

**PENGEMBANGAN MEDIA EMBELAJARAN *LOGIC GATE*
INTERAKTIF PADA MATA KULIAH ELEKTRONIKA DIGITAL**

Oleh

Kadek Arya Prasmanta Diva, NIM 2115061006

Prodi Pendidikan Teknik Elektro

ABSTRAK

Penelitian ini bertujuan untuk mengembangkan media pembelajaran gerbang logika berbasis *trainer* pada mata kuliah Elektronika Digital di Program Studi Pendidikan Teknik Elektro Universitas Pendidikan Ganesha. Penelitian ini menggunakan metode *Research and Development* (R&D) dengan model pengembangan Sugiyono. Pengembangan media dilakukan melalui tahapan identifikasi masalah, pengumpulan data, perancangan produk, validasi ahli, revisi produk, dan uji coba lapangan. Media pembelajaran yang dikembangkan memuat materi gerbang logika dasar, flip-flop, decoder, counter seven segment, dan pembangkit sinyal. Hasil penelitian menunjukkan bahwa media pembelajaran berbasis *trainer* mampu meningkatkan minat belajar, keterlibatan mahasiswa, dan pemahaman konsep Elektronika Digital. Berdasarkan hasil validasi ahli media, ahli materi, dan respon mahasiswa, media pembelajaran yang dikembangkan dinyatakan layak digunakan sebagai media pembelajaran pada mata kuliah Elektronika Digital.

Kata Kunci : Media Pembelajaran, Gerbang Logika, Elektronika Digital.

**DEVELOPMENT OF AN INTERACTIVE LOGIC GATE LEARNING
MEDIA FOR THE DIGITAL ELECTRONICS COURSE**

By

Kadek Arya Prasmantha Diva, Student ID 2115061006

Electrical Engineering Education Study Program

ABSTRACT

This study aims to develop a trainer-based logic gate learning media for the Digital Electronics course in the Electrical Engineering Education Study Program at Universitas Pendidikan Ganesha. This study employed a Research and Development (R&D) method using the Sugiyono development model. The development of the learning media involved several stages, including problem identification, data collection, product design, expert validation, product revision, and field testing. The developed learning media covers basic logic gates, flip-flops, decoders, seven-segment counters, and signal generators. The results showed that the trainer-based learning media was able to increase students' learning interest, engagement, and understanding of Digital Electronics concepts. Based on the results of validation by media experts, material experts, and student responses, the developed learning media was declared feasible for use as a learning medium in the Digital Electronics course.

Keywords: Learning Media, Logic Gates, Digital Electronics.