PIARC International Conference on Road Tunnel Operations and Safety
3rd - 5th October 2018
LYON CONVENTION CENTRE - FRANCE

Register online www.tunnel-conference-lyon.com
Dear colleagues of the tunnelling community,

With the growth in global urbanisation and the need to find underground solutions to meet the needs of the world’s rising population, tunnels are becoming an increasingly important part of the transport infrastructure network. At the same time, stakeholders are faced with growing challenges in terms of operation and safety, including cost-efficiency and sustainability.

PIARC’s Technical Committee on Road Tunnel Operations is acknowledged worldwide as a reference body on issues related to tunnel operation and safety, with almost 140 active members. In recent years, it has published numerous technical reports and developed an on-line manual, providing valuable reference material to tunnelling professionals.

In order to promote the latest knowledge on current key issues and to facilitate technical discussions and debate amongst industry stakeholders, PIARC, its Road Tunnel Operations Committee and its French National Committee have decided to organise their first “International Conference on Road Tunnel Operations and Safety”. This event is organised with the support of the European Commission (DG Move), ITA COSUF (ITA Committee on Operational Safety of Underground Facilities), the French Centre for Tunnel Studies (CETU) and the French-speaking Working Group of Road Tunnel Operators (GTFE). It is aimed at tunnel owners, operators, rescue services, designers, tunnel safety officers, equipment suppliers and installers.

The conference will be held in France, at the Lyon Convention Centre, from 3rd to 5th October 2018. It will include two days of technical sessions and round table discussions, followed by a day of optional technical tours to tunnels in the Auvergne-Rhône-Alpes region.

Renowned speakers from around the globe will present the latest knowledge on four key topics: safety management tools and systems, sustainable tunnel operation, safety systems and equipment and future tunnel safety challenges.

We feel confident that this event will prove a valuable means of enabling stakeholders to benefit from the work conducted by PIARC and exchange views with fellow tunnelling professionals. It is therefore with great pleasure that we invite you to attend and look forward to welcoming you to the beautiful city of Lyon.

Claude VAN ROOTEN
PIARC Chairman

André BROTO
PIARC French National Committee Chairman
Why should you attend?

- Over 300 participants expected
- An internationally recognised platform where you can meet and exchange with a broad spectrum of industry stakeholders
- Presence of representatives from government road directorates and the European Commission
- High profile speakers who are top-level experts in their field
- A chance to keep up to date with the latest best practices and PIARC recommendations
- Lively round table discussions and debates on current key issues related to tunnel operation and safety
- A two-day exhibition showcasing the latest industry products and services
- Plenty of time to network over refreshment breaks, luncheons and an evening cocktail
- On-site visits

Target audience

Specifically designed for stakeholders involved in operational and safety aspects of tunnelling, this conference aims to bring together:

- Tunnel owners, designers and operators
- Government and local authority representatives
- Fire and rescue services
- Tunnel Safety Officers
- System providers
- Equipment manufacturers, suppliers and installers
- Consultants and solution providers
Strategic Committee

PIARC General Secretariat
Patrick MALLEJACQ
Miguel CASO FLOREZ

PIARC French National Committee
André BROTO
Michel DEFFAYET
Yolande DANIEL
Hélène MONGEOT
Yves ROBICHON

Organisational Committee

PIARC Technical Committee D.5
Marc TESSON
Gary CLARK
Jean-Claude MARTIN
Arild SOVIK
Nam Goo KIM
Bijan KHALEGHI
George MAVROYENI
Salvatore GIUA

Consultant: Evénements Pluriel
Conference overview

**Wednesday 3rd October 2018**

- All-day exhibition
- Welcome message
- Main issues regarding road tunnel operations and safety - Road Directorates’ viewpoint
- Technical session 1 - Safety management tools and systems
- Technical session 2 - Sustainable operation
- Round table A - Safe operation of road tunnels
- Evening cocktail

**Thursday 4th October 2018**

- All-day exhibition
- Technical session 3 - Safety systems and equipment
- Technical session 4 - Future safety challenges
- Round table B - Technical equipment: current practices and perspectives
- Main issues and perspectives: discussion with PIARC and partner organizations
- Closing message

**Friday 5th October 2018**

- Optional technical tours to tunnels in the region

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**Safety management tools and systems**

Since the 2000s, numerous tunnel refurbishments have been conducted at an international level, the primary aim of which has been to improve user safety, whilst also focusing on the organisation of tunnel operations. This first technical session will present the headway made in this area, notably in terms of safety management tools and systems.

**Sustainable operation**

Current practices in terms of sustainable infrastructure management vary greatly from one country to another. Certain countries have established legislation or have fixed objectives, whilst others have no regulations at all. PIARC has recently published a report on the current status of sustainable tunnel operations in various countries. This second session will provide an overview of the various practices.

**Safety systems and equipment**

A wide variety of systems and equipment have been implemented over recent years within the scope of refurbishment works (centralised technical management, ventilation systems, fixed fire-fighting systems, way-finding equipment, communication systems,...). The tunnelling community has made considerable progress in these areas, in terms of design, operation and maintenance optimisation. This third technical session will focus on these issues.

**Future safety challenges**

New technologies, such as LEDs, alternative vehicle propulsion systems and information and communication technologies have emerged over recent years. Many are of interest to the underground infrastructure community and it is essential that their development within road tunnels takes into account the specific nature of this infrastructure. Three expert views on these issues will be presented.
Conference venue

Lyon is France’s second-largest city after Paris. It is a UNESCO World Heritage Site with a history spanning over 2,000 years, which is exhibited by its numerous historical and architectural landmarks. The city is renowned for its cuisine and gastronomy, boasting world famous chefs and Michelin-star restaurants.

