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Rail Infrastructure Systems Engineering
Network

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July 2018 Newsletter



EVOLEO
TECHNOLOGIES
We evolve for you...

Foreword

Welcome to the July issue of RISEN newsletter.

The summer has arrived again for our EU partners and this year the weather is hotter than ever. We hope that you all will take a good rest and return with enjoyment and happiness. In June 2018, Brno University of Technology kindly hosted the ECR Training Workshop, iRISE2018 and STEM Activity. We are grateful to **A/Prof Milan Omasta and his team** for excellent hospitality and the creative idea using LEGO to build MagLev system. Also, Big Congratulations to **Mika Knuutu** (TUT) and **Yunlong Guo** (TUDelft) for the best presentation awards.

It is important to note that we are organising a doctoral course on 'wheel/rail contact mechanics' in this September. Special thanks to **Chair Prof Zili Li**, TUDelft will host this event (integrated with the world-renowned CM2018). Please check out more details below if you are interested. We need minimum 8 participants to carry out the course and we hope you all could participate.

We can now confirm that our grant amendment has been approved. Please do not hesitate to arrange the research secondment with any of our international partners or our industry partners in Europe. Note that we will reach 2.5 year of our project in **October 2018**, so we need to make sure that our secondment plan can be finalised. If you need to release or ask for more secondment months, please kindly let us know as soon as possible. We are currently planning for a **Handbook on Railway Infrastructure Resilience** (one of our key deliverables). We will contact you all soon to help contribute a chapter or two; and show our excellence in the topic.

Finally, we are chairing the UK-Japan Symposium on Highspeed rails in Birmingham, UK in September 2018. This event is now fully booked with at least 2 waiting lists. If you wish to contribute (either as a short paper, an opinion piece, or an original paper), we are now calling for the contribution via: <https://www.frontiersin.org/research-topics/8613/uk-japan-symposium-on-highspeed-rails>. We are very grateful to Japan Society for the Promotion of Sciences (JSPS), JSPS London, RTRI, Frontiers Media, Rail Gazette International, and MDPI for sponsorships and support.

Hope you all enjoy the summer! For those who are on a secondment, please kindly let us know your twitter, Instagram or social media. We will try our best to promote you and your research. Best wishes and take care,

RISEN Coordinator

Dr Sakdirat Kaewunruen, the University of Birmingham, UK; Twitter: @risen2017, YouTube Channel: **'RISEN2Rail'**
URL: www.risen2rail.eu

Note: RISEN is making global impact. More information: <https://www.birmingham.ac.uk/news/latest/2018/06/Birmingham-engineer-makes-global-impact-in-train-design-and-maintenance.aspx>



RISEN ECR Training Workshop 2018



In June 2018, BRNO University of Technology successfully hosted the 3rd RISEN ECR Workshop and International Symposium on Rail Infrastructure Systems Engineering (i-RISE 2018). We would like to thank BRNO (Prof Milan Omasta, Dr Radovan Galas and BUT team) for their kind and superb hospitality. Our RISEN ECRs had successfully engaged with over 30 local school students (10-12 years old) to help them gain some understanding in STEM and railway engineering. Our creative idea using LEGO to build MagLev prototypes for competition had attracted and engaged the students extremely well. All school students were excited. The event was very successful. Also, congratulations to the best presentation winners: Mika Knuutu (TUT) and Yunlong Guo (TuDelft).

RISEN Participated WCCM2018

From 22 to 27 July 2018, RISEN Team (Sakdirat Kaewunruen (UOB), Akira Aikawa (RITI), Raid Karoumi (KTH) and Alex Remennikov (UOW)) chaired and gave four presentations in a mini-symposium on Computational Mechanics and Dynamics in Transportation Infrastructures, as part of the World Congress on Computational Mechanics 2018 in New York.

This mini-symposium addressed some of the most essential issues currently affecting the safety, reliability and functionality of transportation and transit systems. Rebuilding and enhancing urban rail infrastructure faces problems, beyond the search from experimental and empirical solutions. This symposium accepted various novel and original research topics related to computational mechanics and dynamics in transportation infrastructure systems. The symposium attracted over ten presentations (e.g. from SNCF, TUWien, etc.)



News and Events (please kindly submit your news, marketing and event items to s.kaewunruen@bham.ac.uk)

- RISEN will proudly host the UK-JAPAN Symposium on 'Highspeed Rail'. The symposium is free. It will convene over 120 participants from academia, rail industry, governments and suppliers. There will be 4 invited speakers from Japan and 4 from the U.K. Also, additional 2-3 oral presentations will be expected from practical engineers, researchers and students. Over 10 poster session will be organized during networking lunch on the topic of life cycle management, maintenance, sustainability, and highspeed rails.
- RISEN will chair two technical sessions (Railway Safety, and Track Structure and Components) at Railways 2018. Your contributions are welcome: <http://www.civilcomp.com/conf/2018/rw/rw2018.htm>
- From 22 to 27 September 2018, Delft University of Technology will proudly host the RISEN Doctoral course on Contact Mechanics. It will be followed by The 11th International Conference on Contact Mechanics and Wear of Rail/Wheel Systems (More details can be found in <https://cm2018.org>). If you would like to participate, please send an email to Dr Zhen Yang (Z.Yang-1@tudelft.nl) or Chayut Ngamkhanong (cxn649@bham.ac.uk).
- We are very pleased to announce that the 12th World Congress on Railway Research - WCRR 2019 will be held in Tokyo, Japan, at the venue called 'Tokyo International Forum' from October 28 to November 1, 2019 hosted by the Railway Technical Research Institute (RTRI), of the Japan Railways (JR) group. For details, please see: <http://wcrr2019.org/cfp.html>
- RISEN will proudly host a special session on railway infrastructure engineering at the Congress on Numerical Methods in Engineering (CMN 2019), which will be held in Guimarães, Portugal, in July 1-3, 2019. For more information, please visit <http://www.cmn2019.pt/>
- ARC-ITTC PhD Scholarships on Rail Infrastructure at QUT are announced at <https://t.co/47G7nTLARQ>.