ABSTRAK

RANCANG BANGUN SISTEM PENANGAN KEBAKARAN OTOMATIS

Oleh:

ENDAR HARTONO
NIM. 55416110012

Penelitian ini merupakan penelitian pengembangan yang bertujuan untuk menghasilkan sistem pemadam kebakaran secara otomatis untuk pencegahan dini bencana kebakaran yang diikuti dengan langkah-langkah pengembangan yang harus diikuti agar menghasilkan produk yang berkualitas berdasarkan penilaian ahli program, ahli media dan uji publik.

Penelitian ini mengacu pada model pengembangan ADDIE (*Analisys, Design, Development, Implementation, Evaluation*). Dengan rincian : (1) *Analisys* (meliputi: studi pendahuluan, analisis analisis kebutuhan), (2) *Design* (meliputi: pembuatan *storyboard* aplikasi ,penyusunan kerangka *aplikasi*, (3) *Development* (meliputi: penyiapan sensor kebakaran di XDK110 Bosch, pembuatan program dengan dengan C++, pendesainan *SMS* dan *Whatshapp* Reply , (4) *Implementation* (pengujian alat dan program kepada ahli program, ahli media dan uji coba publik), *Evaluation* (meliputi: evaluasi tahap implementasi agar menghasilkan produk berkualitas dalam pengembangan sistem ini).

Produk sistem peringatan dini berbasis *Internet of Things (IoT)* yang telah dikembangkan mempunyai kualitas **Sangat Baik** (**SB)** dengan persentase **82,90%** yang terdiri dari kualitas program, kualitas media, dan kualitas teknis. Dengan ini sistem peringatan dini berbasis *Internet of Things (IoT)* tersebut dapat memberikan sistem peringatan dini pada masyarakat sehingga *dasboard* yang telah dibangun tersebut efektif untuk digunakan.

Kata Kunci : *Internet of Things (IoT)*, *Storyboard*, *C++*, *XDK110 Bosch*, *SMS*, *Whatshapp*, *Website Dasboard*.

ABSTRACT

DESIGN OF AUTOMATIC FIRE HANDLING SYSTEM

ENDAR HARTONO
NIM. 55416110012

This research is a development research that aims to produce a fire extinguisher system automatically for early prevention of fire disasters followed by development steps that must be followed in order to produce quality products based on the assessment of program experts, media experts and public testing.

This study refers to the ADDIE development model (Analysis, Design, Development, Implementation, Evaluation). With details: (1) Analysis (includes: preliminary studies, analysis of needs analysis), (2) Design (includes: making application storyboards, compiling application frameworks, (3) Development (including: preparing fire sensors in XDK110 Bosch, making programs with with C ++, designing SMS and Whatshapp Reply, (4) Implementation (testing tools and programs to program experts, media experts and public trials), Evaluation (including: evaluating the implementation stage to produce quality products in the development of this system).

The Internet of Things (IoT) based early warning system products that have been developed have quality **Very Good** with a percentage **of 82.90%** consisting of program quality, media quality, and technical quality. With this Internet of Things (IoT) based early warning system can provide an early warning system to the community so that the dashboard that has been built is effective for use.

Keywords : *Internet of Things (IoT)*, *Storyboard*, *C++*, *XDK110 Bosch*, *SMS*, *Whatshapp*, *Website Dasboard*.