D-AAAP – Development of android assistive toolkit for Alzheimer’s patients and caregivers

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Alzheimer’s disease, a common form of dementia causes deterioration of cognitive abilities of an individual which results in difficulty in carrying out their routine activities. Research suggests that there is no cure for this deadly disease. However, the progression of the disease can be slowed down by improving the patient’s quality of life, providing a solution for enhancing the cognitive abilities of the patient. One of the possible solutions is to motivate the use of smartphone by the patient. Smartphones play a crucial role for the family members of the Alzheimer’s patients as it helps the patients in carrying out their routine activities by providing time to time notifications about them. Furthermore, the smartphone also helps in assisting the caregiver to take proper care of the patient, such as retrieving the GPS locations of the patient, using Geotagging. Photographs can be used as a source of the medium in helping patients remember their family members. They are susceptible to music; therefore, the patient brain can be stimulated by playing their beloved tunes. Smartphones tend to be a one-stop shop for providing all these facilities to the patients. This motivates the need to build relatively simple cross-platform mobile applications with interactive GUIs, so as to enhance their cognitive abilities. We are developing an android based mobile application comprising the features such as learning, caregiving, pillbox, schedule, doctor dairy, news, family, music, Mapigate, social media, remember to work games safe zone. Finally, this application shall be tested based on the current software testing trends and technologies following its testing for real time scenarios by asking Alzheimer’s patients to use this application, thereby verifying and examining its efficiency and ease.

Multitarget therapies in the context of the aged associated oxidative stress induced cellular and subcellular and vascular hypoperfusion and mitochondrial DNA deletion during the development and maturation of Alzheimer disease: past, present and future

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Stroke and arteriosclerosis with neurological consequences such as Alzheimer disease (AD) are two leading causes of age-associated disability, dementia, and death. AD is now the sixth-leading cause of death in the United States. In the US, AD is estimated to affect 4 million people (rising steeply from <1% of the population aged 65 to 40% of those aged 90) and costs $600 billion per year, which is equivalent to the total cost of stroke, heart disease, and cancer combined. Overall, there are no effective strategies for determining and controlling this devastating disease. Because AD is a multifactorial pathology and the development of new multitarget neuroprotective drugs is promising and attractive.