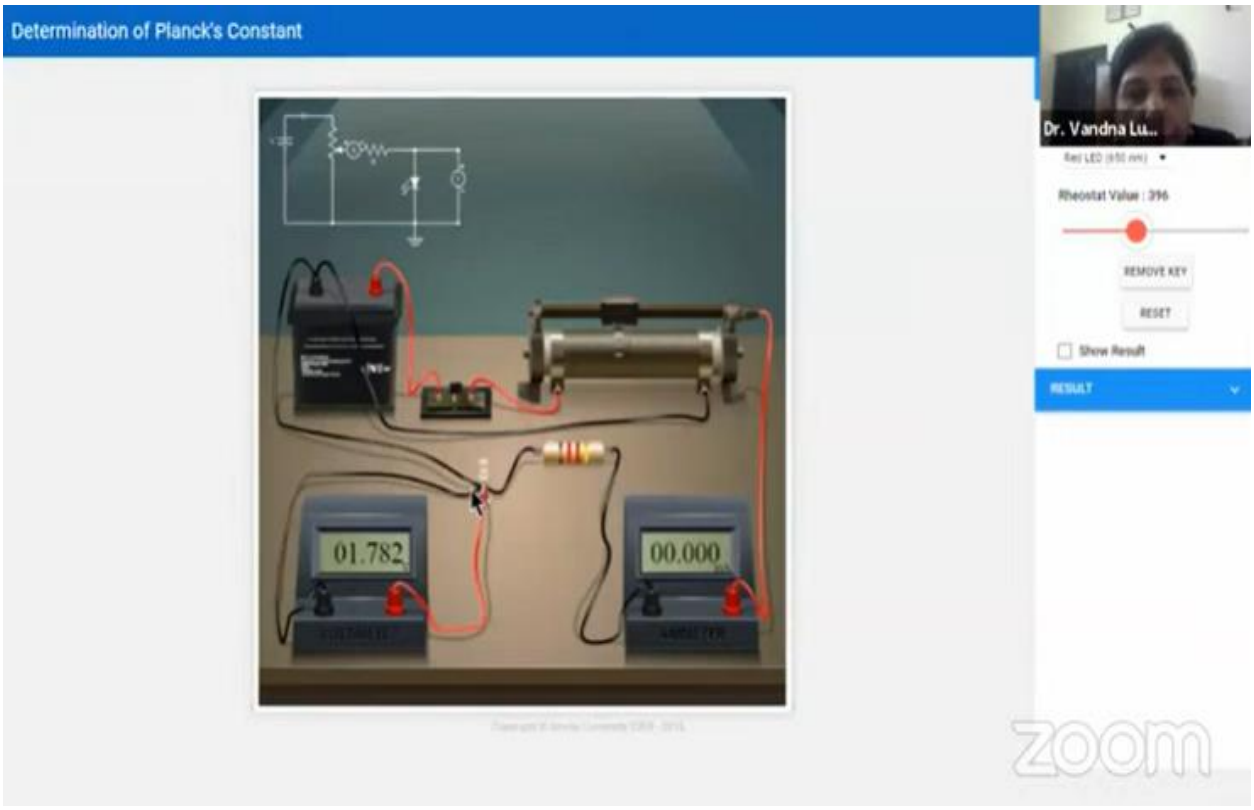
Dr. Prajwalit Shikha explained what are the challenges in doing a thermal lab offline and how those constraints are removed using virtual labs. She explained the thermoelectric effect with the explanation of the study of variation of thermo-emf with the different temperature at the two junctions using a null method and to calibrate the thermocouple in a specified range. She then explained the temperature coefficient of resistance followed by Lee and Charlton's disc method for the determination of thermal conductivity of a bad conductor. All experiments were explained with simulation on vlabs.



Session 3
Applied Optics Laboratory
(https://youtu.be/Taqkd6XRJzg)

Resource person: Dr. Vandana Luthra, Associate Professor, Department of Physics, Gargi College

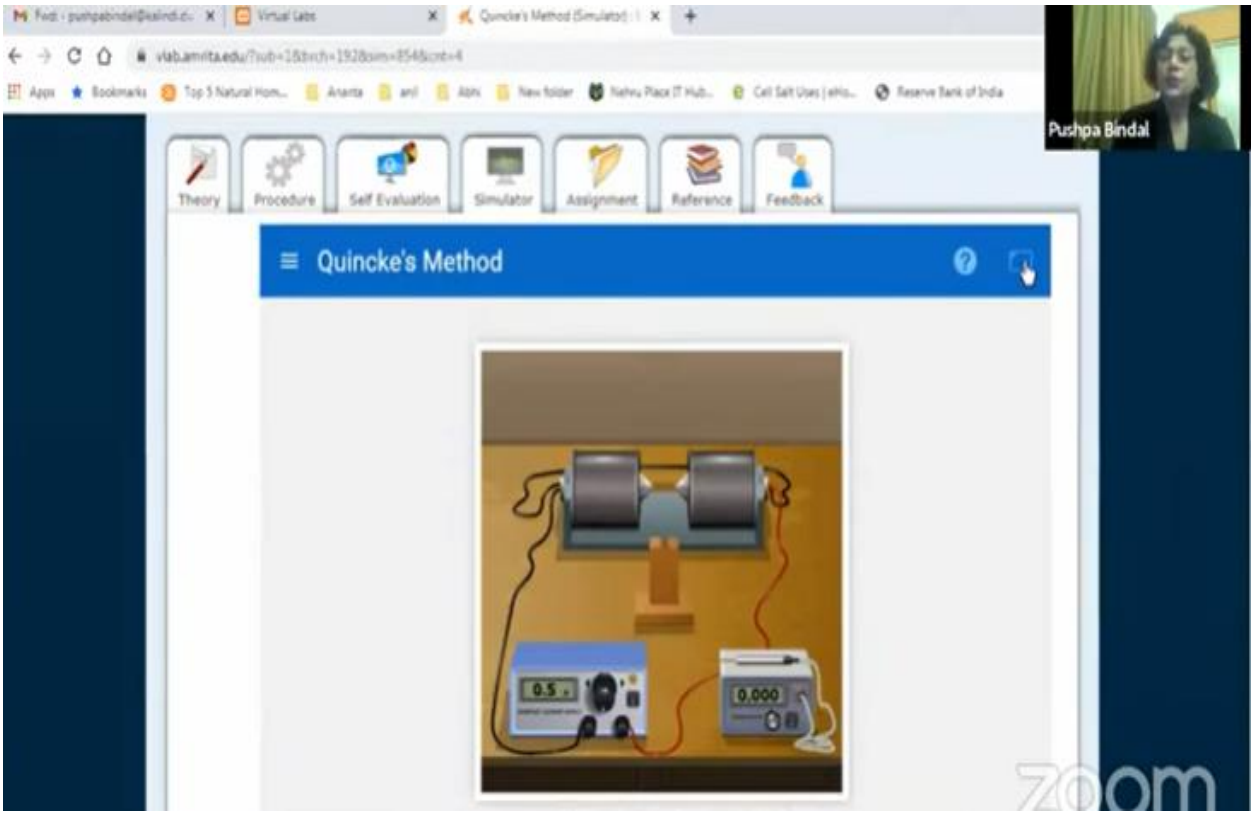
Dr. Vandana Luthra explained biasing of a diode, LED, Nature of Characteristics and finding Boltzmann constant, Knee Voltage, comparison of I-V characteristics of LED with diode, Numerical aperture of optical fiber using vlabs. She explained the plotting of polar plots using Scilab and explained about the data collection using versatile interfacing devices e.g. IUAC, ExpEYES, Phoenix, etc.



Session 4a
Solid State Physics Laboratory
(https://youtu.be/oDo8B2BxXoI)

Resource person: Dr. Seema Gupta (Associate Professor), and Dr. Pushpa Bindal(Associate Professor), Department of Physics, Kalindi College

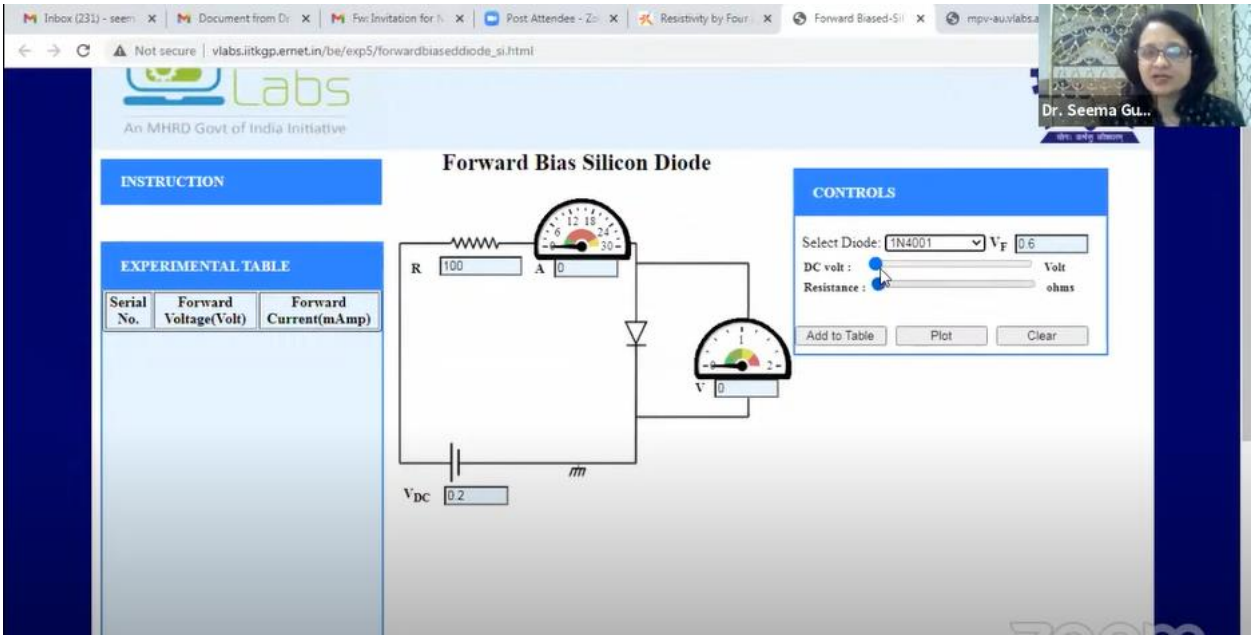
Dr. Pushpa Bindal started the talk with a discussion of the challenges of online labs and the significance of virtual labs. Dr. Seema Gupta and Dr. Pushpa Bindal covered three experiments named Quincke's method, Hall effect, and four-probe method. Starting from basic physics, both explained the simulation with vlabs.



Session 4b
Electromagnetic Theory Laboratory
(https://youtu.be/4op9zAVBRoM)

Resource person: Dr. Seema Gupta (Associate Professor), and Dr. Pushpa Bindal(Associate Professor), Department of Physics, Kalindi College

Dr. Seema Gupta explained the Boltzmann constant using forward characteristics of PN junction diode and Dr. Pushpa Bindal covered two experiments named to find Stefan's constant using the electrical method and to measure brewster's angle. They explained it well using virtual simulation on vlabs.

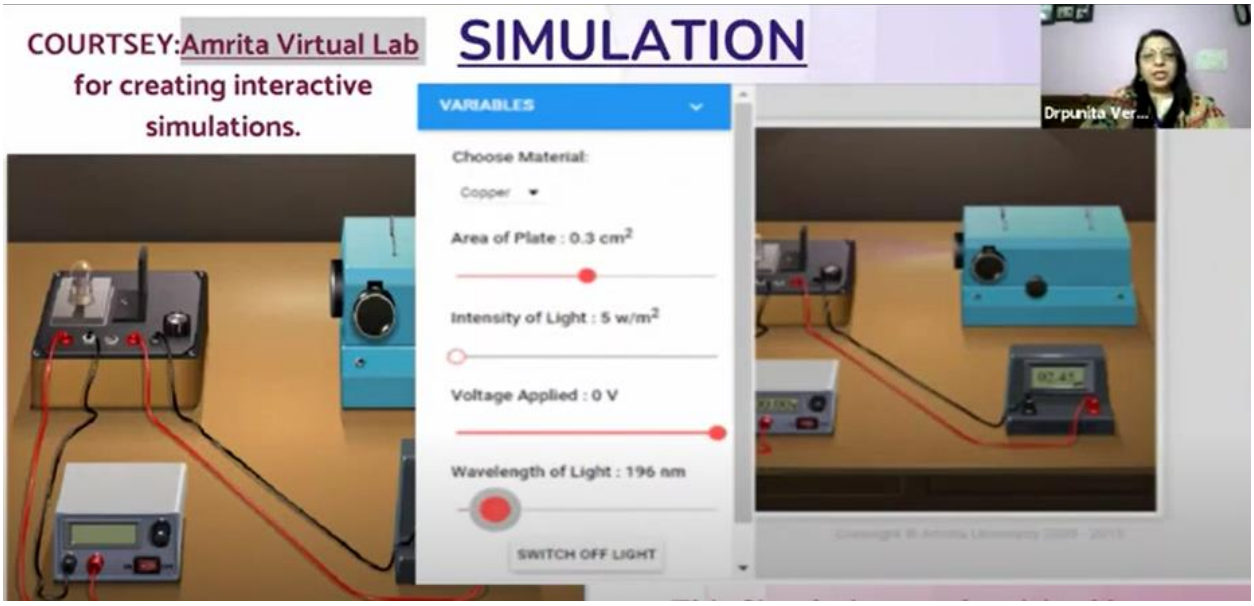


Session 5
Elements of Modern Physics Laboratory
(https://youtu.be/Q9CHNKWo5hM)

Resource person: Dr. Punita Verma(Associate Professor), Department of Physics, Kalindi College

Dr. Punita Verma covered a range of experiments like the determination of rydberg constant and wavelength using hydrogen emission spectra using a diffraction grating, Photoelectric effect, and finding the relation between different parameters. Dr. Punita then explained the use of TINKARCAD, PROTEUS, R-STUDIO followed by experiment determination of Planck's constant using LED. In the end, using vlab simulation she explained Millikan's oil drop experiment.

The day ended with a great detailed discussion among faculties from different colleges and universities.



Day 3, 25th Jan 2020

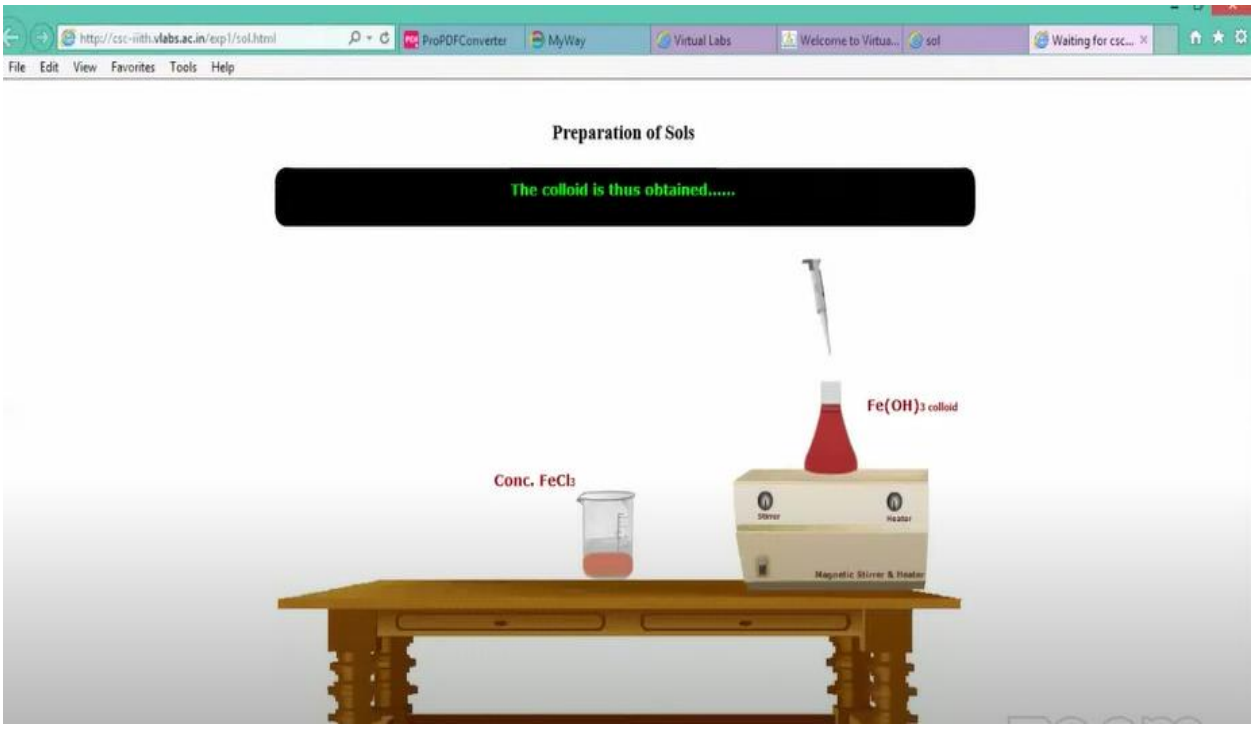
Session 1(a)

Nano Material and Applications Laboratory

(https://youtu.be/0Wjjpq7YSsU)

Resource person: Dr. Parul Yadav(Assistant Professor), and Dr. Mansi Dhingra(Assistant Professor), Department of Physics, Maitreyi College

Dr Mansi Dhingra started the lecture with the basics of the structure of material and characterization of material such as XRD, electron diffraction and TEM using simulation on vlabs and Dr Parul Yadav covered the topic MOLECULAR ADSORBTION SPECTROSCOPY BASED EXPERIMENTS USING V LABS, she explained UV visible spectrometer, Lamberts law, Beer Lambert's law and kinetic of reactions by using spectrometric method.

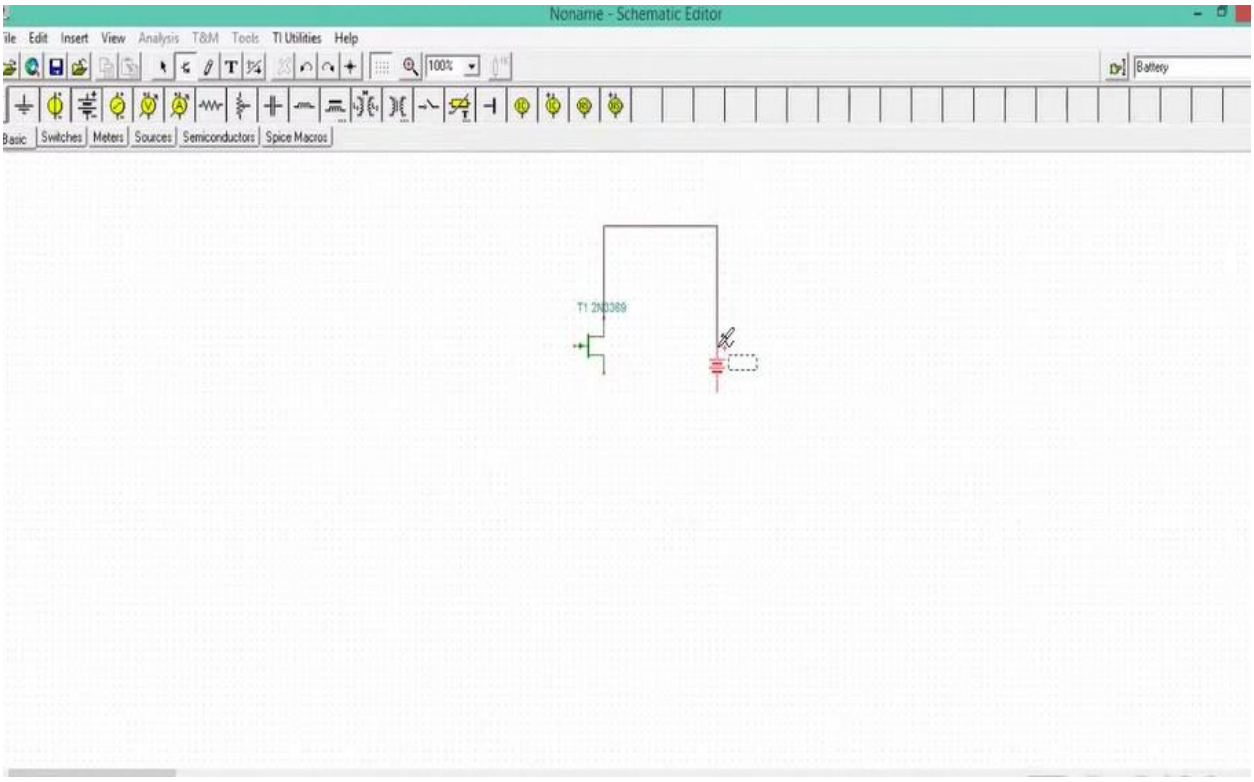


Session I(b)

Physics of Devices and Communication Laboratory
(https://youtu.be/0Wjjpq7YSsU)

Resource person: Dr. Mansi Dhingra(Assistant Professor), Department of Physics, Maitreyi College, Delhi University

Dr Mansi Dhingra started explaining the use of basics of simulator software, she further gave an example of resistance and capacitor parallel circuit to analyze the variation in current.

