



UNDERGROUND  
CONSTRUCTION

PRAGUE 2010

INTERNATIONAL CONFERENCE  
UNDERGROUND CONSTRUCTION PRAGUE 2010

# TRANSPORT AND CITY TUNNELS

PRAGUE, 14<sup>th</sup> – 16<sup>th</sup> JUNE 2010

**FINAL PROGRAMME**

[www.ita-aites.cz](http://www.ita-aites.cz)

Sponsored by ITA-AITES



ASSOCIATION  
INTERNATIONALE DES TUNNELS  
ET DE L'ESPACE SOUTERRAIN

**AITES**

**ITA**

INTERNATIONAL TUNNELLING  
AND UNDERGROUND SPACE  
ASSOCIATION





Auspices  
of the Mayor of the City of Prague

at the

11<sup>th</sup> International Conference  
“Underground Constructions  
Prague 2010”

organised by the Czech ITA-AITES Tunnelling Association  
at the Clarion Congress Hotel Prague  
on June 14<sup>th</sup> - 16<sup>th</sup>, 2010

granted by

Pavel BÉM  
Mayor

Prague, July 30, 2009

LETTER OF INVITATION

The ITA-AITES Czech Tunnelling Association is again cordially inviting you to the **11<sup>th</sup> International Conference entitled „Underground Construction Prague 2010”**, which will be held in Prague, the capital of the Czech Republic, from 14<sup>th</sup> to 16<sup>th</sup> June 2010. The ITA-AITES Slovak Tunnelling Association and prominent world experts are collaborating on the preparations as members of the Scientific Council. You can find required information about the conference in this final programme, first of all detailed information on its technical programme.

We are very pleased that 171 papers by authors from 25 countries all over the world including four Keynote Lectures have been submitted. Each attendee of the conference will receive printed conference proceedings in English together with a CD. Four Keynote Lectures will be presented in the conference after the ceremonial opening. Subsequently, 60 papers will be presented, always at parallel sessions of two sections. An array of prominent world's experts from the field of underground construction. The participation in the Technical Exhibition and Poster Section will be very good. The programme is supplemented by three excursions to tunnel construction sites in Prague.

We are convinced that, in this way, the conference will attain its main objective to reflect experience in preparing and implementing road, railway and urban underground construction projects, in particular experience obtained during mechanised excavation by means of TBMs and shields or from driving long rail tunnels.

The conference programme will surely offer lots of interesting information and will facilitate the establishment of new contacts. We are confident that the Czech Republic and its capital, Prague, which hosted the ITA-AITES World Tunnel Congress in 2007, will captivate conference attendees again this time owing to its atmosphere and beauty.

We are looking forward to meeting you in Prague from 14<sup>th</sup> to 16<sup>th</sup> June 2010.

Ivan Hrdina  
Chairman  
of Czech Tunnelling Association  
Member of ITA-AITES Executive

Dr. Matouš Hilar  
Chairman  
of Scientific Council  
of the Conference UC Prague 2010

Dr. Alexandr Butovič  
Chairman  
of Preparatory Committee  
of the Conference UC Prague 2010

CONTACTS

**Secretariat of the Preparatory Committee for the Conference:**

SATRA, spol. s r. o., Sokolská 32, 120 00 Praha 2, Czech Republic  
Tel.: +420 296 337 181, fax: +420 296 337 189, e-mail: ps2010@satra.cz

**ITA-AITES Czech Tunnelling Association:**

Dělnická 12, 170 00 Praha 7, Czech Republic  
Tel./Fax: +420 266 793 479, e-mail: ita-aites@metrostav.cz, web: www.ita-aites.cz

**Organising agency:**

Guarant International s. r. o., Hana Tesaříková, Opletalova 22, 110 00 Praha 1, Czech Republic  
Tel.: +420 284 001 444, fax: +420 284 001 448, e-mail: ps2010prague@guarant.cz

## PREPARATORY COMMITTEE AND SCIENTIFIC COUNCIL

### Chairman of Preparatory Committee:

Dr. Alexandr Butovič Satra, spol. s r.o.

