

**MEDIA PEMBELAJARAN TRAINER INSTALASI KONTROL MOTOR
LISTRIK TIGA FASA *STAR DELTA* DAN *FORWARD REVERSE*
DENGAN KONTROL PLC PADA MATA KULIAH SISTEM KENDALI
OTOMATIS**

Oleh

I Gusti Ngurah Agung Widyana, NIM 1915061027

Program Studi Pendidikan Teknik Elektro

ABSTRAK

Penelitian ini bertujuan untuk membuat suatu Media Pembelajaran Trainer Instalasi Kontrol Motor Listrik Tiga Fasa *Star Delta* Dan *Forward Reverse* Dengan Kontrol PLC Pada Mata Kuliah Sistem Kendali Otomatis di Program Studi Pendidikan Teknik Elektro Undiksha. Penelitian ini termasuk dalam jenis penelitian R&D (*Research and Development*). Penelitian ini menggunakan Teknik analisa statistik persentase untuk mengelolah data ahli isi, ahli media dan uji coba kepada mahasiswa. Penelitian ini menggunakan kuesioner atau angket sebagai instrumen pengambilan data ahli isi, ahli media, dan mahasiswa. Hasil penelitian diperoleh, hasil uji validasi ahli isi sebesar 100% dengan klasifikasi sangat layak, uji validasi ahli media sebesar 94,7% dengan klasifikasi sangat layak, uji coba kelompok kecil dari 5 mahasiswa responden mendapatkan hasil 100% dengan klasifikasi sangat baik, dan uji coba kelompok besar 15 mahasiswa responden mendapatkan hasil 100% dengan klasifikasi sangat baik. Media Pembelajaran Trainer Instalasi Kontrol Motor Listrik Tiga Fasa *Star Delta* Dan *Forward Reverse* Dengan Kontrol PLC Pada Mata Kuliah Sistem Kendali Otomatis, layak digunakan dalam pembelajaran pada mata Kuliah Sistem Kendali Otomatis di Program Studi Pendidikan Teknik Elektro Undiksha.

Kata Kunci: Media Pembelajaran, Motor Listrik, PLC

**LEARNING MEDIA TRAINER INSTALLATION OF THREE PHASE
STAR DELTA AND FORWARD REVERSE ELECTRIC MOTOR
CONTROL WITH PLC CONTROL IN AUTOMATIC CONTROL
SYSTEMS COURSE**

By

I Gusti Ngurah Agung Widyana, NIM 1915061027

Electrical Engineering Education Study Program

ABSTRACT

This research aims to create a learning media for Three-Phase Star Delta and Forward Reverse Electric Motor Control Installation Trainers with PLC Control in the Automatic Control System Course in the Undiksha Electrical Engineering Education Study Program. This research is included in the R&D (*Research and Development*) type of research. This research uses percentage statistical analysis techniques to manage data from content experts, media experts and student trials. This research uses a questionnaire or questionnaire as an instrument for collecting data from content experts, media experts and students. The research results obtained were, the results of the content expert validation test were 100% with a very decent classification, the media expert validation test was 94.7% with a very decent classification, the small group trial of 5 student respondents got 100% results with a very good classification, and the test Try a large group of 15 student respondents to get 100% results with very good classification. Learning Media for Three-Phase Star Delta and Forward Reverse Electric Motor Control Installation Trainer with PLC Control in the Automatic Control System Course, suitable for use in learning in the Automatic Control System Course in the Undiksha Electrical Engineering Education Study Program.

Keywords: Learning Media, Electric Motor, PLC