



Nabtesco



**InnoTrans 2018**  
18-21 SEPTEMBER · BERLIN



Railway Technical Research Institute



YASHIMA

# JORSA Member Exhibitor's Guide

**JORSA** JAPAN OVERSEAS RAILWAY SYSTEM ASSOCIATION

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**Quality**  
**JAPAN**

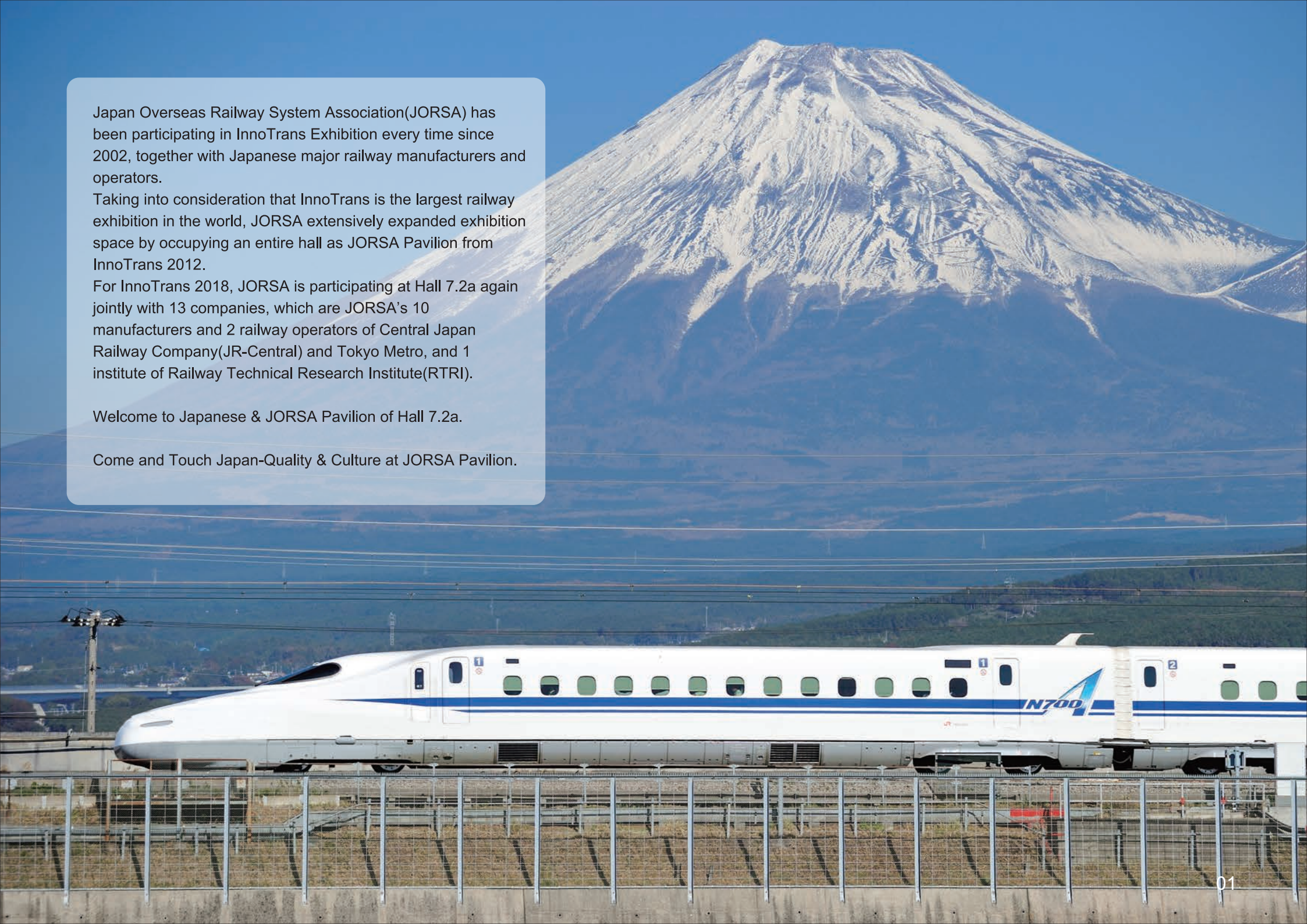
Japan Overseas Railway System Association(JORSA) has been participating in InnoTrans Exhibition every time since 2002, together with Japanese major railway manufacturers and operators.