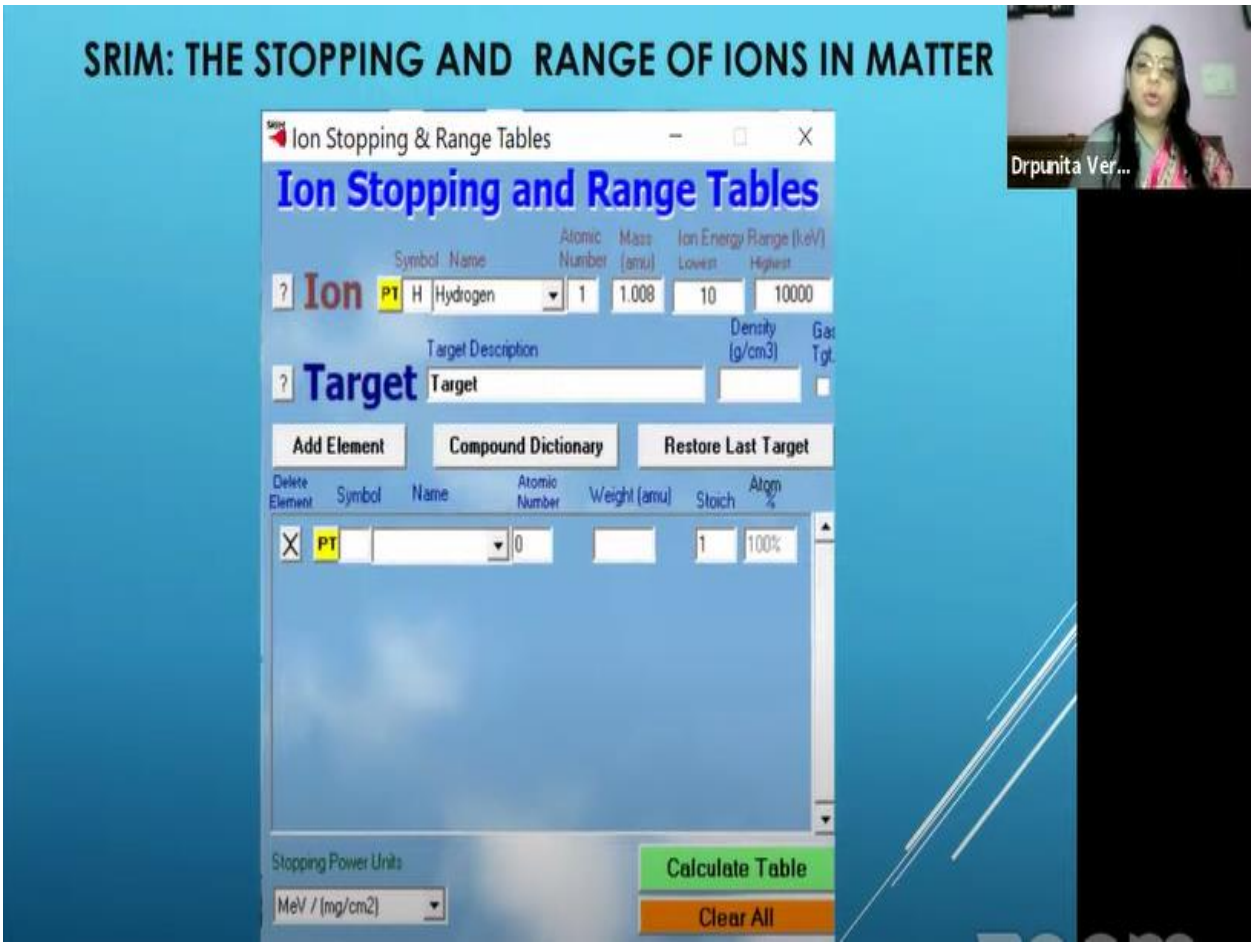


Session 2

Radiation Safety Laboratory
(https://youtu.be/MC1H9V_9Eqw)

Resource person: Dr. Punita Verma(Associate Professor), Department of Physics, Kalindi College

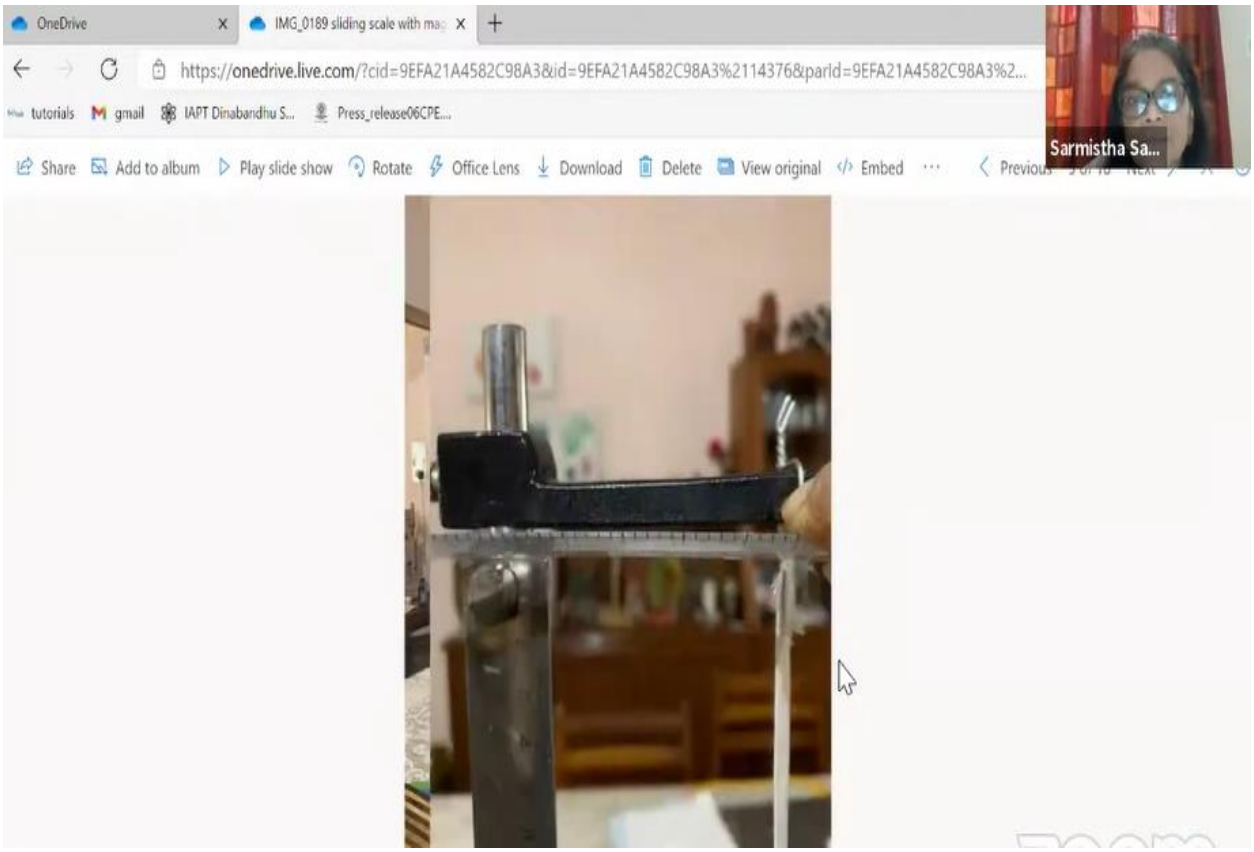
Dr Punita Verma explained the aim of this paper followed by the theory and experiments using the software SRIM, she coved the use of SRIM to discuss the list of experiments in detail.



Session 3
Innovative Methods of Conducting Experiments with Home-made Apparatus
(https://youtu.be/7NGK-FJRIKk**)**

Resource person: Dr. Sarmishta **S**ahu Retd Professor), Physics, Maharani Lakshsmi Ammanni College, Banglore

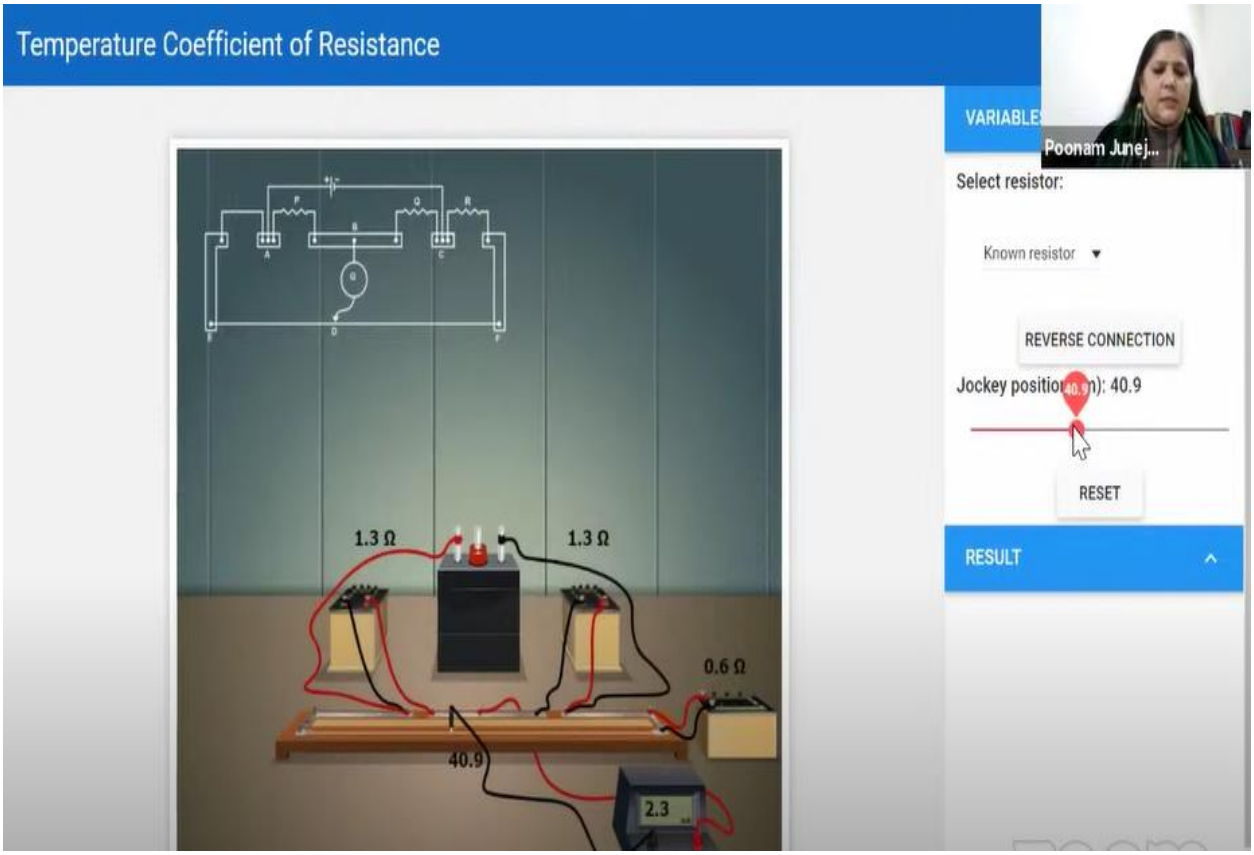
Dr Sarmishta Sahu started her lecture with explaining how we can do experiments at home. She gave some very good examples of experiments like extension of spring to study hysteresis, optics through liquid and oscillation of jharna to study COG and acceleration due to gravity.



Session 4
Electricity and Magnetism
(https://youtu.be/2rfLbuL2E0I**)**

Resource person: Dr. Poonam Juneja Associate Professor), Physics, Maitreyi College, Delhi University

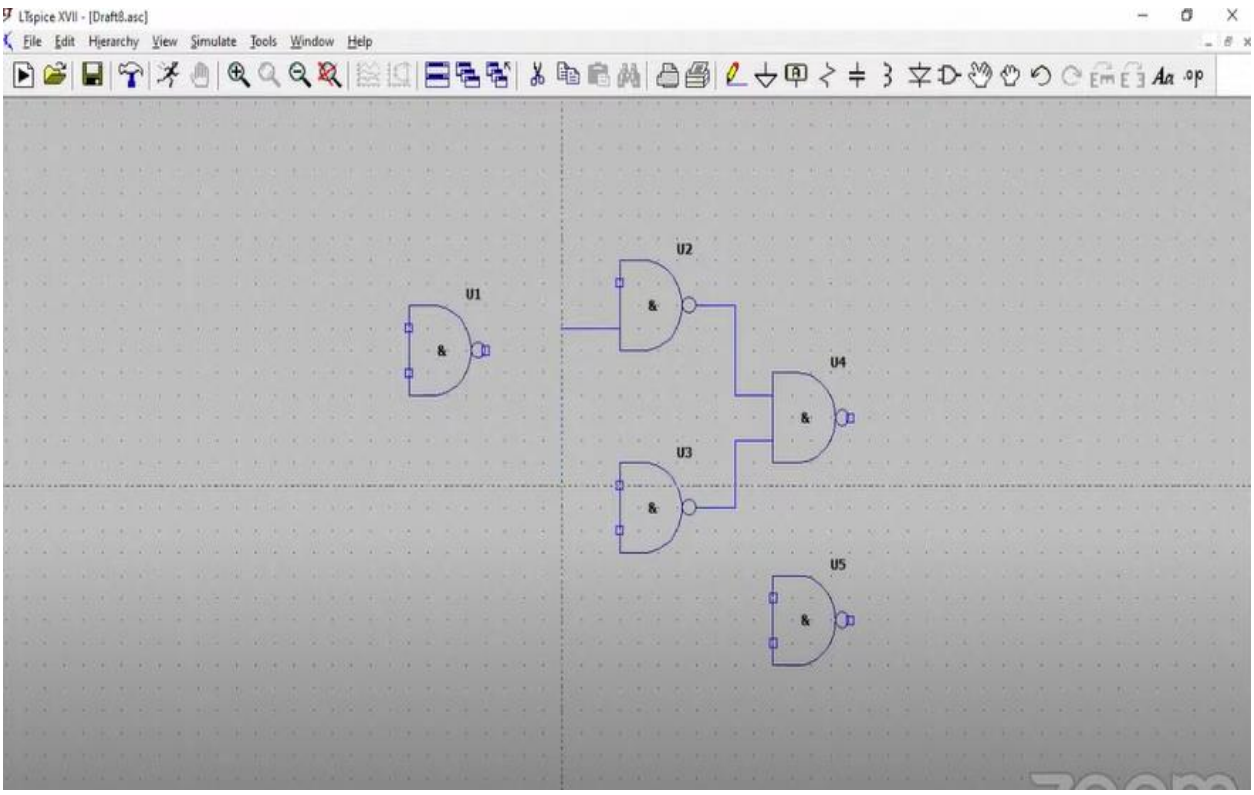
Dr Juneja discussed the lab experiments such as carry foster bridge to explain finding of temperature coefficient of resistance and behavior of resistance at low temperatures, she covered connections, procedure, observations and calculations in detail. Next she explained the variation of magnetic field due to current carrying wire using Vlabs



Session 5
Digital systems and applications laboratory
(https://youtu.be/4p-_n2x4Qxc**)**

Resource person: Dr. Rajveer Singh (Assistant Professor), Physics, ARSD college, Delhi University

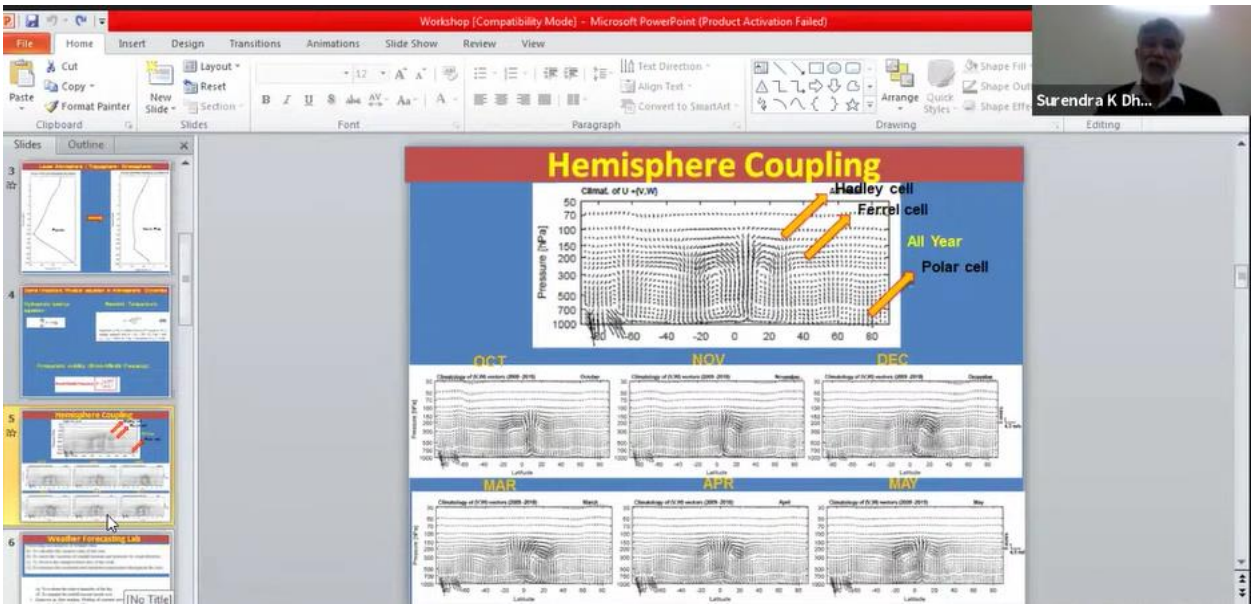
Dr Rajveer Singh coved the lab of Digital system and applications using the simulation software which is open source (LT spice), he gave detailed overview of the software. He explained the designing of D flipflop and designing of combinational circuits to see the output wave form. Dr Singh also coved MATLAB Simulink to draw the half adder circuit.



Session 6
Weather Forecasting Laboratory
(https://youtu.be/P17-qpMi5NA)

Resource person: Dr. S. K. Dhaka (Associate professor) and Dr. Vinay Kumar (Assistant Professor), Department of Physics, Rajdhani College, Delhi University

Dr. S. K. Dhaka started the session with basic introduction to atmosphere to project the aim of this lab such as variation in temperature in troposphere and stratosphere and hemispherical coupling, followed by Dr. Vinay Kumar who explained the working on weather data available on websites like European union, NAS satellite, NOAA etc. using C/C++ and Numerical simulators for modeling.

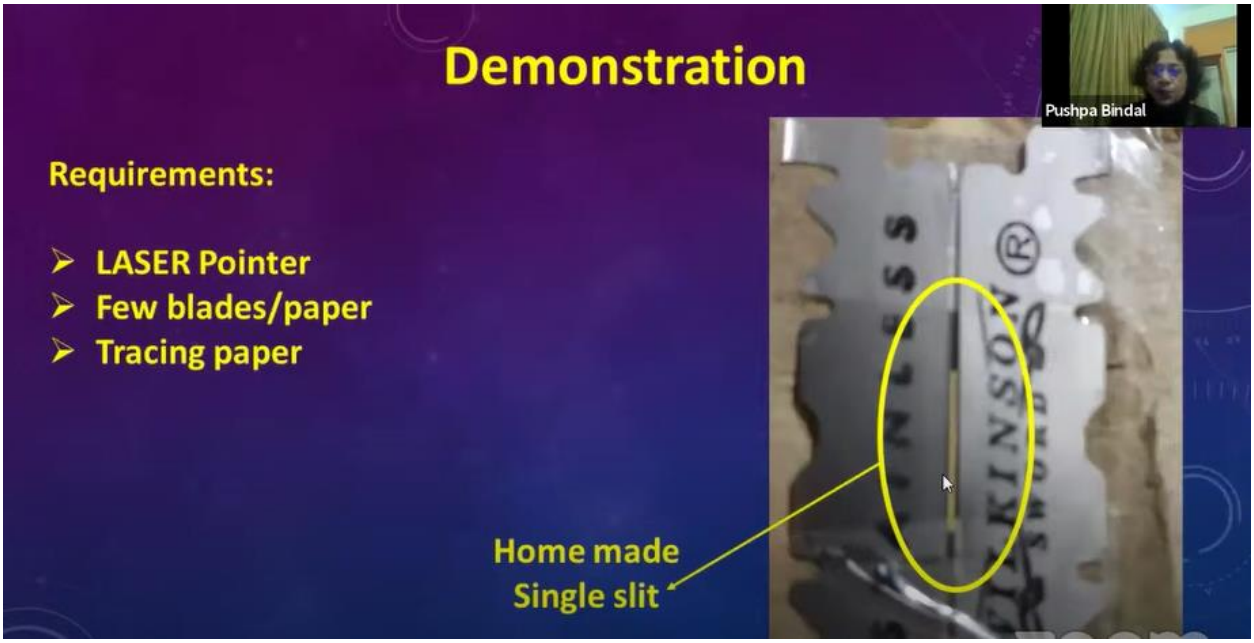


Session 7

Innovative and Creative approach to optics experiments at home
(https://youtu.be/ehtly4O4Rb4)

Resource person: Dr. Pushpa Bindal (Associate Professor) and Dr Triranjita (Assistant Professor, Department of Physics, Kalindi College

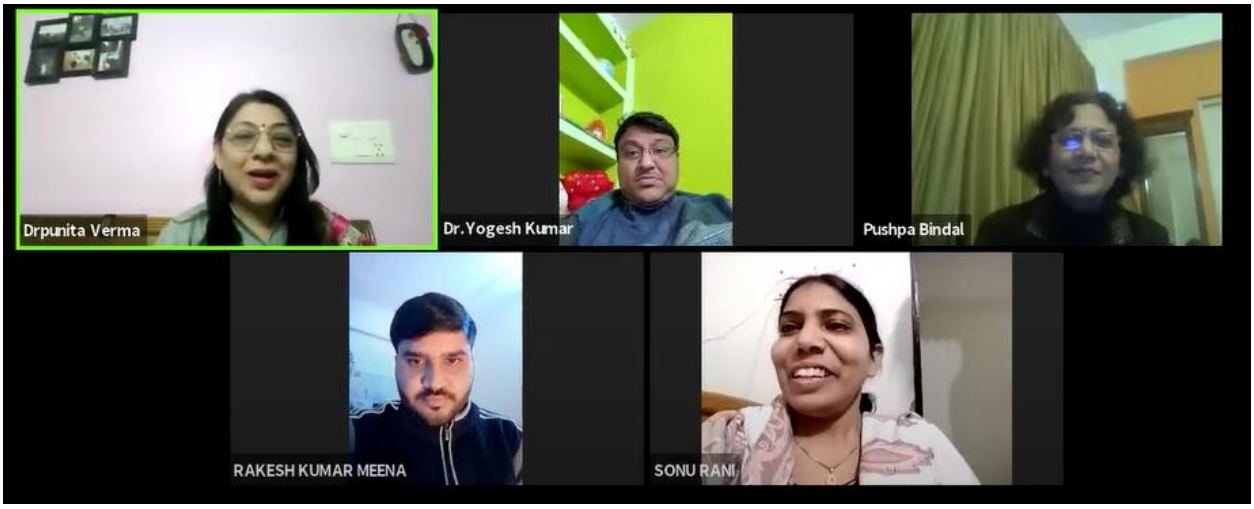
Dr Pushpa Bindal explained the basics of optics, she gave innovative ideas of calculating reflection angle, critical angle at home, next Dr Triranjita explained the single slit using the paper/razor where as diffraction due to grating can be studied by using transparent part of Compact disc, She also explained diffraction through circular and rectangular aperture.



