

<b>Independent Study Title</b>	Development of a Control Program for the Braille Display Device (Thai Version)
<b>Author</b>	Mr. Jattuthapong Rattananoraset
<b>Degree</b>	Master of Science (Information Technology and Management)
<b>Independent Study Advisor</b>	Lecturer Dr. Rattasit Sukhahuta

## **ABSTRACT**

The purpose of this independent study is to develop a hardware for displaying Thai Braille characters from the text that has been analyzed by Thai language analysis process. The concept of the Braille displayed device is to design a digital circuit that connects to a computer through a parallel port. The analysis steps consist of studying the Braille grammar structure, creating a mapping table between Thai and Braille characters and displaying via the digital circuit. The current output is displayed using six Light Emitting Diode (LED) for each dot of Braille character.

The software developed to analyze Thai characters and control the displayed device uses Microsoft Visual C++ and Four LED sets are build to display each Braille character. The experiment is conducted to evaluate the Braille displayed device using 1,200 of Thai sentences with words that are commonly used. The results of this study show that the device can produce a correct result for the sentences that contain only Thai words. Some of errors are caused by the unrecognized symbols that are not in the mapping table. Finally, the result of this study can be further developed to a more practical hardware for Braille reader equipment for the blind