

2019 STUDY TRIP TO CROATIA AND AUSTRIA

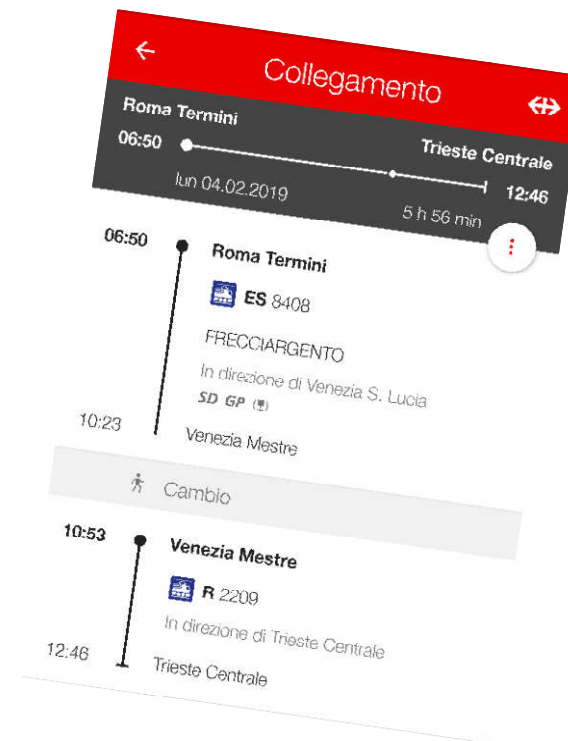
TRANSPORT SYSTEMS ENGINEERING CLASS

4th – 9th
February 2019

“La Sapienza” University of Rome

The departure

- On the **4th February** the group left from Roma Termini station with an ETR600 “Frecciargento” High Speed Train, heading towards Trieste via Venezia Mestre.



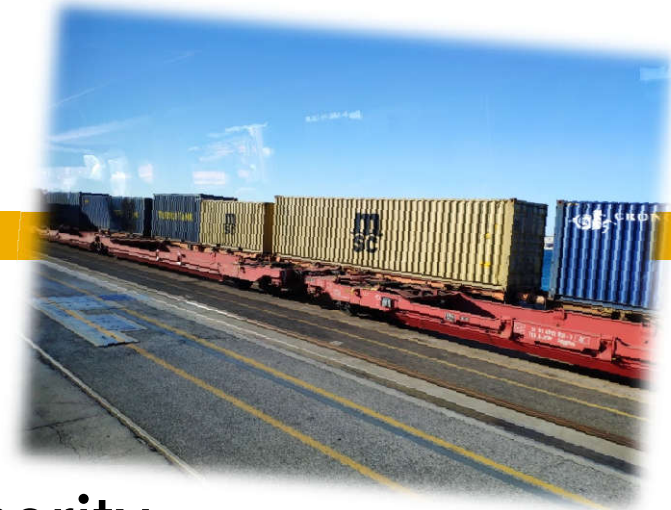
The outward trip

- With the official authorization issued by Trenitalia, the students, divided into small groups were allowed in the driver's cab.
- The personnel welcomed the groups and explained the operational steps for regular and perturbed running situations, as well as the cab controls.



