

## Railway Technical Research Institute Has Signed a Cooperation Agreement with University of Birmingham

**Railway Technical Research Institute (RTRI), Tokyo, Japan has signed a cooperation agreement for collaborative research with the Birmingham Centre for Railway Research and Education (BCRRE) at the University of Birmingham, in Birmingham on September 23, 2016.**

### 1. Purpose

Under the agreement, both parties aim to contribute to development of science and technology, in particular, railway technology through sharing their research capabilities and resources in advanced and practical research and development and in personnel exchange and development of the next-generation human resources.

### 2. Background of the agreement

BCRRE inherited part of the technologies owned by the former British Railways and has been dedicated to research and education on railway technologies. Its annual budget is about 5 million pounds, and it covers research fields of vehicle aerodynamics, condition monitoring, train operation systems, weather disaster mitigation, geotechnical engineering, energy management, big data analysis, environment, and safety. Both organizations have already started exchanges of researchers.

As we wish to further promote personnel exchanges and joint research in many fields for the purpose of developing railways, science, and technologies, RTRI signed a cooperation agreement with BCRRE to strengthen their relationship.

### 3. Content of the agreement

The following activities are expected to be fulfilled under the agreement:

- (1) Collaborative research projects.
- (2) Annual meetings and collaborative research seminars.
- (3) Exchange of researchers.
- (4) Other relevant cooperation and collaboration to accomplish the purpose of the agreement.

### 4. Upcoming collaborative research projects

Both parties will start the following two collaborative research projects under the agreement:

- Development of smart materials and reliability-based service-life assessment for railway concrete sleepers.
- Study on vehicle aerodynamics characteristics under crosswind.

## **5. Comments of both parties**

Andy SCHOFIELD, the University of Birmingham:

*"I really welcome this agreement and the visit of our friends from Japan. The University and its Centre for Rail Research and Education has a history of reaching out to fellow researchers in important countries and this agreement with RTRI, who are highly respected across the globe for their railway research, is an important part of our strategy. We expect to see this cooperation grow and enhance the railways of both countries as a result."*

Norimichi KUMAGAI, RTRI:

*"I am so pleased to conclude this cooperation agreement with the University of Birmingham. UK created railways for the first time in the world and has greatly contributed to their development, while Japan started full-fledged high-speed passenger rail services. I hope two major research organizations, representing the two countries, will collaborate more closely for further development of railways and the realisation of a better society."*

## **6. Signing ceremony**

The signing ceremony of the cooperation agreement took place in the following manner.

- (1) Date and time: 12:00, 23 September, 2016
- (2) Venue: The Carnegie Room in the Aston Webb Building, University of Birmingham
- (3) Attendees:

Professor Andy SCHOFIELD, Pro-Vice-Chancellor and Head of the College of Engineering and Physical Sciences, University of Birmingham

Professor Anson JACK, University of Birmingham

Professor Clive ROBERTS, University of Birmingham

Professor Mark STERLING, University of Birmingham

Dr. Norimichi KUMAGAI, President, RTRI

Dr. Ikuo WATANABE, Executive Director, RTRI

Mr. Ryuji TSUCHIYA, Director, International Division, RTRI

Mr. Koichi TAKEUCHI, Associate Director, Research and Development Promotion Division, RTRI

