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Accident Spot Detection Using Android

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Abstract: Road and traffic is most important issue not only for Indian government but also for common people. Mostly, it is found that road accident happning are more frequent at certain specific locations i.e black spot. The analysis of these black spot can help in identifying certain road accident factor that make a road accident to oc- cur frequently in that locations. In this project we apply statistics analysis and data mining algorithms on the Fatal Accident dataset as an attempt to address this problem. Association rule mining is one of the popular data mining techniques that iden- tify the causes of accident of road accident. In this project, we first applied k-means algorithm to group the accident locations into four level, zero level, first level, second level and third level accident location. k-means algorithm takes accident level count as a factor to cluster the locations. Then we will use association rule mining to identify these locations. The rules show different factors associated with road accidents at different locations. For all this we will provide accident data that are issue from Nashik city commissionar office. Safety driving suggestions will be making based on accident data, association rules, classification model, and clusters obtained.

Keywords: Eclat algorithm, Clustering, Classification, Association, GPS tracking, Accident

REFERENCES

[1]J. Zaldivar, C. T. Calafate, J. C. Cano and P. Manzoni, "Providing accident detection in vehicular networks through OBD-II devices and Android-based smartphones," 2011 IEEE 36th Conference on Local Computer Networks, Bonn, 2011, pp. 813-819.

[2] Shahbaz Ahmed Khan Ghayyur, Salman Ahmed, Mukhtar Ali, Adnan Naseem, Abdul Razzaq and Naveed Ahmed, "A Systematic Literature Review of Success Factors and Barriers of Agile Software Development" International Journal of Advanced Computer Science and Applications(IJACSA), 9(3), 2018.

[3] Zainab S. Alwan Hamid M. Ali. "Car Accident Detection and Notification System Using Smartphone". In: International Journal of Computer Science and Mobile Computing 4.4 (Apr. 2015), pp. 620–635.

[4] J. & Dougherty B. & Albright A. & Schmidt DC Chris T. & White. "WreckWatch:Automatic Traffic Accident Detection and Notification with Smartphones". In: Journal of Mobile Networks and Applications manuscript(2011).

[5] Patel K.H., "Utilizing the Emergence of Android Smartphones for Public Welfare by Providing Advance Accident Detection and Remedy by 108 Ambulances", International Journal of Engineering Research & Technology (IJERT), Vol.2, Issue 9, PP 1340-1342, September – 2013.

[6]Vo Quang Viet., Gueesang Lee., Deokjai Choi.(2012) "Fall Detection Based on Movement and Smart Phone Technology", International Journal of Computer Science and Network Security, pp. 987-992.

[7]Warsuzarina Mat Jubadi.,SitiFaridatul., AisyahMohdSahak.(2009) "Heartbeat Monitoring Alert Via SMS", IEEE journal on Industrial Electronics and Applications (ISIEA 2009), pp. 978-983.

[8]Bhumkar.S.P., Deotare.V.V.,R.V.Babar.(2012) "Accident Avoidance and Detection on Highways", International Journal of Engineering Trends and Technology, Vol.3, Issue 2, pp. 247-252.

[9]Carlo Tacconi., SabatoMellone., Lorenzo Chiari.(2011) "Smartphone-Based Applications for Investigating Falls and Mobility", 5th International journal on Pervasive Computing Technologies for Healthcare (Pervasive Health) and Workshops, pp. 258-261.

[10] Frank Sposaro., Gary Tyson.(2007) "Ifall: An Android Application for all Monitoring and response", 29th Annual International Conference of the IEEE EMBS, pp. 1367-1370ss

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