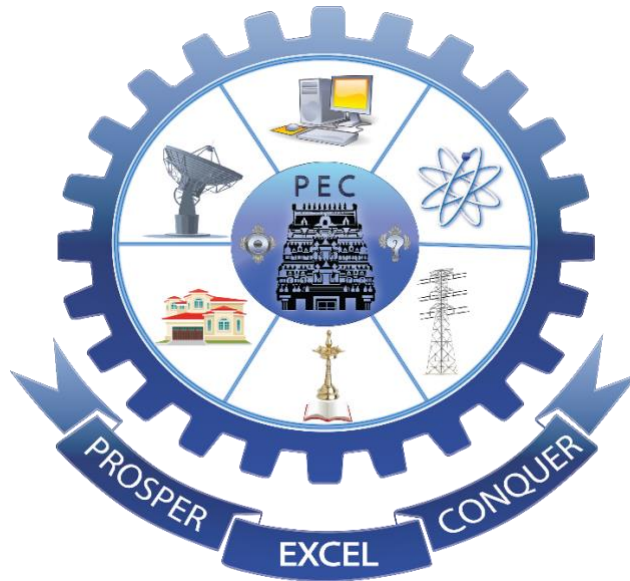


PAAVAI ENGINEERING COLLEGE

(AUTONOMOUS)

Pachal,Namakkal – 637 018



SMART SOLUTIONS FOR RAILWAYS

LITERATURE SURVEY

Team Members

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Mentor – Dr.S.Vijayakumar

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	LoRa 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

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 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	Switcing on and off method for electric heating is mannual	1.Pulse width modulation