### Chairman of Scientific Council:

Dr. Matouš Hilar D2 Consult Prague, s. r. o.

### International Members:

Mr. Felix Amberg	Switzerland
Mr. Jean-Gilles Arnaudet	France
Mr. Jean-Luc Audureau	France
Dr. Nick Barton	Norway
Mr. Miloslav Frankovský	Slovakia
Prof. Robert Galler	Austria
Prof. Alfred Haack	Germany
Mr. Gustav Klados	Hungary
Prof. Marek Kwasniewski	Poland
Prof. Wulf Schubert	Austria
Mr. Wolfgang Stipek	Austria
Dr. Peter Štefko	Slovakia
Prof. Markus Thewes	Germany
Dr. Alun Thomas	United Kingdom
Dr. Harald Wagner	Austria
Prof. Walter Wittke	Germany

### Domestic Members:

Dr. Radko Bucek	Mott MacDonald Praha, spol. s r. o.
Mr. Otakar Hasík	Metroprojekt Praha a. s.
Dr. Vladimír Horák	Technical University in Brno
Dr. Eva Hrubešová	Technical University in Ostrava
Mr. Libor Mařík	IKP Consulting Engineers, s. r. o.
Mr. Miloslav Novotný	CzTA ITA-AITES
Prof. Jaroslav Pacovský	Czech Technical University in Prague
Dr. Jan Pruška	Czech Technical University in Prague
Prof. Pavel Příbýl	Eltodo EG, a. s.
Dr. Karel Rössler	Metrostav a. s.
Dr. Alexandr Rozsypal	ARCADIS Geotechnika, a. s.
Mr. Jiří Smolík	Subterra a. s.
Mr. Martin Srb	D2 Consult Prague s. r. o.
Mr. Ermín Stehlík	Metrostav a. s.
Mr. Ludvík Šajtar	Satra, spol s r. o.
Mr. Boris Šebesta	Metrostav a. s.
Dr. Richard Šňupárek	Czech Academy of Science
Mr. Lukáš Rákosník	Satra, spol. s r. o.
Ms. Hana Tesaříková	Guarant International spol. s r. o.
Dr. Karel Vojtasík	Technical University in Ostrava
Mr. Jaromír Zlámal	Pohl CZ, a. s.

## BASIC INFORMATION ON THE UC 2010 PRAGUE



**Conference name:** Underground Constructions Prague 2010  
Transport and City Tunnels

**Conference date:** 14<sup>th</sup> to 16<sup>th</sup> June 2010

**Conference venue:** Clarion Congress Hotel Prague  
Freyova 33, 190 00 Praha 9 – Vysočany  
Czech Republic  
[www.cchp.cz](http://www.cchp.cz)

The Clarion Congress Hotel Prague is a new modern hotel complex oriented toward hosting congresses and cultural events. At the same time it offers pleasant accommodation in comfortably furnished rooms. Excellent accessibility by means of mass transit is its advantage; it is located directly adjacent to the Vysočanská station on metro line B, which means about 15 minutes travel from Wenceslas Square in downtown Prague. It has sufficient space in underground garages for guests driving their own cars.

## CONFERENCE SCHEDULE

### Sunday, 13<sup>th</sup> June 2010

16:00–20:00 Registration

### Monday, 14<sup>th</sup> June 2010

07:30–18:00 Registration  
09:00–09:30 Opening Ceremony  
09:30–10:40 Keynote Lectures I and II  
10:40–11:10 Coffee break  
11:10–12:20 Keynote Lectures III and IV  
12:20–14:00 Lunch  
14:00–15:40 Presentations – Sections 1 and 5  
15:40–16:00 Coffee break  
16:00–17:40 Presentations – Sections 1 and 5  
19:30–23:00 Reception – Břevnov Moastery

### Tuesday, 15<sup>th</sup> June 2010

08:00–18:00 Registration  
09:00–10:20 Presentations – Sections 2 and 4  
10:20–10:50 Coffee break  
10:50–12:30 Presentations – Sections 3 and 4  
12:30–14:00 Lunch  
14:00–15:40 Presentations – Sections 3 and 2  
15:40–16:00 Coffee break  
16:50–18:00 Presentations – Sections 1 and 6

