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## Automatic facial expression recognition system

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Abstract : It has been observed from literature that the idea of robots placing humans in all respects is considered as very important. Able to express is the only aspect that makes humans a step higher than the robots we produce . We project an idea where robot can mimic human expressions by means of the automatic "facial expression system ".Automatic Facial Expression recognition system that utilizes multi - stream Hidden Markov Models ( NEURAL NETWORKS ) . The proposed system uses Facial Animation Parameters ( FAPs ) , supported by the MPEG - 4 standard , as features describing facial expressions . In particular , the FAPs controlling the movement of the outer- lips obtain and eyebrow FAPS individually and jointly . A new approach is roosed for introducing facial expression recognition results obtained when FA group dependent stream weights . The weights were chosen based on the facial expression recognition results obtained when FA group streams are utilized individually . The proposed multi stream NEURAL NETWORKS facial expression recognition system achieves relative reduction of the expression recognition error of44% comare4d to the single- strewam NEURAL NETWORKS system .