THESIS TITLE: FORM-BASED THAI HANDWRITING CHARACTER RECOGNITION

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ABSTRACT

This thesis presents a new technique to recognize handwritten text in specified positions as in a form. The technique use specific features of the way Thai characters are written to divide them into several groups. Any character can be in more than one groups. Intersection of these groups will narrow down the selection process. Then use special features of characters in such intersection to further determine the individual character. This technique is free from size, thickness or inclination of characters.

A program is developed to aid a process of entering data into a database. The user can assign as many as 500 rectangular regions of text fields in a form. Each field can be assigned a name to be use in the database. The recognition process is performed on the scanned text, and the results are automatically put into the database according to the locations of the text fields and the corresponding field names. A test is performed on 2,090 handwriting characters of 10 Thai people between 7-35 years of age. Each subject is required to write a standard phrase for Thai character testing recommended by Thailand Computer Associate. The result shows a moderate recognition accuracy of 87 per cent due to scribble handwriting styles.