Taking into consideration that InnoTrans is the largest railway exhibition in the world, JORSA extensively expanded exhibition space by occupying an entire hall as JORSA Pavilion from InnoTrans 2012.

For InnoTrans 2018, JORSA is participating at Hall 7.2a again jointly with 13 companies, which are JORSA's 10 manufacturers and 2 railway operators of Central Japan Railway Company(JR-Central) and Tokyo Metro, and 1 institute of Railway Technical Research Institute(RTRI).

Welcome to Japanese & JORSA Pavilion of Hall 7.2a.

Come and Touch Japan-Quality & Culture at JORSA Pavilion.



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- P.22 Hall 4.<sup>2</sup> TOSHIBA CORPORATION
- P.23 Hall 4.<sup>2</sup> Hitachi, Ltd.
- P.24 Hall 10.<sup>1</sup> Fuji Electric Co., Ltd.
- P.26 Hall 20 Hitachi Nico Transmission Co., Ltd.
- P.28 Hall A Japan Transport Engineering Company



## Hall 7.<sup>2a</sup>

Stand No.

**100-01**

Japan Overseas Railway System Association (JORSA)



### JORSA Profile

Japan Overseas Railway System Association(JORSA) was established in1953 as a specially authorized organization under the Export and Import Transaction Act of Japan.

JORSA is an umbrella organization consisting of 36 leading Japanese manufacturers and trading companies in the railway industry, covering whole railway system such as rolling stock, electrical equipment and signaling system etc.

JORSA promotes not only to provide Japanese latest railway systems but also to cooperate to the countries of the world through transferring technology and know-how together with JORSA members.

### Activities

- 1) Overseas Public Relations of Japanese Railway System
- 2) Seminars and Human Resources Development
- 3) Enhancement of Industrial Competitiveness and international Exchange Program
- 4) Participation in International Exhibitions
- 5) Arrangement of Trade Insurance

Please refer to JORSA HP: <http://www.jorsa.or.jp.en>



JORSA Pavilion at InnoTrans 2016



JORSA Overseas Seminar



Shop Survey for Training



Foreign Delegate

*InnoTrans 2018*  
**JORSA Pavilion**

**JAPAN Day Reception**

SEPT.19

(WED) 16:30~18:00

*Please enjoy*

*Japanese Sushi & Sake*

*Welcome to*

*JORSA Pavilion 7.<sup>2a</sup>*

# JORSA Pavilion Exhibitors

# Floor Plan

100-01 (P.03)



100-04 (P.18)



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Railway Technical Research Institute

100-03 (P.20)



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100-05 (P.10)



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100-09 (P.12)



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100-08 (P.14)



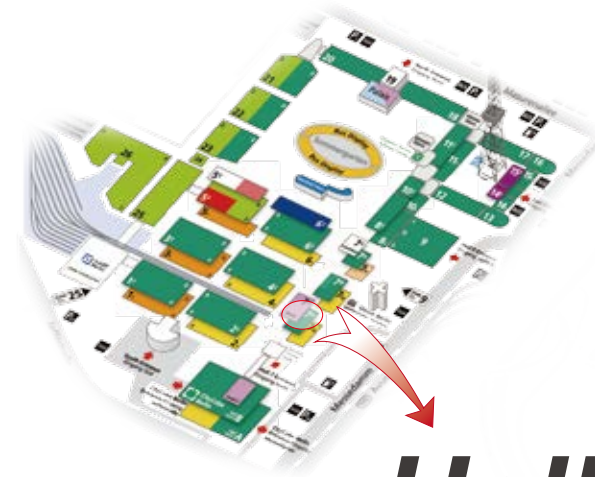
100-13 (P.15)



100-14 (P.16)



100-11 (P.17)



## Hall 7.2a



### Company Profile

#### Total manufacturer of signals and safety equipment for railways

With a keen awareness of the important role played by signals and safety equipment for railways, we, Hayashi Soji Corporation are constantly working to develop new technologies. The excellent performance of a diverse range of equipment and devices that we have developed by the application of novel technologies is making a real contribution to railway safety.

### Products

#### • Track maintenance equipment

Our company makes a strong effort to develop sleeper anchors especially based on our excellent cast metal technologies as parts for track maintenance.

#### • Railway signal safety equipment

The product field of signals and safety equipment for railways is our foremost specialty.

