The objective of this thesis is to create a Thai character recognition system based on Thai distinctive features that consists of 3 main parts : a recognition module of single character , a module of segmentation of connected characters image , and a document analysis module.

In the recognition module of single character , the primary structures and the level of the character are used to classify thai characters into 9 groups . They composed of one upper level group , one lower level group and seven middle level groups . Distinctive features of Thai characters are used to classify the member in each groups. In the part of segmentation of connected characters , Thai distinctive features are used to identify the group of connected character . We have 10 groups and 10 methods to segment that connected characters to be single character. The document analysis module provides an algorithm to deskew , detect the columns , detect the lines of the scanned document to create a text file of the character strings in each column and each line.

By using microcomputer of CPU 80486DX2-80 to test the document that contains about 50,000 characters, recognition rate is 97.6% . The average processing time is 36.4 characters per second.

ภาควิชา........วิศวกรรมศาสตร์........ ลายมือชื่อนิสิต........วิชา พานิช........

สาขาวิชา........วิศวกรรมไฟฟ้า........ ลายมือชื่ออาจารย์ที่ปรึกษา........

ปีการศึกษา........2539........ ลายมือชื่ออาจารย์ที่ปรึกษาร่วม........