

# **Title : Human Behavior identification and Real Time Location Tracking by using Smart Technology .**

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## **Motivation:**

Intelligent monitoring and tracking systems must have significant sensing capabilities and should be flexible. Everyday's accidents are increasing day by day. Generally, while an accident occurs people whom are present there are in confused and do not understand what to do. Just a couple of them make the correct strides and take that person to the clinic. On the off chance that we watch we will see the greater part of the cases their relatives are ignorant about this mishap. For example, one of our relatives is driving a car and suddenly his car falls a accident and he is badly injured but no one was there to help him or her. He or she might die. For these reasons, it is very essential to identify human behavior or activity and tracking the real-time location. That is why I planed a solution to help those people who are injured but do not get any kind of help. At that moment injured people use any kind of smart technology and send or transmit data to their relatives and their relatives or friends will receive the signal and immediately their relatives will find the condition of the injured one and track the location. Utilizing smart technology we can identify the movement of human and their present area. As I would like to think this might be a standout amongst the best answer for tracking them. That is the reason that I need to take a shot at this issue and I need to contribute whatever I can do to unravel this issue. These are the reasons that are motivated me profoundly to do this task.

## **Literature Review:**

The project is going to identify human behavior and track the present or real time area or location utilizing smart technology. We can identify human behavior in various ways like we can identify their movement by following their body movement or their talking and walking style or their gesture or their voice etc. Many scientists already have studied and proposed some algorithms for detecting human behavior. A smart technology has computing and networking capabilities which can be used to obtain and gather information about human activities(Reza Rawassizadeh ; Elaheh Momeni ; Chelsea Dobbins ; Joobin Gharibshah ; Michael Pazzani). However, there are a few constraints still remains. Resources and the lack of accuracy is one of them(Manini Kumbhar, Meghana Survase, Pratibha Mastud , Avdhut Salunke2016). To contact with others or tracking location we need some small sensors like WIFI , GPS etc(Reza Rawassizadeh ; Elaheh Momeni ; Chelsea Dobbins ; Joobin Gharibshah ; Michael Pazzani). It is fundamentally taking a shot at radio recurrence for conveying. Mainly, Human behavior is the reactions or gestures of people[Reza Rawassizadeh elaheh Momeni Chelsea dobbins job in Gharibshah and Michael Pazzani]. Scientists follow many various characteristics to identify human behavior. Real-world data is one of it (Reza Rawassizadeh ; Elaheh Momeni ; Chelsea Dobbins ; Joobin Gharibshah ; Michael Pazzani). It is the largest data set. Some scientists analyze temporal granularity and some scientists analyze scalability and sensor are the key characteristics to identify human behavior. They have shown some diagram and models to identify human behavior. This framework will likewise give us a conceivable area where a mishap happens. Numerous researchers have effectively chipping away at this procedure and they have proposed a few calculations and solution to avoid unwanted noise from an image. The algorithms are kernel initialization algorithm, non-blind deconvolution algorithms etc [Richardson-Lucy RL deconvolution [1974]. This kind of algorithms are very much operative in a big blur kernel. It is conceivable to recoup the latent image by using Non-blind deconvolution algorithms[Richardson-Lucy RLdeconvolution,1974]. Scientists are continuously testing new formulas for collecting Real-Time image faster. Some scientists also tried to demonstrate kernel error. Some scientists worked on the ringing artifacts. While reading a paper I came to know that by using fuzzy logic we can detect human body skin(Arnab Chowdhury ; Sanjaya Shankar Tripathy). Fuzzy logic is working in image exility. They show some diagrams and flowcharts in their paper. Face recognition method is one the key point to identify a human to perform this method they create a huge database and doing some arithmetic calculations and got a result to recognize a human. GPS is one of the vital part for tracking locations(Bohn, Mathias). There are some research paper on GPS[Pankaj Varma and J.S Bhatia]. By the help of satellite we can also identify the current location[ Degraw, Christopher F.]. I have also read paper based on real time transport tracking[Kader Hussain, Irfan Shaikh, Shahidraza Sheikh, Asst. Professor Anand Bali]. But there are still remains some limitations like capturing image .By reducing the value of pixel ,we can solve this problem. Also for better data transmission lifi technology can be used [Esha Julka1 , Deepak Kumar2 B.Tech Student1, Assistant Professor2].

After reading all the papers and evaluation, I am going to combine all the algorithms together to develop a system which will provide the current behavior of human and their real time location. Using GPS, and remove unwanted noise and applying kernel initialization algorithm for getting better picture and using scalability and sensor and real world data for detecting human behavior.