The Lyon Convention Centre is located in the city centre, in the heart of the “Cité Internationale” complex, which has over 500 hotel rooms, several restaurants, a casino, cinema and contemporary art museum. Its location is easy to reach whether travelling by car, train or plane. For more detailed travel information, download the documents available on our conference web site:

www.tunnel-conference-lyon.com

By car

The venue is close to the northern ring road and five minutes from a junction connecting with a major motorway network.

By train

The Convention Centre is only 10 minutes away from the Part Dieu train station and 15 minutes from Perrache train station by public transport. High-speed (TGV) trains run between Lyon and Paris every hour or every half hour.

By plane

The Convention Centre can be easily reached from Lyon-St Exupéry airport. The “Rhônexpress”, airport shuttle is a fast and convenient way to reach the Part Dieu district of Lyon in 30 minutes. From there, the Convention Centre is just a short bus or tram ride away.
Conference registration

Registration must be made online via the conference web site: [www.tunnel-conference-lyon.com](http://www.tunnel-conference-lyon.com)

Only pre-paid registrants will be guaranteed access to the event. On-site registration will not be possible.

Conference registration includes:

- access to all conference sessions and round tables on the 3rd and 4th October 2018
- access to the two-day exhibition (for details, see our exhibitor / sponsor prospectus on the conference web site)
- morning and afternoon refreshments
- buffet lunch each day
- access to the “cheese and wine” cocktail on the evening of 3rd October 2018
- downloads of speakers’ presentations, available on the conference web site after the event.

Payment must be made online via credit card or bank transfer. Upon receipt of your payment, you will receive confirmation of your registration via email.

Fees

<table>
<thead>
<tr>
<th>Standard rate (VAT. inclusive)</th>
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<tr>
<td>Discount rate (VAT inclusive)</td>
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<tr>
<td>- Members of PIARC</td>
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<td>- Members of ITA COSUF</td>
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<td>- Attendees from low and middle income countries</td>
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www.tunnel-conference-lyon.com

Cancellation policy

A refund policy will apply for cancellation as follows (administrative fees may be charged):

- Cancellation more than 60 calendar days before the event gives entitlement to a full refund
- Cancellation between 30 to 60 calendar days before the event gives entitlement to a 75% refund
- Cancellation within 30 calendar days before the event does not give entitlement to a refund
- The organisers reserve the right to cancel technical tours if minimum numbers are not reached. In this case, registrants will be refunded.
Technical tours

Croix Rousse Tunnel - Lyon

The Croix Rousse tunnel is located within the heart of the city of Lyon and has a total AADT of 43,000 vehicles. It was initially a single-tube bi-directional tunnel with a length of 1.8km. A second tube was opened in 2013 within the scope of major refurbishment works. This second tube acts as a safety gallery for users in the event of an incident in the road tunnel. An innovative approach was adopted with regard to its construction, as in addition to its primary safety function, this parallel gallery is also dedicated to environmentally-friendly modes of transport (buses, cyclists and pedestrians). Light shows are also regularly projected onto the tunnel walls.

Violay, Bussière and Chalosset Tunnels: A89

The Violay, Bussière and Chalosset tunnels (respectively 3.9, 1.060 and 0.7km in length) are located about an hour away from Lyon on the A89 motorway, which links Lyon and Clermont-Ferrand. They each have a total AADT of 21,000 vehicles. This new motorway was opened in 2013 and all three twin-tube tunnels comply with the technical and organisational provisions of European Directive 2004/54/EC on minimum safety requirements for tunnels on the trans-European road network.

Mont Blanc Tunnel

The Mont Blanc Tunnel (11.6km) is a bi-directional cross-border tunnel enabling users to cross the Alps between France and Italy. It is located about two and a half hours away from Lyon and has a total AADT of 3,600 light vehicles and 1,600 heavy vehicles. After new regulations came into force in the 2000s, this tunnel underwent major refurbishment. Today, it is considered a world reference in terms of road tunnel organisation and safety.
The Fréjus tunnel (12.9km) is a cross-border bi-directional tunnel crossing the Alps between France and Italy. It is located about two and a half hours away from Lyon and has a total AADT of 2,900 light vehicles and 2,000 heavy vehicles. In addition to the refurbishment works conducted after new regulations came into force in the 2000s, a second tube is currently under construction.

A training centre for tunnel intervention techniques is located in the vicinity of the French side of the tunnel (http://www.cfetit.com). This centre welcomes trainees from various backgrounds on an all year round basis (tunnel operators, public or private emergency service teams, underground works personnel, industry stakeholders…).

The centre can be used as a technical platform and test centre by suppliers of fire resistant materials or safety equipment. The technical visit will notably focus on this equipment and the rescue means available for this tunnel.

### Registration

Registration for the technical tours is open until 21/09/18 and must be made separately, via the conference web site:

[www.tunnel-conference-lyon.com](http://www.tunnel-conference-lyon.com)

Registrants will be able to choose one technical tour only. Only pre-paid registrants will be guaranteed access to the tour. On-site registration will not be possible.

Technical tour registration includes:

- transport by coach to the tunnel site
- guided tour given by tunnel operator personnel
- lunch

Payment must be made via credit card or bank transfer. The organisers reserve the right to cancel technical tours if minimum numbers are not reached. In this case, registrants will be refunded.

### Technical tour fees (VAT inclusive)

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<thead>
<tr>
<th>Location</th>
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<tbody>
<tr>
<td>Croix Rousse</td>
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<td>Violay, Bussière and Chalosset</td>
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<td>Mont Blanc</td>
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