Visit to the Trieste Port

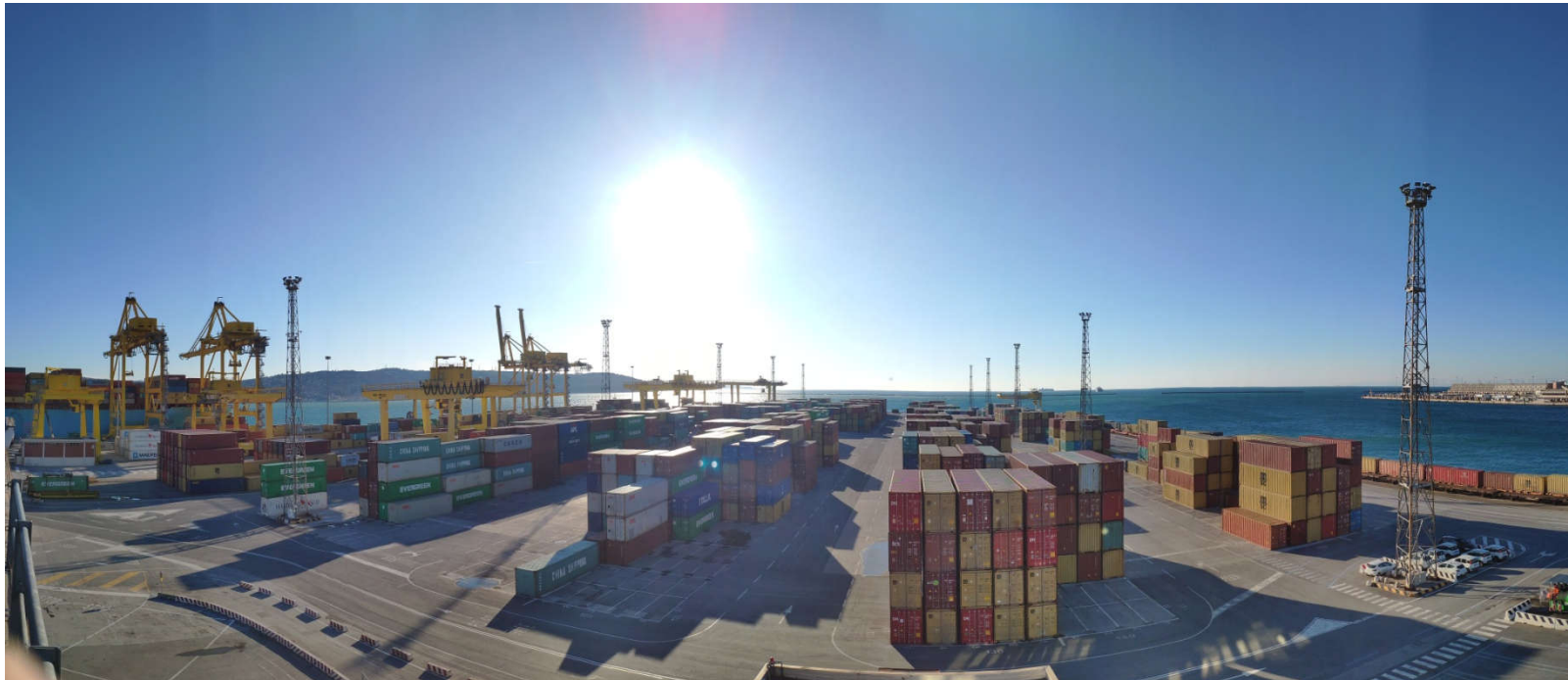
- At the Trieste main station a private coach took the group and led it to the Trieste Port Authority.



- The chief engineers welcomed us with a brief introduction to the international transport operations via sea and rail, including data and figures for the current situation and future development.

Visit to the Trieste Port

- Then the Port Authority engineers accompanied us to the visit of the main Marine Terminal, where the handling of containers is in progress 24h/7d.



End of the first day

- After having had a short visit to the office where the shunting movements are managed, the group headed towards Zagreb, Croatia.



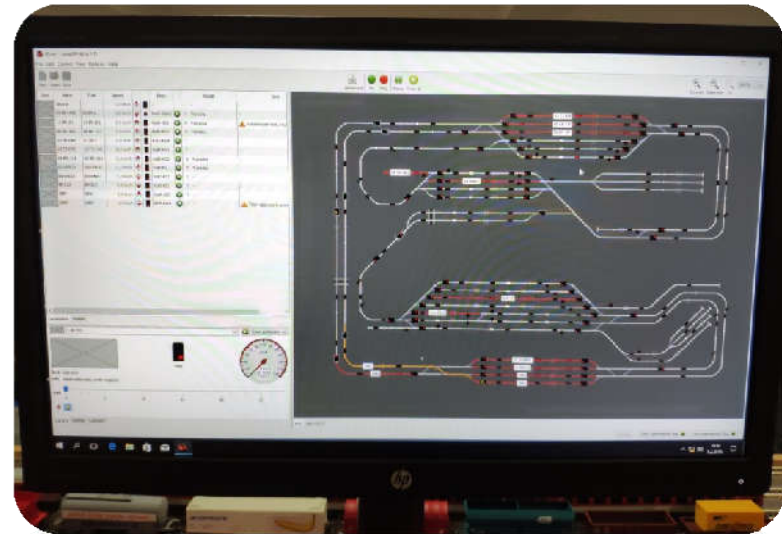
The second day – Zagreb, Croatia

- On the 2nd the group reached the Zagreb “Transport and Traffic Sciences” faculty. There we were warmly welcomed by some of the professors and engineers, who showed their activities to us.



