Editorial

Dr. Sushma S. Kulkarni
Director-RIT
Editor- JEET

Virtual labs are one of the technological innovations among modern educational methods. In virtual labs, we use the computer to provide a 3D virtual environment for the science lab, which enables the student to coexist and interact and deal with it so that the student feels as they coexist, interacts, and deals with a natural science lab in all its dimensions. In other words, they are engaged in immersive learning. Immersive learning allows learners to control the outcomes by connecting them with real experiences, but in a safer environment. In addition to improving engagement levels, it also boosts their motivation as they get to be in charge of the virtual world they are in. While virtual labs cannot replace the real lab experience, they are treasured for conceptual understanding and student engagement. Educators can present certain hands-on concepts remotely. Step-by-step simulations can reduce cognitive load by introducing learning procedures and familiarizing students with lab protocols in advance. Virtual labs represent the future of education. We, as educators, have resistance towards integrating these virtual labs in regular practice. Irrespective of our stance on virtual labs, they are here to stay. These digital resources save costs and enhance student productivity. Moreover, students can take part in practical work from any location. Due to personalized experience, students can learn from their mistakes.

Yet, virtual labs still need improvements to replicate in-house laboratories. It is the responsibility of the institutes to subsidize these facilities for students in financial aid programs. In addition, it the time for all engineering fraternity to embrace this new normal wholeheartedly. Since the pandemic struck the world last year, all institutes across the globe have had to switch to the digital mode suddenly. Without much preparation, all the engineering institutes across India went on to start teaching and learning online. Various platforms like MS teams, Zoom, Cisco Webex were used by the faculties for teaching effectively at their level best. Since then, digital learning has made it into our institutes to save the day while social distancing. While students were allowed to learn from home, researchers and academics had to identify a solution to give the practical sessions effectively. Without hands-on experience, learning engineering skills is difficult. It is high time we decide to choose virtual laboratories as one of the primary measures to cope with the "new normal."

Virtual labs are one of the technological innovations among modern educational methods. In virtual labs, we use the computer to provide a 3D virtual environment for the science lab, which enables the student to coexist and interact and deal with it so that the student feels as they coexist, interacts, and deals with a natural science lab in all its dimensions. While virtual labs cannot replace the real lab experience, they are treasured for conceptual understanding and student engagement. Educators can present certain hands-on concepts remotely. Step-by-step simulations can reduce cognitive load by introducing learning procedures and familiarizing students with lab protocols in advance. Virtual labs represent the future of education. We, as educators, have resistance towards integrating these virtual labs in regular practice. Irrespective of our stance on virtual labs, they are here to stay. These digital resources save costs and enhance student productivity. Moreover, students can take part in practical work from any location. Due to personalized experience, students can learn from their mistakes.

Yet, virtual labs still need improvements to replicate in-house laboratories. It is the responsibility of the institutes to subsidize these facilities for students in financial aid programs. And it the time for all engineering fraternity to embrace this new normal wholeheartedly.

Dr. Sushma S. Kulkarni
Director-RIT
Editor- JEET