

**PENGEMBANGAN MEDIA PEMBELAJARAN TRAINER PENGENDALI
ELEKTROMAGNETIK BERBASIS *SMART RELAY* PADA INSTALASI MOTOR
LISTRIK**

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ABSTRAK

Penelitian ini bertujuan untuk membuat trainer pengendali elektromagnetik berbasis *smart relay* mengetahui kelayakan serta mengetahui respon mahasiswa terhadap media pembelajaran trainer pengendali elektromagnetik berbasis *smart relay* pada mata pelajaran instalasi motor listrik di jurusan Teknik Instalasi Pemanfaatan Tenaga Listrik SMK Negeri 1 Denpasar. Penelitian ini menggunakan metode penelitian dan pengembangan *Research and Development* (R&D). Pengumpulan data dalam penelitian ini dilakukan dengan metode angket/kuesioner yang dinilai oleh ahli isi, ahli media, dan mahasiswa. Hasil penelitian diperoleh: hasil uji validasi dari ahli media mendapatkan persentase 98,86% termasuk kualifikasi sangat layak, hasil uji validasi ahli materi/isi mendapatkan persentase 81,81% termasuk kualifikasi sangat layak, hasil rentang skor uji coba kelompok kecil dengan 6 responden semuanya termasuk kategori sangat tinggi, dan hasil rentang skor uji kelompok besar dengan 20 responden semuanya termasuk kategori sangat tinggi. Berdasarkan hasil penelitian, media pembelajaran Trainer Pengendali Elektromagnetik Berbasis *Smart Relay* layak digunakan pada proses pembelajaran Instalasi Motor Listrik.

Kata Kunci: *pengembangan media pembelajaran, trainer pengendali elektromagnetik berbasis smart relay, Instalasi Motor Listrik*

Abstract

This study, aims to make the smart relay based electromagnetic controller trainer know the feasibility and know the response of students to the learning media of the smart relay based electromagnetic controller trainer in electric motor installation subjects in the Department of Electrical Utilization Installation Engineering at SMK Negeri 1 Denpasar. This research uses the Research and Development (R&D) research and development method. Data collection in this study was conducted using a questionnaire method which was assessed by content experts, media experts, and students. The results obtained: the results of the validation test from media experts get a percentage of 98.86% including very decent qualifications, the results of the validation test of material / content experts get a percentage of 81.81% including very decent qualifications, the results of the small group trial score ranges with all 6 respondents including the very high category, and the results of the large group test score ranges with 20 respondents all included in the very high category. Based on the research results, the learning media of the Smart Relay Based Electromagnetic Control Trainer is feasible to be used in the learning process of Electric Motor Installation.

Keywords: *development of instructional media, smart relay based electromagnetic control trainers, Electric Motor Installation*