News Release

Railway Technical Research Institute

Digital Maintenance Technical Seminar Held in Tokyo

On November 11, at Yurakucho Asahi Square, Tokyo, RTRI held the Digital Maintenance Technical Seminar.

RTRI has been addressing the research into "labor saving by digital maintenance" in order to attain more labor-efficient railway facilities maintenance by fully using digital technologies. Currently, we are in the midst of the Covid-19 pandemic and the need for labor-efficient, remote systems for maintenance work is even more highlighted. This seminar was thus focused on labor-saving and remote operation in railway facilities maintenance.

For holding this seminar, sufficient measures were taken to prevent the coronavirus infections. 95 participants from 35 companies, mostly railway operators, attended the seminar.

[Remote exhibition]
Following nine items of RTRI's research results were presented at this seminar, covering fields of structures, track, power supply and earthquake engineering. Panels and monitors, real and model devices were exhibited at each booth stands in the seminar venue, and the researchers made presentations, answered questions from the visitors and demonstrated the operation of devices remotely from RTRI in Kunitachi.

[Presentations]
- Visual inspection support system using 3-dimensional images
- General inspection support system for tunnels using image data
- Track^{2}er: low-cost track inspection device
- Condition assessment system for wooden sleepers using deep learning
- Condition assessment device for trackbed focusing on the noise transmission property of ballasted track
- Non-contact measurement device for overhead wire using images
- LABOCS, Database System for Railway Track Maintenance, and its future prospect
- Train inspection support system using image analysis engine
- Supporting early resumption of train operation after an earthquake using DISER, Damage Information System for Earthquake on Railway, and displacement sensors

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Remote exhibition at the seminar venue

A researcher delivering a presentation and answering questions remotely from RTRI at Kunitachi