

ABSTRAK

Penelitian ini bertujuan untuk mengatasi inefisiensi pengelolaan data anggota Gabungan Pelaksana Konstruksi Nasional Indonesia (Gapensi) Badan Pengurus Cabang (BPC) Indramayu yang masih manual dan rentan kesalahan. Dengan menerapkan metode *Rapid Application Development (RAD)*, penelitian ini merancang dan mengimplementasikan aplikasi media berbasis Android yang didukung arsitektur backend pada *Amazon Web Services (AWS)*. Aplikasi ini dilengkapi fitur pencatatan anggota otomatis menggunakan *Optical Character Recognition (OCR)* dengan layanan *Amazon Textract* dan *Amazon Bedrock*. Hasil pengujian menunjukkan fungsionalitas sistem mencapai tingkat keberhasilan 100% pada pengujian *Black Box*, akurasi *OCR* mencapai 99,33%, dan mampu mereduksi waktu input data hingga 90,88%. Selain itu, pengujian *User Acceptance Testing (UAT)* menghasilkan skor penerimaan pengguna sebesar 85% (Sangat Baik). Hasil ini menegaskan bahwa aplikasi yang dibangun efektif, efisien, dan memenuhi semua kebutuhan organisasi.

Kata Kunci: Aplikasi *Media*, *Android*, *KTP*, *OCR*, *Black Box Testing*, Pencatatan Anggota Otomatis.

ABSTRACT

This research aims to address the inefficiency of member data management at the Indonesian National Construction Implementers Association (Gapensi) Indramayu Branch Board (BPC), which is still manual and prone to errors. By applying the Rapid Application Development (RAD) method, this research designs and implements an Android-based media application supported by a backend architecture on Amazon Web Services (AWS). This application features an automatic member registration function using Optical Character Recognition (OCR) with Amazon Textract and Amazon Bedrock services. Testing results show that the system's functionality achieved a 100% success rate in Black Box testing, OCR accuracy reached 99.33%, and it was able to reduce data input time by up to 90.88%. Furthermore, User Acceptance Testing (UAT) yielded a user acceptance score of 85% (Very Good). These results confirm that the developed application is effective, efficient, and meets all organizational needs.

Keywords: Media Application, Android, ID Card (KTP), OCR, Black Box Testing, Automatic Member Registration.