

Manuscript ID : 00000-16236

International Journal of Civil Engineering and Technology

Volume 9, Issue 3, March 2018, Pages 945-954, Page Count - 10



Source ID : 00000001

## COMPARATIVE ANALYSIS AND SUGGESTION OF ARCHITECTURES FOR REDUCTION OF ROAD ACCIDENTS

Aishwarya Patil <sup>(1)</sup> Deepthi Das <sup>(2)</sup>

<sup>(1)</sup> Department of Computer Science, CHRIST (Deemed to be University) , Bangalore, India.

<sup>(2)</sup> Department of Computer Science, CHRIST (Deemed to be University) , Bangalore, India.

### Abstract

*As Road Accidents are increasing all over the world, it is very important to save people's lives. With the advancement in technology we can make use of various real time sensors and technology to save people's lives. This paper focuses on comparing various architectures which consists of various real time sensors like Eye blink sensor, Alcohol sensor, Speed sensor, load sensor, tilt and turning sensor and various technologies like GPS, GSM. After comparison paper suggests which architecture should be used in the vehicle based on certain attributes. For E.g. If the car always travels outside the city then this paper suggests the architecture which has Eye blink sensor, Speed Sensor GPS and GSM.*

### Author Keywords

Sensors; Road Accidents; Vehicles; Technology; Architectures.

**ISSN Print:** 0976-6308

**Source Type:** Journals

**Publication Language:** English

**Abbreviated Journal Title:** IJCIET

**Publisher Name:** IAEME Publication

**Major Subject:** Physical Sciences

**Subject area:** Architecture

**ISSN Online:** 0976-6316

**Document Type:** Journal Article

**DOI:** 10.34218/IJCIET.09.3.2018.094

**Access Type:** Open Access

**Resource Licence:** CC BY-NC

**Subject Area classification:** Engineering and Technology

**Source:** SCOPEDATABASE

### Reference

#### References (22)

1. Lavanya R, Sheela Sobana Rani K, Gayathri R, Binu  
D4A Smart Information System for Public Transportation Using IoT

(2017) *International Journal of Recent Trends in Engineering and Research*, Volume 3, Issue 4, Page No 222-230,

2. Shiny, L., Rajakumaran, A. and Vijay, S  
Vehicle Control System with Accident Prevention by Using IR Transceiver

---

(2015) *International Journal of Innovative Research in Science, Engineering and Technology*, Volume 4, Issue 6, Page No 121-126,

3. Sowmya, D., Suneetha, I. and Pushpalatha, N  
Driver Behavior Monitoring through Sensors and Tracking the Accident using Wireless Technology

(2014) *International Journal of Computer Applications*, Volume 102, Issue 2, Page No 21-27,

4. R, J  
Driver Assist System DAS to Prevent Road Accidents

(2015) *International Journal on Recent and Innovation Trends in Computing and Communication*, Volume 3, Issue 3, Page No 1613-1616,

5. Varma, A., Arote, S. and Bharti, C  
Accident Prevention Using Eye Blinking and Head Movement

(2012) *Emerging Trends in Computer Science and Information Technology*, Page No 18-22,

6. B.Praveenkumar, K.Mahendrakam  
Prevention of Accident Due To Drowsy By Using Eye Blink

(2014) *International Journal of Innovative Research in Science, Engineering and Technology*, Volume 3, Issue 5,

7. S. Rohit, Shriram K. Vasudevan, S. Lokesh, K. Ajeeth and Vineet Nair  
An Intelligent and Cost Effective Footboard Accident Prevention System

(2013) *Information Technology Journal*, Volume 12, Issue 11, Page No 2265-2268,

8. Patil, A. and Das, D  
Recommendation of sensors for vehicles to control road accidents

(2017) *International Journal of Advanced Research in Computer Science*, Volume 8, Issue 9, Page No 132-136,

9. Sachin Kumar, Durga Toshniwal  
Journal of Big Data

*A data mining framework to analyze road accident data*, Page No 1-18,

10. Miaou SP, Lum H  
Modeling vehicle accidents and highway geometric design relationships

(1993) *accident analysis and prevention*, Volume 25,

11. Miaou SP.  
The relationship between truck accidents and geometric design of road sections–poisson versus negative binomial regressions

(1994) *accident analysis and prevention*,

12. Jones B, Janssen L, Mannering F  
Analysis of the frequency and duration of freeway accidents in Seattle

(1991) *accident analysis and prevention*, Volume 23,

13. Abdel-Aty MA, Radwan AE  
Modeling traffic accident occurrence and involvement

(2000) *accident analysis and prevention*, Volume 32,

14. Tan PN, Steinbach M, Kumar V  
Introduction to data mining  
  
(2006)

---
15. Han J, Kamber M  
Data Mining: Concepts and Techniques  
  
(2001)

---
16. Riveiro, M., Lebram, M. and Elmer, M  
Anomaly Detection for Road Traffic: A Visual Analytics Framework  
  
(2017) *IEEE Transactions on Intelligent Transportation Systems*, Volume 18, Issue 8, Page No 2260-2270,

---
17. M. Deublein, M. Schubert, B. T. Adey, J. Köhler, and M. H. Faber  
Prediction of road accidents: A Bayesian hierarchical approach  
  
(2013) *Accident analysis and prevention*, Volume 51, Page No 274-291,

---
18. X. Pang, S. Chawla, W. Liu, and Y. Zheng  
On mining anomalous patterns in road traffic streams  
  
(2011) *Advanced Data Mining and Applications*, Page No 237-251,

---
19. Z. Zheng and S. Washington  
On selecting an optimal wavelet for detecting singularities in traffic and vehicular data  
  
(2012) *Transportation Research Part C: Emerging Technologies*, Volume 25, Page No 18-33,

---
20. J. de Oña, G. López, R. Mujalli, and F. J. Calvo  
Analysis of traffic accidents on rural highways using latent class clustering and Bayesian networks  
  
(2013) *accident analysis and prevention*, Volume 51, Page No 1-10,

---
21. Jasvinder Singh, Mahipal Singh, Anil Baliram Ghubade and Manjinder Singh  
Analytical Hierarchy Process for Road Accident of Motorcycle in India: A Case Study  
  
(2017) *International Journal of Mechanical Engineering and Technology*, Volume 8, Issue 7, Page No 1348-1356,

---
22. Pooja Sikdar, Prof. Ahsan Rabbani, Prof. N.K. Dhapekar  
Hypothesis of Data of Road Accidents in India -Review  
  
(2017) *International Journal of Civil Engineering and Technology*, Volume 8, Issue 6, Page No 141-146,

---

---

## About Scope Database

What is Scope Database

Content Coverage Guide

Scope Database Blog

Content Coverage API

Scope Database App

© Copyright 2021 Scope Database, All rights reserved.

## Customer Service

Help

Scope Database Key Persons

Contact us