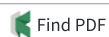


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Recognition of Isolated Handwritten Arabic Characters

By: [Almansari, OA](#) (Almansari, Osamah Abdulrahman)^[1]; [Hashim, NNWN](#) (Hashim, Nik Nur Wahidah Nik)^[1]

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Abstract

The challenges that face the handwritten Arabic recognition are overwhelming such as different varieties of handwriting and few public databases available. Also, teaching the non-Arabic speaker at the young age is very difficult due to the unfamiliarity of the words and meanings. So, this project is focused on building a model of a deep learning architecture with convolutional neural network (CNN) and multilayer perceptron (MLP) neural network by using python programming language. This project analyzes the performance of a public database which is Arabic Handwritten Characters Dataset (AHCD). However, training this database with CNN model has achieved a test accuracy of 95.27% while training it with MLP model achieved 72.08%. Therefore, the CNN model is suitable to be used in the application device.

Keywords

Author Keywords: [Handwriting Recognition](#); [MLP](#); [Arabic Database](#); [CNN](#); [character recognition](#)

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