

**PENGEMBANGAN MEDIA PEMBELAJARAN (*TRAINER*) KONTROL
MOTOR LISTRIK PENGASUTAN BINTANG-SEGITIGA DENGAN
PROGRAMMABLE LOGIC CONTROLLER (PLC) PADA MATA
PELAJARAN INSTALASI MOTOR LISTRIK**

Oleh

Made Agus Wahyu Dwi Kusuma, NIM 1615061027

Jurusan Teknologi Industri, Program Studi Pendidikan Teknik Elektro

ABSTRAK

Penelitian ini bertujuan untuk membuat *trainer* kontrol motor listrik pengasutan bintang-segitiga dengan *Programmable Logic Controller (PLC)* mengetahui kelayakan, serta mengetahui respons peserta didik terhadap Media Pembelajaran (*Trainer*) Kontrol Motor Listrik Pengasutan Bintang-Segitiga dengan *Programmable Logic Controller (PLC)* pada mata pelajaran Instalasi Motor Listrik (IML). Penelitian ini menggunakan metode penelitian dan pengembangan *Research and Development (R&D)*. Pengumpulan data dalam penelitian ini dilakukan dengan penyebaran angket atau kuesioner yang dinilai oleh ahli isi atau materi, ahli media, dan peserta didik. Hasil penelitian diperoleh: hasil uji validasi dari ahli media mendapatkan persentase 91,66% termasuk kualifikasi sangat layak, hasil uji validasi ahli isi atau materi mendapatkan persentase 94,00% termasuk kualifikasi sangat layak, hasil rentang skor uji coba kelompok kecil dengan 8 responden semuanya termasuk kategori sangat setuju, dan hasil rentang skor uji kelompok besar dengan 25 responden semuanya termasuk kategori sangat setuju. Berdasarkan hasil penelitian, Media Pembelajaran (*Trainer*) Kontrol Motor Listrik Pengasutan Bintang-Segitiga dengan *Programmable Logic Controller (PLC)* layak digunakan pada proses pembelajaran Instalasi Motor Listrik (IML).

Kata Kunci : *Media Pembelajaran, Pengembangan R&D, Pengasutan Bintang-Segitiga, Programmable Logic Controller (PLC), Instalasi Motor Listrik.*

**THE LEARNING MEDIA (TRAINER) CONTROL OF A TRIANGLE
STAR-STARTING ELECTRIC MOTOR WITH A PROGRAMMABLE
LOGIC CONTROLLER (PLC) IN THE SUBJECT OF ELECTRICAL
MOTOR INSTALLATION (IML)**

By

Made Agus Wahyu Dwi Kusuma, NIM 1615061027

**Department of Industrial Technology, Electrical Engineering Education
Study Program**

ABSTRACT

This research aims to make a star-triangle starting electric motor control trainer with a Programmable Logic Controller (PLC) to determine the feasibility, as well as knowing the response of students to the Learning Media (Trainer) Control of a Triangle Star-Starting Electric Motor with a Programmable Logic Controller (PLC) in the subject of Electrical Motor Installation (IML). This study uses a Research and Development (R&D) research and development method. Data collection in this study was carried out by distributing questionnaires or questionnaires which were assessed by content or material experts, media experts, and students. The results obtained: the results of the validation test from media experts get a percentage of 91.66% including very feasible qualifications, the results of the content or material expert validation test get a percentage of 94.00% including very feasible qualifications, the results of the small group trial score range with 8 respondents all included in the category of strongly agree, and the results of the large group test score range with 25 respondents all categorized as strongly agree. Based on the results of the research, the Learning Media (Trainer) of Electric Motor Control with a Programmable Logic Controller (PLC) is suitable for use in the learning process of Electric Motor Installation (IML).

Keywords: Learning Media, R&D Development, Triangle-Star Starting, Programmable Logic Controller (PLC), Electric Motor Installation.