### Wednesday, 16<sup>th</sup> June 2010

09:00–12:00 Technical Excursions





## CONFERENCE PROGRAMME

MONDAY 14<sup>TH</sup> JUNE 2010

- 09:00–09:30 Opening Ceremony**  
*Dr. Alexandr Butovič, Chairman of Preparatory Committee*  
*Mr. Gustáv Slamečka, Transport Minister of the Czech Republic*  
*Mr. Martin Knights, Past President ITA-AITES (or: prof. Markus Thewes, Vice President ITA-AITES)*  
*Mr. Ivan Hrdina, Chairman CzTA ITA-AITES*
- 09:30–10:40 Keynote Lectures (1<sup>st</sup> part)**  
**Chairman: Dr. Matouš Hilar**  
**Development of tunnelling technologies in the Czech Republic during past decades**  
*Prof. Jiří Barták, Faculty of Civil Engineering, Czech Technical University, Prague, Czech Republic*  
**Underground construction projects in the Czech Republic: completed, under construction and planned from 2004**  
*Prof. Josef Aldorf, F.O.C.E, Technical University Of Ostrava, Czech Republic*
- 10:40–11:10 Coffee break**
- 11:10–12:20 Keynote Lectures (2<sup>nd</sup> part)**  
**Chairman: Dr. Matouš Hilar**  
**TBM prognoses for hard rock with weakness zones, using open-gripper or double-shield solutions**  
*Dr. Nick Barton, Nick Barton & Associates, Oslo, Norway*  
**Design Concept and Case Histories for Tunnels and Shafts in Jointed Rock**  
*Prof. Walter Wittke, Beratende Ingenieure für Grundbau und Felsbau GmbH (WBI), Aachen, Germany*
- 12:20–14:00 Lunch**
- 14:00–15:40 Nadir Hall**  
**Section 1**  
**Design and implementation of underground constructions – conventional tunnelling and cut-and-cover tunnels (1<sup>st</sup> part)**  
**Chairman of section: Dr. Radko Bucek**  
**Invited lecture: NATM – The Austrian Practice of Conventional Tunnelling**  
*R. Galler (Austria)*  
14:00–14:20 Design of underground structures for new London railway system – Crossrail Project  
*A. Caravanas (United Kingdom), P. Salák (Czech Republic)*  
14:20–14:40 "Královská obora" Tunnel  
*J. Kvaš, J. Škrábek, M. Salač (Czech Republic)*  
15:00–15:20 The Královská obora tunnel – reasons of emergencies occurrence and their liquidation methods  
*A. Butovič, J. Kvaš, M. Padevět (Czech Republic)*  
15:20–15:40 Modern Transport tunnels under Indian Himalayas  
*M. Srb, M. Hilar, P. Svoboda (Czech Republic)*

