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| Title | AlziHelp: an Alzheimer disease detection and assistive system inside smart home focusing 5G using IoT and machine learning approaches | | |
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| Abstract |  |
| Alzheimer’s disease (AD) refers to a neurodegenerative chronic disease. Difficulties to recall current events, daily tasks schedules, eye vision problem, fail to maintain daily routine, and problems to read and speak new languages are the most common symptoms (early-mid level) of AD. Magnetic resonance imaging (MRI) is very popular for detection of AD. There are numerous research works which are available for early detection of AD. But we have found lack of concentration to detect AD and assist AD patients using Internet of things (IoT) devices inside smart home focusing 5G wireless network. In this paper, we have proposed AlziHelp: An Alzheimer disease detection and assistive system inside smart home focusing 5G using IoT and machine learning approaches. In our system, AD detection can be done easily using smart IoT devices inside smart home in 5G environment. Also the system is capable to assist AD patients using machine learning (ML) approaches. Monitoring daily tasks, reaction time to take an actions, mismatches in serials of actions will be taken as input in our system and using k-nearest neighbor (K-NN), our system can easily detect AD. Also, the system can assist an AD patient to perform his/her daily tasks by predicting events and actions. We strongly believe that AzliHelp can contribute to detect AD and assist people with AD so that they can live a normal life inside home. | |