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Development of Multimedia Tests in Electrical Technologies in Online Learning Environment

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

DOI: 10.1109/MEES64070.2024.11404991

Babenko, Dmytro ; Datsenko, Natalia ; Gorbenko, Olena

^a Mykolayiv National Agrarian University, Mykolayiv, Ukraine

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Abstract

The development of multimedia tests in the conditions of the online learning environment provides plenty of opportunities for accessing knowledge in electrical technologies. The article outlines the main aspects of the development and implementation of the multimedia tests in electrical technologies, their technological and methodological features. There are outlined the pedagogical technology of development and implementation of multimedia online tests in online learning environment. Also, it is presented the scheme of the combining the discipline "Electrical technologies" with multimedia tests. There are presented the video, 3D, graphical, animated types of tests. According to the proposed technology there are developed the criteria of evaluation of the developed tests: motivational, pedagogical, technological, methodological. On the basis of the developed criteria there were made estimation of the efficiency of the developed multimedia tests. Also, there were made an analysis of the levels of knowledge of students in Electrical Technologies and estimation of the efficiency of the proposed technology that was statistically tested. © 2024 IEEE.

Abstract

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Author keywords

electrical technologies; learning tools; multimedia test; online learning environment

Indexed keywords

Engineering controlled terms

Computer aided instruction; E-learning; Engineering education; Multimedia systems; Teaching

Engineering uncontrolled terms

Condition; Electrical technology; Learning tool; Multimedia test; Online learning environment; Online tests

Engineering main heading

Efficiency

Corresponding authors

Corresponding author D. Babenko

Affiliation Mykolayiv National Agrarian University, Mykolayiv, Ukraine

Email address babenko@mnau.edu.ua

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