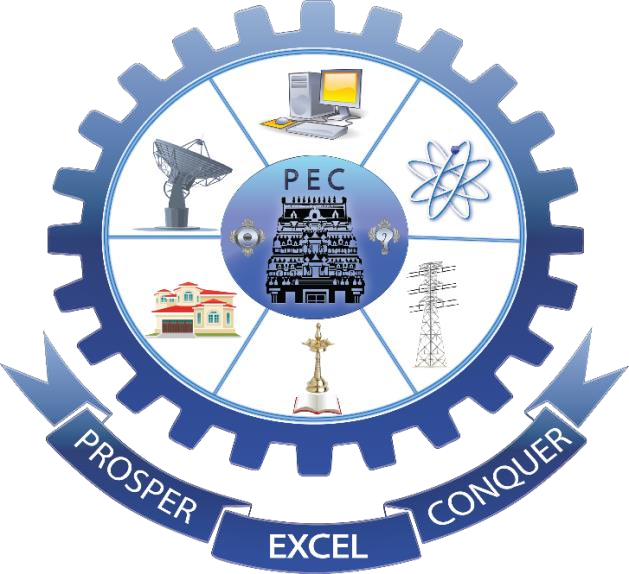
PAAVAI ENGINEERING COLLEGE

(AUTONOMOUS)

Pachal,Namakkal – 637 018



SMART SOLUTIONS FOR RAILWAYS LITERATURE SURVEY

Team Members

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| **S.NO** | **TITLE OF THE PROJECT** | **ADVANTAGE** | **DISADVANTAGE** | **TECHNOLOGY USED** |
| **1.** | Application of smart computing in Indian railway systems | To induce rail executives to build rail systems that are smarter and efficient | The global rail industry struggles to meet the increasing demand for freight and passenger transportation due to lack of optimized use of rail network and inefficient use  of rail assets | Infant sector of technology |
| **2.** | Research and analysis on the top design of smart railway | It is expected to improve the overall capacity of the railway through the intelligent development of railways | There is still no standardized norm in the field of smart railways | Internet technology and data technology |
| **3.** | Controlling Railway Gates Using Smart Phones  by Tracking Trains with GPS | An important advantage of the Android SDK is the low; processes and RAM requirements | The Android application can't be used by the third party | Internet using GPS |
| **4.** | Internet of things for smart railways | It makes the railway management easy to grasp the condition information distributed over a wide railway area | Inspite of recent advancements, limited coverage and battery for persistent connections of IOT devices still remains a critical impediment to practical service  applications | IOT |
| **5.** | Internet of Things for Smart Railway: Feasibility and Applications | LOR a is more advantageous  in terms of power consumption than NB- IOT, and NB-IOT has an advantage in terms of data latency | circuit design schemes to achieve low power consumption and high reliability Technology | Using IOT |

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| **S.NO** | **TITLE OF THE PROJECT** | **ADVANTAGE** | **DISADVANTAGE** | **TECHNOLOGY USED** |
| **6.** | Information technology for railway management | Computerized management Information technology helps in planning monitoring and decision making of all modern railways | challenges in payment methods and changes in mechanisms by which customers interact with the system | information technology |
| **7.** | Electrical Power Distribution Design & Voltage  Profile Improvement for Metro Railway Station | We have designed and analyzed a new 33kv electrical  distribution system in ETAP software | 1.High capital 2.It depends on  electricity. If there is any interruption in power supply it went be fail to drive the  locomotive | Using ETAP |
| **8.** | Failure management strategies for IOT-based railways systems | 1.The architecture of future railways  systems based on a mix of wireless and Power Line Communication technologies. | By varying ratio of the isolated MDAs and  different models both for the failure probability of the communication channel and for its duration. | IoT based |
| **9.** | Automated level crossings  A-Futuristic solution enabling smart city infrastructure | 1.GPS based automated LC will prevent accidents 2.Additionally issues arising out of human errors will be avoided | Though this advantages ,If Signal from satellite not received at a time, It will lead to accidents | 1. GPS 2. PLC |
| 10. | Analysis of Experimental Railway point electric heating system | 1.This system Is introduced due to its simplicity and efficiency in terms of cleaning the snow from points | Switching on and off method for electric heating is manual. | 1.Pulse width modulation |