

# Call for Papers

The 9th International Symposium on Speed-up and Sustainable Technology for  
Railway and Maglev Systems

**STECH2021**

<http://web.apollon.nta.co.jp/stech2021/>

**November the 23<sup>rd</sup> to the 25<sup>th</sup>, 2021**

Organized and sponsored by The Japan Society of Mechanical Engineers (JSME)

Transportation and Logistics Division (TRANSLOG)

## Greeting

Followed by the success of the previous STECH symposiums held in Yokohama (Japan, 1993), Birmingham (UK, 1996), Tokyo (Japan, 2003), Chengdu (China, 2006), Niigata (Japan, 2009), Seoul (Korea, 2012), Chiba (Japan, 2015), Barcelona (Spain, 2018) jointly held with Railways 2018, we have decided to hold the 9th international Symposium on Speed-up and Sustainable Technology for Railway and Maglev Systems (STECH2021). This symposium will be held jointly with the Mass-Transit Innovation Japan 2021.

STECH stands for technologies not only for “Speed-up” but also for “Sustainability” as key trends in railways. It aims at creating opportunities to discuss the possibility of sustainable technology for railways. Due to the world-wide pandemic of COVID-19, we decided to hold some events including technical sessions via online communication tool Zoom.

We would like you to take these valuable opportunities to enhance your knowledge and to cultivate friendship with other researchers and engineers. More detailed information will be announced on the website (<http://web.apollon.nta.co.jp/stech2021/>). We are looking forward your participation on the events.

General chair of STECH2021

Prof. Hitoshi Tsunashima (Nihon University)

## Program (Tentative)

Nov. 23, Tuesday: Opening (Online), Technical sessions (Online)

Nov. 24, Wednesday: Technical sessions (Online), Keynote lectures (Onsite & Online)

Nov. 25, Thursday: Technical sessions (Online), Keynote lectures (Onsite & Online)

All presentations of technical sessions are made **online via Zoom**. Keynote lectures are to be held as joint events with the 7th Mass-Trans Innovation Japan 2021. Therefore, some of the keynote lectures are scheduled to be held onsite at Chiba Makuhari Messe and be aired by Zoom.

### Official language for papers & presentations

The official language of the symposium for both paper and presentation is English. Oral presentation will be made in online parallel sessions during the symposium. Presentation will be limited to 15 minutes. 4-minute question-and-answer follows.

### Paper submission

All authors are required to submit a **two-page short paper**. The short paper will be reviewed for your acceptance and be included in the downloadable conference proceedings. Authors are not required to submit a full paper in this symposium.

### Important dates for speakers

Short paper submission deadline :	July 20, 2021.
Notification of short paper acceptance :	August 20, 2021.
Registration starts :	August 20, 2021.
Speaker's Registration ends :	September 15, 2021.
Early Bird Registration ends :	October 20, 2021.
Registration ends :	November 16, 2021.

### Registration

All delegates, including those presenting papers, are expected to register for the symposium. Registration includes the symposium downloadable proceedings, full access to all keynote lectures and technical sessions on Web conference.

#### Symposium Registration Fee:

30,000 JPY (Speaker and early bird registration), 40,000 JPY(after October 21, 2021)

※Student discount is not available

### Symposium Topics

- ☐ Vehicles: Dynamics, vibration, control, traction, brake, accommodation, design, etc.
- ☐ Electrical/Electronic Systems: Power supply, signaling system, train control, communication/ information, software, etc.
- ☐ Track
- ☐ Structures (bridges, tunnels, stations, etc.)
- ☐ Safety Technology and Accident Analysis
- ☐ Boundary Problems: Wheel/rail interactions, pantograph/catenary interactions, tunnel aerodynamics, etc.
- ☐ Maglev and Linear Motor Drive Technology: Vehicle, guideway, dynamics, control, EMC, etc.
- ☐ Automatic Train Operation
- ☐ Mobility as a service (MaaS) : IoT & mobility, autonomous drive, mobile communication and mobility, etc.
- ☐ Urban Transportation: Light rail transits, new transportation systems, etc.

- ☐Traffic Planning: Methods, case studies, etc.
- ☐Customer Environment and Service: Comfort, amenity, information, barrier free, etc.
- ☐Environment and Energy: Noise, pollution, electromagnetic compatibility, energy saving, etc.
- ☐Intelligent Transportation Systems(ITS)
- ☐Operation Management
- ☐Condition Monitoring
- ☐Maintenance
- ☐Other Topics: Natural disaster. Countermeasures against COVID-19. Sustainability in new normal lifestyle, etc.

### **Correspondence**

All inquiries and proposals concerning the symposium should be addressed to STECH2021 Secretariat:

E-mail: [stech2021@nta.co.jp](mailto:stech2021@nta.co.jp)