In the faculty

- The T&TS faculty in Zagreb offers to all students clean and efficient premises, including a programming laboratory, as well as a simulation laboratory with miniature railway, train models and full scale train subsystem parts.



Lunch break

- The T&TS faculty hosted the whole group at the canteen, before heading towards the Zagreb main station “Glavni Kolodvor”.



Visit at the HŽPP Traffic control centre

- Near the main station building the railway Traffic Control Centre for western Croatia is located.
- The station chief welcomed the group and showed us the control centre rooms, both for traffic and electrification.



Across the tramway network

- In the evening the group gave a closer look to the Zagreb tramway network, operated by ZET with 15 lines. The fleet is heterogeneous: motorcar&trailer consists, articulated, and low-floor tramways.



End of the second day – the city

- The last activity of the day included a short city tour, with the visit of the main landmarks: the main square, the funicular, St. Mark's church and the Cathedral.



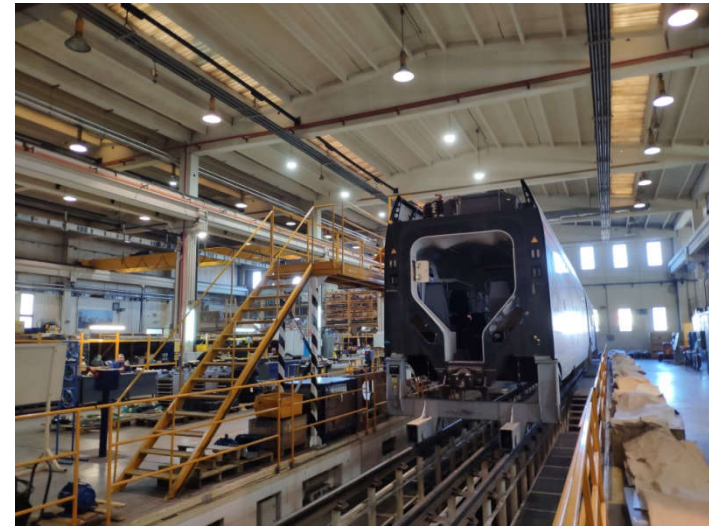
The third day – from Croatia to Austria

- The third day took the group to visit the production site of the Končar railway industry, before heading towards Austria.



