Abstract

Pervasive computing also called ubiquitous computing is nothing but embedding microprocessors in everyday objects so they can communicate information. With the advancements in Internet technologies, a new trend in the era of ubiquity is being realized. Today, whenever we go out to buy grocery we may forget to buy any particular, which may cause inconvenience. This problem can be solved by using Pervasive Computing principles.

Smart phones and wearable devices are being used to make the world around us reachable, inter-actable and to keep us updated. Utilizing sensor and smartphone technology we target to embed a mind in kitchen which interacts with user and automatically generates To-buy list and alerts depending upon the need of a particular item. Towards such a perspective, there is the need to continuously collect, elaborate, and present data, possibly deriving from smart objects. This can be achieved by the use of Sensor Networks, consisting of raspberry pi 3 development board along with HX711 load sensor interface to sense the weight of particular quantity and
send it witlessly over the network. This raspberry pi 3 can be programmed in Python to serve our purpose.

References

1. Rakesh Satapathy, Srikanth Prahlad, Vijay Kaulgud, “Smart Shelfie Internet of Shelves For higher on-shelf availability”, 2015 IEEE Region 10 Symposium
2. Joan Melia-Segu and Rafael Pous, “Human-object Interaction Reasoning using RFID-enabled Smart Shelf”, 2014 International Conference on the Internet Of Things
4. Paolo Bellavista, Senior Member, IEEE, Giuseppe Cardone, Member, IEEE, Antonio Corradi, Member, IEEE, and Luca Foschini, Member, IEEE, “Convergence of MANET and WSN in IoT Urban Scenarios”, IEEE SENSORS JOURNAL, VOL. 13, NO. 10, OCTOBER 2013

Index Terms

Computer Science Information Sciences

Keywords

Internet of Things (IoT), Pervasive Computing, Stock Awareness, Sensor Network, Load sensing