

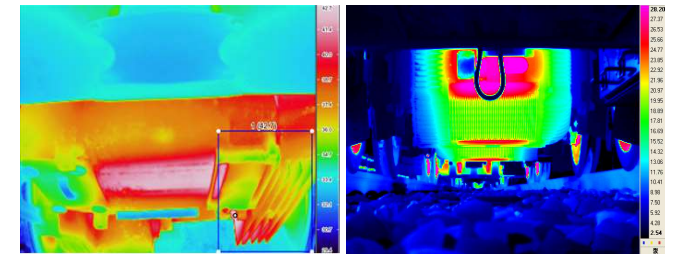
International Joint R&D: AI Pattern Recognition-based Abnormal Heat Detection System for Vehicle Underbody Components

■ Background of Technology

- Lack of technology to detect abnormal heat condition of railway vehicle underbody parts while driving
 - : The technology to measure and monitor the temperature of parts using a temperature sensor causes errors in the field.
- Difficulty in analysis technology to analyze and identify abnormal conditions by imaging the heat state of the underbody driving part.

■ Technology Overview

- Technology that detects abnormalities in the driving device in advance by comparing the normal temperature and abnormal temperature conditions of the underbody parts.
- Real-time monitoring of abnormal heating status of driving parts under the railway vehicle
 - Warning function in case of abnormal heating
 - Removable installation on tracks and pit in the base



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■ Key Characteristics

- The system can evaluate in real time whether parts of railway vehicles has failed
: Using infrared thermal imaging and AI data with pattern recognition
- The system monitors and evaluates the abnormal heat generation of the railway vehicle underbody parts to prevent the failure of the railway vehicle underbody parts during driving.

■ Expected Effects of Applying Technology

- Social and economic reliability through safe operation of railway vehicles
- Prevent railway vehicle breakdowns by utilizing non-dismeble and non-destructive monitoring systems