#### • Turnout components

In response to the increasing speeds and frequency of railway operations, we manufacture and develop track and turnout components that preserve the rails and raise the levels of safety and track stability.

#### • Signal maintenance equipment

Equipment to support maintenance and inspection work. The development of bespoke equipment for the manual maintenance, inspection, and recovery of rails is essential to ensure the continued safe and efficient operation of the railway networks. In this respect, we are endeavoring to develop a variety of innovative equipment to service the specific needs and requirements of customers.



### Company Profile

Since its establishment in 1920, Kinki Sharyo has been perfecting the manufacturing of rolling stock. Our railcars are engineered to the highest standards of quality, safety and comfort to satisfy the diverse demands of our customers and their riding public. Kinki Sharyo continues to receive praise, not only in Japan but also internationally, as evidenced by the many awards such as the "Brunel" and the "Good Design" award and from the increasing expansion of our exports worldwide.

Kinki Sharyo's innovative and aesthetically pleasing railcar designs are, born through a collaborative design process of our carbody, systems application, and bogie design experts. In this way, we provide our customers with superior technology verified by performance/function tests and analysis (truck dynamic rotation test, etc.).

"Well-founded and reliable proven design". We are shaping the future of rolling stock with our progressive technology and exceptional quality and reliability.

We contribute to the world through rolling stock production.



## Company Profile

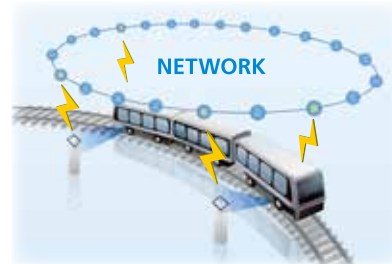
Since 1917, Kyosan Electric Manufacturing Co., Ltd has been providing railway signalling systems, traffic management systems and power conversion systems. We have been introducing leading innovation to the world.

## Products

### Kyosan's CBTC (IT-ATP)

We succeeded in CBTC projects last year supplying our signalling system which includes Information Technology - Automatic Train Protection (IT-ATP) system in order to implement unattended operation.

The system is certified SIL4 and secures functions such as train position detection, train interval control, route control, switching machine control, PSD control, vehicle door control and so on.



### Level crossing safety devices

In order to keep safety at a level crossing, we provide a variety of devices such as level crossing gate, road warning device, train direction indicator and obstacle detector device and so on. In InnoTrans 2018, we are displaying Japanese level crossing safety devices including the latest level crossing gate without balance-weight. The angle and working speed of the level crossing gate can be set easily by using the switch panel.