Valedictory session:

Dr Punita Verma and Dr Seema Gupta gave vote of thanks at end of the session to all the Resource persons and Team members for the successful completion of 3 days workshop. (https://youtu.be/ehtly4O4Rb4)

Formal closure of the program was followed by group pictures.



Feedback from participants

Report of Skill Enhancement workshop

Skill Enhancement by ICT Learning in the Period of Online Knowledge Exchange

Schedule Day – 1 (December 9, 2020)

10:00 am	Inaugural address by Dr. Seema Gupta (Convener)
10:15 am	Principal's Address
10:20 am	Welcome Address by Dr. Rakhee Chauhan
10:30 am – 11:30 am	MS Word (Part 1) by Dr. Seema Gupta
11:30 am – 12:30 pm	MS Word (Part 2) by Dr. Sudha Gulati
12:30 pm – 1:30 pm	Google Reservoir & Challenges by Dr. Pushpa Bindal
1:30 pm – 2:00 pm	LUNCH BREAK
2:00 pm – 4:00 pm	Hands on Session

Schedule Day – 2 (December 10, 2020)

10:00 am – 11:00 am	How to make PowerPoint Presentation by Dr. Rachana Kumar
11:00 am – 12:00 pm	Working on Excel by Dr. Monika Bassi
12:00 pm – 1:00 pm	Organizing meeting through Google Meet and Zoom: Enhancing Computer Skills to use in lab by Dr. Punita Verma
1:00 pm – 1:30 pm	LUNCH BREAK
1:30 pm – 3:30 pm	Hands on Session
3:30 pm – 4:00 pm	Online Quiz Competition
4:00 pm – 4:30 pm	Declaration of Quiz Results and Valediction Thanks by Dr. Rachana Kumar

Trainers for Hands on Session: Dr. Triranjita Srivastava, Dr. Rashmi Menon, Dr. Savita Sharma, Ms. Varsha, Mr. Ankur Anand, Dr. Aravind Kumar, Dr. Majhar Ali

It is advisable to access laptop or smartphone during the workshop

Report of Skill Enhancement workshop

A two days skill enhancement workshop on the topic "**Skill enhancement by ICT Learning in the period of online knowledge exchange" was organized on 9-10 December, 2020** for the university lab staff. The workshop was organized by Physics Department in association with IQAC of Kalindi College under the convenership of Dr. Seema Gupta, T-I-C, Physics Department. Dr. Rachana Kumar was the Co-Convener and Dr. Rakhi Chauhan was the IQAC coordinator of the program. Dr. Triranjita Srivastava, Dr. Rashmi Menon, Dr. Mazhar, Dr. Aravind, Dr. Savita Sharma, Ms. Varsha and Mr. Ankur were the technical committee members and trainers for the Hands-on sessions. In total, 50 lab staff of around 20 different Colleges of University of Delhi attended the workshop. The aim of this workshop was to train the University laboratory staff for working on computers.

The workshop started with the inaugural address of Convener Dr. Seema Gupta on 9th Dec at 10am. She told the importance of ICT for everyone during this period of pandemic. This was followed by address of Principal (officiating) Dr. Punam Sachdeva. Dr. Punam Sachdeva welcomed the Participants and appreciated the efforts of Dr. Seema Gupta and congratulated the whole Physics Department for organizing this workshop. Dr. Rakhee Chauhan, IQAC coordinator also welcomed the participants and appreciated the workshop. Dr. Seema Gupta then briefed the schedule of the workshop to the participants. First day, following 3 sessions were conducted:

Session 1

Microsoft word –Part 1

(https://drive.google.com/file/d/1ypijgOykPPTzDShKNCnYUyVXl__63RBs/view?usp=sharing)

Resource person: Dr. Seema Gupta, Associate Professor, Physics Department, Kalindi College

Dr. Seema Gupta introduced Microsoft word. She explained the working on Microsoft word in technical and easy manner. She told all the basic points to work on Microsoft word- Creating a folder, saving a document, print, writing application, preparation of report, adding colors, list of items etc.

Session 2

Microsoft word-Part 2

(https://drive.google.com/file/d/1fou6_99vqR-yQavXgSfNynHJJgQvJ2H3/view?usp=sharing)

Resource person: Dr. Sudha Gulati, Associate Professor, Physics Department, Kalindi College

Dr. Sudha Gulati presented more advanced features of Microsoft word. Making tables, drawing, plotting graph, adding video, mathematical symbols, equations etc. was explained by her. She also told about giving dictation to the computer.

Session 3

Google reservoir and Challenges

(https://drive.google.com/file/d/1Q7rjThiMJQCfzuMURpxdBW74PXo-fvJj/view?usp=sharing)

Resource person: Dr. Pushpa Bindal, Associate Professor, Physics Department, Kalindi College

Dr. Pushpa Bindal talked about Google reservoir. She explained How to create google account, your own Google mail ID, technical points of Google mail. She also told about using Google search engine.

After lunch break, **Hands on sessions** were organized. Participants were divided into 3 groups on different Google meets. Each group had two trainers. An assignment was given to all participants based on first day learning. Two hours were given to do that assignment. Trainers helped and guided the participants to do assignments.

Day 2, 10th Dec

Session 4

How to make power point presentation

(https://drive.google.com/file/d/1RXUl74eh56-d3qS_zgqUDRoe1xYzZbu9/view?usp=sharing)

Resource person: Dr. Rachana Kumar, Associate Professor, Physics Department, Kalindi College

Dr. Rachana Kumar started her talk with the importance of making power point presentation. She explained all technical points to make an effective presentation slide templates, writing on slides, animation effects, making your slide colorful, adding pictures, graphs, tables and videos on your slide etc.

Session 5

Working on Excel Sheets

(https://drive.google.com/file/d/1y7lSC0MzgDcb5DCqBOkBnQUOZJDlStdv/view?usp=sharing)

Resource person: Dr. Monika Bassi, Associate Professor, Physics Department, Kalindi College

Dr. Monika Bassi introduced the working on Excel sheets to the participants. She explained how to create spread sheets, concept of rows and columns, feeding data, mathematical calculations and plotting of different types of graphs using excel sheet, etc.

Session 6

Google meet, Zoom, Enhancing skills to use in lab

(https://drive.google.com/file/d/1yrWOj7nnm794fSOyKc0ZSkCPCvBCdn4P/view?usp=sharing)

Resource person: Dr. Punita Verma, Associate Professor, Physics Department, Kalindi College

Dr. Punita Verma primarily talked about the effective management of laboratories using ICT. She explained how to save all lab information in Google drive so that it can be accessed easily any point of the time- Cataloguing, numbering of apparatus, almirahs, details of instruments etc. She also told about creating Google forms and provided information of Google meet and zoom later.

After lunch break, **two hours hands on session** was conducted. Assignment based on the day 2 learning was given. Trainers guided all 3 group to solve the assignment on their respective Google meets.

After Hands on session, an **online quiz competition** was organized for the participants. Quiz was based on two days learning in the program. Three winners were selected.

First prize: Rs. 1000: Mamta Sachdeva , Kalindi college

Second Prize: Rs. 800: Asha, Kalindi College

Third prize: Rs.700: Himanshu, Hindu college

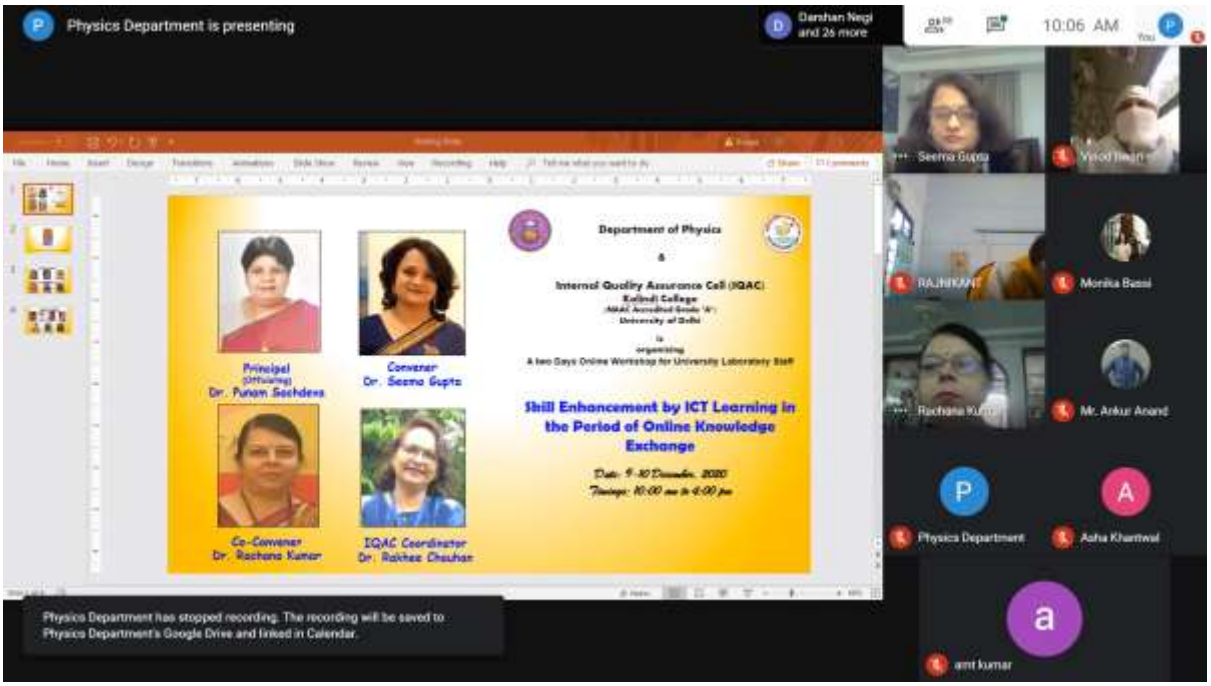
Valedictory session: Dr. Seema Gupta briefed the experiences of two day's workshop. She appreciated the efforts of resource persons, trainers and enthusiasm of participants. Prizes of quiz winners were announced. Participants were asked to fill an online feedback form. Some of the participants also shared their views about the workshop.

The work shop was a huge success. It was highly appreciated by all the participants. They requested the organizers to conduct such workshops more frequently in future.

E-certificates will be mailed to all the participants along with the video recording of all sessions for their future reference.

The program ended with a vote of thanks by Dr. Rachana Kumar, Co-Convener of the webinar. She thanked Principal Maam, resource persons, trainers and technical committee.

