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| **INTRODUCTION** | | **SURVEY/BODY OF REVIEW** | | | | **CONCLUSION** | |
| **Year** | **Paper Name** | **ProblemDefinitions** | **Methodology (AlgorithmUsed)** | | **InputParameter** | **Results** | **Future Scope** |
| 2015 | Passenger monitoring model for easily accessible public city Trams/Trains | This paper shares an idea on conceptual framework and architecture to capture free riders in early stage. | **Proposed work:**  12th International Conference on engineering  /Electronics, Computer tele- communication and information technology. | **TOOLS USED**   1. RFID sensor 2.Ultrasonic sensor    1. EPM    2. OV-chip | Used for various factors like finding public transportation, train, tram, passenger monitoring , passenger control, RFID distance reading ,ticket control, RFID ticket inspection. | Advantages:  1.A single public transportation card was used to travel throughout the country. | 1.The railway management system offers improved and controlled operation,data analytics,energy management and staff & passenger information management.  1.A webpage is designed for the public where they can book tickets by Seeing the availability. |
| Algorithmsused:  1.K-nearest Neighbor  2.K means clustering | | Disadvantages:  1. Applicable only for passenger monitoring. |

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| INTRODUCTION | | SURVEY/BODY OF REVIEW | | | CONCLUSION |  |
| YEAR | TITLE | PROBLEM DEFINITION | PROPOSALS | INPUT PARAMETER | RESULTS | FUTURE SCOPES |
| 2013 | Alarm system of railway gate crossing based on GPS and GPRS. | It aims to ensure the railway safety during the gate crossing by the use of GPS and GPRS for tracking the methodology of train. | Develop an intelligent real- time interactive information system.  Senses the | The data from the location of the signal from the satellite communication. | **Advantage:** 1.wide control range .  2. High reliability . 3.satisfy – “failure- security”.  **Disadvantage:** 1.Location drifting may occur.   1. poor signal and battery life concern. 2. incorrect location   mapping may occur. | The vehicle tracker with its intelligent routing system provides alerts, reports, and notifications on a real-time basis about over speeding, geo fence entry and exit, etc. It updates the admin about upcoming vehicle maintenance reducing the instances of a transportation breakdown. |
| location and calculates the distance of the train. |
| METHODOLOGY  1.GPS module 2.GSM module 3.Microprocessor |

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| **INTRODUCTION** | | **SURVEY / BODY OF REVIEW** | | | **ADVANTAGE**  **& DISADVANTA GE** | **RESULT** |
| **YEAR** | **PAPER NAME** | **PROBLEN DEFINITION** | **METHODOLOGY (ALGORITHM USED)** | **INPUT PARAMETER** |
| 2006 | Review on railway track crack detection using IR transmission And receiver. | This study deals with the detection of the crack on the track which helps to save a lot of life. | **Proposal:** International journal of recent research aspects.  **Tools used:**   1. Decision tree. 2. Ultraviolet sensors. 3. IR (slot sensor). | This work proposes a cost effective solution to the problem of railways track crack detection which tracks the location of faulty track which then mended immediately so that many lives will be saved. | **Advantage:**   1. Cost of the unit is less when compared to other. 2. No fire hazard problem due to over loading **Disadvantage:** Its cost is very high, sometimes signal receiver does not work properly. | The sensor is used to detect defect in the train track and the ultraviolet sensor is used to detect the obstruction in front of the train. |
| **Methodology:**   1. Track and path condition. 2. Digital twin. |