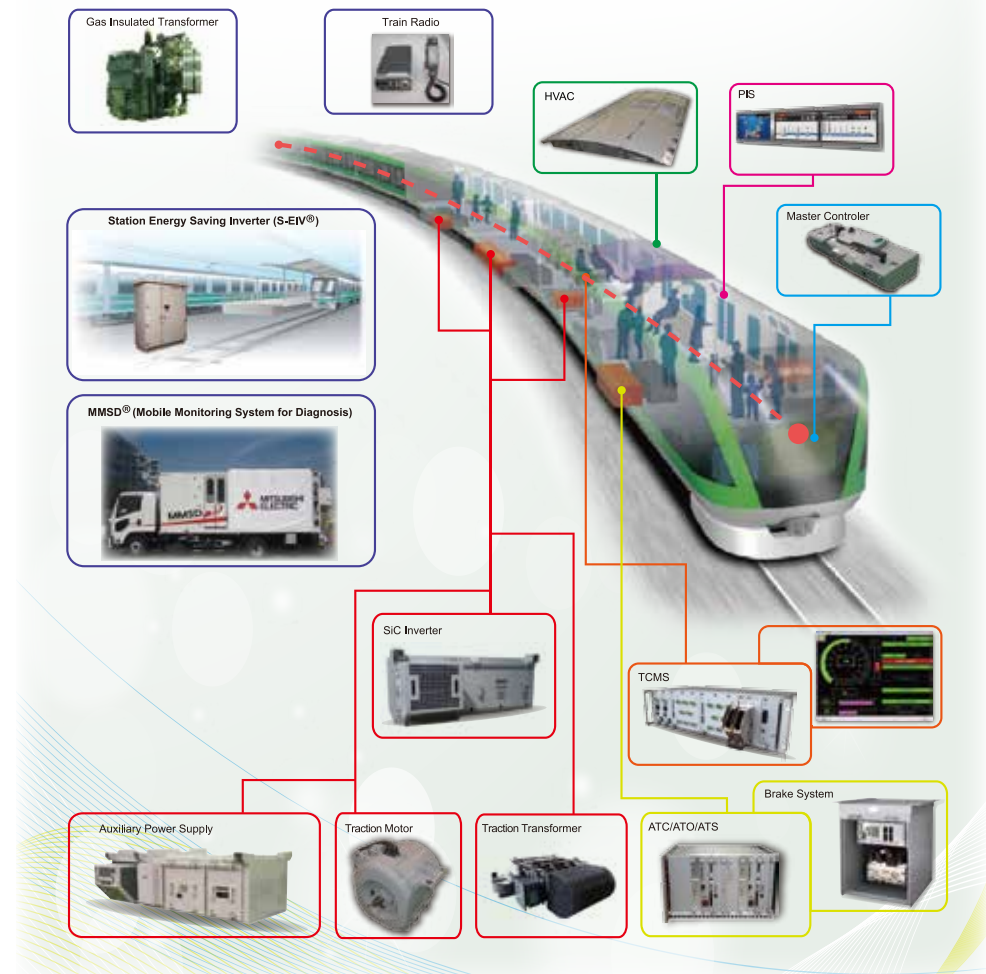
### Gap Filler

The Gap Filler is one of safety device at platform. It bridges over a wide gap formed between the train and the platform to prevent passengers from falling. The combination with Gap Filler and PSD system contributes to create safe platform at railway station.



## Company Profile

Mitsubishi Electric intends to be a major force in 21st Century transportation. Our international network supplies overseas markets with cutting edge technology.

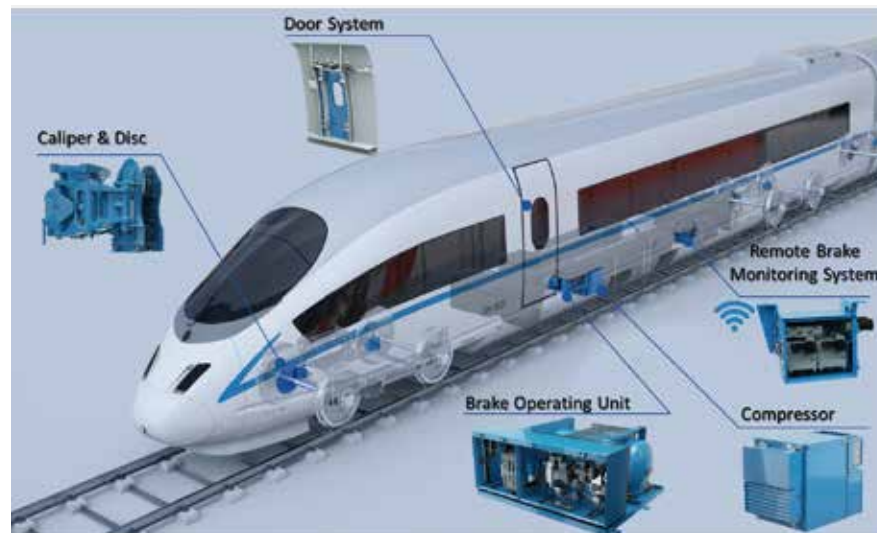


## Company Profile

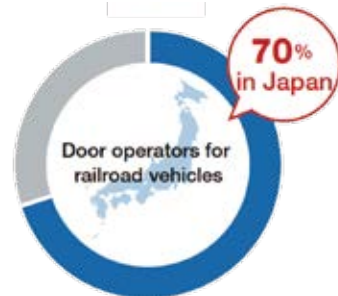
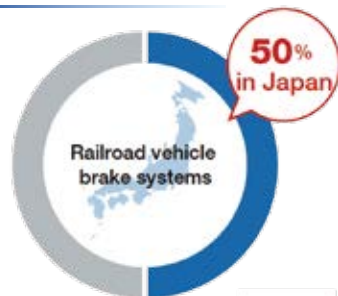
As a leading global partner with best solutions, Nabtesco creates the value of safety, comfort and a sense of security in arrange of social infrastructure-related fields with unique motion control technology.