Formal closure of the program is followed by group pictures.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Darshan Negi and 26 more
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Department of Physics
&
Internal Quality Assurance Cell (IQAC)
Kalindi College
University of Delhi
is
organizing
A two Days Online Workshop for University Laboratory Staff
Skill Enhancement by ICT Learning in the Period of Online Knowledge Exchange
Principal (Officiating) Dr. Punam Sachdeva
Convener Dr. Seema Gupta
Co-Convener Dr. Rachana Kumar
IQAC Coordinator Dr. Rakhee Chauhan
Seema Gupta
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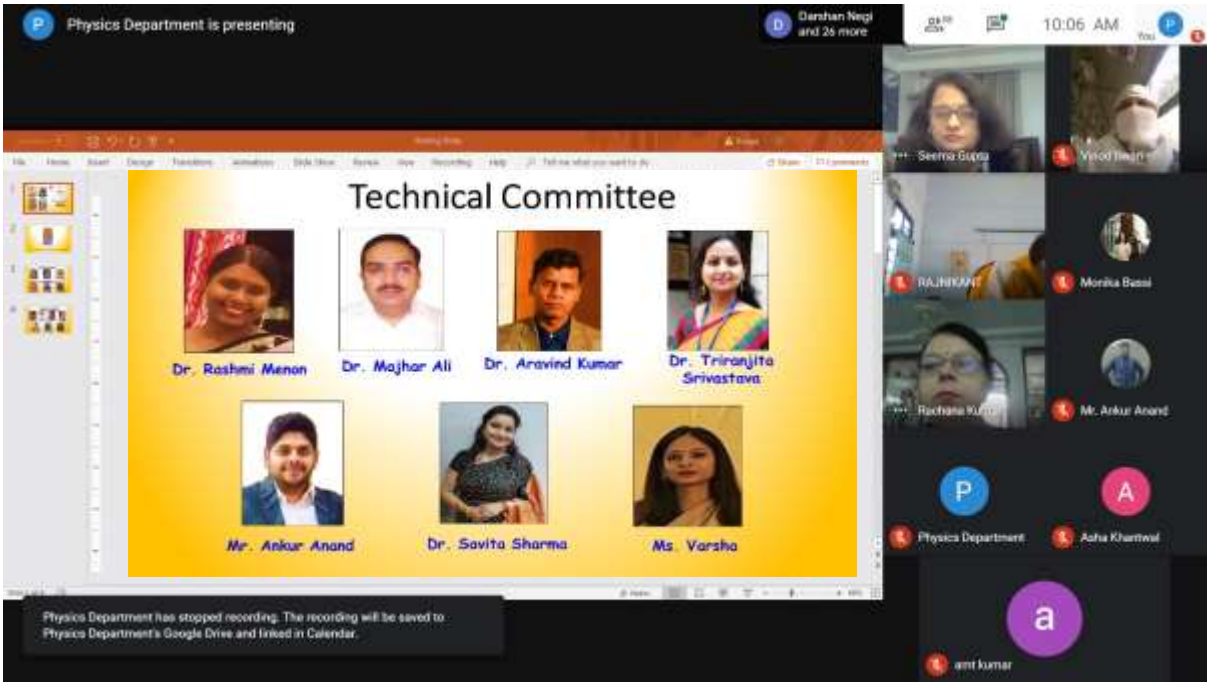
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Dr. Majhar Ali
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Mr. Ankur Anand
Dr. Savita Sharma
Ms. Varsha
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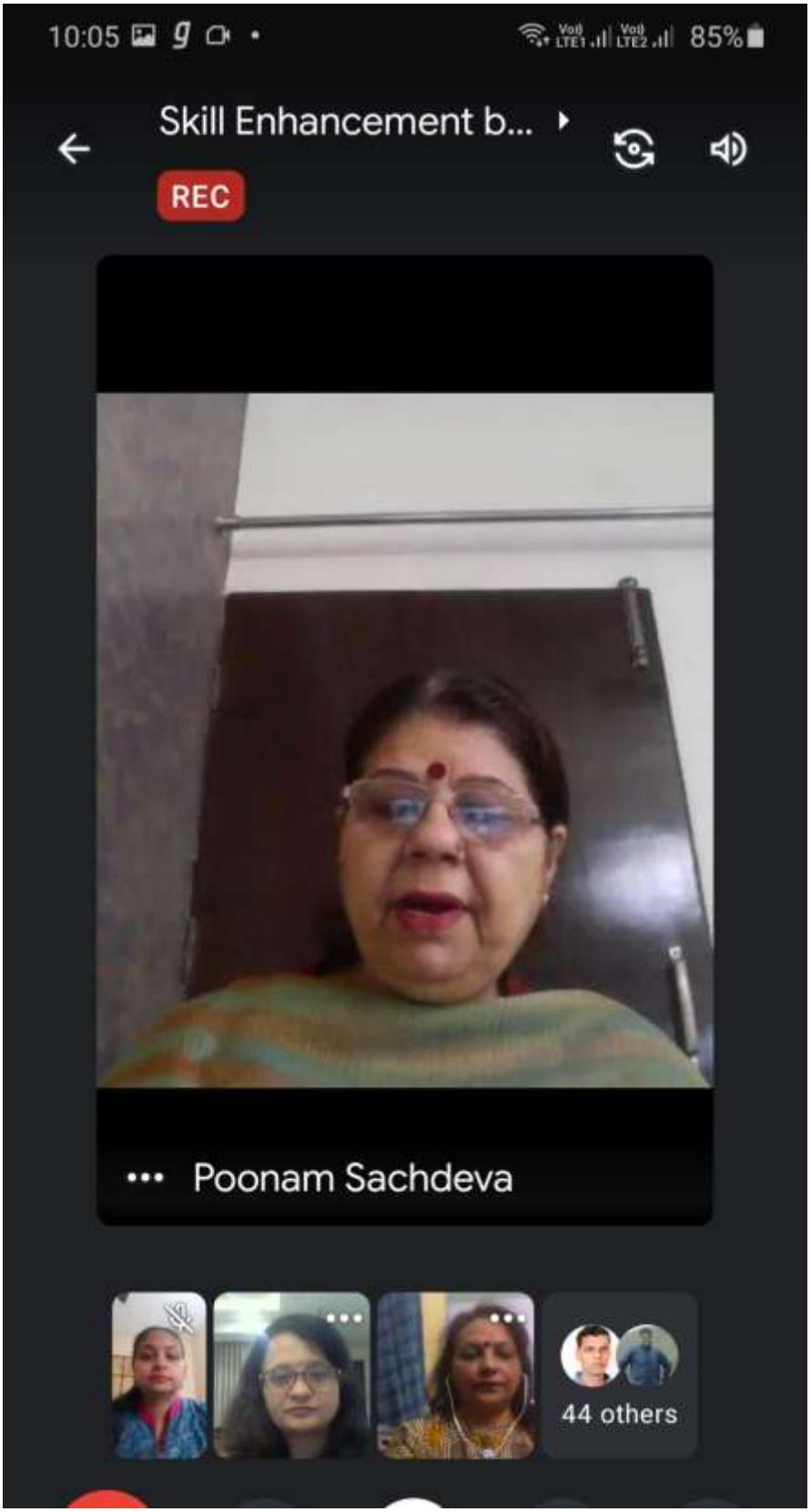
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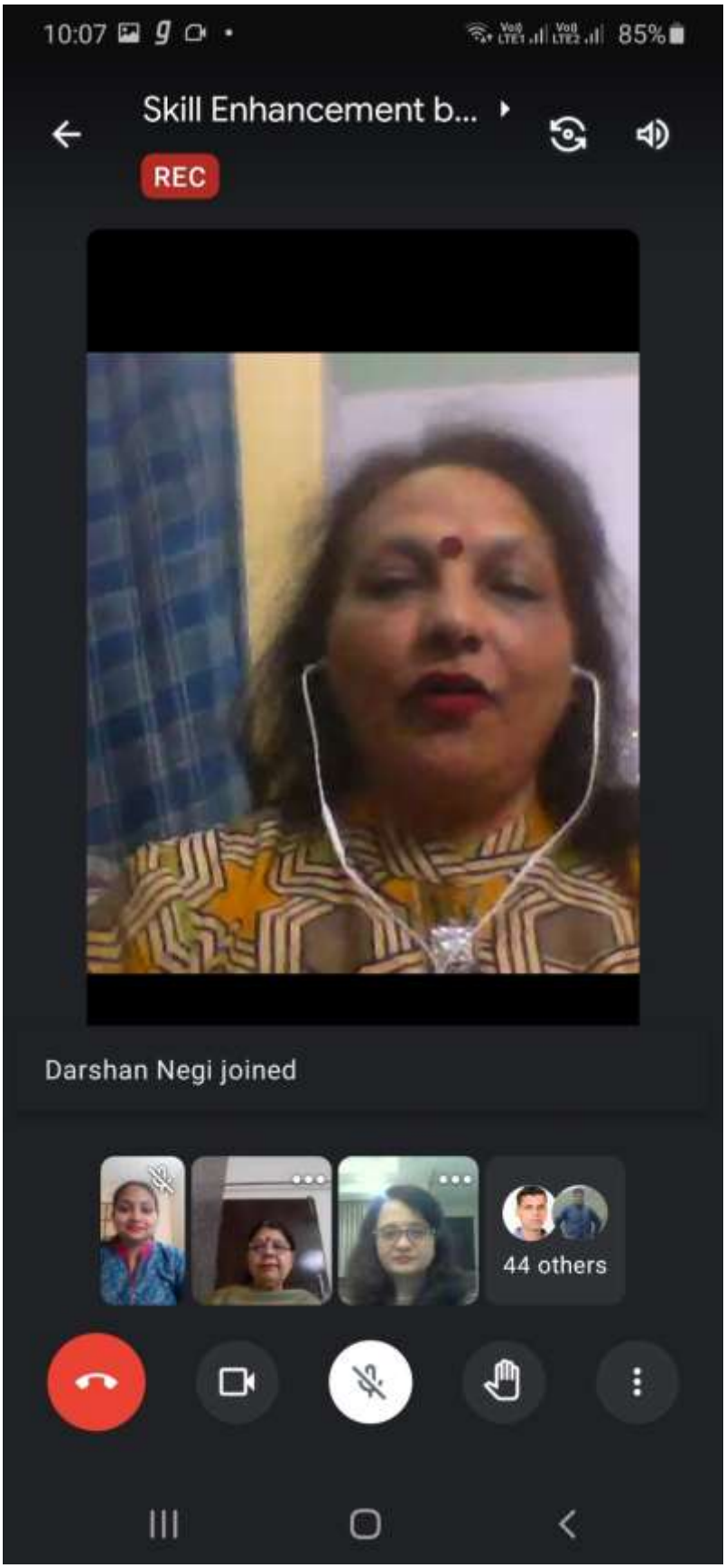
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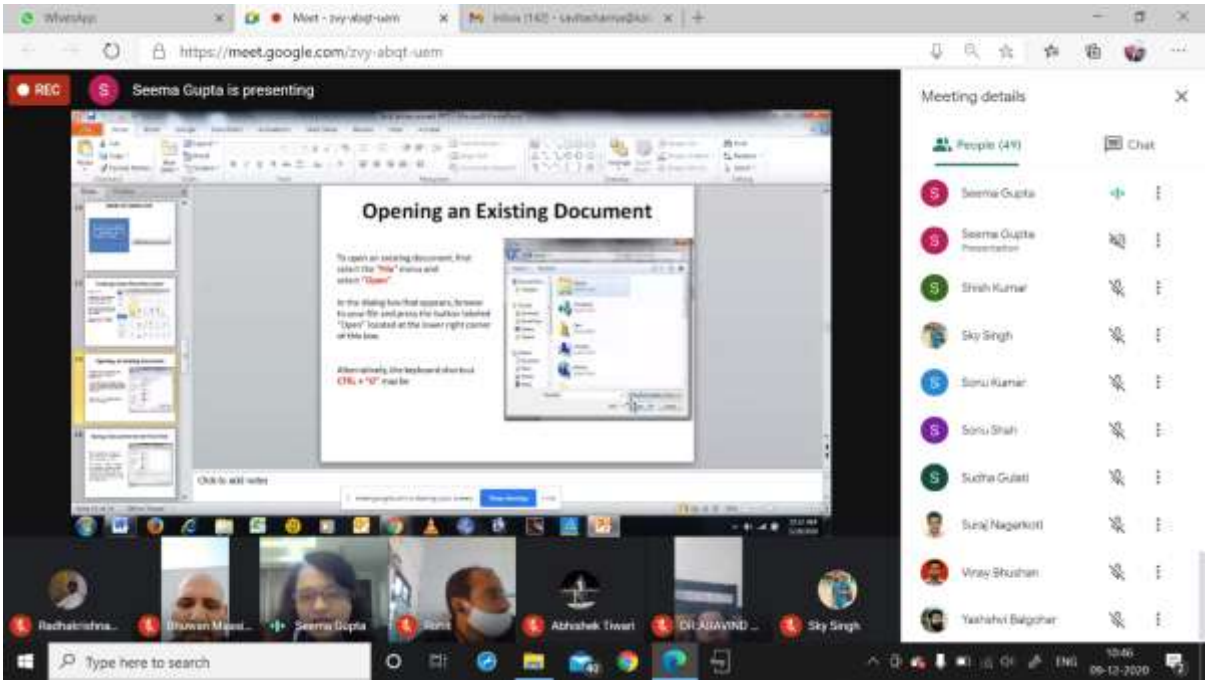
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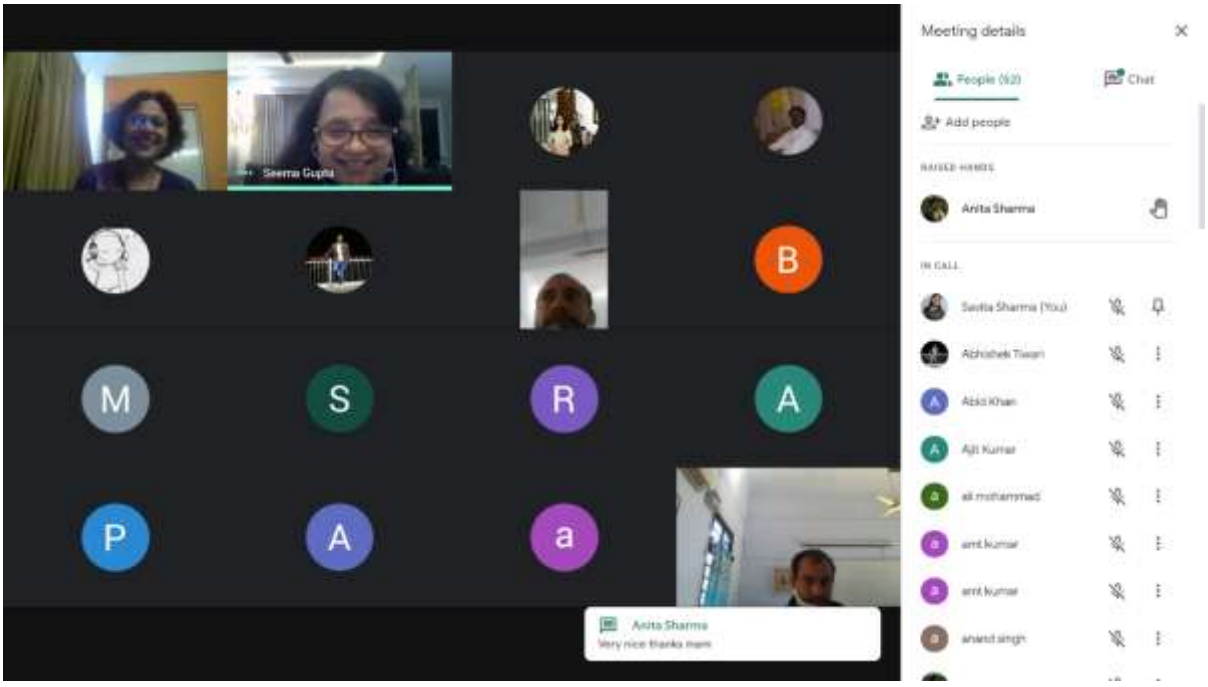
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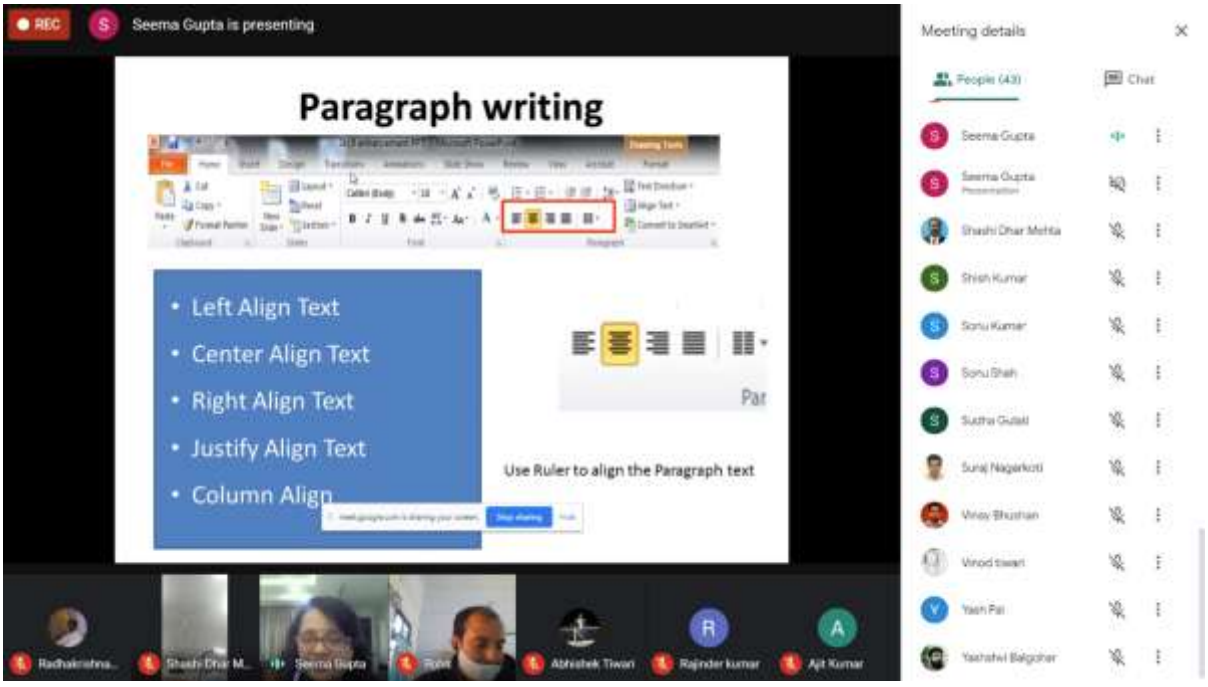
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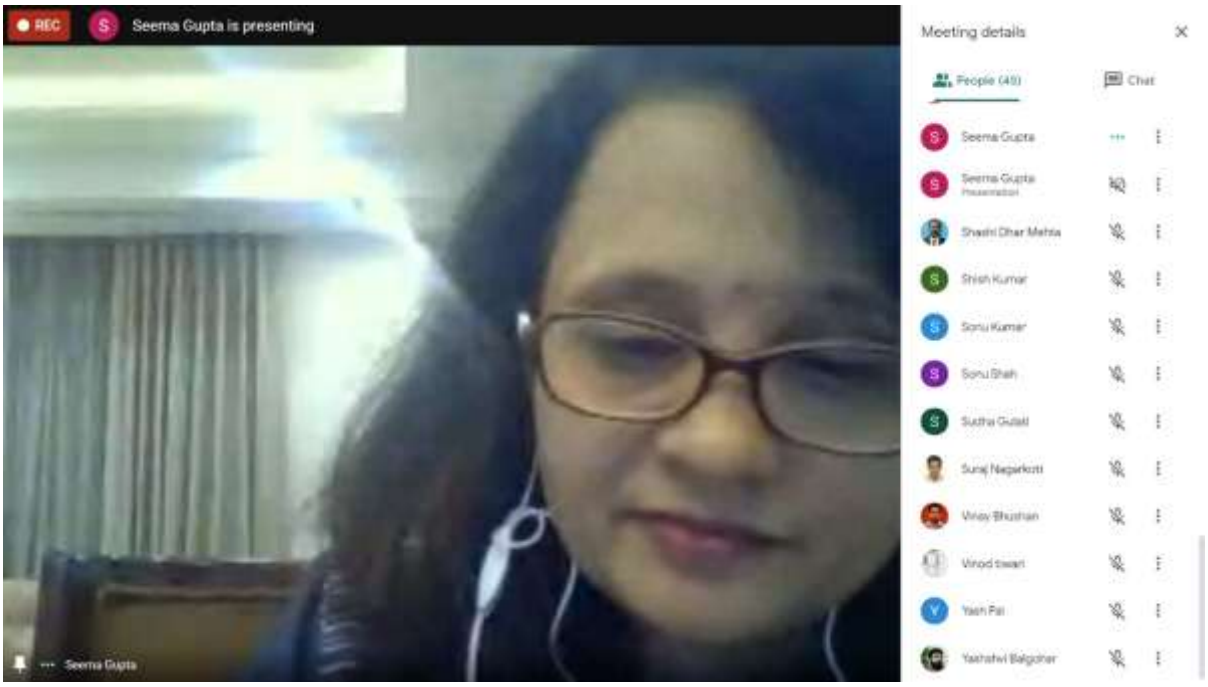
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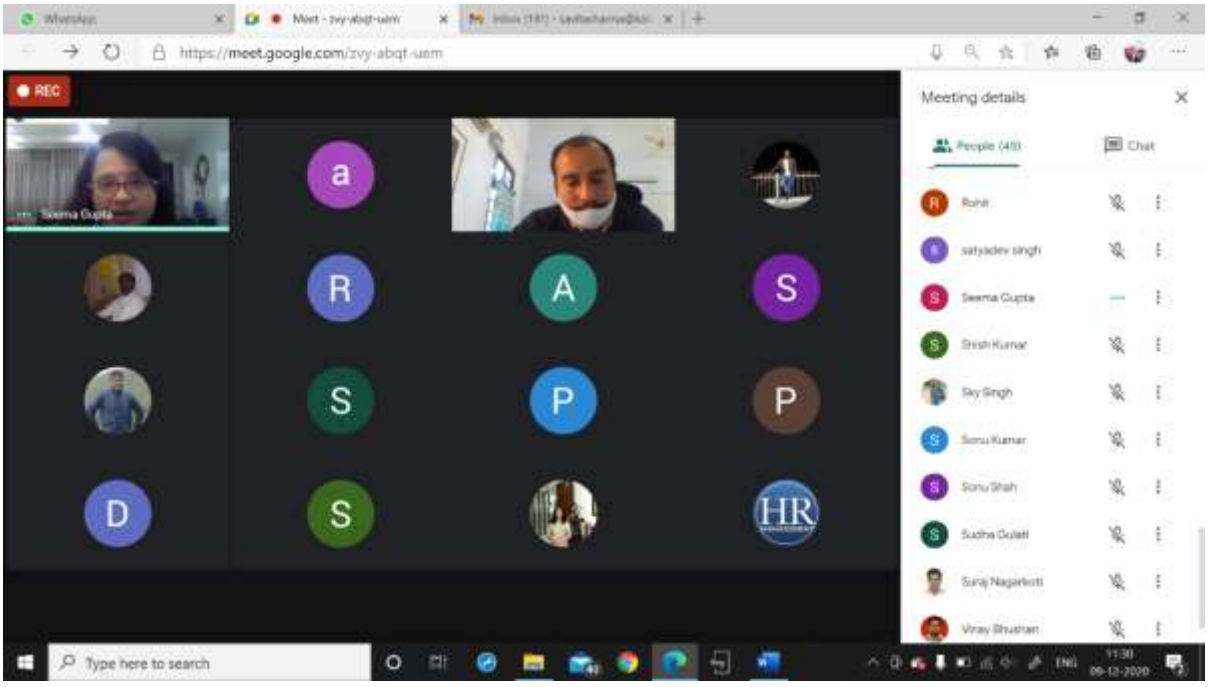
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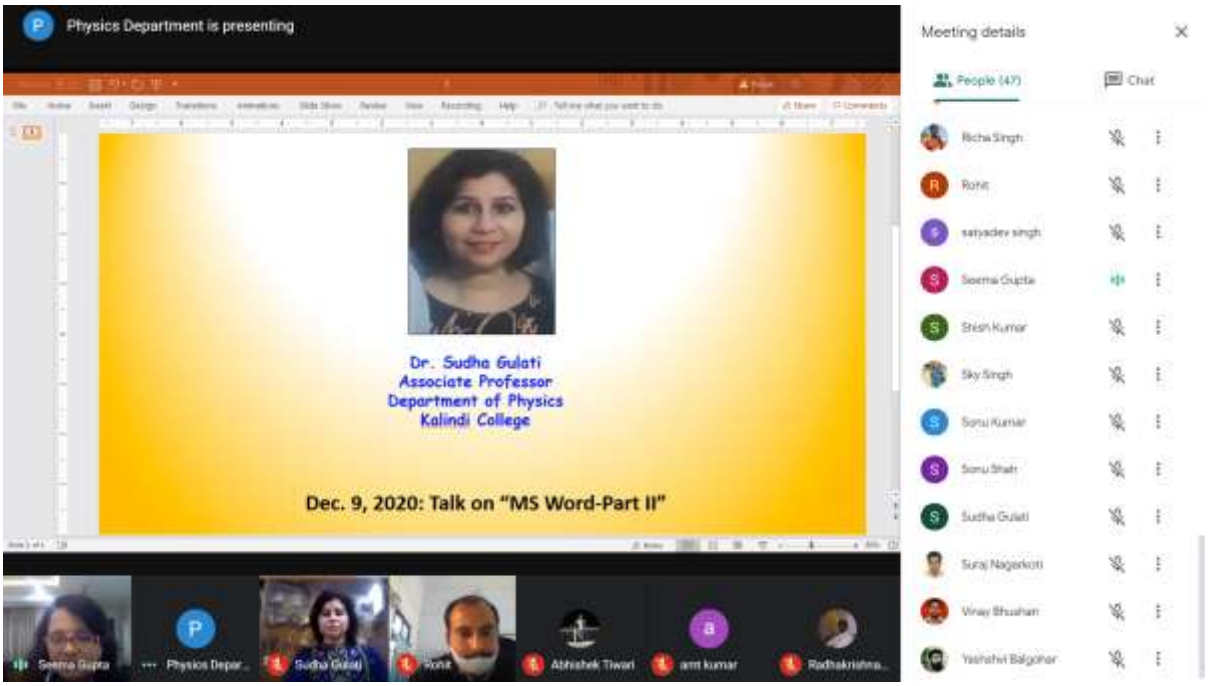
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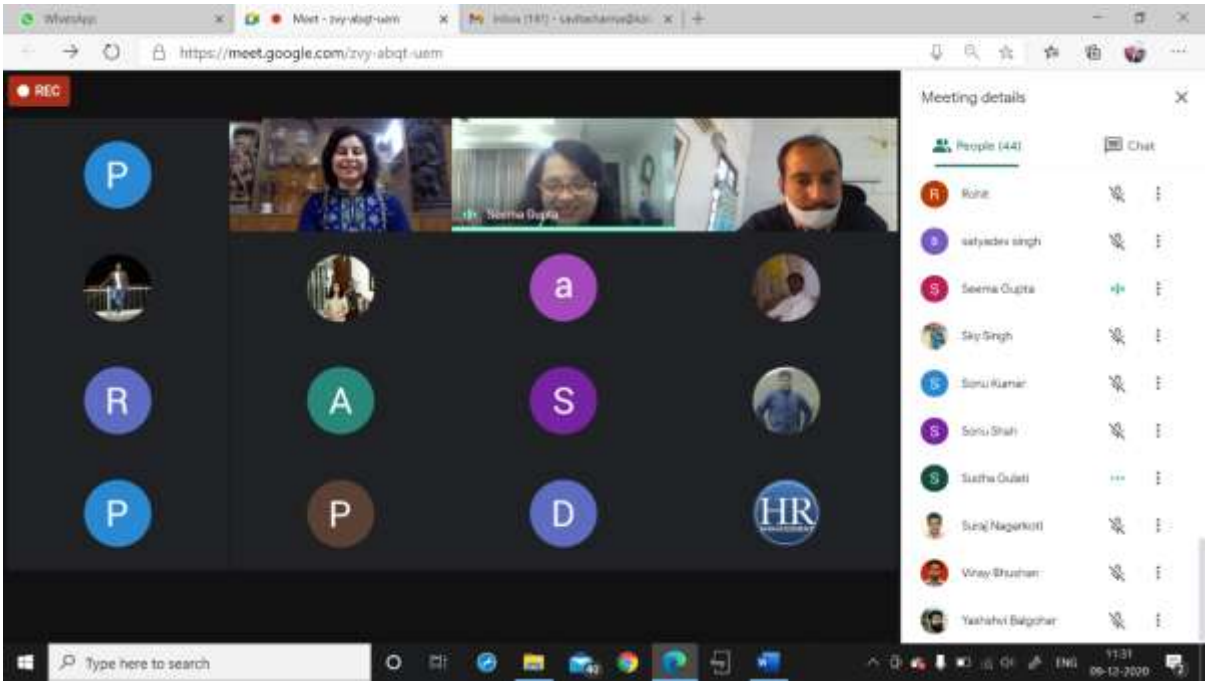
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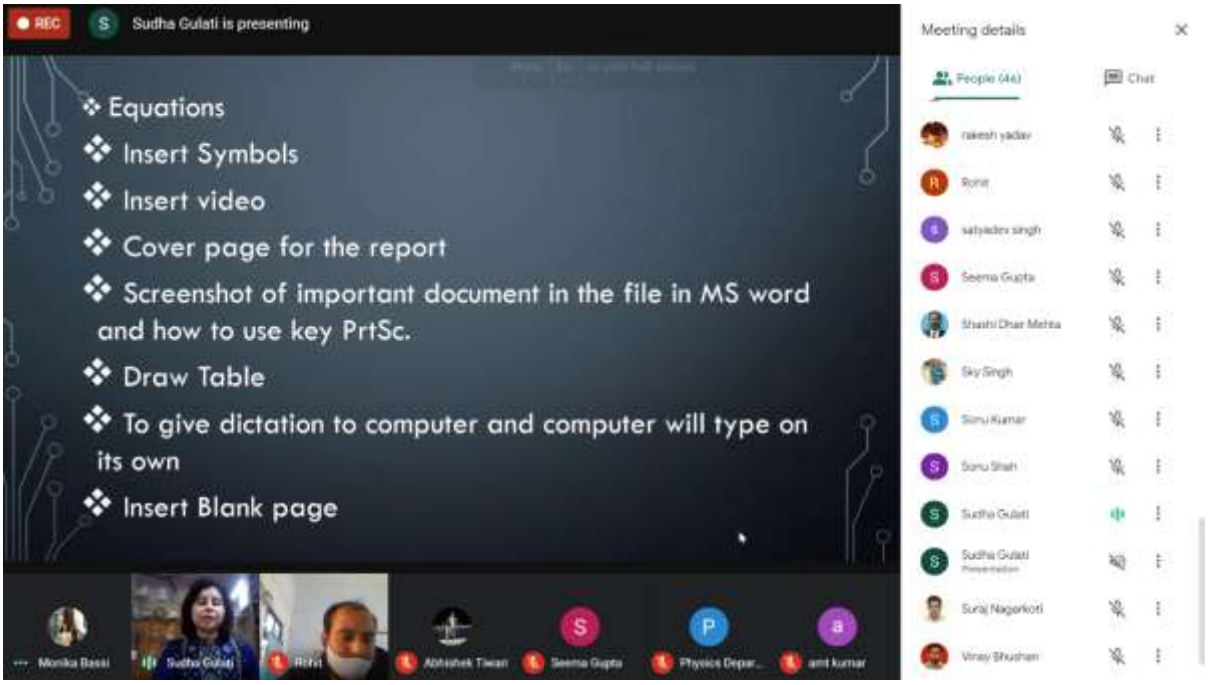
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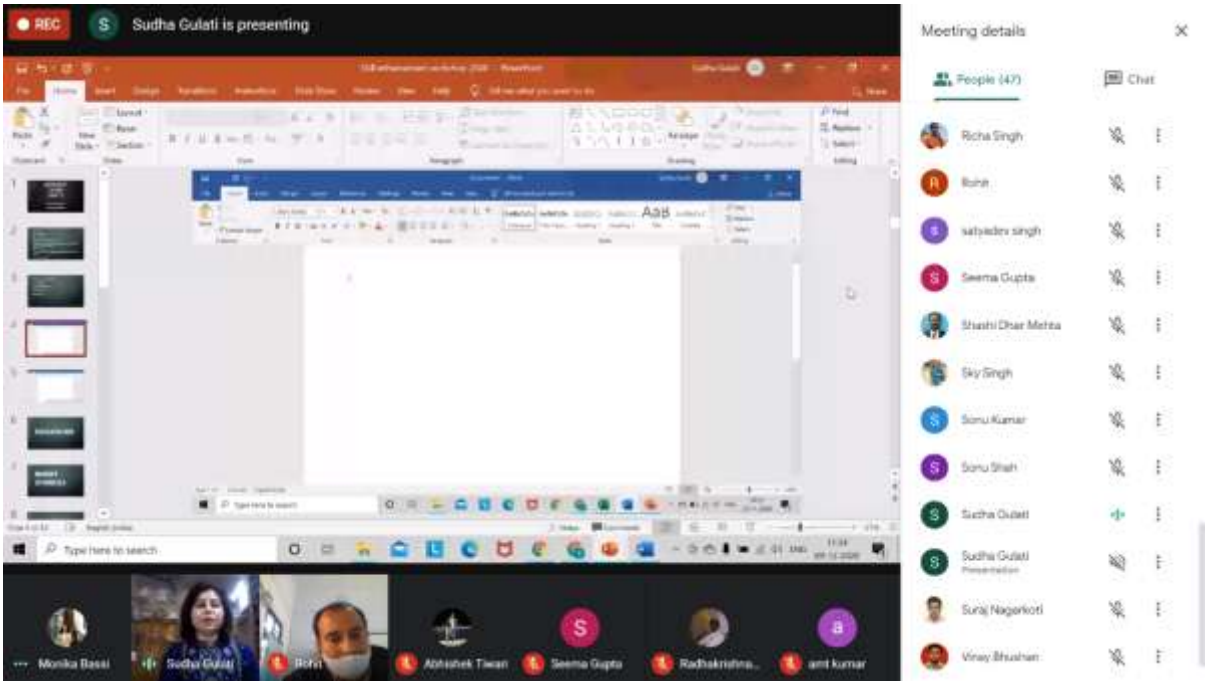
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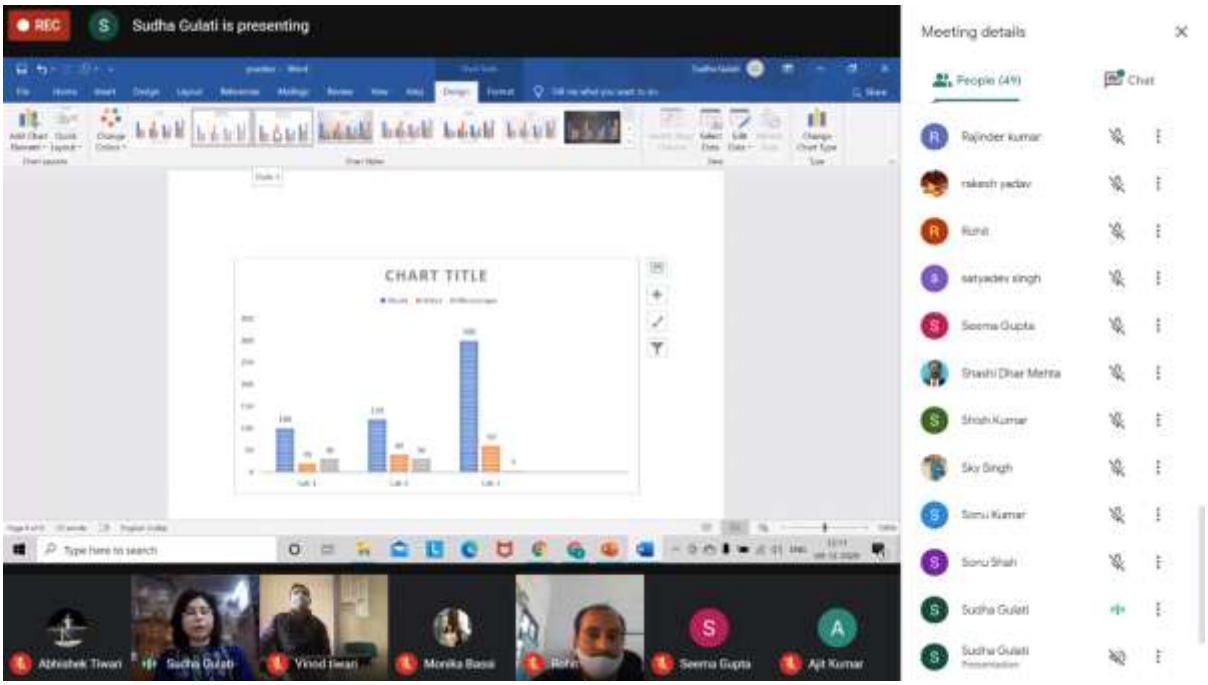
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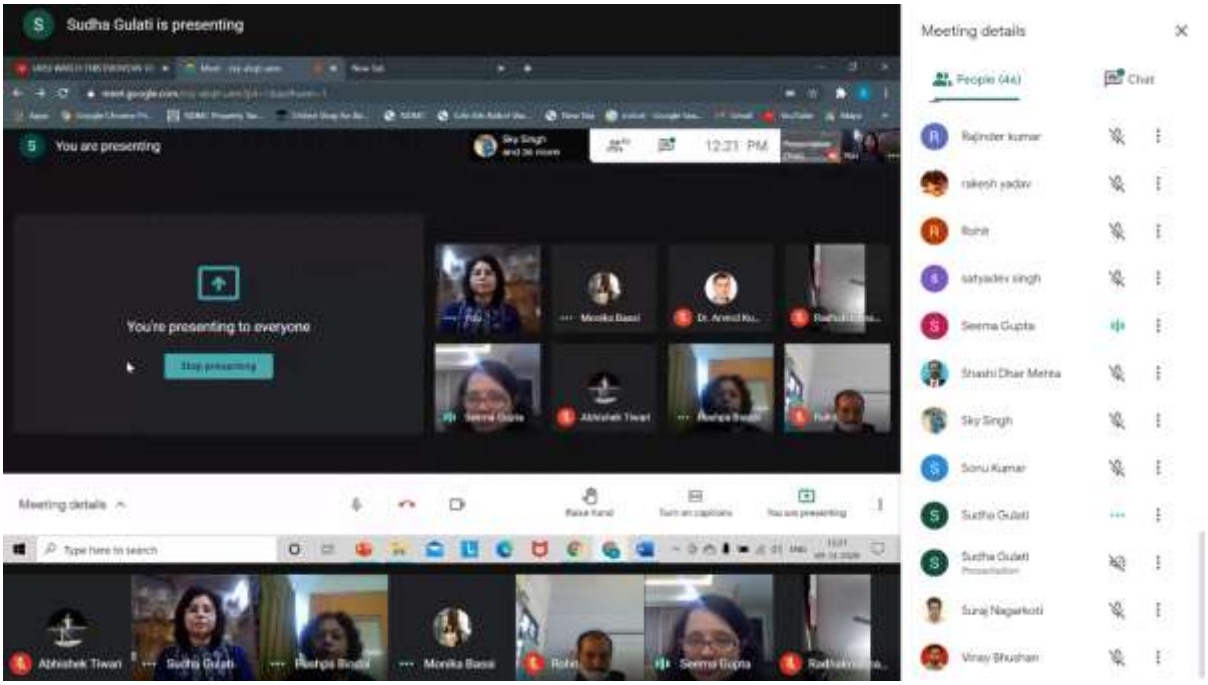
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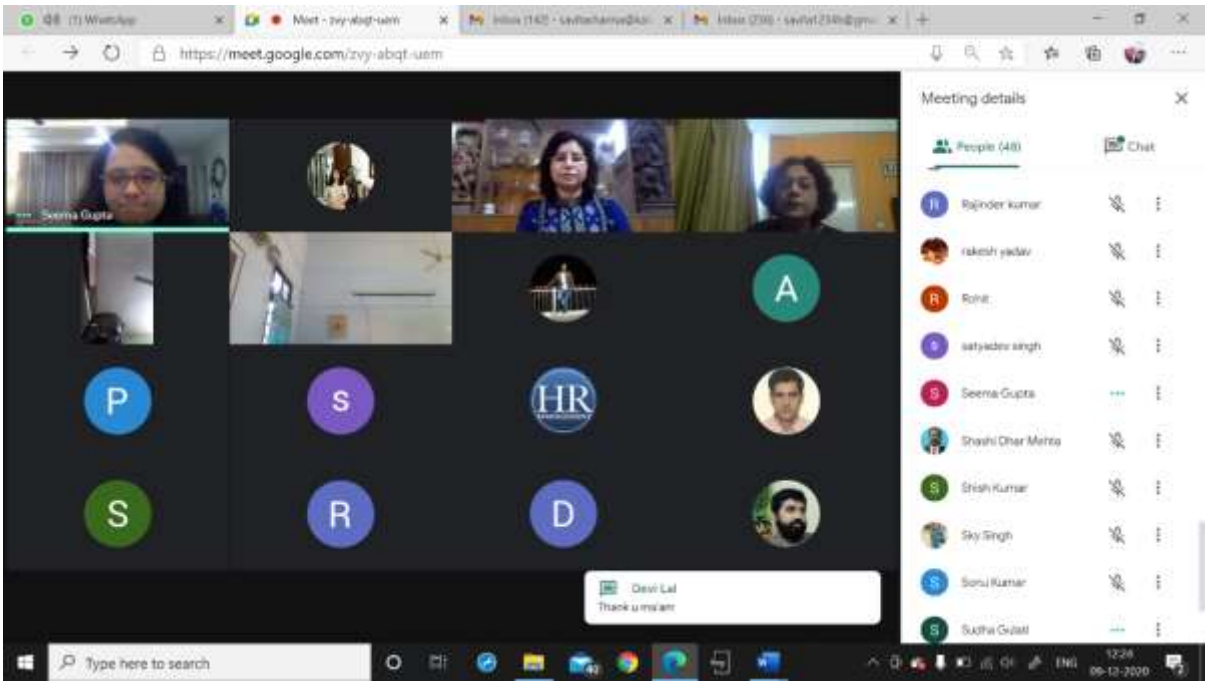
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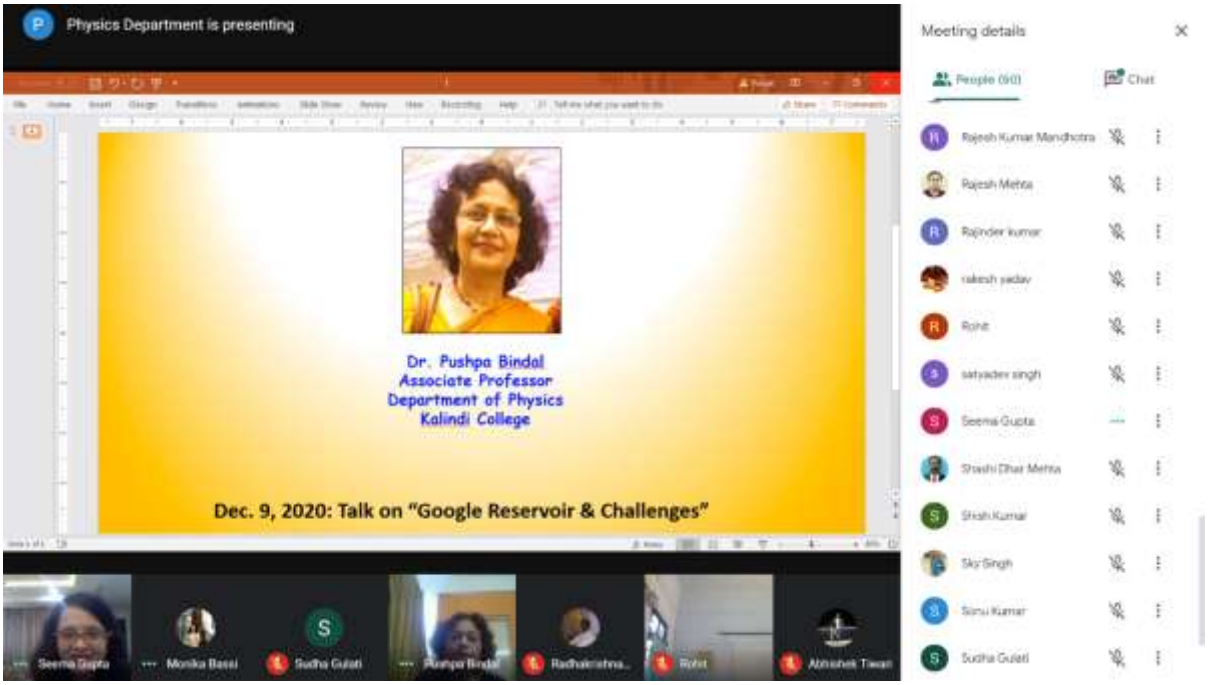
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Associate Professor
Department of Physics
Kalindi College
Dec. 9, 2020: Talk on "Google Reservoir & Challenges"
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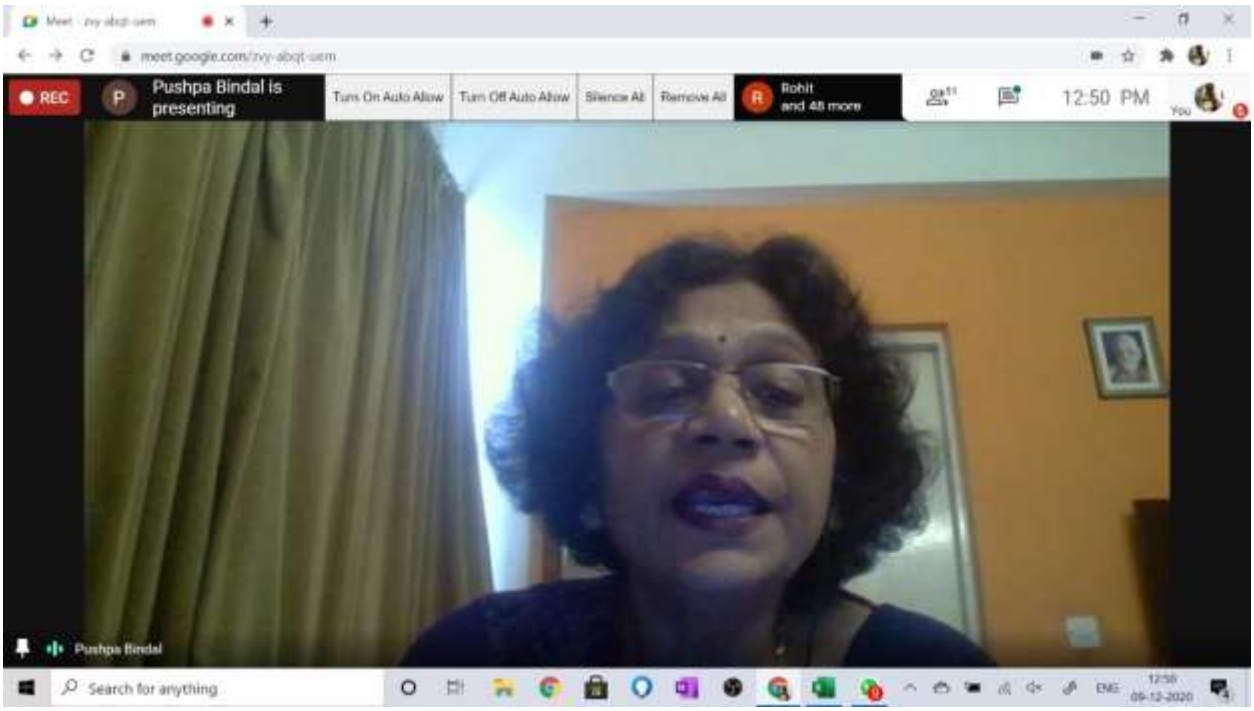
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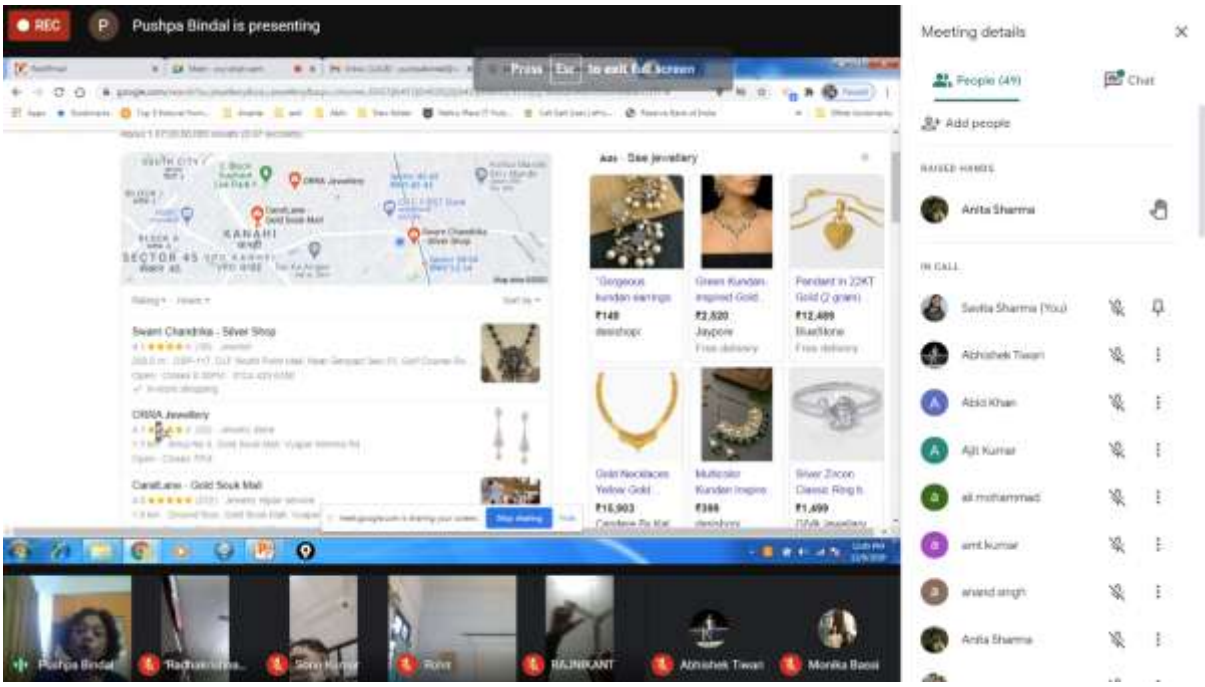
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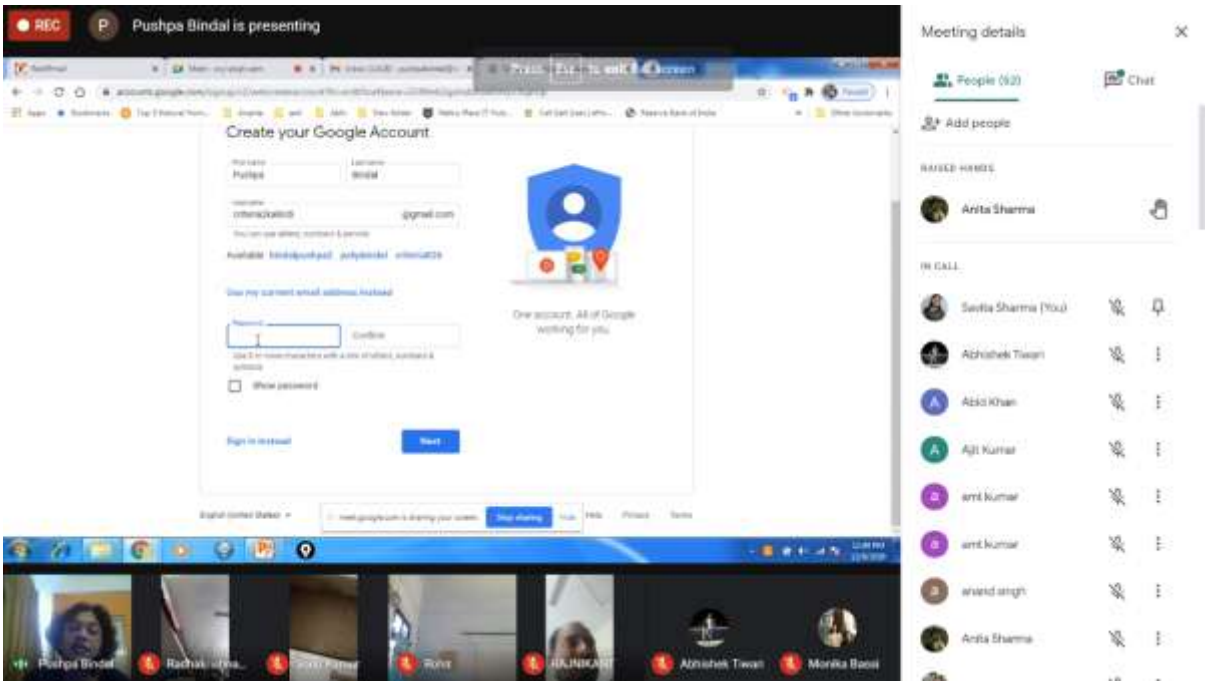
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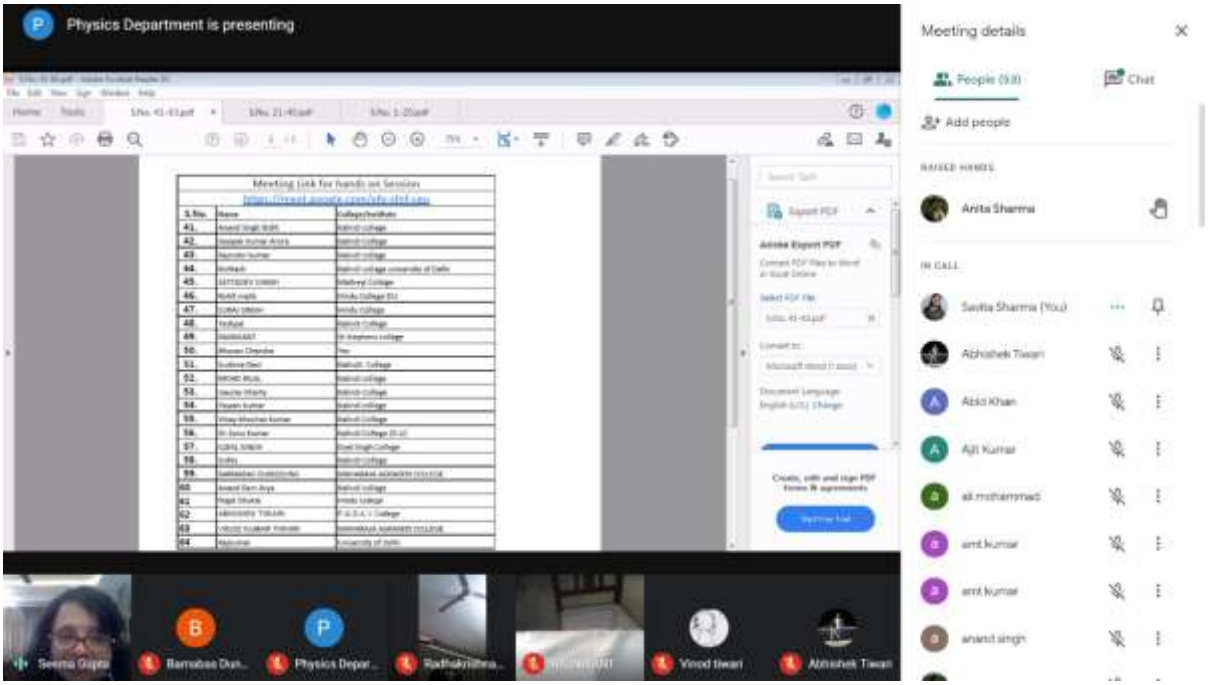
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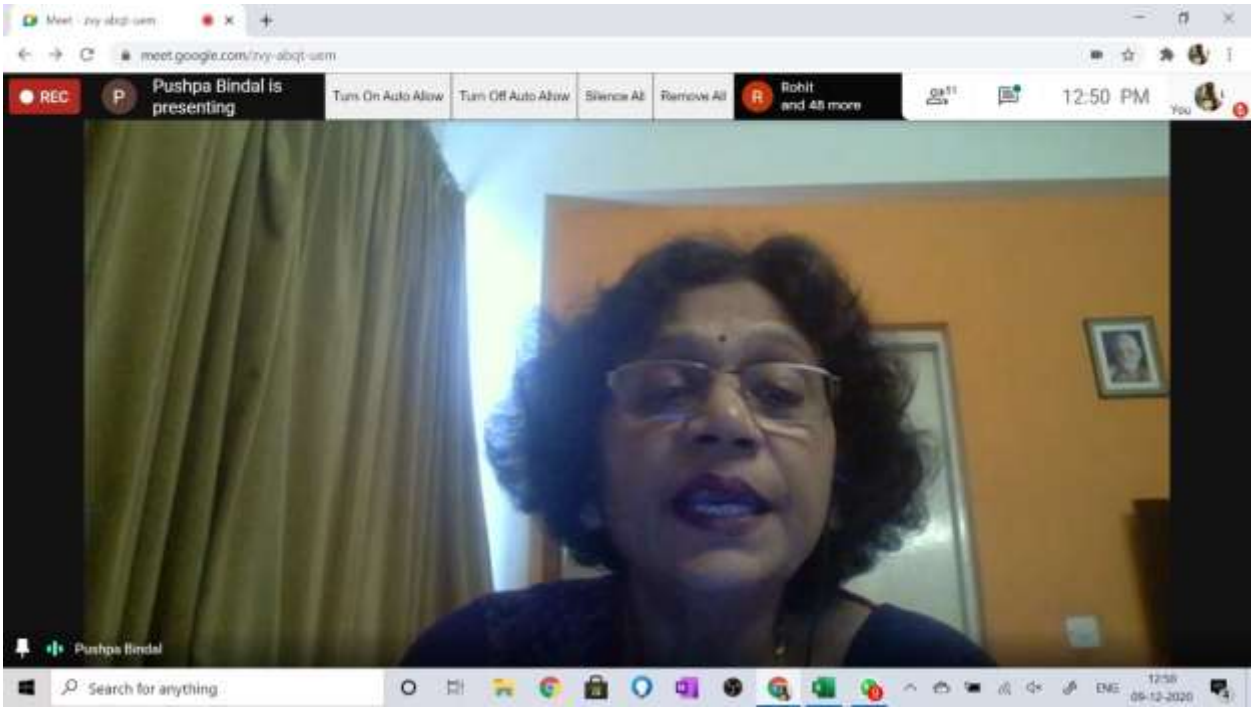
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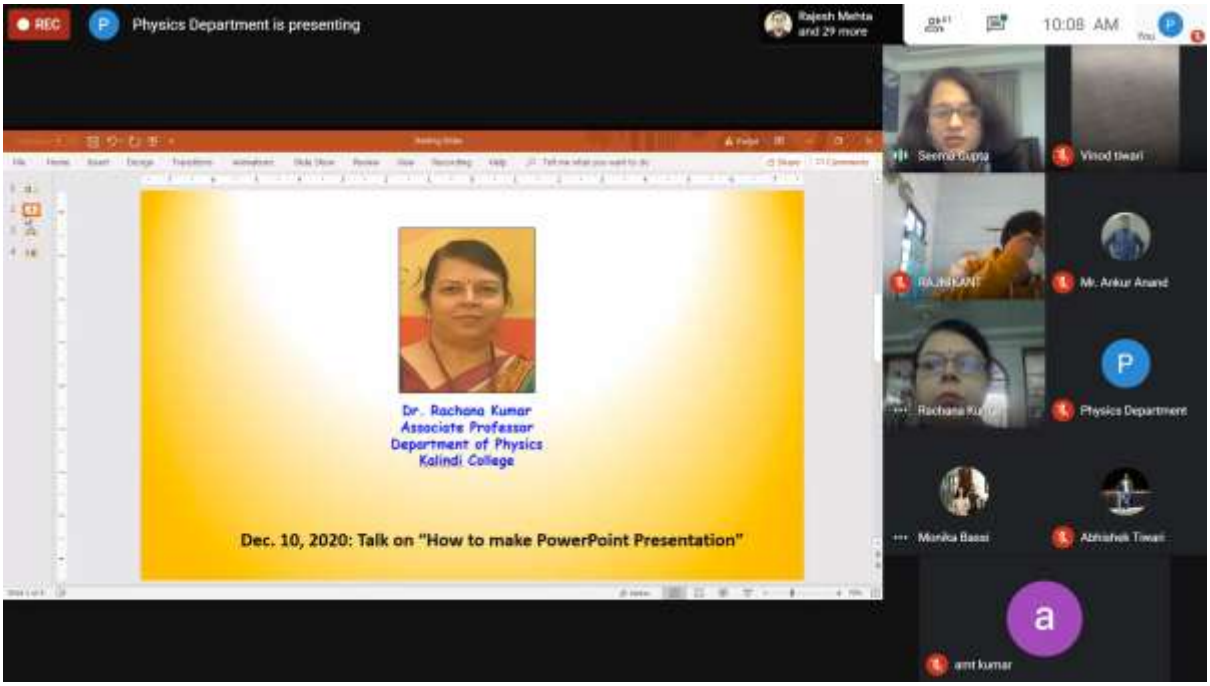
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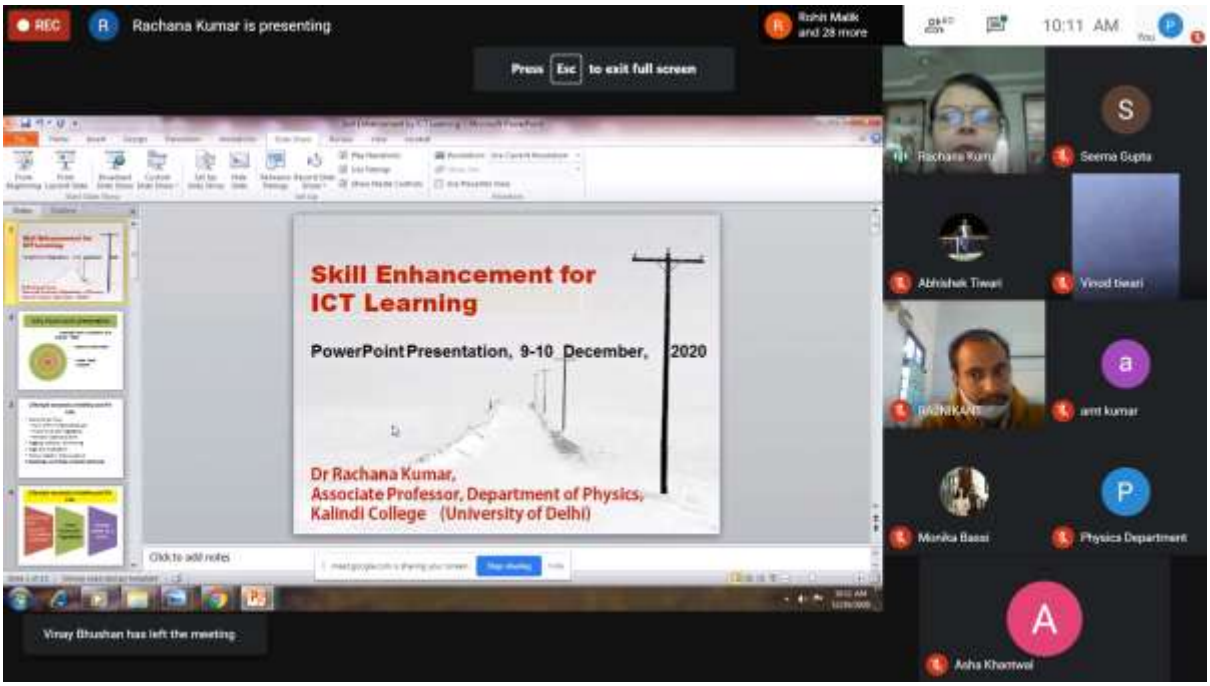
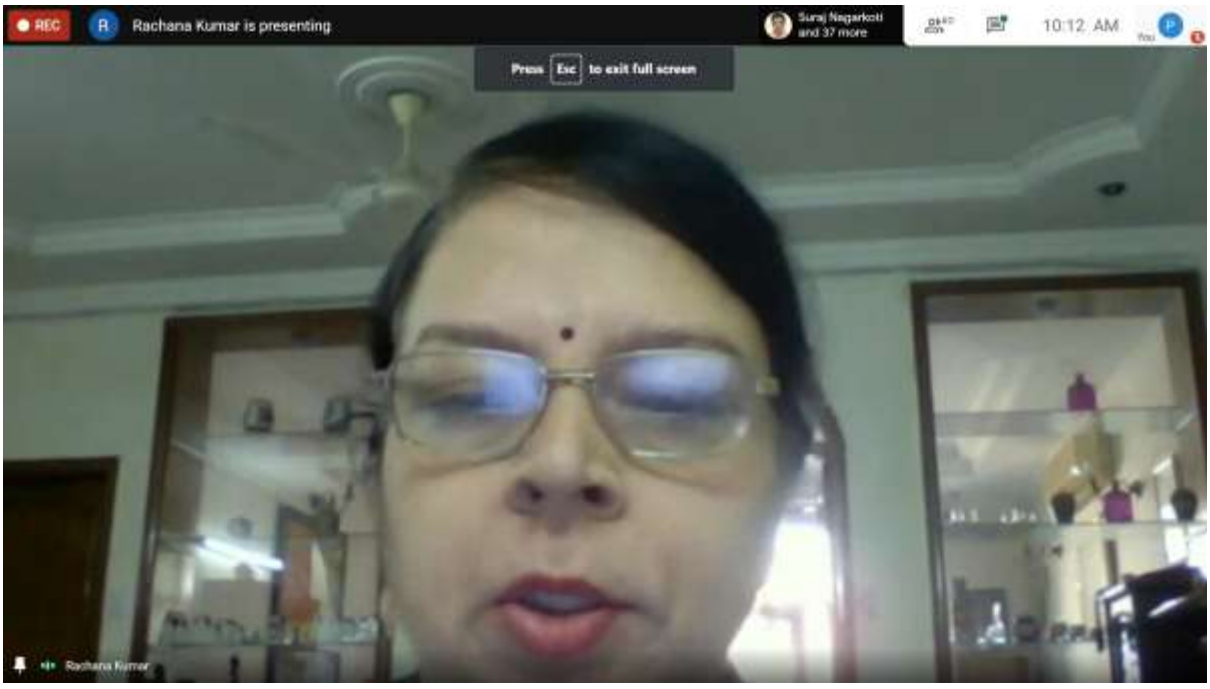
10:08 AM
Dr. Rachana Kumar
Associate Professor
Department of Physics
Kalindi College
Dec. 10, 2020: Talk on "How to make PowerPoint Presentation"
Seema Gupta
Vinod tiwari
RAJNIKANT
Mr. Ankur Anand
Rachana Kumar
Physics Department
Monika Bassi
Abhishek Tiwari
amt kumar