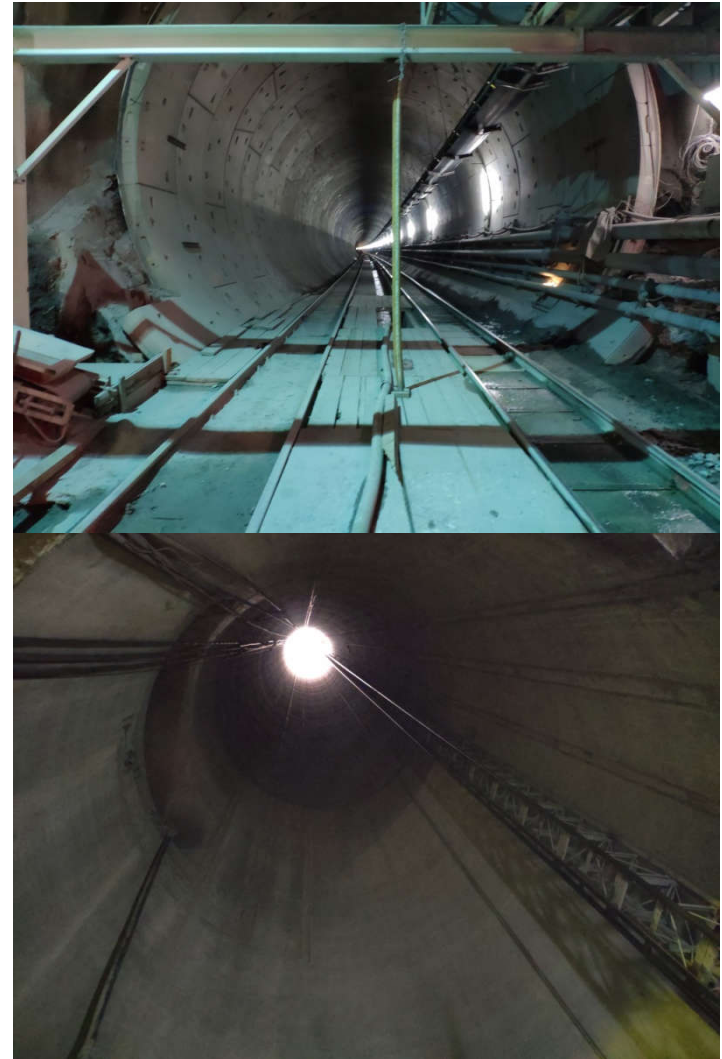
The Končar company

- Končar is a Croatian manufacturer of railway vehicles and equipment which offers production, maintenance and refurbishment of tram and railway vehicles.



The Koralmtunnel

- On our way to Linz, Austria, the group was welcomed by the Koralm Tunnel construction site personnel in the Infopoint in Mitterpichling, Austria.
- A maintenance access point brought the visitors down to 120m below ground, to the east and westbound tunnels of this new infrastructure.



End of the third day – Linz, Austria



- The third day ended with the arrival of the group in the city of Linz.



The fourth day: VoestAlpine AG

- The fourth day brought the group to the headquarter of LogServ, part of the VoestAlpine AG group, active in the field of transport services and logistics.



- The directors and chief engineers welcomed us and presented the society and its field of activity.

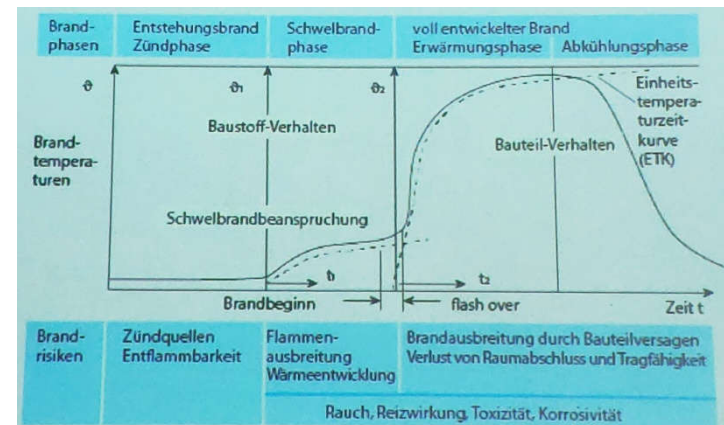
LogServ AG



- One of the activities that are performed is the train drivers' training and examinations, with a computer based simulation system by Siemens, which we were invited to use.
- Another interesting activity which was shown to us has been the remote control for shunting locomotives.

Seminar on fire safety

- LogServ AG also hosted the body of Firefighters who presented us the main safety issues regarding fires in tunnels and buildings.