In InnoTrans 2018 Nabtesco is aiming to be your valued partner and would like to introduce our latest railroad products with world top class technology and quality.

## Main Products



## Market Share



## Company Profile

Name in Full:	Nippon Signal Co., Ltd.	Head Office:	1-5-1,Marunouchi, Chiyoda-ku, Tokyo 100-6513 Japan
Establishment:	1928	Telephone :	+81-3-3217-7273
Capital:	10 Billions of yen	Telefax :	+81-3-3217-7239
Employees:	Approx. 2,900 (Consolidated)	E-mail :	overseas@signal.co.jp
Business Field:	- Railway Signal System    - AFC System - Traffic Information System    - Parking System		

## Railway Products



## Supply Records

Since we first supplied our products in 1948, we eagerly have expanded overseas business. These are the supply records so far and many more projects are under constructions.

- <Turkey>**
  - ☑ (Railway) TCDD (Ankara)
  - ☑ (Railway) TCDD (Izmir) etc.
- <UAE>**
  - ☑ (Railway) Dubai Monorail
- <South Korea>**
  - ☑ (Railway) Pusan Metro
- <Iran>**
  - ☑ (Railway) Iran National Railway
  - ☑ (Railway) Mashhad LRT etc.
- <China>**
  - ☑ (Railway) Beijing Metro 15
  - ☑ (AFC) Beijing Metro 13
  - ☑ (AFC) Beijing Airport Line
- <Uganda>**
  - ☑ (Traffic Signal) Kampala City Project
- <India>**
  - ☑ (Railway) Delhi Metro Line 8
  - ☑ (AFC) Chennai Metro
- <Taiwan>**
  - ☑ (Railway) Taiwan National Rail
  - ☑ (Railway) Taiwan High Speed Rail
  - ☑ (Parking) Park 24 etc.



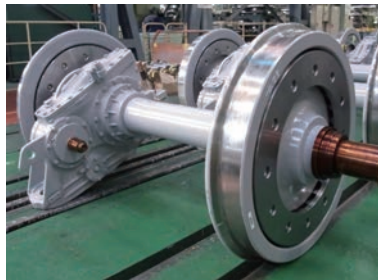


**Company Profile**

- (i) Nippon Steel & Sumitomo Metal Corporation(NSSMC) is world's leading steel manufacturer.
- (ii) NSSMC produces **high quality materials manufactured in house**(by blast furnace) with more than 110 years of tradition.
- (iii) NSSMC has provided **advanced products** which are engineered from materials to products.
- (iv) Products: Wheels, Axles, Gear Units, Brake Disks, Bogies, Rails and other rolling stock parts
- (v) Qualifications:(all products)ISO9001, ISO14001(wheel and axle) JIS, AAR, DB, (wheel) IRIS
- (vi) With a focus on high speed, passenger for urban, freight car, we supply all over the world.

**Products**

<Wheel and Axle>



• All we provide

<Bogie>



<Rails>

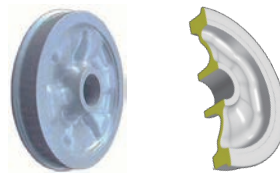


<Gear Unit>



• low noise (try in our booth)

<HT Corrugated Wheel>



• Lighter than Normal Wheel



**Company Profile**

Taisei Techno Co., Ltd. has continued to use its technologies and expertise to meet challenges in new business sectors.

Many of our products are electrical equipment that involves air flow handling. We are a R&D-oriented company with applied cutting-edge technologies.

**Products**



Wind turbine generators



Air cleaner



Comfort sensor



Roll filter unit



Fan forced heater

By combining the potential of its wind turbines with the electrical energy storage technology it has developed over the years, plus solar panel, Taisei Techno now has technology that can supply renewable energy—all the energy needed to power station facilities and operate a train.

