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Implementation of the Online Virtual Labs in Electrical Engineering in the Learning Environment of Higher Education Institution

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2024 IEEE 6th International Conference on Modern Electrical and Energy System, MEES 2024 · Conference Paper · 2024 ·

DOI: 10.1109/MEES64070.2024.11405167

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Abstract

In the article is presented the implementation of the online virtual labs in electrical engineering in the learning environment of higher education institution. There are outlined the necessity in using online virtual labs for training future electrical engineers in modern conditions. The proposed technology consists of the preliminary, pilot, implementation and improvement stages. Also, there are developed the criteria of evaluation of the online virtual labs in electrical engineering in the educational environment of higher education institution. On the each of the stages the online virtual labs that are going to use for training of the specialists in electrical engineering is necessary to be checked on the basis of the proposed criteria. After the implementation of the online virtual labs there were checked the level of knowledge of students. There were used the Pearson criterion to investigate the effectiveness of the proposed pedagogical technology statistically. © 2024 IEEE.

Abstract

[Author keywords](#)

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Author keywords

electrical engineering education; engineering disciplines; higher education institution; online virtual labs

Indexed keywords

Engineering controlled terms

Computer aided instruction; E-learning; Laboratories; Personnel training; Teaching

Engineering uncontrolled terms

Condition; Educational environment; Electrical engineering education; Engineering disciplines; Higher education institutions; Learning environments; Online virtual lab; Pearson criterion; Pilot implementation; Virtual lab

Engineering main heading

Engineering education

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