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KEY WORD

: DIGITAL LIBRARY/ ELECTRONIC LIBRARY/ WWW

SYSTEM ANALYSIS/ SYSTEM DESIGN/

INFORMATION SYSTEM DEVELOPMENT

SONGWUT INTAJURK: IMPROVING GRADUATE EDUCATION WITH A DIGITAL LIBRARY OF RESEARCH DOCUMENTS. THEMETIC PAPER ADVISORS: BANLUR EMARUCHI, Ph.D., PANYA KAIMUK, M.D. 116 p. ISBN 974-664-465-3

This research work is concerned with improving graduate education with a digital library of research documents. The amount of research documents has been increasing in the university every year. Many users want to have access to research documents without having to go the library; they want to access and retrieve research documents using web browser instead. So, this study is intended to design database for storing research documents in their intierity and using a Portable Document Format (PDF) file for capturing research documents. Moreover, the develped software application can access and retrieve research documents on the Internet. This study uses the System Development Life Cycle (SDLC) approach to developing a prototype software for the digital library of research documents. In conducting the research, the researcher dealt with data collection, the analysis of problems of the existing system, and a feasibility study. The system analysis is presented in a data flow diagram. In designing the system, the researcher used the Graphic User Interface (GUI) for user interface design and, the Microsoft Access 2000 relational database with 3NF normalization for database design. Also, Microsoft Visual Basic 6.0 was used for developing the application software. In addition, Common Gateway Interface (CGI) programs were used for interface between web server, database and user. This research has produced the application software for accessing information on the Internet dealing with research documents.

Finally, the above findings suggest that the software developed in this study can be further improved for developing a program to automatically generate a keyword, a program for inquiry by natural language and, a program to submit research documents by using the Internet.