**Contact**

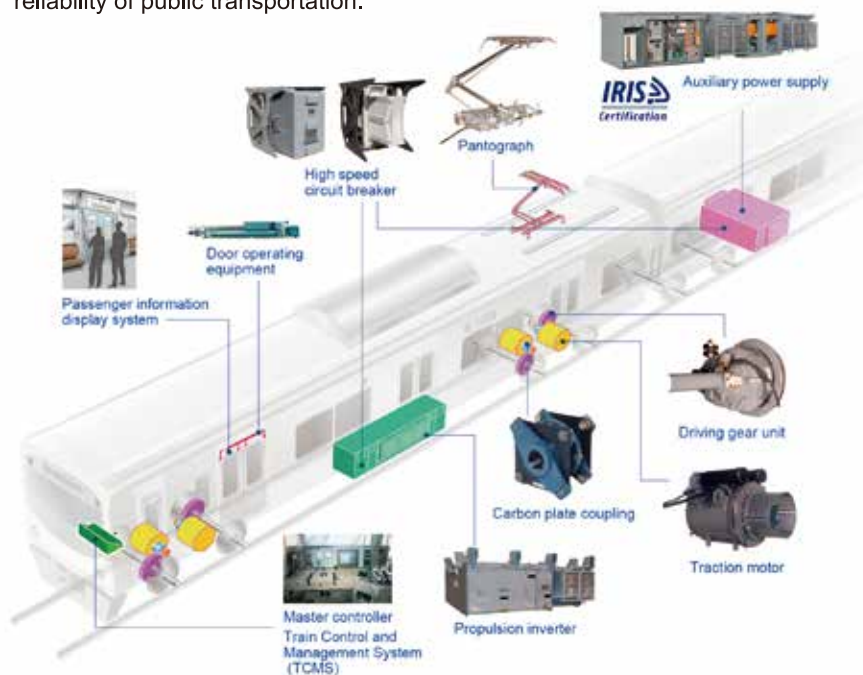
<http://www.taiseix.net>



### Company Profile

Toyo Denki was established in 1918 to manufacture electrical equipment for trains in Japan. Ever since, we have worked to create products that deliver the safety and reliability required for railway applications in the world. In June 2018, we marked our 100th year in business.

Our solutions include Traction Motor, Driving Gear, and Propulsion Inverter System, as well as Cab Peripheral Equipment, Door Operating Equipment, and Pantographs etc. By manufacturing these solutions, Toyo Denki helps to secure the safety and reliability of public transportation.



### Electrical Equipment for Intercity Express/Commuter/Subway

### Company Profile

Major Rail Products Distributor in Japan. We contribute to your business! Procure reliable products from Japanese railway market. Sell your products to Japanese railway market all through our customer network.

### Our Main Lineup at InnoTrans2018



"CLEARHEAT signal cover"

#### "IGP: Polycarbonate & Glass Window Unit"

Manufacturer: Toho Sheet & Frame Co., Ltd.

- Whole & One-stop window related solutions for train

#### "CLEARHEAT: Self Heating Polycarbonate Unit"

Manufacturer: Toho Sheet & Frame Co., Ltd.

- Melt snow by Self-Heating System



"Ready-made shunting locomotive"

#### "Free Stop Roll Curtain System"

Manufacturer: Kyowa Kogyo Co., Ltd.

- You can freely stop and up the curtain by rack and pinion mechanism

#### "Shunting Locomotive"

Manufacturer: Hokuriku Heavy Industries, Ltd.

- Ready-made style shunting locomotive which widely used for Japanese operators.

**Contribute to the development of Japan's main artery and social infrastructure**

JR Central's mission is to keep safe and reliable operation of "the Tokaido Shinkansen," the high-speed and large capacity passenger transport between Tokyo, Nagoya and Osaka.



**N700A**  
N700A (N700-Advanced), main Shinkansen series in operation

\*N700S (N700-Supreme), the newest series, will be launched in 2020.



**General Control Center**, the brain of Shinkansen supporting its safe and reliable operation



**Maintenance work during the night hour**, an essential element for safe and reliable operation



**Derailment prevention guards**, unique and effective countermeasures against earthquake disasters in Japan



**Automatic platform gates and electronic signage** basic facilities supporting passengers' safe and comfortable travel at stations



**Simulators for train crews**, a standard system to train and educate drivers and conductors

**Company Profile**

Railway Technical Research Institute (RTRI) is seeking for innovation of railways by introducing a variety of technologies covering from basic research to application in the fields of rolling stock, civil engineering, electrical engineering, information technology, material, environment and human sciences.

