



MetroExchange

Newsletter #3

October-December 2018

Welcome to #3!

It's our 3rd MetroExchange project newsletter and, as always, we have plenty of updates to share with you. In this issue you can read about:

- EDUCATION:

- 1st short course @ MU delivered by 2 guests from Nexus (UK)

- RESEARCH:

- progress with a student research project @ MU

- KNOWLEDGE SHARING:

- consortium meeting @ BTS office
- 1st MetroExchange forum @ MU
- conference presentation @ TRAS

- DISSEMINATION:

- MetroExchange STEM resources available online

Enjoy the reading!
MetroExchange Team

PS
Happy New Year in advance!

Project progress

Quarter 3 of the project has just been completed. Between October and December 2018 our team delivered two MetroExchange events at MU, three (out of four) consortium partners met in Bangkok and MU students delivered STEM activities in Thailand. We are getting ready for Quarter 4 now and planning new activities for 2019. Keep reading below for more details.

Education

1st SHORT COURSE

[TH] A 2-day course titled “**Metro operations performance and benchmarking**” was delivered by Dr Aleksandrs Rjabovs (Project Manager) and Mr James Parkinson (Head of Commercial) from Nexus (UK). The course took place on 13-14th November 2018 at MU Salaya campus and attracted a mix of students and professionals from the rail/metro industry in Thailand. Topics related to Tyne & Wear Metro’s current operational challenges and current performance regime, examples of other performance models in the UK, reduction of delays, improvement of drivers’ safety and on-time performance, and many other operation-related issues were discussed. Next MetroExchange course is planned to take place in 2019.



Picture: Second day of the course delivered by Nexus staff at MU

Project partners



Research

RESEARCH PROJECT UPDATE

[TH]: Mr Somkane Srathongkhruen's project at MU titled "**Safety culture in metro maintenance environment**" is progressing well. Mr Somkane took his proposal exam on 21st December and will continue working on his project in 2019. The project partner Nexus shared their "Safety Climate Survey" which was conducted in Tyne and Wear Metro in late 2018. The Survey serves as an example of a metro safety culture data collection tool and some of the questions, after adjustments, will be included in the Bangkok's survey. Data collection activity is planned for 2019 in Bangkok.

Knowledge sharing

CONSORIUM MEETING

[TH] On 15th November 2018 three partners of MetroExchange (MU, Nexus and BTS) met at BTS offices to discuss differences and similarities in performance operations, maintenance and disruption management and staff skills development. The two metro systems in Bangkok (TH) and Tyne & Wear (UK) are very different in terms of rail infrastructure and vehicles, but still have many similarities and many lessons partners can learn from each other.



Picture: RailExchange meeting @ BTS offices in Bangkok

1st FORUM

[TH] MetroExchange Forum on **Rail Skills Development** took place on 15th November 2018 at MU Salaya campus. About 15 rail professionals and academics and two guests from Nexus (UK) discussed issues related to skills gap in rail workforce development, rail courses in TH, innovation in rail engineering education (NU+MU), and new STEM resources developed by MU students. The 2nd forum is planned for the final quarter of MetroExchange project, which will take place in 2020.

MetroExchange contacts

Dr Waessara Weerawat, Mahidol University, Thailand
waessara.wee@mahidol.ac.th
Dr Marin Marinov, Newcastle University, UK
marin.marinov@newcastle.ac.uk

Dissemination

2 STEM ACTIVITIES

[TH] 12 small groups formed by 3rd year MU students designed brand new **STEM resources** inspired by MetroExchange guidance and branding. The activities were tested at community engagements events in November 2018, where two took place at MU Salya campus (Open House - 1 group and an ad-hoc event - 4 groups) and one event was a primary school visit (STEM day - 7 groups). All events were received well by participants and students, in addition to railway principles, learnt the basics of public engagement. In addition, two best activities are now available online for a free download. Schools and communities in TH, UK and beyond are welcome to use them! Also, 8 examples of "**STEM careers in transport**" have now been finalised and are available online. The purpose of the sheets is to showcase variety of transport (and rail!) careers in academia and industry and the level of STEM subjects involved in each job. Link to resources:

<https://www.eq.mahidol.ac.th/dept/clare/research>



Picture: MU students delivering an Open House's STEM activity

CONFERENCE

[TH] On 30th November at the 2018 edition of Thailand Rail Academic Seminar (TRAS) in Chonburi, Dr Anna Fraszczyk delivered a presentation titled: "**Examples of innovation in rail engineering education**". Examples of activities, that has already been tested in classrooms in TH and in the UK, were discussed. A report with more details will be ready by the end of the project.



Picture: Some of the participants of the 1st RailExchange Forum