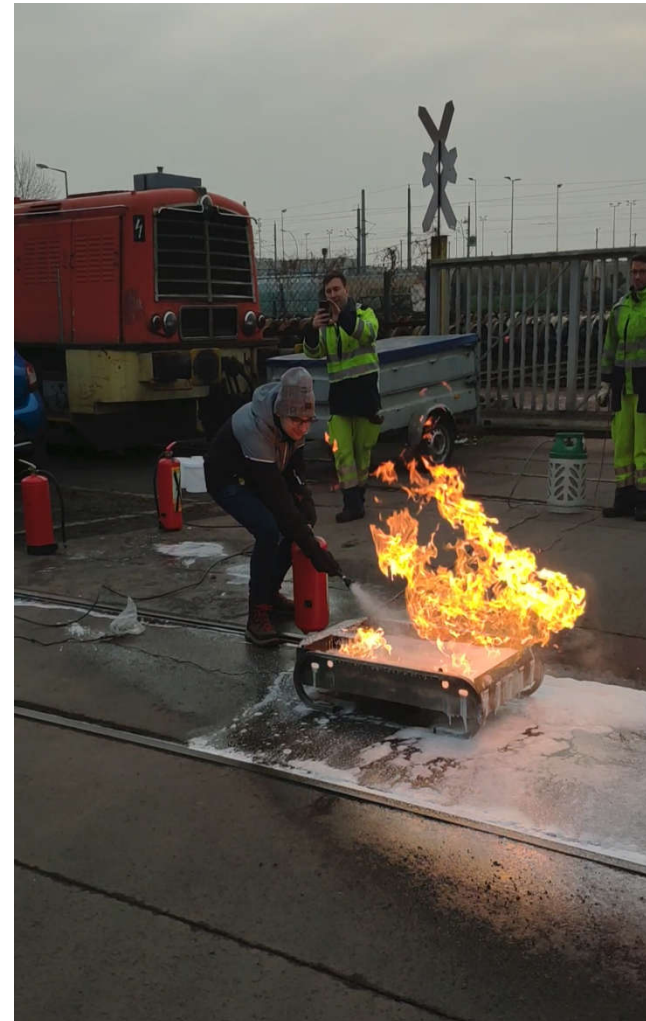
Guided tour in the yards

- LogServ hosted us for the lunch, and then took the group for a guided tour in the vast rail yard of the steel production sites of VoestAlpine AG. The tour was made with a historical (1956) diesel motorcar called “Pandora”.



Firefighting activity

- The very last activity of the day was organised by the Fire Brigade.
- They proposed a practical application about the usage of fire extinguishers. Volunteers were invited to try to extinguish an artificial fire with their assistance for learning the proper techniques.



End of fourth day

- The fourth day ended with a short tour in the Linz city centre.



The fifth day: on the rail to Villach

- The fifth day brought us to Villach with two ÖBB Railjet services via Salzburg.
- ÖBB authorised small groups of students, into the driver's cab, where we could experience the transition from the former's day simulation to the real world.



The ÖBB dispatching centre

- In Villach Hbf the ÖBB dispatching centre for southern Austria is located.
- The ÖBB personnel welcomed us in the main building and took us for a guided tour into the main rooms where the operations are directed.



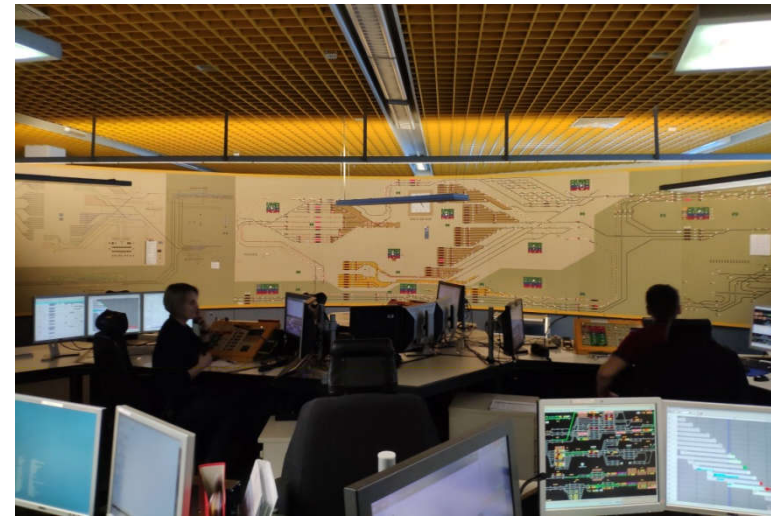
The ÖBB Fire rescue train

- For our visit a very special train was taken into operation: it is the Fire rescue train, equipped with a range of technological instruments for rescuing people in tunnels in case of fire.
- It is composed by 3 elements (rescuers, fire extinguishing equipment & injured people) and can keep people in a fire/smoke safe environment for about 6 hours. It also supports the fire brigade.



Villach Süd marshalling yard

- The Fire rescue train took the group to the Villach Süd marshalling yard, where the freight trains are disassembled and reassembled.



- We visited the control centre, the tracks and the hump, as they are the main components of the yard.

End of the fifth day

- The Fifth day ended with a small tour in Villach and with dinner all together.
- At midnight the whole group left Austria by ÖBB Nightjet, heading towards Rome.



THANK YOU FOR YOUR ATTENTION!

*This presentation has
been produced by
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for the study trip
organized by
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Study Trip 2019 - “La Sapienza” University of Rome