**Heading for Innovation**

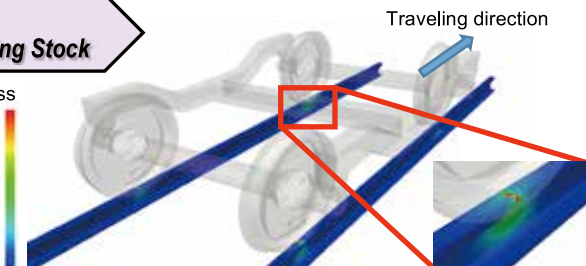
Basic research in the field of **Human Sciences**



**Ride comfort simulator to evaluate vibration and noise**

Basic research in the field of **Rolling Stock**

Equivalent stress  
high  
low



**Simulation of flange/rail contact in running on curves using a large-scale bogie-analysis model**

RTRI organizes the 12th World Congress on Railway Research.

**12<sup>th</sup> WCRR**  
**2019 Tokyo**

**Congress**  
Railway research to enhance the customer experience

**Oct. 28 – Nov. 1, 2019**  
**Tokyo International Forum**  
**Website:**  
<http://www.wcrr2019.org>



Company Profile

Keeping Tokyo on the move

Tokyo Metro is a subway operator with a network of nine lines and 179 stations covering a distance of 195.1 km in the heart of Tokyo, the capital of Japan. Ensuring a high level of safety and customer services, Tokyo Metro provides reliable and comfortable transport service for 7.42 million passengers every day.



Large-scale renovation underway for the entire Ginza Line, the oldest subway line in the Orient



Various measures being implemented to deliver higher-quality customer services

VR experience at Tokyo Metro Stand

Let's explore Tokyo Metro in 360-degree virtual reality. Gear VR lets you enjoy a view from a Tokyo Metro train cab, a tour in a Tokyo Metro station, or an experience of walking across the Shibuya crossing and in a park with cherry blossoms in full bloom.



By just wearing VR goggles, you can experience Tokyo and Tokyo Metro in Berlin!



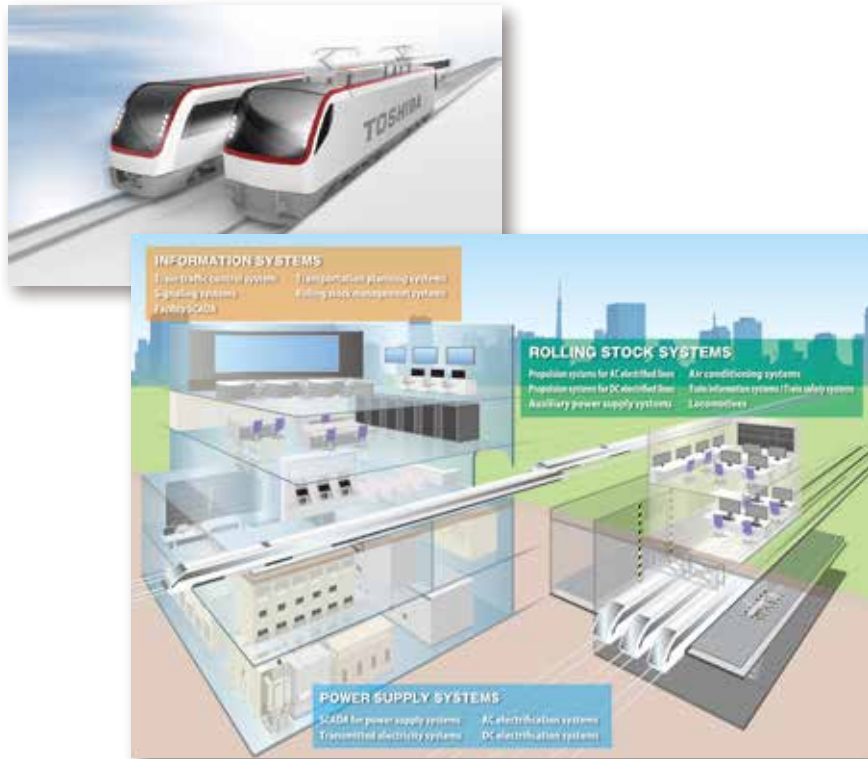
Metopon, Tokyo Metro's mascot raccoon, is looking forward to seeing you at the Tokyo Metro stand. Let's take a picture with Metopon!



Company Profile

Toshiba Infrastructure Systems & Solutions Corporation (TISS) was established on July 1st, 2017, by splitting off Infrastructure Systems & Solutions Company from Toshiba Corporation. This is our 5th participation for InnoTrans, and we are going to exhibit energy saving solutions.

