

## SAVA CENTER, BELGRADE, SERBIA 1-3 OCTOBER 2025





#### **ITA SERBIA**

Serbian Association for Tunnels and Underground Structures

is inviting you to the

INTERNATIONAL CONFERENCE

# SOUTHEASTERN EUROPE TUNNELLING CONFERENCE SETC-2025 & ITA AWARDS

#### SHAPING THE FUTURE OF TUNNELLING

Innovation, Sustainability, and Safety

**FIRST ANNOUNCEMENT**Call For Papers

An event endorsed by



# WELCOME MESSAGE

**Dear Colleagues and Friends,** 

On behalf of the Serbian Association for Tunnels and Underground Structures (ITA Serbia) with the endorsement of the International Tunnelling and Underground Space Association (ITA-AITES) and the support of ITA members from neighbouring countries, it is our great pleasure to invite you to join us in wonderful Belgrade, Serbia from 1 to 3 October 2025 for the Southeastern Europe Tunnelling Conference (SETC-2025).

To promote and demonstrate the use of tunnelling technology and underground space worldwide, SETC-2025 will feature the ITA Tunnelling Awards (Event) 2025 with an Awards Ceremony.

The Republic of Serbia, along with Southeastern Europe, is confronting significant challenges in modernizing its infrastructure networks. Advances in tunnelling and underground construction are pivotal for the development of transport, hydraulic, mining, and energy infrastructures. SETC-2025 will spotlight cutting-edge research and innovations in design, engineering methodologies, and construction techniques that enable more efficient and safer tunnelling operations. This conference will provide participants insights into current and future projects that undoubtedly have a positive impact on economic growth and living standards in the region. They will also discover scientific findings that are driving progress in this field, innovative design, methodological, technical, and informational approaches, and connect with colleagues and experts from across Southeastern Europe and beyond.

With the motto "Shaping the Future of Tunnelling: Innovation, Sustainability, and Safety" the conference offers participants a comprehensive overview of the current state and future directions in tunnel and underground construction, enabling them to gain a deep understanding of the innovations shaping the future of infrastructure in the Southeastern Europe



region. The focus will be on sustainable solutions in design and construction, based on the latest methods and tools for tunnel and underground construction design, application of new materials and machinery, and digital and informational technologies.

**SETC-2025** will provide concrete insights and guidelines for enhancing underground infrastructure in Southeastern Europe. The current state in the region shows rapid development and a growing need for innovative solutions in tunnelling and underground construction. Join us to explore key technical and strategic aspects of future projects, improve sector standards, and ensure sustainable development that will contribute to the prosperity and stability. Your participation is crucial for achieving these goals.

To promote tunnelling and underground space technologies at a global level, **SETC-2025** will showcase scientific advancements, state-of-the-art technologies, and best practices in tunnelling projects. By sharing these developments, we aim to drive further research and application of innovative techniques in the field.

We look forward to welcoming you in Belgrade, where science and innovation will converge to shape the future of tunnelling!

#### Prof. Dr. Dejan Divac

President of the ITA Serbia, Chairman of the Organizing Committee SETC-2025

# KEY ASPECTS OF THE CONFERENCE

Providing a platform for exchanging best practices and accessing current information, the Southeastern Europe Tunnelling Conference (SETC-2025) will include keynote lectures, technical presentations, project showcases, and panel discussions on current topics. It will also include exhibitions of achievements in equipment, tools, materials, and software, as well as visits to some of the most relevant tunnelling construction sites in the Republic of Serbia.

The conference will feature the following sections:

## **SCIENTIFIC PAPERS**

The scientific section of the conference will feature presentations of carefully selected scientific papers showcasing the latest achievements and innovations in tunnel and underground construction design and construction. These presentations will cover a broad spectrum of topics, including:

#### 1. Advanced construction techniques

This topic explores cutting-edge methods that push the boundaries of tunnelling efficiency and safety. This topic includes Tunnel Boring Machines (TBMs) with enhanced precision, the use of robotics for excavation, and innovative approaches to lining and reinforcement.

#### 2. Use of new materials and machinery

Innovation in materials and equipment is transforming the tunnelling landscape. This topic focuses on the adoption of high-performance materials like fibre-reinforced concrete, self-healing materials, and corrosion-resistant alloys. It also covers advancements in machinery, such as hybrid and electric TBMs, and their role in improving sustainability and energy efficiency.

