

## عنوان مقاله:

In Situ Switch Blade Displacement Measurements in A Railway Turnout for Short-Term Monitoring Application

## محل انتشار:

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## خلاصه مقاله:

Due to the importance of the fundamental role of turnouts in network operations and their higher vulnerability than other assets, turnout condition monitoring is necessary for reliability-centered maintenance. Along with periodic visual inspections, real-time infrastructure condition detection can help introduce the structure's performance so that infrastructure maintenance is more reliable. A new approach for railway turnout pass-by condition detection is provided based on statistical process control (SPC) of damage-sensitive features (DSF) using switchblade lateral displacement (BLD) measurements. BLD time series data is modeled using a neural network model to extract DSF. This approach is applied to ۳۳ passenger trains. The results of the proposed approach are validated by analysis of BLD and switch rod force sensor outputs. This method can be applied in turnout short-term condition monitoring for condition .detection, leading to preventive maintenance, proper track operation management, and increased reliability

## کلمات کلیدی:

Blade displacement, Condition Monitoring, Reliability centered maintenance, Railway turnout, Switch panel

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1832042>

