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## **Weigh in Motion Using Fiber Bragg Grating Sensors: An Industrial Case in Italy**

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The ever increasing need for improved safety, reliability and efficiency is among the most important aspects of the railway industry worldwide. The need of a smart condition monitoring system is imminent as indicated by the increase in railway and underground accidents/incidences around the world. Railway monitoring requires extensive sensor networks for measuring strain, vibration, temperature, acceleration, etc. This would be difficult and cost-prohibitive to implement using conventional sensors. In previous works, we demonstrated that Fiber Bragg Gratings sensors can be used as single technology to perform multifunction diagnostics in railways applications. Here, we extend our work demonstrating the capability of this technology to be efficiently used for weighing in motion applications and thus to monitor weight imbalance which in turn can be considered the main cause of train derailment.

**Ключевые слова:**

**Содержание.**

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