

## ABSTRAK

Budi Salman: Pengembangan *Trainer Filter Analog* Pada Mata Pelajaran Penerapan Rangkaian Elektronika Di SMK Negeri 1 Percut Sei Tuan. Skripsi. Fakultas Teknik Universitas Negeri Medan. 2023.

Penelitian ini bertujuan untuk: (1) membuat media pembelajaran dalam bentuk *Trainer Filter Analog* serta Panduan penggunaan *Trainer* dan *Jobsheet* pendukung Praktikum, (2) menguji tingkat kelayakan media pembelajaran dalam bentuk *Trainer Filter Analog* serta Panduan penggunaan *Trainer* dan *Jobsheet* pendukung praktikum, dan (3) mengetahui repon dan pemahaman Siswa dalam pembelajaran setelah adanya media pembelajaran. Penelitian ini merupakan penelitian *Research and Development* (R&D) dalam bidang pendidikan. Model penelitian pengembangan yang digunakan berupa *ADDIE: Analysis, Design, Development, Implementation, Evaluation*. Langkah awal pengembangan meliputi analisis kebutuhan dan pendesainan media pembelajaran. Setelah media pembelajaran selesai dikembangkan maka dilakukan pengujian validasi media dan materi. Produk yang dikembangkan adalah *Trainer Filter Analog Low pass Filter, High Pass Filter, dan Band Pass filter*. Pengujian terhadap responden dilakukan oleh 27 siswa jurusan Teknik Elektronika Industri kelas XI. Instrument penelitian yang digunakan adalah lembar validasi *Trainer Filter Analog* oleh ahli media, lembar validasi modul dan *Jobsheet* oleh ahli materi, dan angket responden oleh peserta didik. Penelitian menghasilkan keluaran berupa media pembelajaran *Trainer Filter Analog*, serta panduan penggunaan *Trainer*, dan *Jobsheet*. Validasi ahli materi memperoleh tingkat validitas 84,16% dengan kategori Valid dan sangat layak. validasi ahli media memperoleh validitas 87,83% dengan kategori valid dan sangat layak. uji responden di SMK N 1 Percut Sei Tuan mendapatkan validitas 85,67% dengan kategori sangat baik. untuk digunakan pada pelajaran Penerapan Rangkaian Elektronika.

**Kata kunci:** *Trainer Filter Analog*, *ADDIE*, Teknik Elektronika Industri.

## **ABSTRACT**

Budi Salman: *Development Trainer Filter Analog In the Subject of Application of Electronic Circuits at SMK Negeri 1 Percut Sei Tuan. Thesis. Medan State University Faculty of Engineering. 2023.*

*The objectives of this study are designed to: (1) create learning media in the form of Analog Filter Trainers and Guide to using Practicum supporting Trainers and Jobsheet s, (2) test the feasibility level of learning media in the form of Analog Filter Trainers and Guidelines for using Trainers and Practicum support Jobsheet s, and (3) find out students' responses and understanding in learning after the existence of learning media. This research is a Research and Development (R&D) research in the field of education. The development research model used is in the form of ADDIE: Analysis, Design, Development, Implementation, Evaluation. The initial steps of development include needs analysis and design of learning media. After the learning media has been developed, media and material validation testing is carried out. The products developed are Trainer Filter Analog Low pass Filter, High Pass Filter, and Band Pass filter. Testing of users was carried out by 27 students majoring in Industrial Electronics Engineering class XI. The research instruments used are Analog Filter Trainer validation sheets by media experts, module and Jobsheet validation sheets by material experts, and respondent questionnaires by students. The research produced Analog Filter Trainer learning media, as well as Trainer usage guides, and Jobsheet s. Valid material experts obtained a validity rate of 84.16% with the category of Valid and very feasible. Media expert validation obtained 87.83% validity with valid and very decent categories. The respondents' test at SMK N 1 Percut Sei Tuan received 85.67% validity with a very feasible category to be used in the Electronic Circuit Application lesson.*

**Keywords:** *Trainer Filter Analog, ADDIE, Teknik Elektronika Industri.*

