

## Hand Gestures Based Emotion Identification Using Flex Sensors

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**Abstract :** In this study, we have proposed a gesture to emotion recognition method using flex sensors mounted on metacarpophalangeal joints. The flex sensors are fixed in a wearable glove. The data from the glove are sent to PC using Wi-Fi. Four gestures: finger pointing, thumbs up, fist open and fist close are performed by five subjects. Each gesture is categorized into sad, happy, and excited class based on the velocity and acceleration of the hand gesture. Seventeen inspectors observed the emotions and hand gestures of the five subjects. The emotional state based on the investigators assessment and acquired movement speed data is compared. Overall, we achieved 77% accurate results. Therefore, the proposed design can be used for emotional state detection applications.

**Keywords :** emotion identification, emotion models, gesture recognition, user perception

**Conference Title :** ICHCI 2018 : International Conference on Human-Computer Interaction

**Conference Location :** London, United Kingdom

**Conference Dates :** October 15-16, 2018