### **Reference[s]:**

- 1.Reza Rawassizadeh ; Elaheh Momeni ; Chelsea Dobbins ; Joobin Gharibshah ; Michael Pazzani : Scalable Daily Human Behavioral Pattern Mining from Multivariate Temporal Data. IEEE Transactions on Knowledge and Data Engineering ( Volume: 28 , Issue: 11 , Nov. 1 2016 )
2. Manini Kumbhar, Meghana Survase, Pratibha Mastud, Avdhut Salunke, “Real Time Web Based Bus Tracking System,” An International Research Journal of Engineering and Technology IRJET, Volume 3, Issue 2, Feb 2016.
3. Kader Hussain, Irfan Shaikh, Shahidraza Sheikh, Asst. Professor Anand Bali, “Real Time Transport Tracking System,” An International Research Journal of Engineering and Technology IRJET, Volume 5, Issue 2, Feb 2018.
4. Arnav Chowdhury ; Sanjaya Shankar Tripathy., “ Human skin detection and face recognition using fuzzy logic and eigenface” 2014 International Conference on Green Computing Communication and Electrical Engineering (ICGCCEE), Coimbatore, India.
- 5.Abid Khan, Ravi Mishra, “GPS-GSM based tracking system,” International Journal of Engineering Trends and Technology, Vol. 3, Issue 2, pp: 161-164, 2012.
- 6.Bohn, Mathias. Student Science Experiment Finds Plants Won’t Grow Near Wi-fi Router. (last accessed 2014-04-01)
7. Esha Julka<sup>1</sup> , Deepak Kumar<sup>2</sup> B.Tech Student<sup>1</sup>, Assistant Professor<sup>2</sup> : A Review Paper on Li-Fi Technology ,International Journal of Scientific & Engineering Research, Volume 6, Issue 2, February2015 ISSN 2229-551
8. Yunus Ozen<sup>#1</sup>, Oguzhan Ozdemir<sup>#2</sup>, Necla Bandirmali<sup>#3</sup> : Android Based Energy Aware Real-time Location Tracking System. Date Added to IEEE Xplore: 10 August 2015. Conference Location: Sapporo, Japan, Date of Conference: 7-10 July 2015

9. S. Foell, G. Kortuem, R. Rawassizadeh, M. Handte, U. Iqbal, and P. Marron, "Micro-navigation for urban bus passengers: Using the internet of things to improve the public transport experience," Proc. 1st Int. Conf. IoT Urban Space, 2014, pp.
10. H. Ma, H. Cao, Q. Yang, E. Chen, and J. Tian, "A habit mining approach for discovering similar mobile users," in Proc. 21st Int. Conf. World Wide Web, 2012, pp. 231–240.
11. R. Rawassizadeh, M. Tomitsch, K. Wac, and A. M. Tjoa, "Ubiqlog: A generic mobile phone-based lifelog framework," *Personal Ubiquitous Comput.*, vol. 17, no. 4, pp. 621–637, 2013.
12. D. Wagner, A. Rice, and A. R. Beresford, "Device analyzer: Largescale mobile data collection," *SIGMETRICS Perform. Eval. Rev.*, vol. 41, no. 4, pp. 53–56, 2014.
13. Janis, I. L. (1967). Janis, I. L. (1967). Effects of Fear Arousal on Attitude Change: Recent Developments in Theory and Experimental Research. *Advances in Experimental Social Psychology* Volume 3. 166–224.
14. Anon. (1999). "Perclos and eyetracking: Challenge and Opportunity". Bedford: Technical Report, Applied Science Laboratories.
15. Boverie, L. (1998). Intelligent systems for video. Congr. and Expo., (pp. 1–5). Detroit.
16. Thompson, B. D. (2005). Evaluating the Quality of Evidence from Correlational Research for Evidence-Based Practice. *Exceptional Children* , 181-194.
17. Michael Findley, A. K. (2014). Field Experiments in Strategy Research
18. Bastien, J. (2010). Usability testing: a review of some methodological and technical aspects of the method. *International Journal of Medical Informatics*
19. Chowdhury, A., & Tripathy, S. S. (2012). "Human skin detection and face recognition using fuzzy logic and eigenface". 2014 International Conference on Green Computing Communication and Electrical Engineering (ICGCCEE),. Coimbatore
20. Pankaj Verma, J. S. (2013). "Design and development of GPS-GSM based tracking system with Google map based monitoring,. *International Journal of Computer Science, Engineering and Applications*, 3.
21. Kothari. (2008). "Research Methodology: Methods and Techniques". New Age International
22. Kircher, U. a. (2002). "Vehicle Control and drowsiness". Swedish National Road and Transport Research Institute
23. Bobick. (1997). Movement, activity and action: the role of knowledge in the perception of motion. 352(1358):1257–1265

24. Maja Pantic, Alex Pentland, Anton Nijholt, and Thomas Huang. (2006). Human computing and machine understanding of human behavior: a survey. In ICMI '06: Proceedings of the 8th international conference on Multimodal interfaces, (pp. pages 239–248). New York, NY, USA
25. Flicker, K. (2003). IBM Blue Eyes Project
26. Harland, D. J. (n.d.). types\_of\_research