

## ABSTRACT

Communication and information exchange activities in the Sekolah Tinggi Teknik Musi currently still running on conventional, ie face to face directly. Through the observation and interview, it is known there are many obstacles in the process of communication and information exchange, communication can only be established through face to face directly.

Therefore, through the design of instant messaging applications on the LAN network, it is expected the process of communication and information exchange can be run more effectively. Existing problems can be solved through the features, such as message delivery, global chat, profile, and the division of rooms according to the existing majors.

Applications to be designed by applying the software engineering phase, will use the Waterfall model and the structured paradigm. Development begins with requirement analysis, system analysis using modeling in the form of Context Diagram, DFD, data dictionary and ERD, design, implementation and testing of the system. All the stages passed through, except for installation and maintenance phases. Implementation using object-based programming language, namely Visual Basic 6.0 and SQL database server 2000. Tests conducted only limited to the functional system of just using black-box testing.

**Keywords:** instant messaging, the waterfall model, the paradigm of structured, Visual Basic 6.0, SQL Server 2000, black-box testing.