COMPUTER AIDED EDUCATION OF THE OHM LAW AND CIRCUIT ANALYSIS ISSUES

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Abstract
The electrical circuit connections are one of fundamental issues of electrical and electronic engineering. There are resistance, coil and capasitor in electrical circuits. The electronic circuits are designed by using circuit elements. There are differences in the circuit connections according to usage area of circuit elements. Therefore, values of current, voltage, power that is obtained due to the different circuit connection can vary. The Ohm law is utilized to calculate the value of current, voltage and power in the circuits. There are detail knowledge about solutions of different connection schemas of circuit elements in Basic Electric and Electronic course of Electrical and Electronic engineering departments.

In this study, a software has been developed to make the students better comprehend electrical circuit connection schemas and the solutions. By means of the software, it's aimed to decrease the students' problems which in circuit analysis course and increase students' attentions towards the course. Besides, this software design provides an opportunity to control the solutions of circuit analysis problems which be solved by the course students and lecturer.

Keywords: Electrical circuits, ohm laws, current, voltage.