Mr. Mitsuru IKEDA, Director, Railway Dynamics Division, RTRI

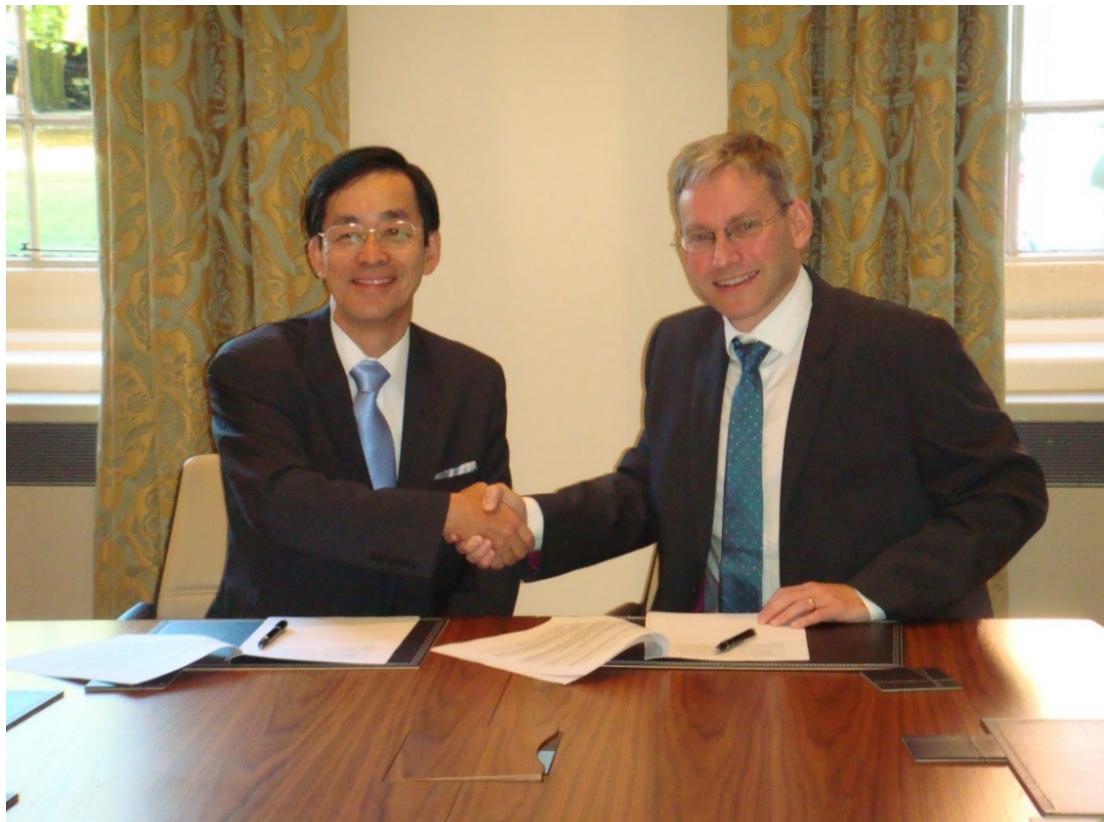
Dr. Kiyoshi NAGAKURA, Director, Environmental Engineering Division, RTRI

## **7. About BCRRE**

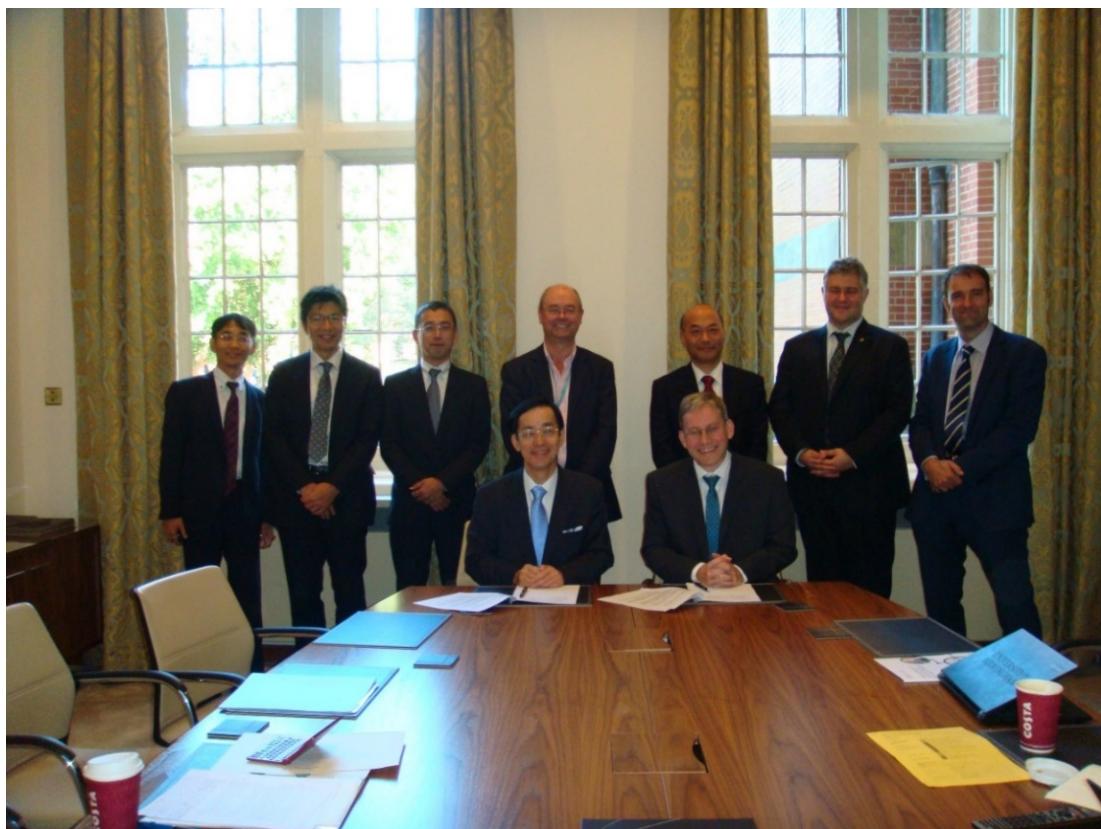
BCRRE has over 130 academics, researchers and professional support staff, and has been delivering world class research and thought leadership within railways, and offers an expanding portfolio of high-quality education programmes.

