

A Report on WCRR 2006

Hisashi TANAKA

Deputy Manager, International Affairs Division

The 7th World Congress on Railway Research (WCRR 2006) welcomed about 750 participants from 41 countries, including 33 participants from our Railway Technical Research Institute (RTRI). Presentations featured 288 items (including posters), and of these, RTRI presented 23. Papers presented during the Congress covered a wide range of subjects, including Network Capacity, Service Design and Reliability, System Optimization, Security and Safety, and the Environment. The table below lists papers presented by RTRI.

RTRI's participation at the Congress also included two of its members chairing sessions: the T2.1.1 Track Maintenance session was chaired by Masao UCHIDA, the T2.6.1 Information Technology session by Takahiko OGINO.

During the evening banquet on June 6, RTRI's Kiyoshi KAWAGUCHI was given the Best Paper Award in Rolling Stock sessions by Chul LEE, president of Korea Railroad Corporation (Korail), the award's sponsor (see photo on page 3).

In addition to the presentation of papers, there were technical exhibits organized by 45 groups. Our institute's exhibit introduced the JR Group with pamphlets, posters, video and models.

During the closing session, RTRI President Katsuji AKITA brought the Congress to a close with a speech, "R&D Strategies for the Future of Railways." He listed four goals for railways: attractive services, efficient and low-cost railway management, high safety levels, and mutual coordination.



The RTRI booth at WCRR 2006. From left: Hisashi TANAKA, Koichi GOTO (General Manager, International Affairs), and Toru MIYAUCHI (Manager, International Affairs)



RTRI President Katsuji AKITA speaking at the WCRR 2006 closing session

Presentations from RTRI

Session	Presenter	Paper title
T1.2.1 Network Capacity	Kazuki TAMURA	Improvement of the Conventional Rail Freight Station for Intermodal Transport
T1.4.2 Scheduling II	Yoko TAKEUCHI	Robustness Indices Based on Passengers' Utilities
T2.1.2 Rolling Stock Maintenance	Kiyoshi KAWAGUCHI	Development of WSP System for Freight Trains
T2.2.1 Track Components	Hideyuki TAKAI	Japanese Twenty Five Years Experiences and Standardization of Synthetic Sleeper
T2.3.2 Infrastructure Condition Monitoring	Naoki TACHIBANA	Tunnel Monitoring System using the Optical Fiber Sensor or the Electric Conductible Paint
T3.2.2 Pantograph Dynamics	Shunichi KUSUMI	Characteristics of Contact Force Waveforms and their Application to Diagnosis of Overhead Line
T3.2.3 Wheel/Rail Profile Design and Maintenance	Makoto ISHIDA	Effect of Lubrication on Vehicle/Track Interaction and Performance of Friction Modifier
T3.5.1 Enhancing the Understanding of RCF	Makoto AKAMA	Study on the Growth Rates of Rolling Contact Fatigue Crack in Wheel/Rail Steel
T3.5.2 Management of RCF	Makoto ISHIDA	Influence of Surface Roughness of Rail Formed by Rail Grinding on Rolling Contact Fatigue
T6.1.1 Pollution Control and Remediation	Hiroyuki SAKAI	Inspection and Management of Fuel Leakage from Rolling Stock to Create the Safe and Comfortable Environment for Customers
T6.2.1 Noise and Vibration Control I	Makoto AKAMA	Analysis and Design of Low-Stress and Low-Noise Lightweight Wheel
T6.2.2 Noise and Vibration Control II	Mitsuru IKEDA	New Designing Procedure for Pantograph of High-speed Trains
T6.3.1 Energy Efficiency	Tekemasa FURUYA	A Feasibility Design and its Evaluation of Fuel Cell Powered Train
T6.4.1 Electro-Magnetic Compatibility	Masateru IKEHATA	Evaluation of Biological Effects of Complex Environmental Magnetic Fields with Various Frequency Components
T6.6.1 Environmental Impact	Atsushi IDO	Development of Technologies for Minimizing Environmental Impacts
IP1 Track Maintenance Planning	Yuya OIKAWA	Evaluation of Remaining Service Life of Aged Rails
IP2 Rolling Stock Maintenance and Components	Minoru TANAKA	Development of Electromagnetic Vibration Apparatus for Ground Coils of Maglev
IP2 Rolling Stock Maintenance and Components	Makoto ISHIGE	Development of Wheel Bearings with a Grease Supply Mechanism
IP3 Environmental Strategies	Takashi YONEYAMA	Specifications and Schedule of a Fuel Cell Test Railway Vehicle
Poster	Akihito KAZATO	The Next-Generation Tilt Control System Using Electro-Hydraulic Actuators
Poster	Ruji TSUCHIYA	Supporting Intermodal Travelers by Agent-based Information Integration
Poster	Shogo KAMOSHITA	GPS Based Position Detect System for Next-Generation Tilting Train
Poster	Shuichi MYOJO	Daily Estimation of Passenger Flow in Large and Complicated Urban Railway Network