



MetroExchange

Welcome to #4!

It's our 4th MetroExchange project newsletter and we have some exciting news to communicate to our stakeholders. In this issue we write about:

- MANAGEMENT:

- new PI @ NU

- EDUCATION:

- summer school @ NU in summer 2019 (UK)

- RESEARCH:

- student projects' update

- KNOWLEDGE SHARING:

- 2nd MetroExchange forum @ TRAS conference in Q4 2019 (TH)

- DISSEMINATION:

- Special Issue of a journal edition arranged for metro-related papers

- EXTRAS:

- SmartMetro as a sister project starts in Q2 2019

Enjoy the reading!
MetroExchange Team

Newsletter #4

January-March 2019

Year 1 Project progress

We are happy to announce that Year 1 of MetroExchange activities has been completed in March 2019. The collaboration is working well between the four partners with more activities planned for Year 2 of the project.

Overall, in Year 1 we:

- delivered MU and NU student placements with industry partners;
- organised 1 short course delivered by Nexus @ MU;
- delivered the 1st MetroExchange forum @ MU with external guests from academic and industry;
- designed and delivered new STEM resources (career cards and activities) in Thailand.

In Year 2 we plan to focus on:

- offering more summer student placements (Q2/Q3/2019);
- completing student research projects started (Q1/2020);
- delivering a summer school in the UK (Q2/2019);
- organising a 2nd short course in TH (Q4/2019);
- delivering a 2nd forum in TH (Q4/2019);
- publishing a Special Issue of a scientific journal with metro-centered papers published by the project team (Q3/2019);
- writing a report on 'Innovation in rail engineering education' (Q3/2019);
- publishing a 'case teaching' based on outcomes of student projects (Q1/2020).

Project partners



Mahidol University



Management

Dr Cristian Ulianov is a new Principal Investigator representing NU in the project, since the first PI Dr Marin Marinov has left NU in Q1 2019 to join Aston University (UK). Dr Marinov still plans to contribute to some of the project activities in Year 2 of MetroExchange.

Education

SUMMER SCHOOL

[UK] A 5-day summer school is planned to take place @ NU (UK) from 24th to 28th June 2019. The theme of this edition will be 'Metro performance and system design'.

Students from NU and MU will be invited to take part and present their research projects focused on metro. The programme will include sessions delivered by MetroExchange partners: NU, MU, BTS and Nexus and external guests. Also, technical visits to rail venues in the North of England will be arranged.

The school will be open to external participants, for more details please contact the project team.

Research

STUDENT PROJECTS' UPDATES

[TH]: Mr Somkane Srathongkhruen, who is delivering a research project at MU titled **"Safety culture in metro maintenance environment"**, is preparing for data collection stage. He plans to engage with metro operators in Bangkok in Q2 of 2019 and collect suitable data to assess work safety climate of metro maintenance workers and managers.

[UK] Nexus and NU plan to offer 1-2 summer placements to NU students interested in looking at operational challenges and current performance of Tyne & Wear Metro. The first project completed in summer 2018 is currently being finalised and outcomes are being converted into a paper, which will be included in a Special Issue arranged by the MetroExchange project team.

Knowledge sharing

2nd MetroExchange forum

[TH] MU has been invited by STI (TH) to organise a national rail conference in Thailand (Thai Rail Academic Symposium, TRAS) in 2019 and MU team plans to use this opportunity to promote MetroExchange project and various metro-based collaborations with national and international academic and industry partners. Therefore, the 2nd MetroExchange forum most likely will take place during the next TRAS conference in Q4 2019 (TH). International partners will be invited to present rail/metro research outcomes. More details will be announced in Q3 2019.

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Dissemination

SPECIAL ISSUE

[UK/TH] A Special Issue focused on 'Metro performance and system design' is currently being arranged with a journal of Urban Rail Transit (Springer). About 10 potential metro-centered papers have already been signed up for the issue and authors have about three more months to finalise their manuscripts and submit them for reviews. The papers will include a blend of student and staff metro projects presenting UK and TH case studies. Authors will be also invited to present their research outcomes during the MetroExchange summer school at NU in Q2 of 2019.

Extras

SmartMetro

[TH] SmartMetro is a new sister project, which represents an Industry Academia Partnership Programme and is awarded by Newton Fund (UK) and OHEC (TH). The official title of the project is: "Smart Metro Operations Enhancement through Data Analysis".

The project starts in Q2 2019 and includes five partners:

- Mahidol University (TH);
- University College London (UK);
- SRT-Electrified Train (TH);
- London Underground (UK);
- Office of Transport and Traffic Policy and Planning (TH).

The project objectives include:

1A) develop a professional capacity development framework for railway planning and operations;

1B) deliver first courses based on the framework;

2) to jointly conduct research to develop metro and commuter service operation performance evaluation systems to reflect Thai's unique conditions and requirements for its transport system;

3) to co-initiate the engineering innovation in use of digital data for operation performance evaluation and enhancement.

The PIs of the project are: **Dr Jirapan Liangrokapart** (MU; jirapan.lia@mahidol.ac.th) and **Dr Taku Fyjiyama** (UCL; taku.fujiyama@ucl.ac.uk).

2 STEM ACTIVITIES

[TH] A reminder that brand new **STEM resources** inspired by MetroExchange guidance and branding are now available online.

2 STEM activities and **"STEM careers in transport"** are available for a free download. The purpose of the resources is to promote interest in rail and transport as well as rail careers in academia and industry.

To access the files please contact the project team.