- Zenit Hall**  
**Section 5**  
**Equipment, safety and maintenance of underground structures (1<sup>st</sup> part)**  
**Chairman of section: Mr. Ludvík Šajtar**  
14:00–14:20 Risk Assessment of Road Tunnels – New Developments  
*B. Kohl, Ch. Zulauf (Austria)*  
14:20–14:40 Post-disaster, underground communications  
*S. J. Ward, W. Farjow, S. Parsons (United Kingdom)*  
14:40–15:00 Traffic management and safety in a road three-tunnel system  
*R. P. Arenas, S. R. Ortiz (Spain)*  
15:00–15:20 Training of tunnel operators – State of the art in the Czech Republic  
*P. Příbyl (Czech Republic)*  
15:20–15:40 Measurement of Atmospheric Influence on Tunnel Lining and on Steel Interior Equipment  
*J. Svoboda, M. Hnilička (Czech Republic)*
- 15:40–16:00 Coffee break**
- 16:00–17:40 Nadir Hall**  
**Section 1**  
**Design and implementation of underground constructions – conventional tunnelling and cut-and-cover tunnels (2<sup>nd</sup> part)**  
**Chairman of section: Dr. Radko Bucek**  
**Invited lecture: Construction of the North-South-Metro Line in Cologne and the accident on March 3<sup>rd</sup>, 2009**  
*A. Haack (Germany)*  
16:00–16:20 Tunnels on the 4<sup>th</sup> railway corridor from Benešov to České Budějovice  
*M. Gramblička, M. Marek (Czech Republic)*  
16:20–16:40 Influence of optimisation of the technical solution for executing tunnels on construction lot 513 of the Prague City Ring Road  
*L. Mařík, V. Prajzler, J. Hořejší, V. Petráš, R. Bohman (Czech Republic)*  
16:40–17:00 Design and construction of permanent waterproof tunnel linings based on sprayed concrete and spray-applied double-bonded membrane  
*K. G. Holter, R. Bridge, O. Tappy (Switzerland)*  
17:00–17:20 Watertight sprayed concrete for road tunnels  
*M. Thewes, G. Vollmann, R. Breitenbuecher, H. Rahm, F. Heimbecher, I. Kaundinya (Germany)*
- Zenit Hall**  
**Section 5**  
**Equipment, safety and maintenance of underground structures (2<sup>nd</sup> part)**  
**Chairman of section: Mr. Ludvík Šajtar**  
**Invited lecture: Safety and maintenance of tunnels**  
*J. G. Arnaudet (France)*  
16:00–16:20 Safety in tunnels: innovation and tradition  
*A. Focaracci (Italy)*  
16:20–16:40 Refurbishment of the ventilation system of the Elbe tunnel in Hamburg  
*P. Pospisil (Switzerland)*  
16:40–17:00 Utilization of Mathematical Model in Fire Safety Design for the Komořany Tunnel  
*I. Bradáčová, A. Dudáček, P. Kučera (Czech Republic)*  
17:00–17:20 Risk analysis for 25 km long railway tunnel Prague – Beroun  
*R. Šabata, C. Neumann (Czech Republic)*  
17:20–17:40
- 19:30–23:00 Reception – Břevnov Monastery**

THURSDAY, 15<sup>TH</sup> JUNE 2010

09:00–10:20

**Nadir Hall**  
**Section 2**

**Design and implementation of underground constructions – mechanised tunnelling (1<sup>st</sup> part)**

**Chairman of section: Mr. Otakar Hasík**

**Invited lecture: Shield tunnelling technology for increasingly difficult site conditions**

*M. Thewes (Germany)*

09:00–09:20

Finne tunnel – ICE rail line Erfurt – Leipzig / Halle a TBM driven advance with single-shell tunnel lining

*R. Pechhacker (Austria)*

09:40–10:00

Driven Running Tunnels for the V.A Metro Line in Prague

*M. Kochánek, J. Růžička, J. Korejčík, P. Višňák (Czech Republic)*

10:00–10:20

Large diameter micro-tunnelling in Karviná

*V. Drobík, K. Franczyk (Czech Republic)*

**Zenit Hall**  
**Section 4**

**Modelling of underground structures (1<sup>st</sup> part)**

**Chairman of section: Dr. Jan Pruška**

09:00–09:20

The review of current rock mass characterization practices

*C. Leber, W. Schubert (Austria)*

09:20–09:40

Design of parallel non-circular tunnel linings constructed in urban areas with the application of grouting

*N. N. Fotieva, N. S. Bulychev, P. V. Deev (Russian Federation)*

09:40–10:00

Determination of development of elastic modulus value for primary steel concrete reinforcement

according to cooperative-ring-exchange theory

*K. Vojtasík, E. Hrubešová, M. Mohyla, J. Staňková (Czech Republic)*

10:00–10:20

Analysis of cracking in tunnel lining segments

*A. Focaracci (Italy)*

10:20–10:50

**Coffee Break**

10:50–12:30

**Nadir Hall**  
**Section 3**

**Geotechnical investigation, monitoring and risk management (1<sup>st</sup> part)**

**Chairman of section: Dr. Alexandr Rozsypal**

10:50–11:10

Risk Management in Infrastructure Projects (Mypra Tunnel, Prague)

