

UNDERGRADUATE THESIS MANAGEMENT INFORMATION SYSTEM FOR INFORMATION SYSTEM DEPARTMENT OF UIN RADEN FATAH USING THE INCREMENTAL COMMITMENT SPIRAL MODEL

ABSTRACT

Students submit a thesis at the end of their studies as a mandatory requirement for bachelor's degree graduation. A thesis is a scientific paper presenting research findings or factual issues. While certain universities have thesis-related assistance systems in place, these systems often neglect crucial aspects by emphasizing a narrow set of activities such as thesis title proposal and guidance. The objective of this study is to design and implement a thesis management information system (MIS) that aims to manage thesis activities, starting from students' initial title proposal to the final thesis examination using the Incremental Commitment Spiral Model (ICSM) development method. The methods used in this research are UML (Unified Modeling Language), prototype, and ERD (Entity Relationship Diagrams). This study resulted in a thesis management information system that handles title proposals, exam registration, advisor/examiner selection, scheduling, evaluation, title and supervisor changes. Additionally, the system includes additional features such as title similarity verification, schedule conflict detection, assessing the availability of advisors/examiners during their selection by the program coordinator, providing information on the number of students advised/examined by faculty members, the frequency ratio of keywords in titles per cohort, the ratio of student progress in their theses per cohort, data and ratios of students at risk of discontinuing studies, providing insights into students lacking adequate guidance.

Keywords: *Management Information System*, *Undergraduate Thesis*, *The Incremental Commitment Spiral Model*

**SISTEM INFORMASI MANAJEMEN SKRIPSI
PROGRAM STUDI SISTEM INFORMASI UIN RADEN FATAH DENGAN
METODE *THE INCREMENTAL COMMITMENT SPIRAL MODEL***

ABSTRAK

Skripsi diajukan mahasiswa pada akhir masa studi sebagai syarat wajib kelulusan tingkat sarjana. Skripsi berupa karya tulis ilmiah yang berisi hasil penelitian atau permasalahan faktual lainnya. Di beberapa universitas ada yang telah memanfaatkan sistem untuk membantu aktivitas skripsi, namun sistem cenderung membahas beberapa aktivitas saja seperti pengajuan judul dan bimbingan, sehingga aktivitas penting lainnya masih belum dapat dibantu. Penelitian ini bertujuan untuk mengembangkan sistem informasi manajemen (SIM) skripsi yang menangani aktivitas skripsi dari mahasiswa mengajukan judul sampai selesai ujian skripsi dengan metode pengembangan *The Incremental Commitment Spiral Model* (ICSM). Metode yang digunakan pada penelitian ini yaitu UML (*Unified Modelling Language*), *prototype*, dan ERD (*Entity Relationship Diagram*). Hasil penelitian ini adalah sistem informasi manajemen skripsi yang menangani pengajuan judul, pendaftaran ujian, penentuan pembimbing/penguji, penjadwalan, penilaian, serta perubahan judul dan dosen. Sistem juga memiliki fitur lain seperti cek kesamaan judul yang diajukan, deteksi jadwal yang bertabrakan, deteksi kesamaan dosen saat kaprodi menentukan pembimbing/penguji, informasi jumlah membimbing/menguji dosen, rasio frekuensi kata kunci judul per angkatan, rasio kemajuan skripsi mahasiswa per angkatan, data dan rasio mahasiswa yang mendekati DO (*Drop Out*), serta informasi mahasiswa yang jarang atau belum pernah bimbingan.

Kata Kunci: Sistem Informasi Manajemen, Skripsi, *The Incremental Commitment Spiral Model*