Vision based assistive technology for people with dementia performing activities of daily living (ADLS) - an overview

Abstract

The rapid development of intelligent assistive technology for replacing a human caregiver in assisting people with dementia performing activities of daily living (ADLs) promises in the reduction of care cost especially in training and hiring human caregiver. The main problem however, is the various kinds of sensing agents used in such system and is dependent on the intent (types of ADLs) and environment where the activity is performed. In this paper on overview of the potential of computer vision based sensing agent in assistive system and how it can be generalized and be invariant to various kind of ADLs and environment. We find that there exists a gap from the existing vision based human action recognition method in designing such system due to cognitive and physical impairment of people with dementia.