Abstract

The extensive use of Information and Communication Technology (ICT) has enabled the development of new ways of teaching and learning. ICT provides flexibility to a learner which is denied by the traditional learning process. This paper proposes an integrated structure of virtual laboratory setup to conduct online laboratory sessions for UG/PG level courses of engineering programmes. The setup provides an access based request of multiple users from remote locations to conduct the experiments online. The web based facility enables a student to repeat the process multiple times to learn theoretical as well as practical aspects of their subjects. In our approach, we have used LabVIEW 2011 to develop the interface panels for remote triggering operation from client side. With this approach students are provided the facilities to perform experiments from remote locations. The access to the facility is through an authentication mechanism through which the students are allowed to use the resources provided in the repository. The advantage of the system is that it is re-usable and the students can repeat the experiments a number of times till their access session time is over.
Online Resource and ICT-Aided Virtual Laboratory Setup


Index Terms

Computer Science
Information Systems
Keywords
ICT  Virtual Laboratory  LabVIEW  Web Resources  Experiments