

Registration

Name/Title

Surname

Company

Function

Street

City

Country

Phone

E-Mail

Date and Signature

- students under 28 years (€ 50,-)
- UEEIV Member Association (€ 95,-)
- others (€ 150,-)

Please, return this form till 15th March 2017 at the latest!

Organisation

Organisation

UEEIV – Union of European Railway Engineer Associations
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60329 Frankfurt am Main
Telefon: +43 (0)316 8736216
Fax: +43 (0)316 873106216
E-Mail: sekretariat@ueeiv.eu
www.ueeiv.eu



Venue

RailTech 2017 at Jaarbeurs
Jaarbeursplein, 3521 AL Utrecht,
The Netherlands

Registration

Please, send this form till 15th March 2017 to
Fax: +43 (316) 873106216
E-Mail: sekretariat@ueeiv.eu

Registration Fees

€ 150,- Registration Fee
€ 95,- for UEEIV Member Associations
€ 50,- for students under 28 years of age
(Please enclose a copy of your ID)

After registration has been processed, you will receive an invoice which serves as a confirmation of registration. The registration fee includes participation at the Conference, Coffee and Lunch.

Cancellation policy: Up to four weeks before the start of the Conference 50% of the registration fee will be retained. If notice is given less than four weeks beforehand there will be no refund.

Hotel Reservation

Please organise your travel and hotel reservations yourself.



Systems Engineering

30th March 2017

at RailTech 2017

Jaarbeurs, Utrecht,

The Netherlands

Introduction



Dear participant,

Since its inception was the railway a system where different subsystems, disciplines and processes enabled the railway to fulfill its function: transporting passengers and forwarding freight. Over the almost 200 years since the first trains started running the system as gained in capacity, speed but also in complexity due to

additions to the systems like signalling, telecoms, overhead power system, etc.

The fact that many railways of the past have now been split in formal entities like Railway Undertakings and Infrastructure Managers makes that the system perspective is not so easy to obtain. In an integrated railway it was easier to see the whole perspective than it is now when one is working in a single discipline. Evident is many times that, although the system is build up from optimal subsystems, the building, maintaining and above all operation of the railway is not that easy, with often an effect on the services the system intends to provide. The quality of service is in many cases not up to the standard, leading to complaints by passengers and freight forwarders. An extra effect is the brain drain due to retirement of the baby boomers currently going on.

In another world, that of the defence and aviation industries, a new way of thinking occurred, making explicit the system thinking in the design and operating processes. The buzzword "System Engineering" seemed not appropriate for the railway, but over the last couple of years one hears more and more railway engineers using this term.

What is the goal of system engineering? To make sure that requirement / functions are broken down in the underlying requirements and allocated to the appropriate subsystem; always from the overall system perspective. Doing so helps to understand the system, its parts and the interaction between these parts.

This seminar will show examples of what system engineering is and how it is applied in the sector as well as in other sectors. The UEEIV sees as a core part of its mission to "spread the knowledge", helping engineers in the sector to expand their knowledge, as well as providing a platform for networking for the professionals. I hope to see many of you during this interesting seminar.

Frans Heijnen, President of UEEIV

Programme

08:30	Registration
09:00	Welcome and introduction Frans Heijnen, President of UEEIV Daniel Wirth, Secretary of UEEIV
09:30	Railway and System Engineering Felix Schmid, Birmingham Centre for Railway Research and Education, GB
10:00	System engineering on the view of ÖBB Dietmar Zierl, ÖBB Infrastruktur AG, Austria
10:30	Questions and Answers
10:45	Coffee and Tea
11:15	Hyper complicity and communication requirements Markus Bolli, SANGMU, Switzerland
11:45	System Engineering and EURAIL-ING Manfred Kehr, UEEIV
12:15	Questions and Answers
12:30	Lunch

Programme

13:30	Gotthard Base Tunnel: Operationg processes and system integration Hans-Peter Vetsch, Vetsch Rail Consulting GmbH, Switzerland
14:00	Systems Engineering from Space to Rail Sven-Olaf Schulze, Gesellschaft für Systems Engineering e.V., Germany
14:30	Questions and Answers
14:45	Coffee and Tea
15:15	Podium discussion Daniel Wirth, Secretary of UEEIV
15:45	Closing Remarks Frans Heijnen, President of UEEIV
16:00	End of Seminar