

ABSTRAK

Yon Setiawan (2025), NIM 5182131006, “Pengembangan Media Praktikum Trainer Instalasi Motor Listrik Berbasis *Smart Relay Zelio* Pada Mata Pelajaran Teknik Instalasi Tenaga Listrik Kelas XII TITL SMKN 1 Percut Sei Tuan”.

Penelitian ini berjudul “Pengembangan Media Praktikum Trainer Instalasi Motor Listrik Berbasis Smart Relay Zelio Pada Mata Pelajaran Teknik Instalasi Tenaga Listrik Kelas XII TITL SMKN 1 Percut Sei Tuan”. Latar belakang penelitian ini adalah trainer PLC *smart relay zelio* belum banyak tersedia. Tujuan penelitian ini adalah mengembangkan trainer PLC *smart relay zelio* sebagai media pembelajaran untuk mendukung pembelajaran instalasi motor listrik. Metode yang digunakan pada penelitian menggunakan metode Research and Development (R&D) dengan model pengembangan ADDIE (*Analysis, Design, Development, Implementasion, Evauation*), yang meliputi kegiatan analisis kebutuhan, Observasi lapangan, perancangan produk, pengembangan produk, penerapan produk, dan evaluasi penerapan produk terhadap objek penelitian. Hasil dari penelitian ini adalah: (1) Pengembangan media pembelajaran berupa trainer PLC *smart relay zelio* sebagai media pembelajaran pada mata pelajaran instalasi tenaga listrik. (2) Tingkat kelayakan trainer menurut ahli media memperoleh skor rata-rata 93,75% dengan kategori “Sangat Layak”. (3) Tingkat kelayakan trainer menurut ahli materi memperoleh skor rata-rata 93,75% dengan kategori “Sangat Layak”. (4) Tingkat respon pengguna siswa terhadap penggunaan trainer memperoleh skor rata-rata 78,87% dengan kategori “Sangat Baik”. Hasil penelitian ini dapat disimpulkan bahwa Trainer Instalasi Motor Listrik Berbasis *Smart Relay Zelio* Pada Mata Pelajaran Teknik Instalasi Tenaga Listrik merupakan media pembelajaran yang layak digunakan.

Kata kunci: Media Praktikum, Trainer, Smart Relay Zelio, ADDIE.

ABSTRACT

Yon Setiawan (2025), NIM 5182131006. “Development of Media Practicum Trainer Electric Motor Installation Based on Smart Relay Zelio in Electrical Power Installation Engineering Class XII TITL SMKN 1 Percut Sei Tuan”.

This research is entitled “Development of Media Practicum Trainer Electric Motor Installation Based on Smart Relay Zelio in Electrical Power Installation Engineering Class XII TITL SMKN 1 Percut Sei Tuan”. The background of this research is that zelio smart relay PLC trainers are not widely available. The purpose of this research is to develop a zelio smart relay PLC trainer as a learning medium to support learning electric motor installation. The method used in the research uses the Research and Development (R&D) method with the ADDIE (Analysis, Design, Development, Implementation, Evaluation) development model, which includes needs analysis activities, field observations, product design, product development, product implementation, and evaluation of product application to the research object. The results of this study are: (1) Development of learning media in the form of a zelio smart relay PLC trainer as a learning medium in electric power installation subjects. (2) The feasibility level of the trainer according to media experts obtained an average score of 93.75% with the category “Very Feasible”. (3) The feasibility level of the trainer according to the material expert obtained an average score of 93.75% in the “Very Feasible” category. (4) The level of student user response to the use of the trainer obtained an average score of 78.87% in the “Very Good” category. The results of this study can be concluded that the Zelio Smart Relay-Based Electric Motor Installation Trainer in Electric Power Installation Engineering Subjects is a learning media that is feasible to use.

Keywords: Practicum Media, Trainer, Smart Relay Zelio, ADDIE.