*F. Blindow, M. Padevêt (Czech Republic)*

11:10–11:30

Estimating roadway tunnel stability in Polish carpathian flysch

*Z. Niedbalski, T. Majcherczyk (Poland)*

11:30–11:50

Deformations of southern portal of Prackovice tunnel during construction

*J. Barták, O. Čejka (Czech Republic)*

11:50–12:10

Tunnels in Flysh Environment – Geotechnical Risk, Practical Experience

*V. Veselý, O. Jandejsek (Czech Republic)*

12:10–12:30

Experimental tests on tunnel precast segmental lining with fiber reinforced concrete

*P. Romualdi, M. Moccichino, P. Perruzza, A. Caratelli, A. Meda, Z. Rinaldi (Italy)*

**Zenit Hall**  
**Section 4**

**Modelling of underground structures (2<sup>nd</sup> part)**

**Chairman of section: Dr. Jan Pruška**

**Invited lecture: New challenges in numerical modelling**

*A. H. Thomas (Hungary)*

10:50–11:10

NATM Tunnelling in Soft Ground – Numerical Modelling Techniques for Urban Areas

*F. Jiricny, T. Marcher, R. Šabata (Czech Republic)*

11:10–11:30

Convergence-confinement method for simulating NATM tunnels evaluated by comparison with full 3D simulations

*T. Svoboda, D. Mašín (Czech Republic)*

11:30–11:50

Vinohrady Tunnel in Brno – FEM Modeling of Behavior of Specific Environment for Tunnel Driving

*O. Krásný, O. Holý (Czech Republic)*

11:50–12:10

Artificial ground freezing in the Limmat project: Assessment of frozen body closure

*S. Papakonstantinou, E. Pimentel, G. Anagnostou (Switzerland)*

12:10–12:30

12:30–14:00

**Lunch**

14:00–15:40

**Nadir Hall**  
**Section 3**

**Geotechnical investigation, monitoring and risk management (2<sup>nd</sup> part)**

**Chairman of section: Dr. Alexandr Rozsypal**

**Invited lecture: Current State of Investigation, Monitoring and Risk Management**

*W. Schubert (Austria)*

14:00–14:20

Evaluation Kralovopolske Tunnels in Clays: The Impact of Deformation on Surface Buildings – Response to Excavation

*O. Hort, T. Ebermann, M. Rychtecký, J. Lossmann, M. Polák (Czech Republic)*

14:20–14:40

The technology of compensation grouting used for the Královopolské Tunnels project on the Big City Ring in Brno

*J. Mühl, P. Maláč, J. Mráz (Czech Republic)*

14:40–15:00

Supporting Measurements at Execution of Compensation Grouting in the Královo Pole Tunnels Project - VMO (the Big City Ring) in Brno

*P. Hlaváček, P. Havel (Czech Republic)*

15:00–15:20

Investigation of Adherence Behaviour and Related Effects on Different Scales Mechanical Tunnel Driving

*G. Spagnoli, T. Fernández-Steeger, R. Azzam, M. Feinendegen, H. P. Neher, H. Stanjek (Germany)*

15:20–15:40

**Zenit Hall**  
**Section 2**

**Design and implementation of underground constructions – mechanised tunnelling (2<sup>nd</sup> part)**

**Chairman of section: Mr. Martin Srb**

14:00–14:20

Innovation in the Tunnel Boring Machine Industry

*K. Bäßler (Germany)*

14:20–14:40

Delhi Metro: Experience gained during the construction of BC 24 Contract

*C. R. Man, C. Mookhan (Switzerland)*

14:40–15:00

TBM tunnels for Kárahnjúkar Power Station

*A. Caravanas (United Kingdom)*

15:00–15:20

New experience with roadheaders in hard rock tunnelling applications

*U. Restner, J. Pichler (Austria)*

15:20–15:40

Interconnection of TEN-T railway corridors with the airport and rail system in Bratislava

