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## (54) Title of the invention: ML BASED ON DETECTION AND RECOGNITION OF FACIAL EMOTION USING CNN

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## (57) Abstract:

ABSTRACT ML BASED ON DETECTION AND RECOGNITION OF FACIAL EMOTION USING CNN Aspects of present disclosure relate to a method and system of detection and recognition of facial expression based on machine learning and neural network comprising; a image capturing unit to capture the facial image of the user (101), a storage unit to store the captured image (102), an eigen matrix generation unit to generate eigen values corresponding to captured image (103), an eigen vector selection and filtration unit to select the eigen vectors corresponding to the characteristics of the captured image and filter the captured image corresponding to selected eigen vectors (104) and; a group of neural network having plurality of frames representing plurality emotions and facial expressions configured to receive the captured image filtered by the eigen vector selection unit (105); compare the received image frame with neural network frame (106); and output the face recognition result of the captured image (107), wherein the determination unit receive the output from each of neural network from the group and output final face emotions. Figure 1 shall be reference figure.

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