



Aging Tunnels - Safety in operation and during refurbishment

Workshop organised by ITA COSUF as part of the ITA-AITES World Tunnel Congress 2015



26 May 2015, Valamar Dubrovnik, Hotel President, Room Olipa 1-4
Dubrovnik, Croatia

Aging Tunnels - Safety in operation and during refurbishment



User safety, structural reliability and security during tunnel operation are clearly a part of the main focus of each tunnel owner. For tackling all the corresponding questions lots of research has been done during the past 15 years, providing decision-makers with sophisticated approaches and a steadily growing set of infrastructure and operational safety measures to make our tunnels a safer environment. Since a major part of our infrastructure is aging, the refurbishment and safety upgrading of the existing building stock becomes more and more the center of attention. Some imminent questions are usually brought-up:

- How can one rehabilitate a tunnel and keep up the availability of the infrastructure?
- What about risk levels during rehabilitation? Are they possibly increasing?
- Is safety during rehabilitation only a matter of working space safety or are there lingering problems that were not part of past risk assessments of the tunnel?
- Are our safety systems safe enough to deal with incidents during rehabilitation works?
- Is there any measure for a temporary upgrade of tunnel system's safety?

These and others questions will be tackled during the ITA-COSUF workshop which is especially devoted to the safe operation of underground facilities in times of rehabilitation and refurbishment. Speakers from all over Europe will show case studies, new technologies and new approaches. The workshop is endorsed by the European research project ROBO-SPECT – linked with ITA-COSUF Activity Group 3 "Research and New Findings".





08:30 - 09:00 ITA COSUF General Assembly

Intended for ITA COSUF members but open to all

Session 1: Opening session: Case studies

09:00 - 09:10 Opening by ITA-COSUF chairman Roland Leucker (STUVA e.V.)

09:10 - 09:30 Implementation of the EU directive 2004/54, Enrico Pastori (TRT Trasporti e territorio)

09:30 - 09:50 The Mont Blanc tunnel, Gilles Rakoczy (Director of the Mont Blanc Tunnel)

09:50 - 10:10 Case studies of tunnel inspection and assessment, Peter Wright (CH2M)

10:10 - 10:30 Refurbishment under operation - tunnel in tunnel method, Thomas Edelmann (Herrenknecht)

10:30 - 10:40 Discussion

10:40 – 11:00 Refreshment break

Session 2: Monitoring, inspection and assessment

11:00 - 11:20 Robotic systems for autonomous tunnel inspection, Philippe Chrobocinkski (CAS)

11:20 - 11:40 Mobile Robot for Tunnel inspection, Rafael Lopez (Robotnic)

11:40 - 12:00 Greek Road Tunnel Case studies, Panos Panetsos (EGNATIA)

12:00 - 12:20 Structural lining assessment based on intrados measurements, Dimitrios Bairaktaris (DBA)

12:20 - 12:40 Discussion





Preliminary Programme



12:40 - 14:00 Lunch

Session 3: Research and new products

14:00 - 14:25 Tunnel Inspection and Evaluation: The ROBO-SPECT Project, Konstantinos Loupos (ICCS)

14:25 - 14:50 Acceptable risk levels during refurbishment work, Nils Peter Hoj (Hoj Consulting GmbH)

14:50 - 15:15 Computer Vision for Structural Damage in Tunnel, Nikos Komodakis (ENPC&ICCS)

15:15 - 15:30 Discussion

15:30 – 16:00 Refreshment break

Session 4: Risk and Refurbishment

16:00 - 16:20 Refurbishment of Railway tunnels during operation, Max Wietek (VSH, RhB)

16:20 - 16:40 Autostrada Brennero - Emergency Exercise, Carlo Costa (Autostrada)

16:40 - 17:00 Refurbishment of a listed tunnel: Maas Tunnel Rotterdam, Han Admiraal (ENPRODES)

17:00 - 17:20 ITA-COSUF Award

17:20 - 17:40 Discussion





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This ITA COSUF workshop is open to all participants of the ITA-AITES World Tunnel Congress 2015. Registration to the congress should be made through the congress website: www.wtc15.com. One-day registration is available for those who wish to attend the ITA COSUF workshop only; it gives access to all congress events which take place on 26 May 2015. After 15 March 2015 the registration fees for the full conference will increase. A second increase will follow on 15 May 2015.