

Finger Vein Detection using Deep Learning

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Abstract: *The deep learning is a part of machine learning that uses neural networks with many layers (deep architecture) to fit the intricate patterns. Deep learning has shown remarkable performance in image classification mainly due to its ability in learning and extracting features from the raw inputs. In this research study, some techniques of image preprocessing were described and utilized to machine learning algorithm for image classification. The purpose was to promote the specific preprocessing techniques on the impact, which are commonly used in classification model of images, relating to time and precision improvement. The techniques that are applied in this documentation include; image enhancement, binarization, transformation, edge detection and scaling. The present research study therefore comes handy in trying to establish the significance of enhancing statistic and the impact on the performance of the model. The following preprocessing methods have been used because the image datasets need preprocessing to be input for the machine learning models for better image classification*

Keywords: Image Processing, Binarization, Convolutional Neural Network, Image Segmentation, Feature Extraction