IMPLEMENTASI *MOBILENETV2* UNTUK MENDETEKSI EMOSI PADA ANAK AUTIS MELALUI EKSPRESI WAJAH BERBASIS *MOBILE*

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ABSTRACT

Facial expressions are a form of non-verbal communication that helps convey feelings and emotions. However, children with autism often have difficulty expressing emotions through facial expressions. It is caused by impairments in social and cognitive functioning, as well as stereotypic behavior. This makes it difficult for companions to understand and respond to their needs. To help in dealing with this problem the author created an application to identify emotions in autistic children. In this study the author utilized Mobilenetv2 model technology to recognize emotions in autistic children. The results of testing the emotion classification model showed significant variations in the performance of each emotion class. Although the "Angry" class showed the highest performance with precision, recall, and F1-Score of 90.0%, several other classes also stood out, such as "Happy" and "Surprised" with F1-Scores of 85.0% and 86.9%, respectively. However, there is an imbalance in the performance of the "Sad" and "Afraid" classes, although they have relatively high F1-Scores, their precision and recall values are lower. The "Neutral" class shows lower performance overall.

Keywords : *Convolutional Neural Network, MobilenetV2, Facial Recognition, Autism.*