REC
Rachana Kumar is presenting
Rohit Malik and 28 more
10:11 AM
Press Esc to exit full screen
Skill Enhancement for ICT Learning
PowerPoint Presentation, 9-10 December, 2020
Dr Rachana Kumar,
Associate Professor, Department of Physics,
Kalindi College (University of Delhi)
Click to add notes
Seema Gupta
Abhishek Tiwari
Vinod tiwari
amit kumar
Monika Bassi
Physics Department
Asha Khamwal
Vinay Bhushan has left the meeting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Rachana Kumar is presenting
Suraj Nagarkoti and 37 more
10:12 AM
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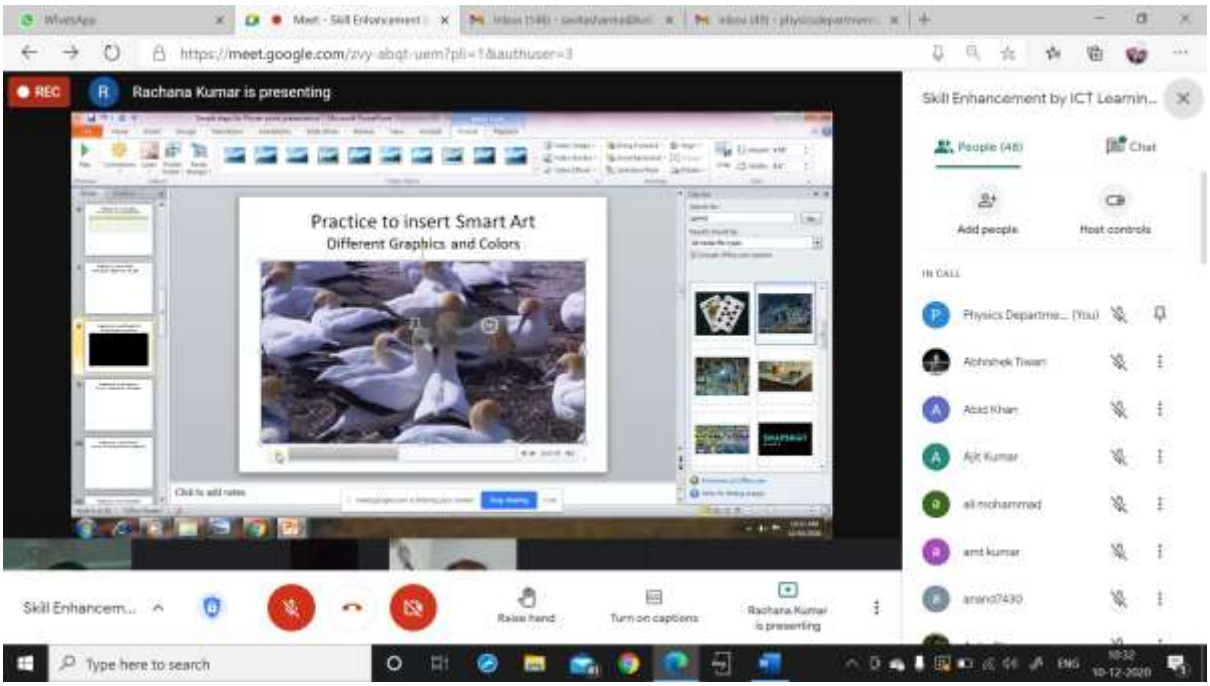
Rachana Kumar