#### 3. Geological investigation and prediction

Understanding geological conditions is critical for successful tunnelling projects. This topic delves into the latest techniques in geological surveying, including geophysical methods and advanced borehole testing. The focus can be on predictive models that allow for better risk management and the anticipation of geological challenges like fault zones, water ingress, and ground subsidence.

#### 4. Numerical modelling

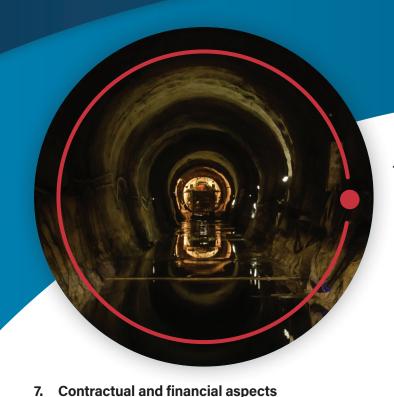
Numerical simulation is becoming essential in tunnel design and risk assessment. This topic explores advances in computational models for tunnel excavation, ground-structure interaction, and the prediction of deformation and stress distribution. The focus can be on 2D and 3D models, finite element analysis (FEA), and how these tools optimize design, reduce uncertainties, and improve safety.

# 5. Instrumentation and monitoring/testing and inspection

Real-time monitoring is crucial for ensuring tunnelling safety and performance. This topic addresses the role of advanced sensors, data acquisition systems, and remote monitoring techniques. Focus can be placed on instrumentation that measures ground movement, stress, and environmental conditions, along with new inspection technologies such as ground-penetrating radar (GPR) and drone-based surveys for ongoing structural assessments.

# 6. Digital and information technology in design and construction

Exploring how digital technologies, including Building Information Modelling (BIM), Artificial Intelligence (AI), and data analytics, are revolutionizing tunnelling. This includes the integration of digital twin technology and real-time monitoring, which enhance simulation, prediction, and optimization of tunnel performance, while improving decision-making, safety, and operational control throughout the project lifecycle.



This topic includes new approaches to project financing, risk management, and contractual frameworks, focusing on ensuring financial viability and smooth project execution. This includes exploring Public-Private Partnerships (PPPs), innovative contracting models, and sustainable financial strategies that support large-scale tunnelling projects while minimizing risks and delays.

#### 8. Strategic planning

Effective strategic planning is essential for successful tunnelling projects. This topic cover methods for integrating long-term planning, feasibility studies, and alignment of projects with broader infrastructure goals. It will emphasize stakeholder engagement, early-stage risk assessments, and multi-disciplinary collaboration to ensure that projects are completed on time and within budget while meeting future demands.

#### 9. Operational safety

Safety is paramount in tunnelling operations. This topic focus on the latest safety protocols, emergency response planning, and hazard prevention measures. Focus can include the use of real-time monitoring systems for worker safety, fire suppression techniques in confined spaces, ventilation management, earthquakes and lessons learned from past incidents. The role of automation and AI in improving safety outcomes will also be highlighted.

#### 10. Impact of climate change on tunnel infrastructure Climate change poses significant challenges to tunnel infrastructure, from increased flooding risks to temperature extremes and changing groundwater conditions. This topic explore how tunnelling projects can be designed to withstand these environmental shifts, focusing on resilience strategies such as flood barriers, water management systems, and sustainable drainage solutions. The role of green construction practices

and energy-efficient design will also be discussed.

## **PROJECT SHOWCASE**

As Southeastern Europe rapidly advances with numerous strategic projects, the upcoming conference will highlight both current and planned tunnel and underground construction initiatives. Attendees will gain valuable insights into future trends, explore opportunities to forge professional connections, and enhance their knowledge in the ever-evolving field of tunnelling and underground infrastructure.

The conference will feature a diverse range of projects, including:

- Metro tunnels
- Railway projects
- Road infrastructure
- Hydraulic tunnels
- Other significant tunnel projects and underground constructions

The presentation format for these projects will be detailed in the Second Announcement. Summary for selected projects will be published in the conference proceedings and conference website.

# KEY ASPECTS OF THE CONFERENCE

# ROUND TABLES AND PANEL DISCUSSIONS

The conference will feature dynamic panel discussions and round tables addressing the current challenges, achievements, and future needs within the tunnelling and underground construction sector. These sessions will focus on critical aspects of development and include participation from leading experts across various fields. Participants will gain deeper insights into pressing challenges and emerging opportunities, fostering professional exchange and collaborative problem-solving to advance the industry.

