

Thesis Title	Development of a Relational Database System for Facility Management
Name	Miss Wannee Lapwattanakit
Thesis Advisor	Prof. Dr. Pairah Thajchayapong
Thesis Co-Advisor	Dr. Kittima Mekhabunchakij
Level of study	Master of Engineering in Electrical Engineering
Department	Computer Engineering King Mongkut's Institute of Technology Ladkrabang
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ABSTRACT

This thesis deals with research and development concerning with relational database systems (RDBS). Based on an NEC-610 mainframe computer, the database systems have been developed for two main objectives: To illustrate how relational database systems can be accomplished in a specific mainframe environment, regarding theoretical issues of the Relational Model. And to implement information systems using the relational databases with full capabilities of dynamic online processing.

For the theoretical issues, the thesis discusses mandatory RDBS components and their relationships to methodologies of applications development. This includes Data Definition Language, Data Manipulation Language, Database Maintenance Program, and Database Management & Control Program. For the implementation of information systems, two applications are consequently obtained in order to support the facility management function of KMITL:

- Fixed Assets Acquisition & Registers.
- Public Utility -Related Expenditures.

In summary, RDBS development in a mainframe environment facilitates system integrated features of database management and control, and online systems control. The integration of those features also enhances the methodologies of applications development in such a way that the parts of database and online processing can independently be developed, and later related with some logical control as desirable.