

Real-time Monitoring and Data Analytics System for Overhead Line Wire Tensioning with Balance Weight Assemblies in Railways

Problem

Long Recovery Time for Overhead Line Incidents

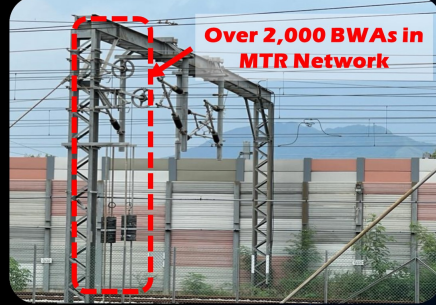
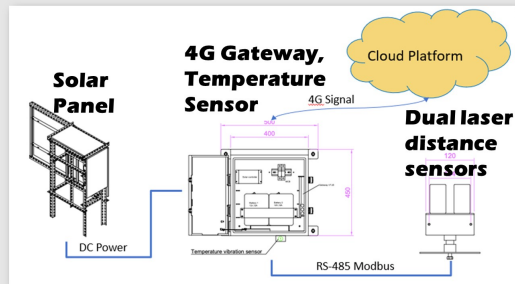


About 12 hours service suspension of Disneyland Resort Line in Apr 2022

**“HIGH Consequences
LOW Frequency Risk”**

01

Measurements of Height of Balance Weight above the Ground



“2-Hour Golden Window” for Maintenance Works

02

Compares between Historical Data and Measurement Values of Height of Balance Weight



Installation locations

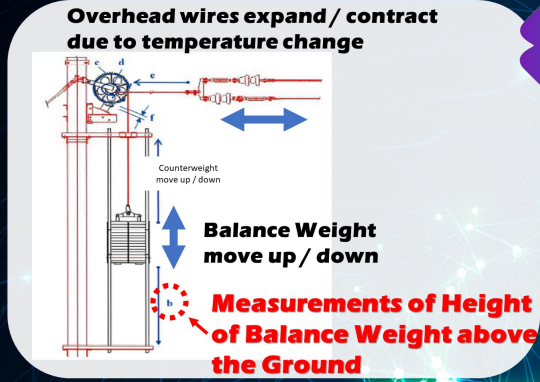
Indoor Depot



Maintenance



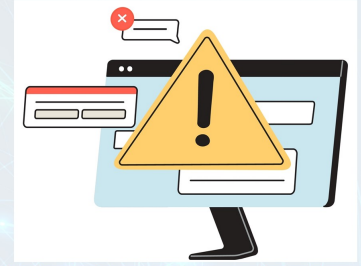
Outdoor Depot



03

Pilot Study in Hong Kong

Generate Alerts to Railway Operator when the System Detects any Abnormalities



04

Arrange Remedial Actions to Make Necessary Adjustments



Expected Outcome

- Early Warning of Potential Overhead Line Issues
- Enables Timely Interventions before Problems Arise
- Improves Reliability and Safety