



Sarojini Naidu College for Women

(Govt. Sponsored)

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Date :

Title of the Program: “Scope of Virtual Labs in UG Physics and Chemistry Teaching”

A two-day National Webinar on “Scope of Virtual Labs in UG Physics and Chemistry Teaching” was organized by the departments of Physics and Chemistry with the IQAC of Sarojini Naidu College for Women, West Bengal, during June 29 – 30, 2020.

Objective: Laboratory experimentation has a vital role in science education. With the potential offered by information and communication technologies for the educational domain, virtual laboratories have emerged as a valuable alternative to physical laboratories. This has also opened new perspective for higher education. Performing different physical experiment through virtual mode or laboratory is a cheap and sustainable solution. It increases the learner’s motivation and their ability for self-study. Virtual laboratories are online education tools that bring a new dimension to learning science by using visualization techniques such as animation, simulation etc. They are a particular approach to hands on laboratory experiment employing computer-based simulations that forces on presenting views and ways of working which are similar to their physical counterparts.

Content: Dr. Manisha Pal, Associate Professor, Department of Physics and Dr. Jharna Barman Nandi, Assistant Professor, Department of Chemistry were joint coordinators of the webinar. The webinar was conducted in GMeet as well as youTube live platforms.

The webinar started with the welcome address by Dr. Urmila Ukil, Respected Principal of Sarojini Naidu College for Women. This was followed by the introductory lecture about Virtual laboratory for teaching and learning by Prof. Basab Chaudhuri, Honorable Vice Chancellor of West Bengal State University.

The first day of the webinar was focused on virtual Physics laboratory. Eminent speaker Professor Sandip Chatterjee, Department of Physics, Banaras Hindu University, delivered the lecture.

The aim of Professor Chatterjee's lecture was to elaborate the concept of virtual laboratories and to demonstrate how experiments can be done in online mode during the pandemic situation. He indeed demonstrated few complete experiments e. g., optical, electrical and magnetic experiments, starting from experiment outline to data collection with the help of virtual laboratories. He also shared web-addresses of virtual laboratories for different types of physics experiments. He explained how the students can participate in the experiments or activity without the physical reality.

Nearly 200 teacher and student participants from different colleges and Universities attended the webinar. There was an interactive questions and answers session in the end. The day-one of the webinar ended successfully.

There were two speakers on Day 2 of the webinar. Both the speakers focused on laboratory chemistry teaching with the aid of virtual laboratory. First speaker of the day, Dr. Chabita Saha, Adjunct Professor, Moulana Abul Kalam Azad University of Technology, West Bengal, shared her thoughts on the scopes and possibilities of the virtual practical classes during the pandemic scenario. She demonstrated how to perform quantitative measurements by means of titration with the help of web-availed tools. It was a successful deliberation and got much attention of the chemistry audience as it was applicable to any branch of chemistry practical where titration was important.

Urnila Wil
Principal
