ABSTRAK

Muhammad Irsyad Awaludin. NIM. 5193131003. Pengembangan Sistem Kontrol Suhu Metode PID Di SMK Negeri 13 Medan.

Penelitian ini bertujuan untuk melakukan pengembangan terhadap media pembelajaran sistem kontrol PID untuk mata pelajaran sistem kontrol terprogram. Metode yang digunakan pada penelitian ini Research and Development (RnD), yang menggunakan model pengembagan ADDIE (Analysis, Design, Development, Implementasion, Evauation), yang meliputi kegiatan analisis kebutuhan silabus, 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 sistem kontrol suhu metode PID sebagai media pembelajaran. (2) Tingkat kelayakan Jobsheet Sistem kontrol Suhu Metode PID menurut ahli materi memperoleh skor sebesar 3.6 dengan kategori "Sangat Layak". (3) Tingkat kelayakan Sistem kontrol Suhu Metode PID menurut ahli media memperoleh skor sebesar 3.9 dengan kategori "Sangat Layak". (4) Tingkat respon pengguna siswa memperoleh skor sebesar 3.9 dengan kategori "Sangat Baik". (5) Tingkat respon pengguna guru memperoleh skor sebesar 3.7 dengan kategori "Sangat Baik". Sehingga media pembelajaran Sistem Kontrol Suhu Metode PID sangat layak untuk digunakan sebagai media pembelajaran pada mata pelajaran Sistem Kontrol Terprogram dan Piranti Sensor dan Aktuator di SMK Negeri 13 Medan.

Kata kunci: Media Pembelajaran, model pengembangan ADDIE, Metode PID, Kontrol Suhu, Sistem Kontrol Terprogram,

ABSTRACT

Muhammad Irsyad Awaludin. NIM. 5193131003. Development of PID Method Temperature Control System at SMK Negeri 13 Medan.

This research aims to conduct development of PID control system learning media for programmable control system subjects. subject of programmable control system. The method used in this research is Research and Development (RnD), which uses the ADDIE development model (Analysis, Design, Development, Implementation, Evauation), which includes (Analysis, Design, Development, Implementation, Evauation) development model, which includes syllabus needs analysis, field observation, product design, product development, product implementation, and evaluation of product application to the research object. the object of research. The results of this study are: (1) Development of media learning media development in the form of a temperature control system PID method as a learning media. (2) The feasibility level of the PID Method Temperature control System Jobsheet according to the material expert obtained a score of 3.6 with the category "Very Feasible". The material obtained a score of 3.6 with the category "Very Feasible". (3) The feasibility level of the PID Method Temperature control system according to media experts obtained a score of 3.9 with a category of "Very Feasible" of 3.9 with the category "Very Feasible". (4) The level of student user response obtained a score of 3.9 in the "Very Good" category. (5) The response level of The teacher user response level obtained a score of 3.7 in the "Very Good" category. So that the learning media for the PID Method Temperature Control System is very feasible to be used as a learning media in the subject of PID Method Temperature Control System. used as learning media in the subjects of Programmable Control Systems and Sensor Programmed Control Systems and Sensor and Actuator Devices at SMK Negeri 13 Medan.

Keywords: *Learning Media, ADDIE development model PID Method, Temperature Control, Programmable Control System*