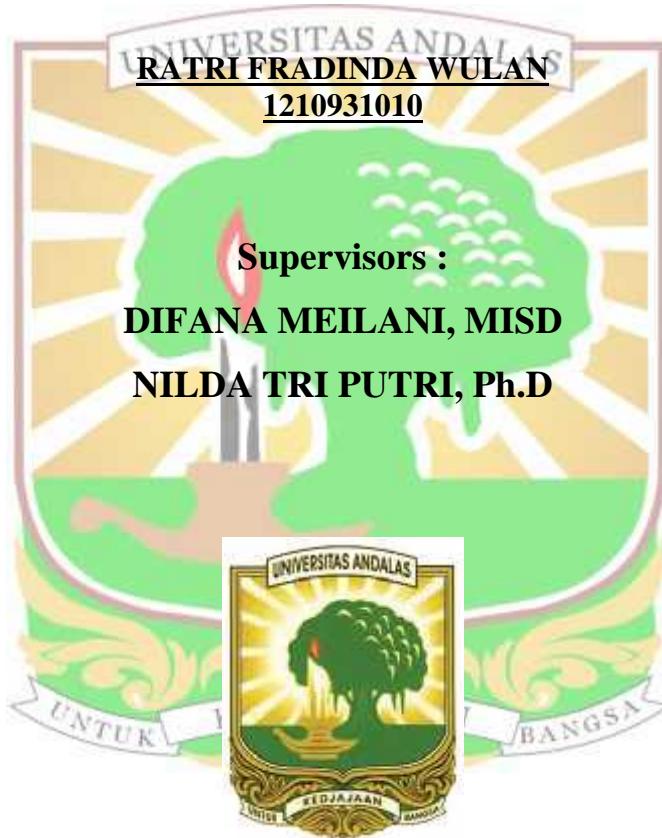


**PROPOSED INTERNAL QUALITY AUDIT  
INFORMATION SYSTEM DESIGN**

**FINAL PROJECT REPORT**

*A report submitted in fulfillment of the requirements for the award of degree of Bachelor in Department of Industrial Engineering, Faculty of Engineering, Andalas University*



**DEPARTMENT OF INDUSTRIAL ENGINEERING  
FACULTY OF ENGINEERING  
ANDALAS UNIVERSITY**

**2017**

## ABSTRACT

Quality assurance system is an important thing to be implemented by higher educational institution in order to assure and improve the quality of the education delivered. Quality assurance system is evaluated through an internal quality audit, both internally or externally. The current mechanism of internal quality audit implemented in Andalas University is still lack in efficiency and haven't work effectively due to the process that involve a huge number of data and various sources are still handled manually, which also increase the risk of miscalculated or error in the data processing. Therefore, an internal quality audit information system is need to be design in order to support the execution of the internal quality audit.

Internal quality audit information system designed in this research is a web based management information system and was developed to support the internal quality audit for bachelor degree program only. The proposed system was developed using object-oriented methodology, and the steps involves are Object-Oriented Analysis (OOA), Object-Oriented Design (OOD), database and user interface design. The proposed system used a proposed audit instrument which is formulated by adapting the appraisal criteria used by National Accreditation Board for Higher Education or known by BAN-PT, Asean University Network the Quality Assurance (AUN-QA) and Accreditation Board for Engineering and Technology (ABET). Delphi and cut off point method are used in order to determine the selected appraisal criteria for proposed instrument.

The proposed audit instrument used in the proposed system consist of 8 standards, 45 components and 129 appraisal criteria. The internal quality audit information system designed in this final project are consist of 18 use cases that supports the implementation of internal quality audit, and helps in storing, processing and serving all the data and information related to the internal quality audit for bachelor degree in Andalas University.

**Keywords:** Internal quality audit, internal quality audit instrument, management information system.

## **ABSTRAK**

*Sistem penjaminan mutu perguruan tinggi merupakan salah satu sistem yang wajib dilaksanakan oleh perguruan tinggi untuk menjamin dan meningkatkan mutu pendidikan tinggi yang diselenggarakan. Pelaksanaan sistem penjaminan mutu dievaluasi melalui kegiatan audit mutu baik secara internal maupun eksternal. Pelaksanaan audit mutu internal Universitas Andalas yang saat ini diterapkan dinilai masih kurang efektif dan efisien, mengingat dalam pelaksanaannya pengolahan data yang melibatkan data dalam jumlah yang besar dengan sumber beragam masih dilakukan secara manual yang juga memperbesar terjadinya resiko kesalahan pengolahan data. Oleh sebab itu, perancangan sistem informasi audit mutu internal dirasa perlu untuk mendukung pelaksanaan audit mutu internal Universitas Andalas.*

*Sistem informasi audit mutu internal yang dirancang merupakan sistem informasi manajemen yang berbasis web dan dikembangkan menggunakan metode object-oriented development, yang terdiri berapa tahapan perancangan mulai dari Object-Oriented Analysis (OOA), Object-Oriented Design (OOD) dan perancangan database serta user interface sistem. Sistem usulan menggunakan instrument audit usulan yang dirumuskan dengan mengadaptasi kriteria penilaian Badan Akreditasi Nasional Perguruan Tinggi (BAN-PT), Asean University Network Quality Assurance (AUN-QA) dan Accreditation Board for Engineering and Technology (ABET). Pemilihan kriteria penilaian untuk merumuskan instrumen usulan dilakukan menggunakan metode Delphi dan cut-off point .*

*Instrumen audit usulan yang digunakan dalam sistem usulan terdiri dari 8 standar, 45 komponen dan 129 kriteria penilaian. Sistem informasi usulan yang dhasilkan pada tugas akhir ini memiliki 18 use case yang mendukung pelaksanaan audit mutu internal dalam meyimpan, mengolah dan menyajikan data serta informasi terkait audit mutu internal program sarjana di Universitas Andalas.*

**Kata Kunci:** Audit mutu internal, instrumen audit mutu internal, sistem informasi management