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26 April 2019

Perspectives on Railway Condition Monitoring.

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Abstract

Monitoring the conditions of railway asset is essential for ensuring the railway safety. Condition monitoring can be considered to be a part of the well-established area of Fault Detection and Isolation (or Identification). Condition monitoring is mainly applicable to system that deteriorates in time. The aim of condition monitoring is to detect and isolate deterioration before it causes a failure. This lecture presents the application of condition monitoring technologies to vehicle suspensions and railway track. The theory, concepts, implementation status and application for regional railways are summarized with the key trends appeared in recent international railway conferences and discuss with a future look.

Keywords: Railway condition monitoring, Railway asset, Railway safety, Fault Detection and Isolation, Vehicle suspensions