Abstract

The numbers of smartphone users is expected to be 2 billion around the globe by 2016 according to new figure e-Marketer, there is a great need of efficient location tracking system. At the same time the privacy of the users is a prime concern for security. The traditional global positioning system is not able to efficiently track the indoor location of users. This paper is comprehensive survey of various localization techniques and proposes a combined approach of GPS, cellular tower triangulation, Activity recognition, Wi-Fi and Harversine Formula to track the
Tracking Smartphone Users using Activity Recognition and Location based Services

user's location.

References

- Xing Su, Hanghang Tong, and Ping Ji "Activity Recognition with Smartphone Sensors"; TSINGHUA SCIENCE AND TECHNOLOGY. Volume 19, Number 3, June 2014 1pp235-249
- Pornpen Ratsameethammawong and M. L. Kulthon Kasemsan Faculty of Information Technology, Rangsit University, Thailand "Mobile Phone Location Tracking by the Combination of GPS, Wi-Fi and Cell Location Technology. 2010 Volume 566928 pp. 3-7
- E. Gabber and A. Wool, "How to prove where you are: tracking the location of customer equipment," in Proc. of CCS. ACM, 1998, pp. 142-149.

**Index Terms**

| Computer Science | Pattern Recognition |

**Keywords**

Activity Recognition  Cellular Tower Triangulation  Mobile Sensors