**Railway Transportation Systems for a Comfortable Future**



We will take this opportunity to 'showcase' our cutting-edge technologies with a 119 year history in the railway systems industry, as well as our continuous contributions to the corporate environment, and the innovations to improve the quality of life in society.

Company Profile

Hitachi Rail is a leading manufacturer of total railway solutions, covering rolling stock, signalling, service delivery, power systems and traffic management. Our Global Head Office is located in London, UK and we currently operate from project offices across the globe, working on over 50 different contracts across 27 countries. We are now working to expand our operations further to build upon our global reputation for quality, reliability, innovation, design and technological leadership.



Virgin Trains "Azuma" travels between England and Scotland. The trains will operate in passenger service by the end of 2018 as part of the Intercity Express Programme.

New trains for Great Western Railway have been delivered by Hitachi, showcasing the extensive collaboration between teams across Japan and the UK.



# Hall 10.1

Stand No.

# 211



Fuji Electric Co., Ltd.

## Company Profile

With energy and environment technology as its core technology, Fuji Electric contributes to the creation of responsible and sustainable societies through its four business segments: Power Electronics Systems, Power and New Energy, Electronic Devices, and Food and Beverage Distribution.

For over half a century, Fuji Electric has been supplying state-of-the-art railway electric facilities and power electronics equipment for railcars. Fuji Electric's strong engineering abilities will meet your high-demand requirements.

## Introduction for Main Railway Products

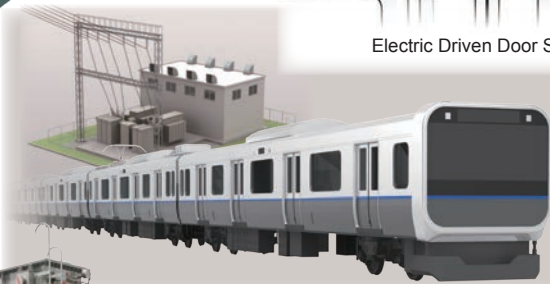
- Traction converter with SiC power devices achieve high energy-saving efforts by extending the area of regenerative brake application range.
- Fuji Electric's APS removes the blower motor in the same footprint of forced air cooling using high efficiency SiC devices and ebullient cooling heatpipes.
- FCPM type door operator with direct-drive rack and pinion mechanism achieves superior obstruction detection capabilities, high-speed response and high reliability.
- Fuji Electric's eco-friendly railway facilities supply stable and high-quality electric power with the high reliability among the industry.



SiC Power Semiconductor



Electric Driven Door Systems



Railway Facility



Power Electronics Equipment





**Company Profile**

Hitachi Nico Transmission is a power transmission equipment manufacturer in Japan. We can provide standard products and special products in accordance with customer's requirements, for railway vehicles in the world.

**[Power-shift transmission : TACN-series]**

- For Diesel Hydraulic Multiple Unit
- Range : Approx.180 ~ 600kW
- Hydraulic-drive(Torque converter), 1-speed  
Direct-drive, 4-speeds
- High-efficiency
- Available options : Hybrid drive and PTO



**[Power-shift transmission : TDCN-series]**

- For Locomotive or Working Vehicles
- Range : Approx.100 ~ 1000kW
- Hydraulic-drive(Torque converter) 2-speeds
- Available options : Hybrid drive and PTO

**[Products]** Torque converter, Power-shift transmission, Constant Speed Unit, Axle Drive Gearbox

**[Applications]** Diesel Railcar, Hybrid Railcar, Locomotive, Working Vehicles



# Hall A

Stand No.

**307**

(JR East joint booth)



Japan Transport Engineering Company (J-TREC)

## Company Profile

J-TREC is JR East family company specialized in rail transport engineering and manufacturing in rolling stock, freight containers, railway switches and turnouts. The J-TREC's forerunner is Tokyu Car Corporation, the first stainless steel rail car manufacturer in Japan since 1958.

"sustina"



"sustina" is new product platform of J-TREC stainless steel commuter trains with High Reliability, Low Life Cycle Cost, Eco-friendly design, etc.

Sustina consists of 3 series, which are categorized by the body length and the number of doors on each side.

"Bangkok Purple Line"



Purple Line is a new commuter line linking over the distance of 23km with 16 stations. The line is operated by the operator BEM (Bangkok Expressway and Metro Public Company Limited) from 2016. J-TREC was responsible for the supply of 21 sets of 3 car sustina Commuter trains.

