Activity Recognition Based on Inertial Sensors for Ambient Assisted Living

Davis and colleagues evaluated three machine learning algorithms, namely Support Vector Machine (SVM), a hybrid of Hidden Markov Models (HMM) and SVM (SVM-HMM) and Artificial Neural Networks (ANNs) applied on a dataset collected between the elderly and their caregiver counterparts. Obtaining a 91.4%, 97.6% and 99.7% for the machine learning algorithms ANN, SVM, SVM-HMM respectively. Demonstrating that the SVM- HMM hybrid approach achieving the highest detection accuracy. [1]

Human Activity Recognition using Recurrent Neural Networks

Working on raw input reduces both handcrafting features and the time and effort required in the preprocessing of data which can be time consuming in AAL(Ambient Assisted Living).Improvement in performance, increased accuracy and better results can be attained by the Deep Learning based approaches from raw sensory inputs. The classification of activities like cooking, bathing and sleeping can be performed applying the Long Short-Term Memory classifier (LSTM).[2]