REC
Rachana Kumar is presenting
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Practice to insert Smart Art
Different Graphics and Colors
Skill Enhancement by ICT Learnin...
People (48)
Chat
Add people
Host controls
IN CALL
Physics Departme... (You)
Abhishek Tiwari
Abid Khan
Ajit Kumar
ali mohammad
amt kumar
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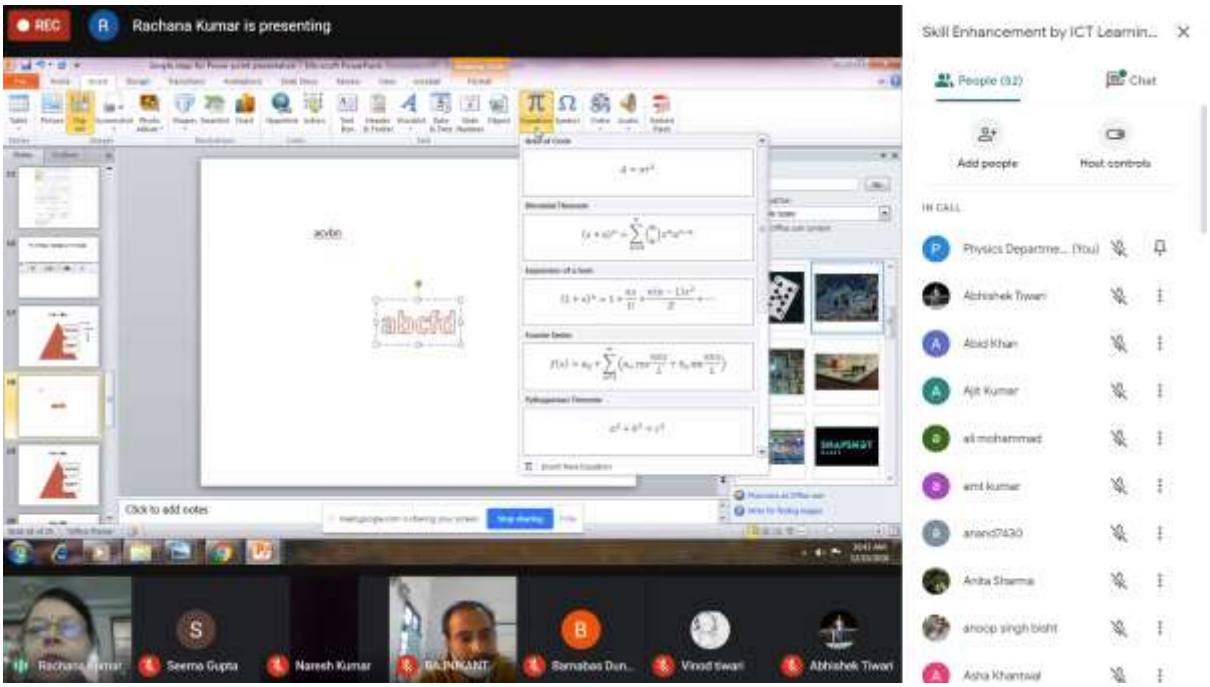
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Abid Khan
Ajit Kumar
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anand7430
Anita Sharma
anoop singh bisht
Asha Khantwal
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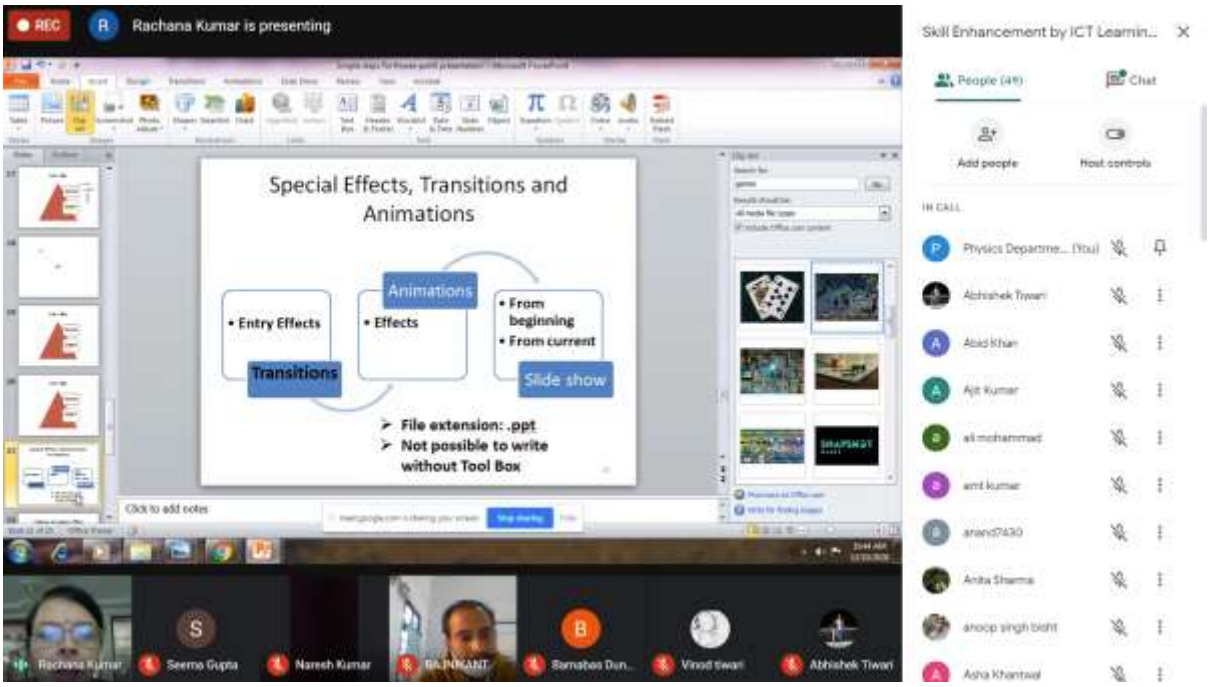
Seema Gupta
Naresh Kumar
BAJRANGI
Barnabas Dun...
Vinod tiwari
Abhishek Tiwari


