Design and Development of Distance Laboratory Package for Teaching Basic Electronics via Cloud Computing

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Abstract

This research presented the design and development of distance laboratory package for teaching undergraduate students basic electronics experimental learning via LabVIEW program. In order to make more understanding by additional practicing in conventional contents rather than studying only theory in classroom. This research is consists of two main parts. The first part is the design and development of the experimental set. The subject contents were analyzed to design the experiment. The competencies and skills in each topic were defined by using objective analysis. The design of experimental procedures and tools for laboratory were implemented by using task analysis. The second part is the design of laboratory sheet. The laboratory sheets were designed on LabVIEW program. The results of study revealed that students who studied with the specified experimental set have more achievement learning with significantly increasing at level 0.05.

Keywords
distance laboratory package, teaching basic electronics, cloud computing

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Developing a Private Cloud Based IP Telephony Laboratory and Curriculum. $37.50. Chapter 10. Developers and technicians need to experiment with the cloud computing technologies to make sure that the cloud infrastructure is able to meet the requirements of teaching and learning. Proper testing is necessary for successful deployment of the cloud based infrastructure. While implementing the cloud based infrastructure, the development team needs to consider the long term effect on an educational institution and not to use a soon-out-of-date technology. By common understanding, the expenditure on the IT infrastructure by subscribing cloud services will decrease dramatically. Cloud computing provides a great collection of computing resources that can be rapidly and elastically provisioned and released based on users’ demand to serve a wide and regularly expanding variety of information processing requirements. Due to its tremendous advantages this technology is maturing quickly and is being adopted in many applications including government, business, and education. This research employs the Cloud as a learning environment for teaching Computer Science and related courses by removing the locality constraints, while simultaneously improving students' understanding Model to Implement Virtual Computing Labs via Cloud Computing Services. by Washington Luna Encalada 1,2,* and José Luis Castillo Sequera 3. 1. Department of Informatics and Electronics, Polytechnic School of Chimborazo, Riobamba 060155, EC, Ecuador. 2. Cloud computing provides students and teachers with the tools to employ on-demand computing resources for the development of classes and laboratories according to their needs. For example, teachers can create virtual computers on demand with pre-installed software to deploy labs quickly [27]. Some educational institutions are already using cloud computing to outsource email services, collaboration tools, data storage, or hosting Virtual Learning Environments (VLE) [28,29]. Electronic Instrumentation and Measurement Teaching Solution. Teaching slides on Analog Electronics — Suitable for Electrical & Electronics, Engineering, Mecha-tronics, Instrumentation & Control Engineering or Robotics classes. -- Focuses on semiconductor fundamentals as well as circuit analysis and applications. -- A ready-to-teach package which covers the sources of EMI, fundamental theories, design practices to minimize EMI and EMI measurements. DSOX2022A Series oscilloscope. ME1400 training kit.