

A
Report on
AUTOMATIC RAILWAY CRACK DETECTION USING ULTRASONIC SENSOR
A report submitted for the partial fulfillment of the requirements for Mini Project of
BACHELOR OF TECHNOLOGY
IN
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

MINI PROJECT

(AUTOMATIC RAILWAY CRACK DETECTION USING ULTRASONIC SENSOR)


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AUTOMATIC RAILWAY CRACK DETECTION USING ULTRASONIC SENSOR

ABSTRACT

India has the fourth largest railway networking in the world after the United States, Russia and china India rail network is still following the increasing trajectory to fulfil the commutation requirement of large population economically In country where majority of people depends on railway for transportation, if a crack in railway track is not detected during the early stages they may lead to derailment causing heavy loss to human life and property in this paper a crank detection system is proposed which detects the crack without human intervention and sends the location of fault to the authorized personnel using GSM crack detection by this method can be done during both day and night time and exact location of fault can be obtained to overcome this issue multiple techniques have been proposed which involve graphical inspections, non-destructive testing (NDT) technologies such acoustic emissions, magnetic field methods, radiography, thermal field methods fibre optic sensor of various kinds use of LDR(1) etc This basic objective of the proposed work to developed a low cost breakage detection system of railway track using ultrasonic senior and send the location information to authorized person.