REC
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Special Effects, Transitions and Animations
Entry Effects
Transitions
Animations
Effects
From beginning
From current
Slide show
File extension: .ppt
Not possible to write without Tool Box
Click to add notes
Rachana Kumar
Seema Gupta
Naresh Kumar
RAJKANT
Barnabas Dun...
Vinod tiwari
Abhishek Tiwari
Skill Enhancement by ICT Learnin...
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Add people
Host controls
IN CALL
Physics Departme... (You)
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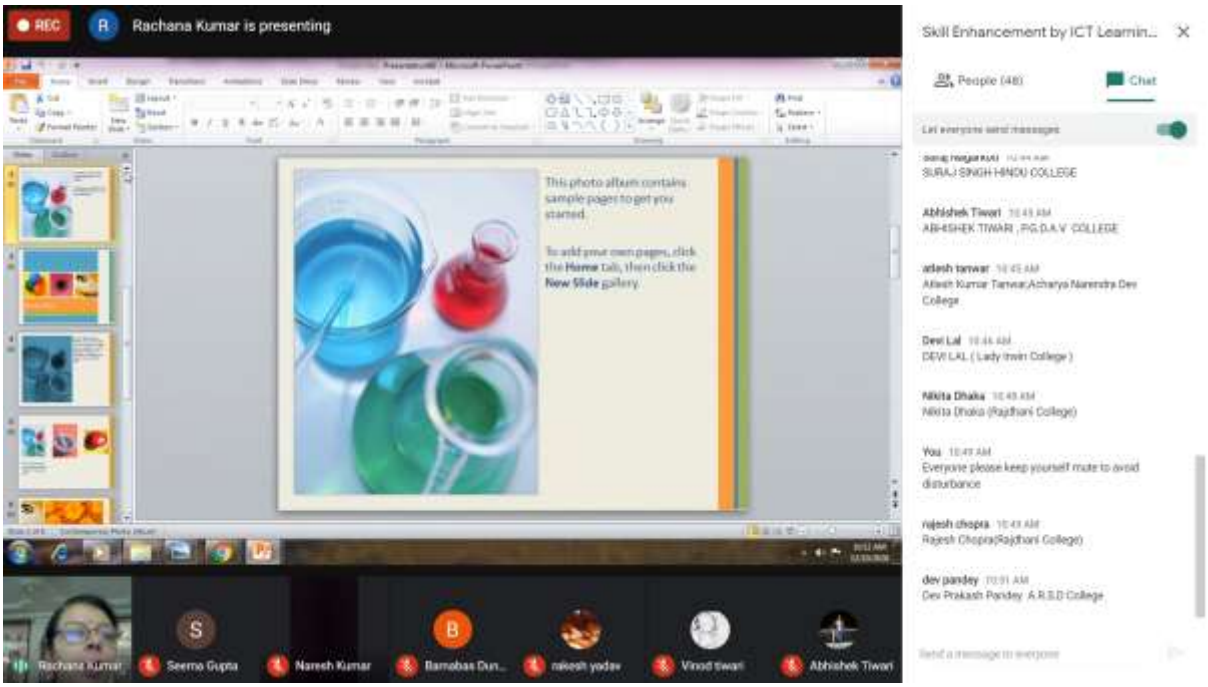
amit kumar
anand7430
Anita Sharma
anoop singh bisht
Asha Khantwal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Rachana Kumar is presenting
This photo album contains sample pages to get you started.
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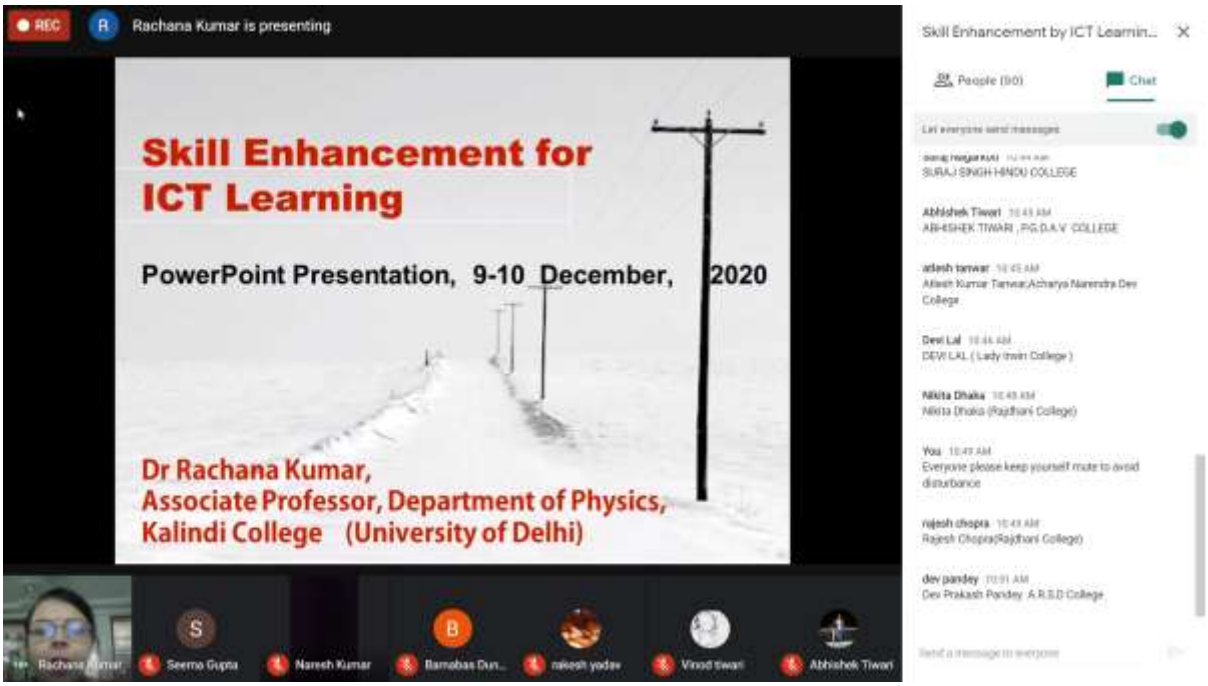
Rachana Kumar
Seema Gupta
Naresh Kumar
Barnabas Dun...
rakesh yadav
Vinod tiwari
Abhishek Tiwari
Skill Enhancement by ICT Learnin...
People (48)
Chat
Let everyone send messages
SURAJ SINGH HINDU COLLEGE
Abhishek Tiwari 10:43 AM
ABHISHEK TIWARI , P.G.D.A.V. COLLEGE
adesh tanwar 10:45 AM
Adesh Kumar Tanwar,Acharya Narendra Dev College
Devi Lal 10:46 AM
DEVI LAL (Lady Irwin College)
Nikita Dhaka 10:48 AM
Nikita Dhaka (Rajdhani College)
You 10:49 AM
Everyone please keep yourself mute to avoid disturbance
rajesh chopra 10:49 AM
Rajesh Chopra(Rajdhani College)
dev pandey 10:51 AM
Dev Prakash Pandey A.R.S.D College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PowerPoint Presentation, 9-10 December, 2020
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Associate Professor, Department of Physics,
Kalindi College (University of Delhi)
Seema Gupta
Naresh Kumar
Bamabas Dun...
rakesh yadav
Vinod tiwari
Abhishek Tiwari
Skill Enhancement by ICT Learnin...
People (50)
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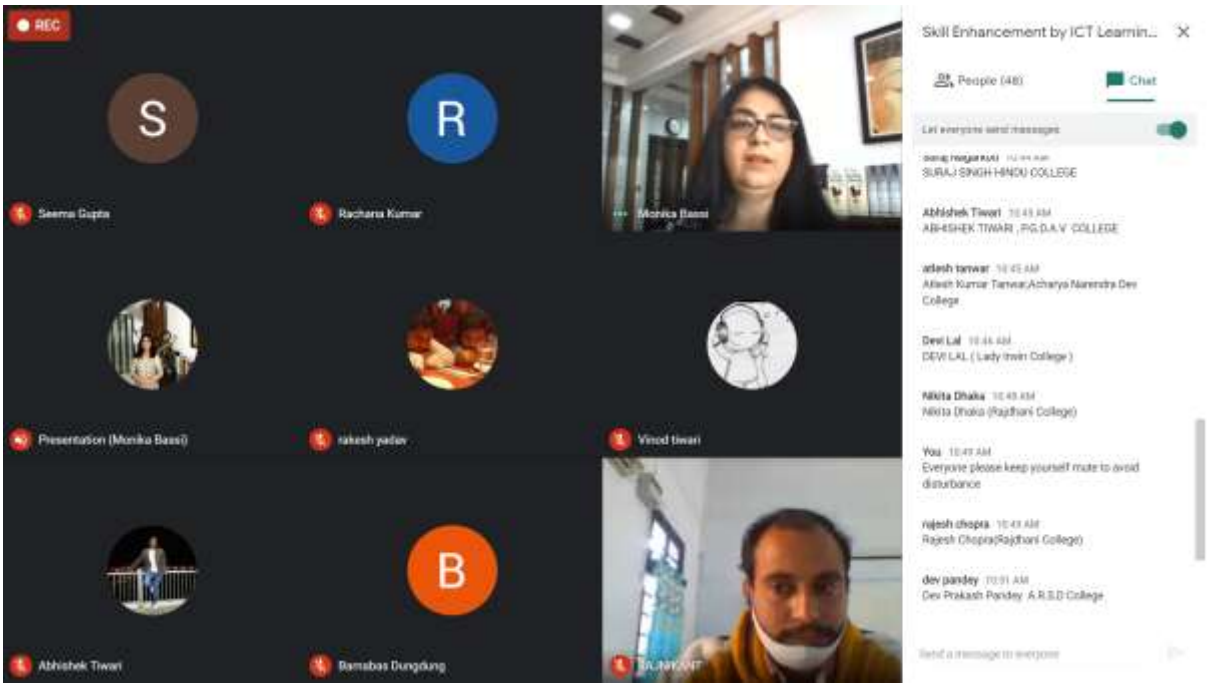
SURAJ SINGH HINDU COLLEGE
Abhishek Tiwari
ABHISHEK TIWARI , PG.D.A.V. COLLEGE
adesh tanwar
Adesh Kumar Tanwar,Acharya Narendra Dev College
Devi Lal
DEVI LAL (Lady Irwin College)
Nikita Dhaka
Nikita Dhaka (Rajdhani College)
You
Everyone please keep yourself mute to avoid disturbance
rajesh chopra
Rajesh Chopra(Rajdhani College)
dev pandey
Dev Prakash Pandey A.R.S.D College


REC
Seema Gupta
Rachana Kumar
Monika Bassi
Presentation (Monika Bassi)
rakesh yadav
Vinod tiwari
Abhishek Tiwari
Bamabas Dungdung
Skill Enhancement by ICT Learnin...
People (48)
Chat
SURAJ SINGH HINDU COLLEGE
Abhishek Tiwari
ABHISHEK TIWARI , PG.D.A.V. COLLEGE
adesh tanwar
Adesh Kumar Tanwar,Acharya Narendra Dev College
Devi Lal
DEVI LAL (Lady Irwin College)
Nikita Dhaka
Nikita Dhaka (Rajdhani College)
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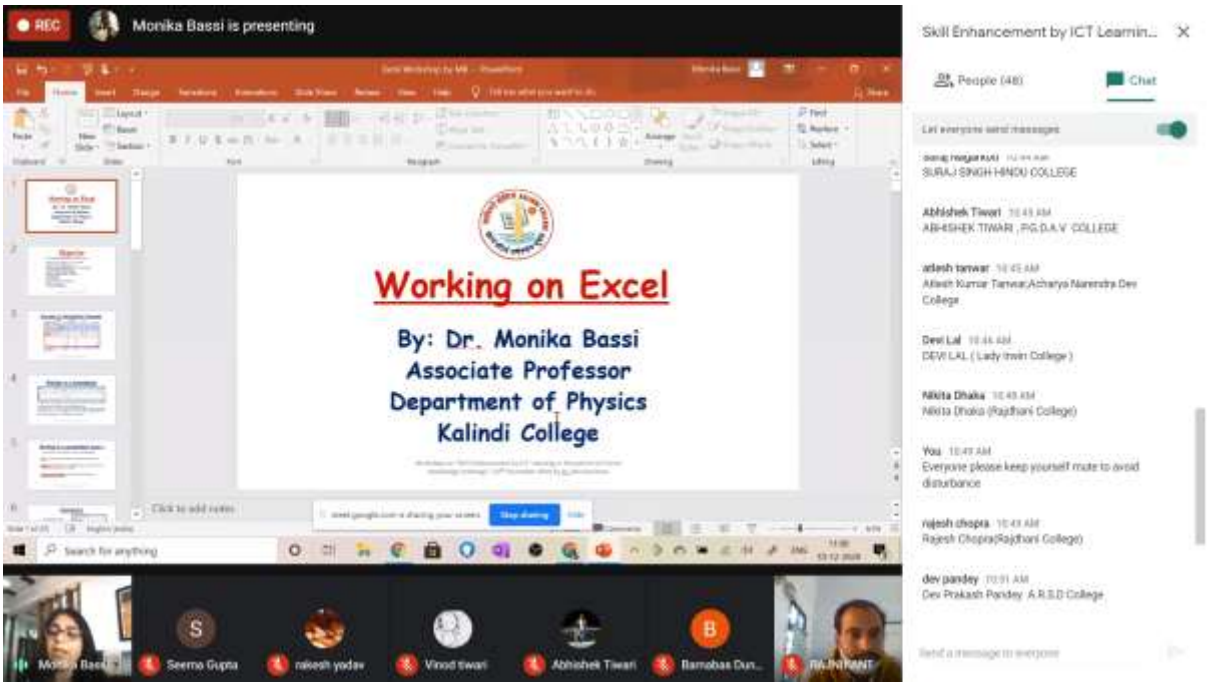
Rajesh Chopra(Rajdhani College)
dev pandey
Dev Prakash Pandey A.R.S.D College


REC
Monika Bassi is presenting
Working on Excel
By: Dr. Monika Bassi
Associate Professor
Department of Physics
Kalindi College
Skill Enhancement by ICT Learnin...
People (48)
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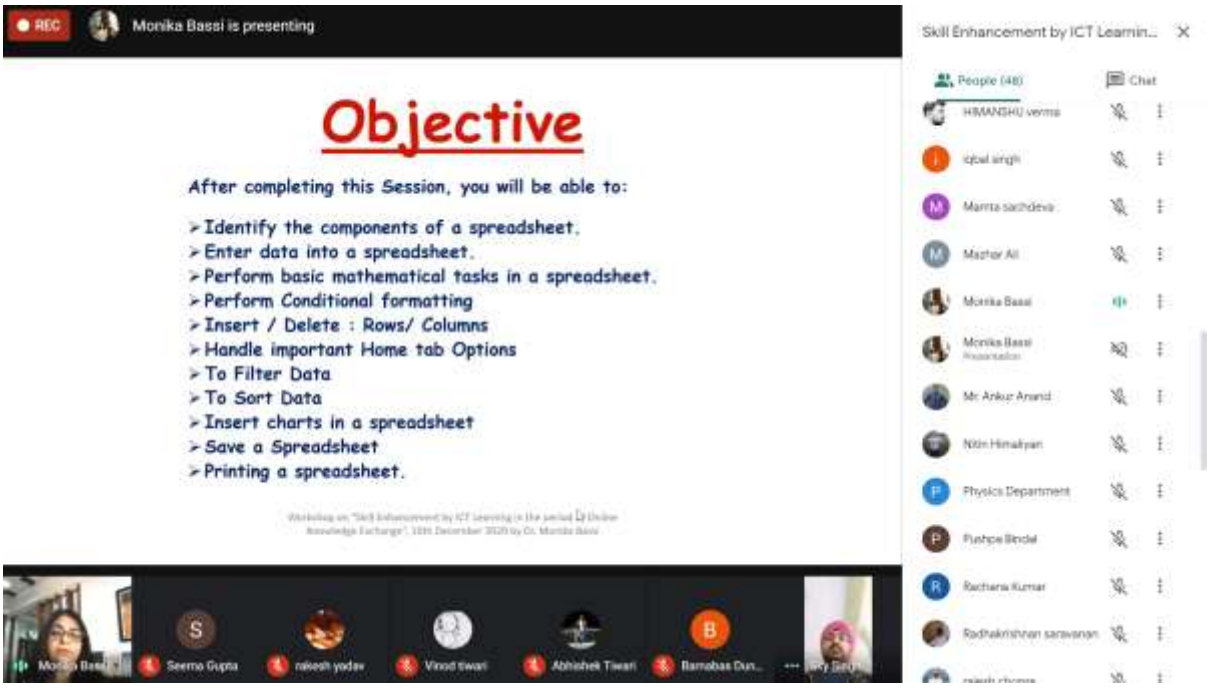
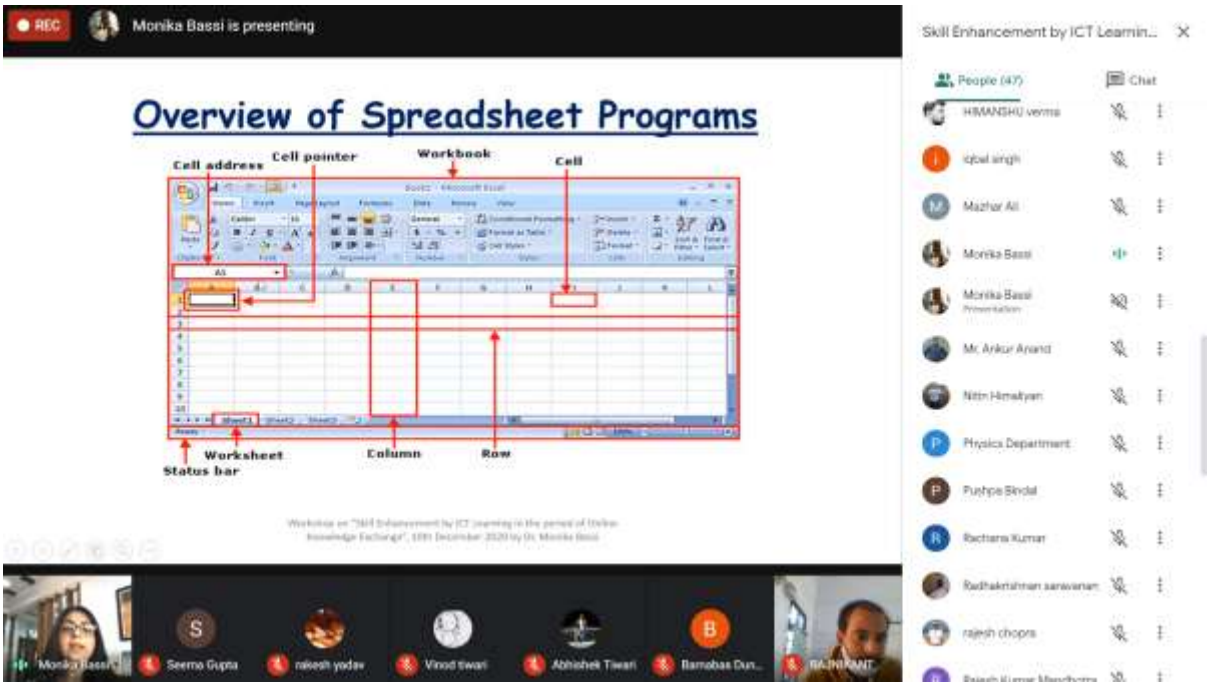
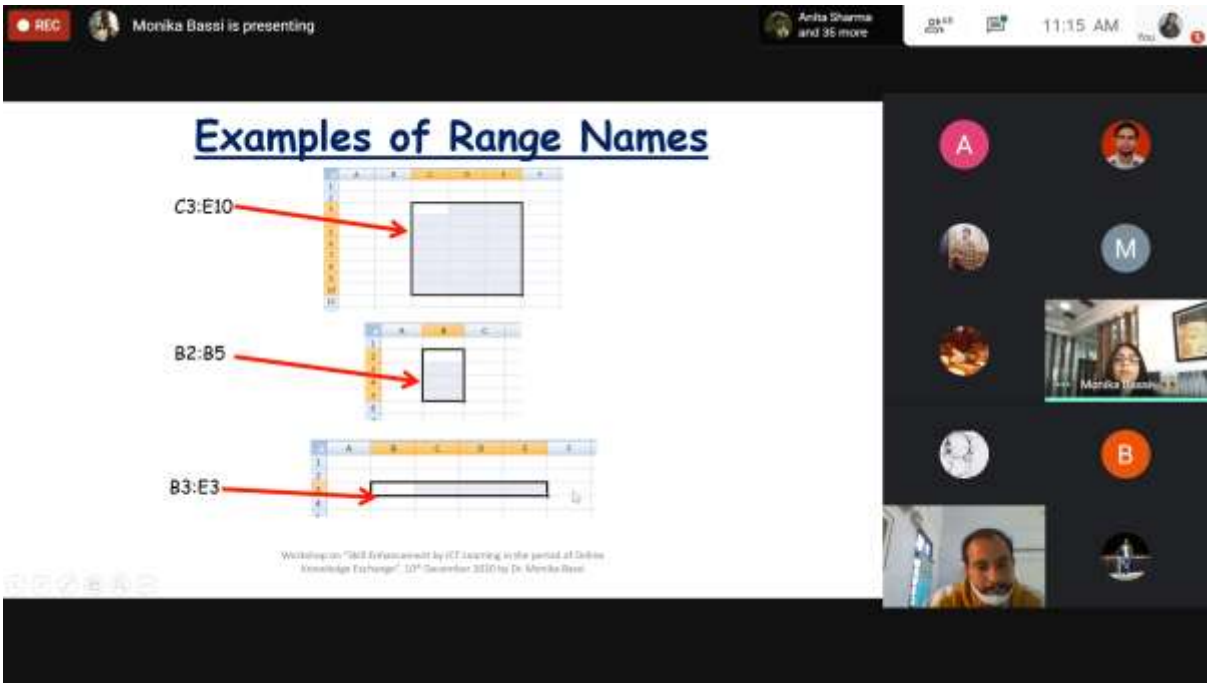
Seema Gupta
rakesh yadav
Vinod tiwari
Abhishek Tiwari
Barnabas Dun...


