LITERATURE SURVEY

Date	22-10-2022
Team ID	PNT 2022TMID51588
Project Name	Smart Solution For Railway

ABSTRACT

Even with greatest of ideas to avoid railway accidents, many train accidents still happen worldwide. This paper shares an idea on how to avoid train collision by using an automated control incorporated in the trains. In thisproposed paper we have implemented ideas such as pre-crashing using RFID sensor,ultrasonic sensor in-order to choose an array of commands which would run as per theconditional algorithm created in the microcontroller.We would also have EMPcontrol the speed of the motor to lessen speed. This system will be more efficient since it wasfully automated and also it was cost effective.

EURO ASIAN RAILWAY POLICE AND TRENDS

Railways as a key element of sustainable economics

National and international connectivity as a resource

Active shift to rail sustainable technologies new financing tools Data –As-An-Asset

Physical reliability Non-physical reliability multimodality customer experience.

SMART RAILWAY SOLUTIONS AS TOOLS TO REACH STRATEGIC GOALS

STRATEGIC PRIORITIES RELEVANT SMART SOLUTIONS

RAILWAY NETWORK DEVELOPMENT	establishment of traffic control system with basic digitalization basic interoperability and smart solutions for border crossings use of funding tools aimed primarily at financing construction and network upgrade use of transportation modelling to understand the necessity for further developments
INTERNATIONAL RAIL LINKS	e-interoperability legislative work to assure internal harmonization of solutions use of smart form of railway-customs interfaces use of freight flows modelling to adjust the capacities of border infrastructure
SHIFT TO RAIL OFFICIAL INITIATIVES	all spectrum of smart railway solutions can be used as a part of modal shift policy
SUSTAINABILITY	intensive digitalization, automation, e interoperability technologies for predictive maintenance smart technologies for international carriage (for all issues from maintenance to operations) use of new types of financing tools (like bonds, venture investment funds, etc.).

ADVANCED DIGITALIZATION AND AUTOMATION	artificial intelligence and machine learning data integration and data-as-an-asset approach data sharing and use of new distributed data technologies like blockchain

References

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Conclusion

By using this Autonomous vehicle for purpose of railway track inspection and crack detection, it will have a great impact in the maintenance of the tracks which will help in preventing train accidents to a very large extent. The regions where manual inspection is not possible, like in deep coal mines, mountain regions and dense thick forest regions can be easily done using this vehicle. By using this vehicle for the purpose of Railway track inspection and crack

detection and automated SMS will be sent to pre-defined phone number whenever the vehicle sensors detect any crack or deformation. This will help in maintenance and monitoring the condition of railway tracks without any errors and thereby maintaining the tracks in good condition, preventing train accidents to very large extent Railway track crack detection autonomous vehicle is designed in such a way that it detects the cracks or deformities on the track which when rectified in time will reduce train accidents.