

ABSTRAK

Pengelolaan laboratorium Fakultas Ilmu Komputer UPN "Veteran" Jakarta menghadapi tantangan fragmentasi data dan proses bisnis yang belum terintegrasi pada fase perencanaan (*Establish*) asisten praktikum. Sistem terpisah memicu redundansi data dan risiko bentrok jadwal. Penelitian ini bertujuan mengembangkan modul perencanaan untuk mengonsolidasikan proses bisnis berbasis *Enterprise Resource Planning* (ERP) Odoo OpenEduCat. Metode pengembangan menggunakan *System Development Life Cycle* (SDLC) *Waterfall*. Hasil penelitian berupa modul ERP yang mengotomatisasi pendaftaran mandiri, delegasi hak akses dinamis, validasi bentrok jadwal *real-time*, dan pencatatan kesiapan prasarana. *Black-Box Testing* membuktikan fungsionalitas sistem 100% valid. Pengukuran penerimaan pengguna dengan *System Usability Scale* (SUS) menghasilkan skor 81,88 (*Acceptable* dan *Excellent*). Implementasi ini terbukti meningkatkan efisiensi dan sentralisasi administrasi praktikum.

Kata Kunci: ERP, Odoo, OpenEduCat, Praktikum, *Waterfall*

ABSTRACT

Laboratory management at the Faculty of Computer Science, UPN "Veteran" Jakarta, faces data fragmentation and unintegrated business processes during the planning phase (Establish) of practicum assistants. Separated systems cause data redundancy and scheduling conflicts. This research aims to develop a registration planning module to consolidate business processes using Odoo Enterprise Resource Planning (ERP) OpenEduCat. The system was developed using the System Development Life Cycle (SDLC) Waterfall model. The result is an ERP module automating independent registration, dynamic access delegation, real-time scheduling conflict validation, and facility readiness logging. Black-Box Testing proved system functionalities are 100% valid. User acceptance measurement using the System Usability Scale (SUS) yielded a score of 81.88 (Acceptable and Excellent). The implementation improves the efficiency and centralization of practicum administration.

Keywords: ERP, Odoo, OpenEduCat, Practicum, *Waterfall*.