

148. RAILWAY CRACK DETECTION AND AUTOMATIC RAILWAY GATE CONTROL USING WIRELESS SENSOR NETWORKS

S. Mohana Priya M.E, C.R.Claina(M.E),DMI college of engineering.

In this paper a new technique is attempted to avoid collision of trains and death of human in an unmanned level crossing. Assume a train moving on the track, if another train is proceeding on the same track or any crack in the track is sensed using sensor then send signals to loco pilot. So the loco pilot can stop the train 35m ahead. These signals are also transmitted to the nearby railway signal control room. Railway crack can also be detected by using LED-LDR . Railway gates are operated by humans but in this project gates are operated automatically without human interference. This can be achieved by using load cells fixed in track. These load cells converts force into energy and it uses automatic railway gate operation. Crack detection scheme is when there is no crack, light from LED does not falls on the LDR so LDR resistance value is high. Light from LED falls on the LDR, and the resistance value for LDR decreased. When the crack or the break decreases, its resistance value gets added with the value of LDR . This paper is simple cost effective solution for the problem of railway crack detection and automatic railway gate control utilizing a method and idea is untested

Keywords- Railway Cracks, LED-LDR ,load cell, GPS,GPRS

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