REC
Monika Bassi is presenting
Objective
After completing this Session, you will be able to:
Identify the components of a spreadsheet.
Enter data into a spreadsheet.
Perform basic mathematical tasks in a spreadsheet.
Perform Conditional formatting
Insert / Delete : Rows/ Columns
Handle important Home tab Options
To Filter Data
To Sort Data
Insert charts in a spreadsheet
Save a Spreadsheet
Printing a spreadsheet.
Skill Enhancement by ICT Learnin...
People (48)
Chat
Seema Gupta
rakesh yadav
Vinod tiwari
Abhishek Tiwari
Barnabas Dun...


REC
Monika Bassi is presenting
Overview of Spreadsheet Programs
Cell address
Cell pointer
Workbook
Cell
Worksheet
Column
Row
Status bar
Skill Enhancement by ICT Learnin...
People (47)
Chat
HIMANSHU verma
iqbal singh
Mazhar Ali
Monika Bassi
Monika Bassi
Mr. Ankur Anand
Nitin Himalyan
Physics Department
Pushpa Bindal
Rachana Kumar
Radhakrishnan saravanan
rajesh chopra
Monika Bassi
Seema Gupta
rakesh yadav
Vinod tiwari
Abhishek Tiwari
Barnabas Dun...
RAJKUMAR


REC
Monika Bassi is presenting
Anita Sharma and 35 more
11:15 AM
Examples of Range Names
C3:E10
B2:B5
B3:E3
A
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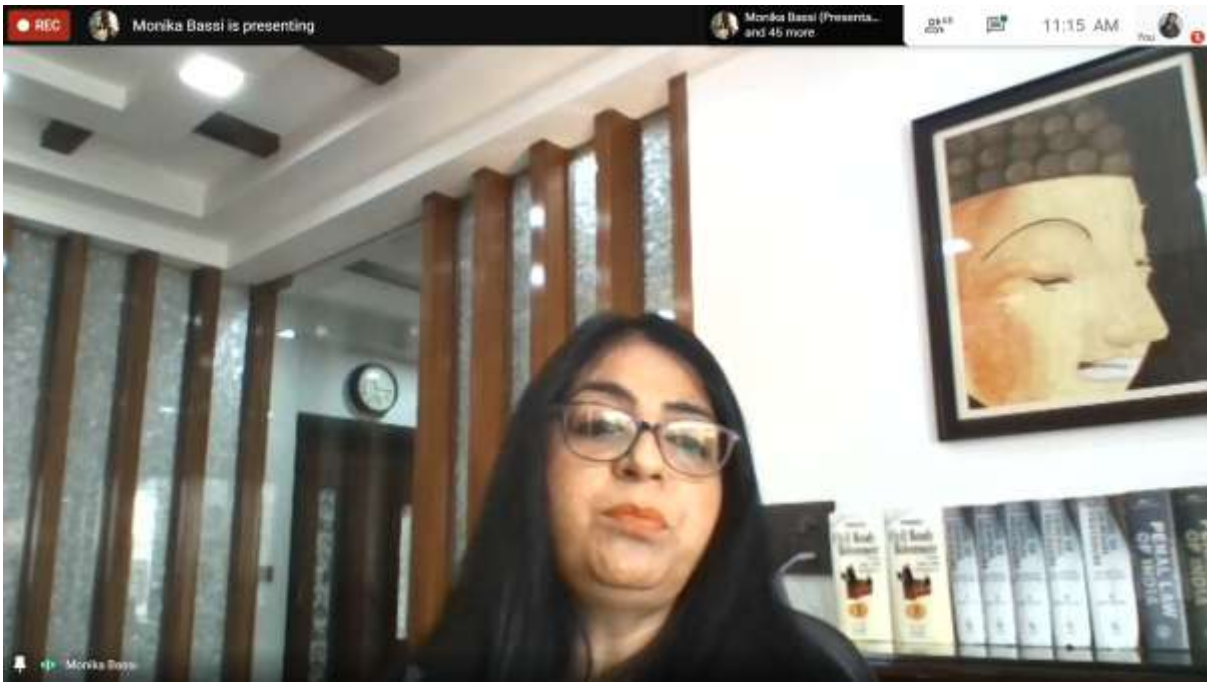
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Monika Bassi is presenting
Monika Bassi (Presenta...
and 46 more
11:15 AM
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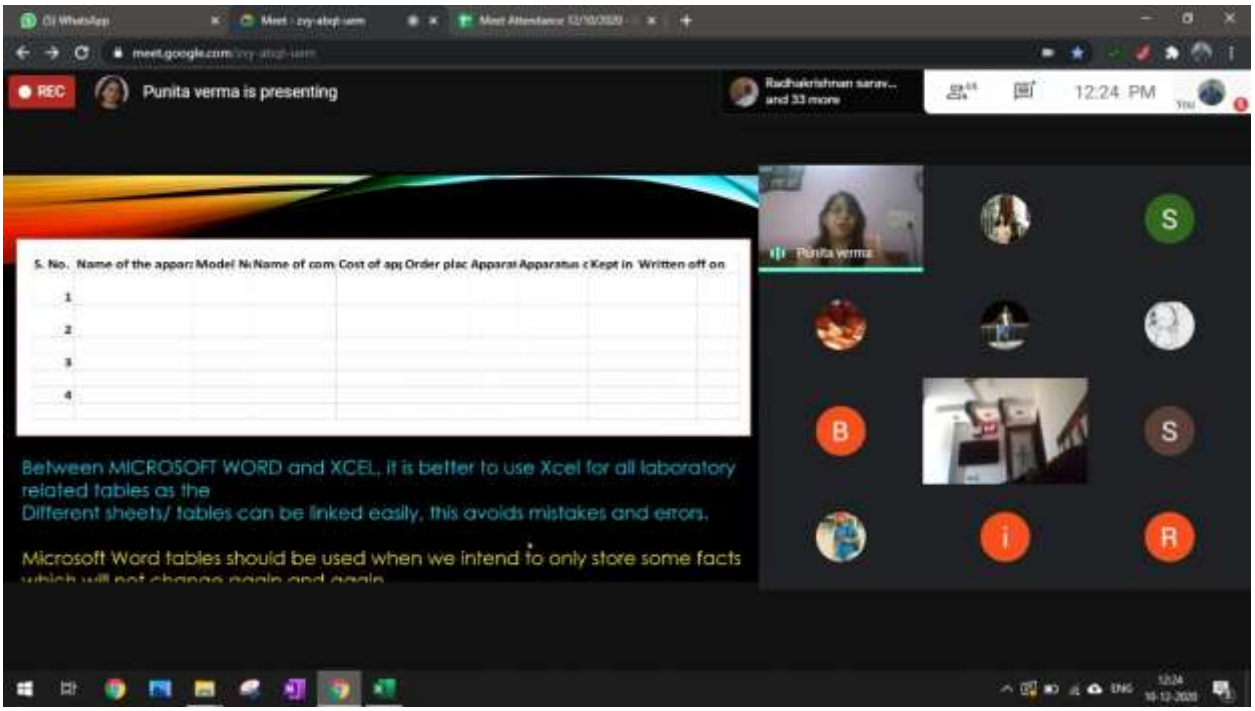
PENAL LAW OF INDIA
Monika Bassi


REC
Monika Bassi is presenting
Rachana Kumar
and 46 more
11:16 AM
You
PENAL LAW OF INDIA
Monika Bassi


REC
Punita verma is presenting
Radhakrishnan sarav... and 33 more
12:24 PM
S. No. Name of the appar Model No Name of com Cost of apr Order plac Apparat Apparatus c Kept in Written off on
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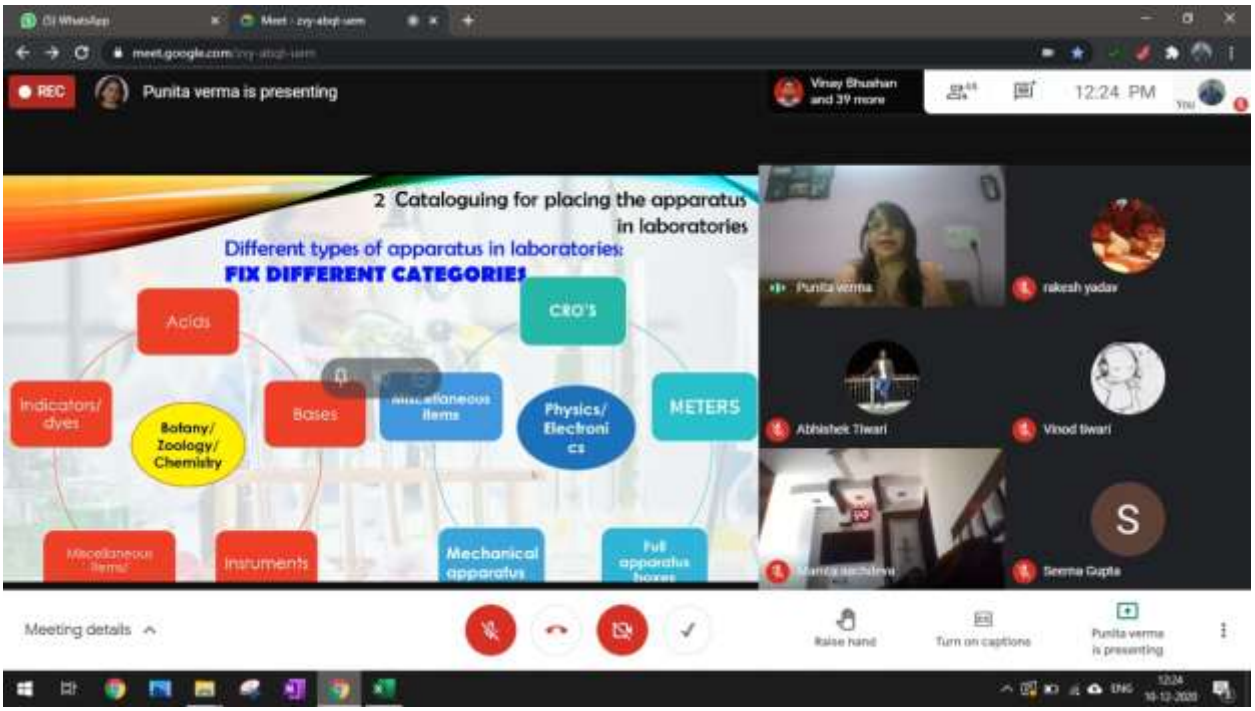
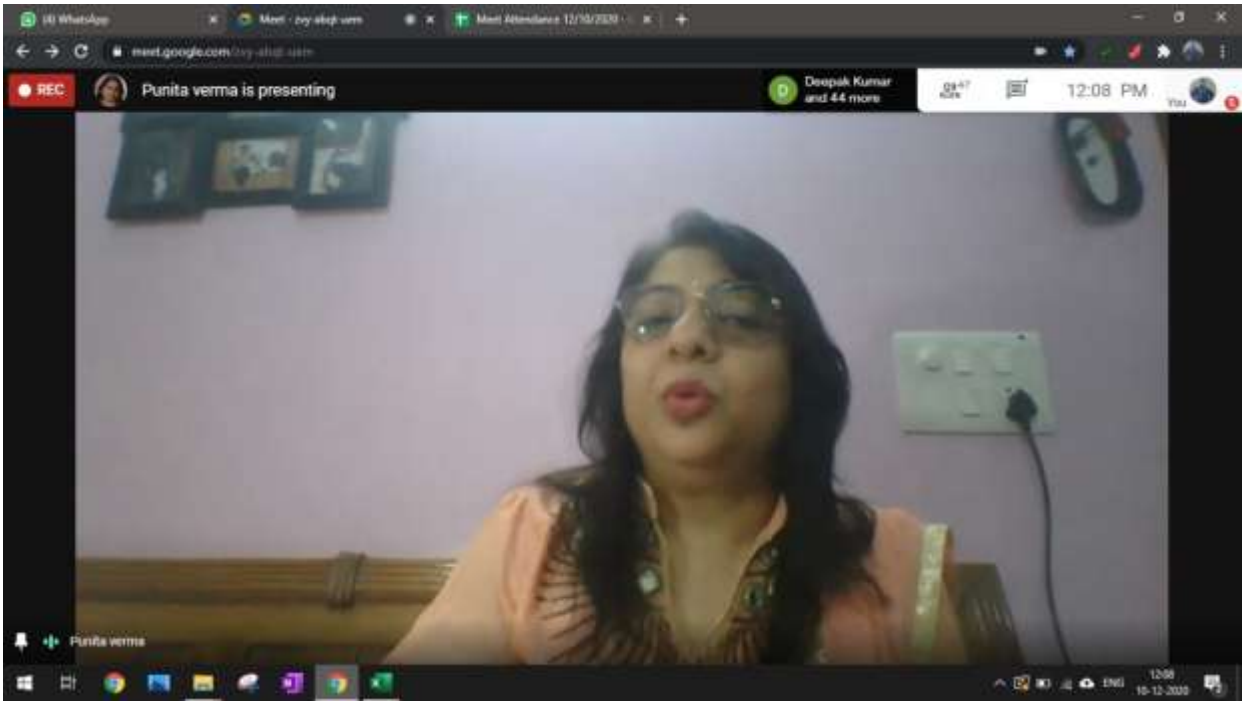
Between MICROSOFT WORD and XCEL, it is better to use Xcel for all laboratory related tables as the
Different sheets/ tables can be linked easily, this avoids mistakes and errors.
Microsoft Word tables should be used when we intend to only store some facts


REC
Punita verma is presenting
Vinay Bhushan and 39 more
12:24 PM
2 Cataloguing for placing the apparatus in laboratories
Different types of apparatus in laboratories:
FIX DIFFERENT CATEGORIES
Acids
CRO's
Indicators/ dyes
Botany/ Zoology/ Chemistry
Bases
Physics/ Electronics
METERS
Instruments
Mechanical apparatus
Punita verma
rakesh yadav
Abhishek Tiwari
Vinod tiwari
Seema Gupta
Meeting details
Raise hand
Turn on captions
Punita verma is presenting


REC
Punita verma is presenting
Deepak Kumar and 44 more
12:08 PM
Punita verma


4:42 PM
DR ARAVIND KUMAR
A
P

Feedback from participants

Name	College/Institute	Was the workshop beneficial for you?	Are you interested to attend more sessions like this?	Any Suggestions?
YASHSHVI BALGOHAR	KALINDI COLLEGE	Yes	Yes	
ABHISHEK TIWARI	P.G.D.A.V COLLEGE	Yes	Yes	
Ajit Kumar	Hans Raj College	Yes	Yes	
Mamta Sachdeva	Kalindi College	Yes	Yes	It should be at least for 5 days
RAJNIKANT	ST STEPHEN'S COLLEGE	Yes	Yes	
Abid khan	Ramjas College	Yes	Yes	Very usefull for our
Rajveer Yadav	Rajdhani College	Yes	Yes	Everything was really good every teacher hepls us to learn with ease
Rajesh Chopra	Rajdhani College	Yes	Yes	Everything was perfect. Gained A lot of knowledge
Ali mohammad	Dyal Singh College	Yes	Yes	
Asha Khantwal	Kalindi College	Yes	Yes	full package. needs no suggestion.very interactive
MOHD BILAL	Kalindi college	Yes	Yes	Everything was good
Anita Sharma	Ramlal Anand college DU.	Yes	Yes	minimum one week ka session ho to bhut accha hoga
DEVI LAL	Lady Irwin College, Sikandra Road New Delhi - 1	Yes	Yes	Time period is less so plz extend the time period. Thank you so much for valuable knowledge.
Barnabas Dungdung	Maharaja Agrasen College	Yes	Yes	I want workshop/Training every year for Delhi University Emloyee.
Atlesh kumar Tanwar	Acharya Narendra Dev College	Yes	Yes	1 week Program & with advance technology pl.
Nikita Dhaka	Rajdhani College	Yes	Yes	
Rakesh Yadav	Kalindi College	Yes	Yes	
RAJESH KUMAR MEHTA	VALLABHBHAI PATEL CHEST INSTITUTE	Yes	Yes	MORES SUCH PROGRAM.
RICHA SINGH	Deshbandhu college	Yes	Yes	Best wishes
Rajesh Kumar	Kalindi college university of Delhi	Yes	Yes	
Yashpal	Kalindi College	Yes	Yes	Good Workshop
RAJINDER KUMAR	KALINDI COLLAGE	Yes	Yes	

ANOOP Singh	KALINDI COLLEGE DELHI UNIVERSITY	Yes	Yes	Must be a little longer
SHISH KUMAR	Kalindi College, University of Delhi	Yes	Yes	This workshop was very good, full of excitement, achievement and enthusiasm that inspired us to move towards success in life. I thank you very much to the entire family of Kalindi College, who organized such webinars with such hard work and dedication. Mostly thanks to the Principal Mam Dr. Poonam Sachdeva who gave permission to do webinars with such good subjects and I also thanks to all those people who had respect for the college & the Principal, like: - DR. Sudha Gulati mam, Dr. Monika mam, Dr. Punita Verma mam, Dr. Savita Sharma Mam, Dr. Rashmi Menon Mam, Dr. Triranjita Mam, Dr. Arvind and Dr, Ankur Anand Sir too.
SHASHI DHAR MEHTA	Vallabhbhai Patel Chest Institute ,University of Delhi ,Delhi	Yes	Yes	NA
Himanshu Verma	Hindu college	Yes	Yes	
DEVA SINGH	Ram Lal Anand College	Yes	Yes	it was very informative. thanks to all IQAC team, Members of Physics deptt.
Lalta Prasad pal	Shivaji College University of Delhi	Yes	Yes	No thanks
R. SARAVANAN	Dyal Singh College	Yes	Yes	It was a useful for us. It would be even better to give be similar training
AMIT KUMAR	DEPARTMENT OF PHYSICS & ASTROPHYSICS, UNIVERSITY OF DELHI	Yes	Yes	
SH.SONU KUMAR	Kalindi College (D.U.)	Yes	Yes	Good Workshop Physics Department
SURJEET SINGH	Ram Lal Anand College	Yes	Yes	No
Rajkumar Saroha	ARSD.COLLEGE. D.U	Yes	Yes	Sunder webinar

Attendance of both the days

S.No.	NAME	COLLEGE
1.	ABHISHEK TIWARI	P.G.D.A.V College
2.	ABID KHAN	Ramjas College
3.	Ajit kumar	Hansraj College
4.	Ali Mohammad	DYAL SINGH COLLEGE

5.	AMIT KUMAR	DEPARTMENT OF PHYSICS,du
6.	Anand Ram Arya	Kalindi college
7.	Anand Singh Bisht	Kalindi college
8.	Anita Sharma	Ramlal Anand College DU.
9.	ANOOP SINGH	KALINDI COLLEGE
10.	Asha khantwal	Kalindi college
11.	Atlesh Kumar Tanwar	Acharya Narendra Dev College
12.	Balvir Singh Yadav	Hindu College
13.	BARNABAS DUNGDUNG	MAHARAJA AGRASEN COLLEGE
14.	Brij Kumar	Deshbandhu College
15.	Darshan Singh Negi	Shaheed Rajguru College
16.	Deepak Kumar Arora	Kalindi College
17.	Dev Prakash Pandey	A.R.S.D College
18.	DEVA SINGH	Ram Lal Anand College, Du
19.	DEVI LAL	Lady Irwin College
20.	Dinesh Kandpal	Hansraj College
21.	Gagandip singh	deshbandhu college(du
22.	Himanshu verma	Hindu college
23.	Iqbal Singh	Dyal Singh College
24.	Lalta Prasad pal	Shivaji College University of Delhi
25.	Mamta Sachdeva	Kalindi college
26.	Naresh Kumar	Kamala Nehru College
27.	Nikita Dhaka	Rajdhani college
28.	Nitin kumar	Kalindi College
29.	R. SARAVANAN	Dyal Singh College
30.	Raj Kumar	University of Delhi
31.	Rajat Shukla	Hindu college
32.	Rajesh Chopra	Rajdhani College
33.	Rajesh Kumar	Kalindi College University of Delhi
34.	Rajesh Kumar Mehta	Vallabhbhai Patel Chest Institut
35.	Rajinder kumar	Kalindi collage
36.	RAJNIKANT	St Stephens college
37.	Rajveer Yadav	Rajdhani College Delhi University
38.	RAKESH YADAV	Kalindi College
39.	RICHA SINGH	Deshbandhu college
40.	Rohit malik	Hindu college d.u
41.	SATYADEV SiINGH	Maitreyi College
42.	Sh.Sonu Kumar	Kalindi College (D.U)
43.	Shashi Dhar Mehta	V.P.Chest Institute
44.	SHISH KUMAR	KALINDI COLLEGE
45.	Sonu kumar sah gond	Lady irwin college
46.	SURAJ SINGH	Hindu College
47.	SURJEET SINGH	Ram Lal Anand College
48.	Vinay Bhushan Kumar	Kalindi College
49.	VINOD KUMAR TIWARI	MAHARAJA AGRASEN COLLEGE
50.	YASHSHVI BALGOHAR	Kalindi College