

Session Program

23-24 Oct 2019

CERN Tunnelling Workshop

Day 2 - Tunnel Monitoring

CERN, 60/6-015 - Room Georges Charpak (Room F)

Thursday 24 October

09:30

Day 2 - Tunnel Monitoring: Session 1

Session | **Location:** CERN, 60/6-015 - Room Georges Charpak (Room F) | **Convener:** Ben Swatton

09:30–10:00 **Welcome & Introduction**

Speaker

John Andrew Osborne

10:00–10:30 **Tunnel Asset Management @ CERN**

Speaker

Ben Swatton

10:30–11:00

Multi-spectral analysis and machine learning for automated monitoring

Speaker

Leanne Attard

11:00

11:30

Day 2 - Tunnel Monitoring: Session 2

Session | **Location:** CERN, 60/6-015 - Room Georges Charpak (Room F) | **Convener:** Ben Swatton

11:30–12:00 **Use of Artificial Intelligence in Tunnel Infrastructure Management**

Speaker

Chris Chew

12:00–12:30 **Distributed Fibre Optic Sensing of Underground Infrastructures**

Speaker

Zili Li

12:30–13:00 **The Effective and Efficient Management of Tunnel Asset Data**

Speaker

Daniel Craven

13:00

14:00

Day 2 - Tunnel Monitoring: Session 3

Session | **Location:** CERN, 60/6-015 - Room Georges Charpak (Room F) | **Convener:** Ben Swatton

14:00–14:30

Railway tunnel overburden imaging using muon transmission radiography

Speaker

Chris Steer

14:30–15:00 **Accelerating Digital Change: I&M and Operations**

Speakers

Noemi Roecklinger, Yung Loo

15:00–15:30

Tunnel Maintenance 4.0 - High efficiency maintenance thanks to innovative 3D data capture technologies and use of AI

15:30
16:00
17:00

Speakers

Karl Grossauer, Michael Buri

Day 2 - Tunnel Monitoring: Round-table and Summary

Session | **Location:** CERN, 60/6-015 - Room Georges Charpak (Room F) | **Convener:** Ben Swatton

16:00-16:30

Inspection Methods in Tunnels - New Technologies

Speaker

Sebastien Frachon

16:30-17:00

Summary and Close-Out

Speaker

Ben Swatton