Feature-Based Elderly Behavior Detection and Prediction in Smart Homes

Malihe Erfanmanesh
Master Student
Department of Computer Science
and Engineering and IT
Shiraz University, Shiraz, Iran
Email: m.erfanmanesh@shirazu.ac.ir

Hooman Tahayori
Assistant Professor
Department of Computer Science
and Engineering and IT
Shiraz University, Shiraz, Iran
Email: tahayori@shirazu.ac.ir

Andrea Visconti
Assistant Professor
Department of Computer Science
Universita degli Studi di Milano
Milano, Italy, 20135
Email: andrea.visconti@unimi.it

Abstract— **One of the capabilities of smart home in the healthcare domain is helping elderly to live independently. This demands for detecting and monitoring their normal activities of daily living (ADLs). By considering changes in the occurrence of these normal activities we can decide about declining the health status of the elderly. Hence, the possibility of preventive care for some elderly people would be partly provided. In this paper, we propose a method for detection and prediction of elderly activities by extracting several features from available information. Obtained results reveal that the proposed features are more effective for detection and prediction of elderly behavior.**

Keywords- activity recognition; machine learning; classification; behavior prediction; smart home

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