

## A Human Activity Recognition System Based on Sensory Data Related to Object Usage

**Authors :** M. Abdullah, Al-Wadud

**Abstract :** Sensor-based activity recognition systems usually accounts which sensors have been activated to perform an activity. The system then combines the conditional probabilities of those sensors to represent different activities and takes the decision based on that. However, the information about the sensors which are not activated may also be of great help in deciding which activity has been performed. This paper proposes an approach where the sensory data related to both usage and non-usage of objects are utilized to make the classification of activities. Experimental results also show the promising performance of the proposed method.

**Keywords :** Naïve Bayesian, based classification, activity recognition, sensor data, object-usage model

**Conference Title :** ICCEA 2014 : International Conference on Computer Engineering and Applications

**Conference Location :** London, United Kingdom

**Conference Dates :** January 20-21, 2014