## **8. InnoTrans2016**

Both RTRI and BCRRE participated in the InnoTrans2016 held from September 20 to 23 this year, in Berlin. On September 21 at the booth of BCRRE, President Kumagai and Executive Director Watanabe of RTRI and Professor Roberts and Professor Jack of U. of Birmingham had the signing ceremony.



Professor SCHOFIELD, and President KUMAGAI signs the agreement

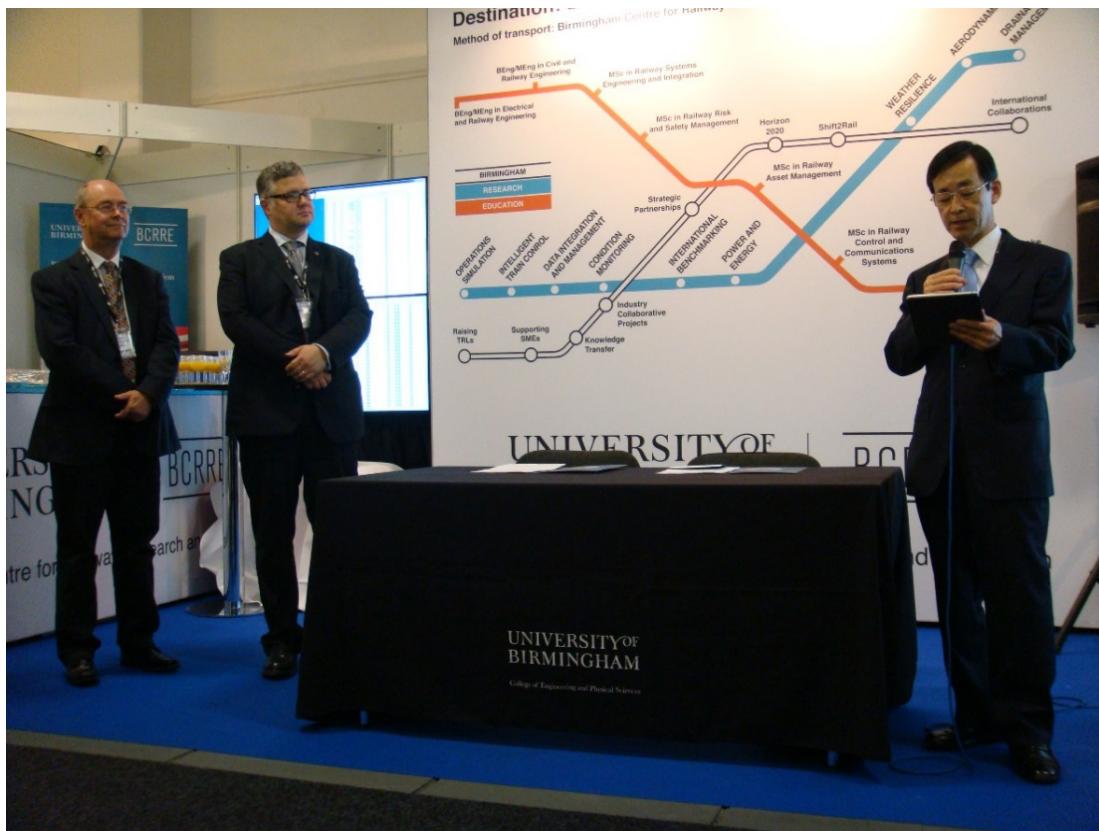


At the signing ceremony

Front, left to right: President KUMAGAI, Professor SCHOFIELD  
Back, left to right: Mr. Tsuchiya, Mr. Ikeda, Dr. Nagakura, Professor jack, Dr. Watanabe,  
Professor Roberts, Professor STERLING



We had a meeting on railway research management as well as the signing ceremony and shared views on how to proceed with our research cooperation. We agreed to have an annual meeting.



President Kumagai delivering a speech at the signing ceremony for cooperative research agreement at InnoTrans2016 trade show.

From left to right: Professor Anson Jack and Professor Clive Roberts of U. of Birmingham