Activeapp: A Smartphone-based Movement Activity Monitoring System for Healthcare

International Journal of Computer Applications
Foundation of Computer Science (FCS), NY, USA

Volume 180
Number 19

Year of Publication: 2018

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10.5120/ijca2018916444

Abstract

Participating in physical activities is necessary for people of all ages. It positions individuals in a state of fitness, thereby enhancing the quality of life. Physical inactivity, which can result in obesity and overweight will not only affect the quality of life, but equally bring financial burden to the government and relevant individuals. The manufacturers of mobile devices such as smartphones recently incorporated some sensors such as accelerometer, step counter, step detector. Their high computational power, low cost, and small size make it possible for people to carry such accessories always. The embedded sensors can be used to track human steps in real time. In this work, we present a prototype mobile application using step counter sensor embedded in smartphones to track daily steps of users carrying mobile phones. The app serves as a motivating factor for engaging in physical activities such as taking stairs instead of taking the lift, walking instead of driving to work, and also running to increase the rate of heart beat. Experimental evaluation of the mobile application shows that the app could be used to track and record daily steps of people carrying mobile phones effectively.
References


Index Terms

Computer Science

Information Systems
Keywords

Smartphone, Healthcare, Mobile Application, Activity Monitoring