

Crack Detection and Track Cleaning Systems for Railway Tracks

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Abstract: *In Indian railway system, railway track security is a prime concern. Some approaches have been implemented concerning the track breakage detection. From the starting of railway transportation to this date, similar cleaning rail tracks has been a social issue. In this, humans have to clean human waste and other garbage thrown on rail tracks is a situation that needs immediate remedy. This manual scavenging is leads to health problems. In this project proposing an idea to solve both the problems. For this an inspection trolley is used for detecting the railway track crack and cleaning the track path automatically. This system comprises of IR sensor to bring into operation the crack detection and mechanical as well as vacuum cleaner system to clean the track path. This project aims to present a Robot Based mechanism for cleaning the railway track. it will a cost- efficient railway track cleaning machine which would prove to be a wonderful alternative to the current system in place if implanted. The proposal prototype is designed to overcome all the disadvantages of the current machine, and would help materialize the idea of super clean railway platform tracks across the nation.*

Keywords: Track crack detection, cleaning, IR sensor, vacuum, mechanical cleaner

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