

Indian Railways and DFCCIL Sign MoU to Enhance Train Safety with AI/ML Based Inspection System

Machine Vision Based Inspection System (MVIS) to Boost Train Safety, Reduce Manual Inspection and Prevent Service Disruptions

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In a significant step toward adopting cutting-edge technologies to improve service efficiency and automate the maintenance of rolling stock, Indian Railways has signed a Memorandum of Understanding (MoU) with the Dedicated Freight Corridor Corporation of India Limited (DFCCIL) for the installation of Machine Vision Based Inspection System (MVIS) for monitoring the health of rolling stock.



MVIS is a modern, AI/ML-based technology solution deployed on wayside that captures high-resolution images of the under-gear of moving trains and automatically detects any hanging, loose, or missing components. On detecting anomalies, the system generates real-time alerts to facilitate prompt response and preventive action.

The MoU was formally signed by Shri Sumit Kumar, Director (Project & Development), Railway Board, and Shri Jawahar Lal, GGM (Mechanical), DFCCIL at Rail Bhawan, New Delhi, in the presence of Shri B. M. Agrawal, Member (Traction & Rolling Stock), Shri Praveen Kumar, Managing Director, DFCCIL, and senior officials from the Railway Board and DFCCIL.



Under the terms of the MoU, DFCCIL will be responsible for the procurement, supply, installation, testing and commissioning of four MVIS units. This revolutionary system marks a first for Indian Railways. The technology is expected to significantly enhance the safety of train operations, reduce manual inspection efforts and help avoid potential accidents/service disruptions.

This initiative also aligns with IR's broader objective of introducing modern, intelligent systems to the railway ecosystem. The signing of this MoU is poised to open new avenues for digital transformation in rail safety in building a future-ready rail infrastructure.

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