

<b>Thesis Title</b>	Isan Dhamma Character Recognition Using Genetic Algorithm
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## **ABSTRACT**

Isan Dhamm characters are old characters used in northeastern Thailand (Isan) and some regions of its neighboring countries during the 22<sup>nd</sup> – 24<sup>th</sup> Buddhist century. It was written about a local wisdom and knowledge of Isan. At present, this knowledge has received increasing attention; however a few people can read it. The purpose of this research is to apply Genetic Algorithm Technique to recognize Isan Dhamma character in order to preserve useful knowledge. The proposed method does not extract the features of the characters, but used their binary image for recognition. The mutation operation, the gene that cause maximum error will be mutated. Moreover the number of gene in the chromosome can be added and deleted in order to improve the efficiency of the model. The performance of the proposed algorithm is compared to the results of the test done by Buddhist monks and Modified Hausdorff ARTMAP. Experimental results show that the purposed algorithm outperforms Buddhist monks and Modified Hausdorff ARTMAP by a wide margin.