

**PENGEMBANGAN MEDIA PEMBELAJARAN ALAT KOMUNIKASI
ANTAR-LAB UNDIKSHA BERBASIS IOT LORA PADA MATA KULIAH
MIKROKONTROLER**

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ABSTRAK

Penelitian ditujukan guna menyusun Media Pembelajaran yang diimplementasikan di Alat Komunikasi Antar-Lab Undiksha Berbasis IoT LoRa yang dimanfaatkan guna memudahkan tahapan belajar di Mata Kuliah Mikrokontroler Program Studi Pendidikan Teknik Elektro Undiksha. Penelitian tergolong macam R&D (Research and Development). Penelitian inipun memanfaatkan teknik analisa statistik berpersentase guna pengolahan informasi pakar konten, pakarmedia, serta pengujian lapangannya. Penelitian juga memanfaatkan survei yang ditujukan menjadi alat pengumpulan data untuk profesional konten, profesional media, dan mahasiswa. Hasil penelitian diperoleh: Hasil ujian akademik memperoleh 96% dengan nilai sangat baik, sedangkan hasil ujian akademik memperoleh 95% dengan nilai sangat baik. Hasil penelitian sampel kelompok kecil menyatakan bahwasanya sampel 1 (R1) berskor 65 sudah tergolong sangat baik, sementara hasil penelitian kelompok besar menunjukkan bahwa sampel 2 (R3) dengan skor 60 sudah tergolong sangat baik. sama baiknya. Berdasarkan hasil penelitian, Media Pembelajaran Alat Komunikasi Antar-Lab Undiksha Berbasis IoT LoRa layak dimanfaatkan pada tahapan belajar Mata Kuliah Mikrokontroler Program Studi Pendidikan Teknik Elektro Undiksha.

Kata Kunci : Media Pembelajaran, Alat Komunikasi, IoT, LoRa, Mikrokontroler.

DEVELOPMENT OF LEARNING MEDIA INTER-LAB COMMUNICATION TOOLS UNDIKSHA BASED ON IOT LORA IN THE MICROCONTROLLER COURSE

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ABSTRACT

The research is aimed at compiling learning media implemented in the LoRa IoT-based Undiksha Inter-Lab Communication Tool which is used to facilitate the learning stages in the Microcontroller Course in the Undiksha Electrical Engineering Education Study Program. Research is classified as a type of R&D (Research and Development). This research also utilizes percentage statistical analysis techniques to process information from content experts, media experts, as well as field testing. The research also utilizes surveys that are intended to be data collection tools for content professionals, media professionals, and students. The research results obtained: The academic exam results obtained 96% with a very good score, while the academic exam results obtained 95% with a very good score. The results of the small group sample research stated that sample 1 (R1) with a score of 65 was classified as very good, while the results of the large group research showed that sample 2 (R3) with a score of 60 was classified as very good. Just as good. Based on the research results, the Undiksha Inter-Lab Communication Tool Learning Media Based on IoT LoRa is suitable for use in the learning stages of the Microcontroller Course in the Undiksha Electrical Engineering Education Study Program.

Keywords: Learning Media, Communication Tools, IoT, LoRa, Microcontroller.