

**MEDIA PEMBELAJARAN SISTEM KENDALI BERBASIS SMART  
RELAY UNTUK MAHASISWA PROGRAM STUDI S1  
PENDIDIKAN TEKNIK ELEKTRO UNIVERSITAS PENDIDIKAN  
GANESHA PADA MATA KULIAH SISTEM KENDALI**

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**ABSTRAK**

Penelitian ini bertujuan untuk membuat Pembelajaran Sistem Kendali Berbasis *Smart Relay*, mengetahui kelayakan serta mengetahui respon mahasiswa terhadap media pembelajaran Pembelajaran Sistem Kendali Berbasis *Smart Relay* pada mata kuliah Sistem Kendali di Program Studi S1 Pendidikan Teknik Elektro Undiksha. Penelitian ini menggunakan metode penelitian dan pengembangan *Research and Development* (R&D). Pengumpulan data dalam penelitian ini dilakukan dengan metode angket/kuesioner yang dinilai oleh ahli isi, ahli media, dan mahasiswa. Hasil penelitian diperoleh: hasil uji validasi dari ahli media mendapatkan persentase 96,20% dengan kualifikasi sangat layak, hasil uji ahli materi/isi mendapatkan persentase 92,31% dengan kualifikasi sangat layak, hasil uji coba kelompok kecil nilai terendah 52 dari responden dengan kategori/klasifikasi sangat baik dan hasil uji kelompok besar nilai terendah 41 dari responden dengan kategori/klasifikasi baik. Berdasarkan hasil penelitian, Media Pembelajaran Sistem Kendali Berbasis *Smart Relay* layak digunakan dan mendapatkan respon yang baik dari mahasiswa pada proses pembelajaran Sistem Kendali di Program Studi S1 Pendidikan Teknik Elektro Undiksha.

**Kata Kunci :** Media Pembelajaran, Pembelajaran Sistem Kendali Berbasis *Smart Relay*, *Research and Development*

**CONTROL SYSTEM LEARNING MEDIA BASED ON SMART  
RELAY FOR STUDENTS OF ELECTRICAL ENGINEERING  
EDUCATION STUDY PROGRAM GANESHA UNIVERSITY IN  
CONTROL SYSTEM COURSES**

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**ABSTRACT**

*This study aims to make Based Control System Learning Smart Relay determine the feasibility and determine student responses to learning media for Based Control System Learning Smart Relay in the Control System course in the Undiksha Electrical Engineering Education Study Program. This research uses research and development methods Research and Development (R&D). Data collection in this study was carried out using a questionnaire/questionnaire method which was assessed by content experts, media experts, and students. The results obtained: the results of the validation test from media experts got a percentage of 96.20% with very decent qualifications, the results of the material/content expert test got a percentage of 92.31% with very decent qualifications, the results of small group trials with the lowest score 52 from respondents with /classification is very good and the results of the large group test have the lowest score of 41 from respondents with good category/classification. Based on the research results, theBased Control System Learning Media is Smart Relay- feasible to use and gets a good response from students in the Control System learning process in the Undiksha Electrical Engineering Education S1 Study Program..*

**Keywords :** *Learning Media, Learning Based Control System, Smart Relay, Research and Development*