

DEVELOPMENT OF AUTOMATIC TRANSFER SWITCH AND AUTOMATIC MAIN FAILURE TRAINING KITS IN ELECTRIC POWER SYSTEMS IN VOCATIONAL HIGH SCHOOLS

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ABSTRACT

One of the supporting components that is important for human life is the electric power system. However, in utilizing the electric power system there are certainly various obstacles/disruptions. To overcome these obstacles, energy conservation and energy management can be done. Yogyakarta State University as an educational institution is obliged to instill the importance of energy conservation, energy management and emergency power supply to students and Vocational High School partners. Currently, in facing global competition in the era of industrial revolution 4.0, competencies regarding energy conservation, energy management and emergency power supply are really needed by global industry. This research is development research. The aim of this research is to develop an Automatic Transfer Switch and Automatic Main Failure Training Kit and to determine the feasibility/validation of the product being developed. This research was carried out based on the ADDIE approach. The ADDIE model was used to develop the Automatic Transfer Switch and Automatic Main Failure Training Kit and a manual for its use which consists of 5 stages, including: a) Analyze b) Design, c) Development, d) Implementation, e) Evaluate. The research results show that the ATS AMF training kit with DEPSEA DSE7320 can be used as a learning medium regarding emergency switches. The results of the training kit feasibility test showed that the training kit was considered very suitable for use with a percentage of 85.00% in terms of motivation, 90.00% in terms of convenience, and 92.00% in terms of material. The feasibility of the ATS AMF training kit with DEPSEA DSE7320 is in the "Very feasible" category.

Kata Kunci: *Energy_Conservation, Energy_Management, Automatic_Transfer_Switch, Automatic_Main_Failure*