Key discussion topics will include:

**Topic 1:** Legislative Frameworks and Regulatory Challenges in Tunnelling: Compliance, legal issues, and regulatory obstacles.

**Topic 2:** Economic, Environmental and Safety Aspects of Tunnelling: Impact of projects on local communities and the environment. Collaboration between engineers, urban planners, ecologists, and economists.

**Topic 3:** Innovation and The Future of Underground Spaces: Perspectives and possibilities for future projects.

The exhibition program will run concurrently with the scientific and technical sessions, ensuring high visibility and engagement throughout the event.

Further details regarding sponsors and exhibitors will soon be available on website: **www.setc-2025.rs**.

For participation inquiries, please contact us at: **exhibition@setc-2025.rs**.

## **TECHNICAL EXCURSION**

The technical excursion will include visits to selected ongoing tunnelling projects in Serbia. The technical excursion provides an exceptional opportunity to gain insight into the practical application of the latest technologies and methods in tunnelling, as well as to interact directly with experts and engineers involved in these significant projects.

## **ITA AWARDS 2025**

The ITA Tunnelling Awards will take place together with SETC-2025. ITA Tunnelling Awards (Event) recognizes excellence in tunnelling with awards for the best tunnelling Projects from around the world and the Young Tunneller of the Year. The aim of this traditional Event is to recognize and share innovations, new technologies, and outstanding practices in projects, as well as to highlight the best examples in the field.

### **EXHIBITION**

A special segment of the conference will be dedicated to exhibitors and sponsors, offering them a prime opportunity to showcase their achievements, equipment, software, instruments, and construction materials. The exhibition area will be interactively organized, allowing participants to directly engage with and test the exhibited products and solutions.

## **CALL FOR PAPERS**



Participants are requested to submit their abstracts at: editor@setc-2025.rs according to the following instructions:

**Full Name and Address:** Provide the full name and complete address of the corresponding author, including an email address.

**Title:** Include the title of your contribution (maximum 60 characters).

**Topic:** Indicate the relevant topic from 1 to 10 of the technical sections to which the abstract is submitted.

**Keywords:** List relevant keywords related to your abstract

Authors of accepted abstracts will receive detailed guidelines and sample papers to assist in preparing their full papers. Technical propositions for writing the papers will be outlined in the Second Announcement. Accepted papers will be published in the conference proceedings.

## **LANGUAGE**

The official language of the conference is English, with simultaneous translation into Serbian.



#### **IMPORTANT DATES**

Abstract Submission Deadline: 28 February 2025

Abstract Acceptance Notification: Within Two Weeks

Full-papers Submission deadline: 15 May 2025

Final Paper Submission: 30 June 2025

Final Announcement: Will be determined later

Conference Date: 1-3 October 2025



## **LOCATION AND VENUE**

The Conference will be held in the Congress Centre Sava Center, Milentija Popovića 9, Belgrade, Serbia.

Recently renovated, the Sava Center is a true congress landmark, featuring modern and spacious conference halls, technologically advanced rooms, and extensive exhibition spaces. Its location in Belgrade offers excellent connectivity to hotels and other major tourist and business facilities. This top-notch venue provides ideal conditions, ensuring participants exceptional comfort and professional service throughout the conference.

## **ACCOMMODATION**

Numerous hotels offering various accommodation options are located near the Sava Center.
Conference participants are responsible for independently booking and covering their accommodation expenses.

### **SPONSORS**

We invite you to become a sponsor of the Southeastern Europe Tunnelling Conference (SETC-2025). As a sponsor, you will have a unique opportunity to showcase your company and brands, connect with industry leaders, and gain significant visibility among key stakeholders. By participating in the conference, you will play a pivotal role in advancing the future of underground infrastructure and innovation in the region.

For more information on sponsorship opportunities and tailoring packages to meet your objectives, please contact us at: exhibition@setc-2025.rs and website www.setc-2025.rs.



# **HITHERE!**

We would like your kindness to forward this First Announcement to your colleagues/students. We are looking forward to meeting you in the SETC-2025, Belgrade, Serbia!

All further information can be received from the Conference Members of Organizing Committee:

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The official technical organiser of the conference is the Jaroslav Černi Water Institute (JCWI), Belgrade.

## **CONTACT US:**



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