VSB ENGINEERING COLLEGE, KARUR

Electronics and Communication Engineering

IBM NALAIYA THIRAN

LITERATURE SURVEY

Title : **REAL-TIME COMMUNICATION SYSTEM POWERED BY AI FOR SPECIALLY ABLED**

Domain name : **Artificial Intelligence**

Leader Name : **Vinotha. B**

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Abstract :

Limited access to built environments such as buildings and other health issues is one of main barriers faced by disabilities people(DP). Based on the increasing interest in the integration of the artifical intelligent(AI) into buildings, our ongoing research explores how AI and wearable technology can benefit in(DPs) an AI. In this paper, we present our first prototype application that

helps DPs achieve daily life tasks inside a building such as monitoring environmental conditions and controlling in-building devices. We then report the initial results from a preliminary test with two people with different sensors(AI) impairments and discuss the opportunities and challenges for further improvements.

Introduction :

Smartwatches contain accelerometers and gyroscopes that sense a user's movements, and can help identify the activity a user is performing. Research into smartphone-based activity recognition has exploded over the past few years, but research into smartwatch-based activity recognition is still in its infancy. In this paper we compare smartwatch and smartphone-based activity recognition, and smartwatches are shown to be capable of identifying specialized hand-based activities, such as eating activities, which cannot be effectively recognized using a smartphone (e.g., smartwatches can identify the "drinking" activity with 93.3% accuracy while smartphones achieve an accuracy of only 77.3%). Smartwatch-based activity recognition can form the basis of new biomedical and health applications, including applications that automatically track a user's eating habits.

Literature Survey :

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INTRODUCTION: Acceleration sensor is considered for this research because it is less affected by the surrounding environment. The behavioral patterns of users wearing smart watches are trained using the proposed model in indoor or outdoor spaces. This paper proposes a machine learning

model for indoor localization algorithm using global positioning system (GPS) and smart watch. In addition to this, the state transition probability matrix of Hidden Markov model (HMM) on the movement path of smart watches is measured and analyzed in this paper. It can be seen that the changed GPS coordinates can predict the next coordinates using HMM.

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