

**PENGEMBANGAN TRAINER PENGAPLIKASIAN *PROGRAMMABLE LOGIC CONTROLLER* (PLC) SEBAGAI SISTEM KONTROL *TRAFFIC LIGHT* 4 JALUR *PORTABLE* UNTUK SISWA SMK**

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**ABSTRAK**

Penelitian ini bertujuan untuk merancang dan membuat media Trainer Pengaplikasian *Programmable Logic Controller* (PLC) Sebagai Sistem Kontrol *Traffic Light* 4 Jalur *Portable*, mengetahui kelayakan media sebagai penunjang proses pembelajaran, serta mengetahui respons peserta didik terhadap media pada mata pelajaran Instalasi Motor Listrik di Program Keahlian Teknik Instalasi Tenaga Listrik (TITL). Penelitian ini, termasuk model penelitian R & D (*Research and Development*). Penelitian menggunakan angket atau kuesioner sebagai instrumen pengumpulan data oleh ahli isi (materi), ahli media dan peserta didik. Dari hasil penelitian diperoleh: hasil uji coba ahli isi diperoleh nilai persentase sebesar 98,07% dengan klasifikasi sangat layak, hasil uji coba ahli media diperoleh persentase sebesar 96,15% dengan klasifikasi sangat layak, hasil uji kelompok kecil hasil nilai responden terendah yaitu pada responden 5 (R5) dengan skor 49 sudah termasuk klasifikasi sangat baik, hasil uji kelompok besar hasil nilai responden terendah yaitu pada responden 4 (A4) dengan skor 49 sudah termasuk klasifikasi sangat baik. Berdasarkan hasil penelitian, media Trainer Pengaplikasian *Programmable Logic Controller* (PLC) Sebagai Sistem Kontrol *Traffic Light* 4 Jalur *Portable* layak digunakan dalam proses pembelajaran pada mata pelajaran Instalasi Motor Listrik di Program Keahlian Teknik Instalasi Tenaga Listrik (TITL) SMK Negeri 3 Singaraja.

**Kata Kunci :** *Media Pembelajaran, Programmable Logic Controller, Instalasi Motor Listrik.*

**DEVELOPMENT OF PROGRAMMABLE LOGIC CONTROLLER (PLC)  
APPLICATION TRAINER AS A PORTABLE LIGHT 4 TRAFFIC CONTROL  
SYSTEM FOR VOCATIONAL SCHOOL STUDENTS**

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**ABSTRACT**

*This study aims to design and create a Media Trainer for the Application of Programmable Logic Controller (PLC) as a Portable 4 Line Traffic Light Control System, to know the media as a supporter of the learning process, and to find out the response of students to learning media in the Electrical Power Installation Engineering Expertise Program (TITL). This research includes the R&D (Research and Development) research model. The study used a questionnaire or questionnaire as an instrument of data collection by content experts, media experts and students. From the results of the study obtained: the results of the expert trial obtained a value of 98.07% with a very feasible classification, the results of the media expert trial obtained a percentage of 96.15% with a very feasible classification, the results of the small group test the lowest result was in respondent 5 (R5) with a score of 49 which is considered very good, the results of the large group test have the lowest respondent score, namely respondent 4 (A4) with a score of 49 which is classified as very good. Based on the results of the research, Media Trainer Application of Programmable Logic Controller (PLC) as a Portable 4 Line Traffic Light Control System that is suitable for use in the learning process of Electric Motor Installation in the Electrical Power Installation Engineering Expertise Program (TITL) SMK Negeri 3 Singaraja.*

**Keywords :** *Learning Media, Programmable Logic Controller, Electric Motor Installation.*