*V. Chomová, I. Kačo (Slovakia)*

15:40–16:00

**Coffee break**



16:00–17:40

**Nadir Hall**

**Section 1**

**Design and implementation of underground constructions – conventional tunnelling and cut-and-cover tunnels (3<sup>rd</sup> part)**

**Chairman of section: Dr. Radko Bucek**

- 16:00–16:20 Grouting operations in Iceland: Problems of injecting chemical grout using the pre-grouting method on the Hédinsfjardargöng project  
*D. Cyroň, V. Pavlovský, I. Piršič, P. Kučera (Czech Republic)*
- 16:20–16:40 Design of underground stations Nivy and Centrum within the construction of the railway corridor interconnection in Bratislava  
*M. Frankovský, J. Snopko, T. Marcher (Slovakia)*
- 16:40–17:00 Future safeguarding design of a metro station for New Doha International Airport  
*J. H. Rodwell, M. Yesugey (United Kingdom), M. Uhrin (Czech Republic)*
- 17:00–17:20 Design and construction of metro tunnels excavated by conventional techniques under the severe seismic condition of Istanbul  
*G. Quaglio, G. Astore, P. Grasso, O. Angelini, M. Oguz (Italy)*
- 17:20–17:40 Experiences with tunnel excavation in Scandinavia  
*P. Balušik (Slovakia)*
- 17:40–18:00 Lessons learned – review of recent sequential excavations  
*K. Rossler, M. Salač, J. Škrábek (Czech Republic)*

**18:00**

**Conference closing**

**Zenit Hall**

**Section 6**

**Contractual relationships, funding and insurance for underground structures**

**Chairman of section: Mr. Boris Šebesta**

**Invited lecture: Why not Underground?**

- 16:00–16:20 *H. Wagner (Austria)*
- 16:20–16:40 Legal Risks of Underground Constructions  
*D. Hruška (Czech Republic)*
- 16:40–17:00 Money Isn't Everything, or Is It?  
*B. Welburn, P. Villard (France)*
- 17:00–17:20 Tunnelling in Iceland – Contractual Problems and their Settlement  
*E. Stehlík (Czech Republic)*
- 17:20–17:40 Implementation of underground constructions vs. ownership right to real  
*V. Kacálek (Czech Republic)*
- 17:40–18:00 Contractual Relations and Financing of the Construction of the Březno Tunnel  
*J. Heřt, M. Majer*

**18:00**

**Conference closing**

**POSTER SECTION**

The authors of the papers which have not been accepted for oral presentation have an option to prepare posters relating to their papers and place them to the Poster Section.

For more information see: [www.ita-aites.cz](http://www.ita-aites.cz).

**TECHNICAL EXHIBITON**

An exhibition is located on conference floor together with registration and all meeting halls.

The exhibition will be open as follows:

Monday, 14 June 2010	08:00–18:00
Tuesday, 15 June 2010	08:00–18:00

**List of exhibitors by alphabetical order:**

- |                                |   |
|--------------------------------|---|
| ARCADIS Geotechnika a.s.       | Minova Bohemia s.r.o.                               |
| Atlas Copco s.r.o.             | MOTT MACDONALD Praha, spol. s r.o.                  |
| BASF Stavební hmoty ČR s.r.o.  | Obermann GmbH                                       |
| Bekaert SA                     | OHL ŽS, a.s.  |
| D2 Constult Prague s. r. o.    | PERI s.r.o.   |
| ELTODO dopravní systémy s.r.o. | Promat s.r.o.                                       |
| Geokon, Incorporated           | Rascor International Ltd.                           |
| GEOTEST Brno, a. s.            | PROMINECON GROUP a.s.                               |
| Herrenknecht AG                | Sandvik Mining and Construction Central Europe GmbH |
| HOCHTIEF CZ a.s.               | SELI S.p.A.   |
| Kolektory Praha a.s.           | SMP CZ, a.s.  |
| Krampe CZ spol.s.r.o.          | Spelsberg spol. s.r.o.                              |
| Mecas ESI s.r.o.               | Subterra a.s.                                       |
| METROPROJEKT Praha a.s.        | TROLEX Ltd.   |
| