Facial Composite Generation and Identification in Forensic Investigations

[1] V.Hemalatha, Associative Professor, Dept of CSE, NSNCET, Karur

[2] T.Harish, [3] P.Udhaya Prakash, [4] M.Tamil Selvan, UG Student, NSNCET, karur

ABSTRACT

In forensic science, it is seen that hand-drawn face sketches are still very limited and time consuming when it comes to using them with the latest technologies used for recognition and identification of criminals. In this paper, we present a standalone application which would allow users to create composites face sketch of the suspect without the help of forensic artists using drag and drop feature in the application and can automatically match the drawn composite face sketch with the police database much faster and efficiently using deep learning and cloud infrastructure.Our application would even allow the law enforcement team to upload previous hand-drawn sketch in order to use the platform to identify and recognize the suspect using the much more efficient deep learning algorithm and cloud infrastructure provided by the application. The machine learning algorithm would learn from the sketches and the database in order to suggest the user all the relatable facial features that could be used with a single selected feature in order the decrease the time frame and increase the efficiency of the platform.

Keywords:

Forensic Face Sketch, Face Sketch Construction, Face Recognition, Criminal Identification, Deep Learning,Machine Locking, Two Step Verification.