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## **Face Detection and Recognition in Smartphones**

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Abstract: In this paper, various algorithms have been referred for face detection and recognition for security purpose in smartphones. Different types of algorithms such as template matching, color code segmentation using K-mean clustering algorithm, etc. for face detection and KLT for face recognition have been used. In any of the face recognition system the first step is face detection. The mentioned algorithms have first been constructed in MATLAB and then later it is implemented in SMARTPHONES phones. After the implementation of the mentioned algorithms, we have recognized certain pros and cons while implementing the face recognition system on a mobile phone with limited hardware capabilities. The level of processing power of mobile phones have been steadily increasing over the past few years .And it has now reached an extent at which there are mobile phones that could run big applications with Relative success. Applications with facial detention and recognition could be implemented with Considerable less amount processing power. Due to these two advancement it has now become possible to run facial recognition application on Mobile phones. Facial recognition which is the process of identifying specific people in a digital image By comparing and analyzing patterns [6] is now possible on mobile phones. This project would be Developing a mobile application capable of preforming facial detection and recognition.

Keywords: Preschool Education, Cognitive Development

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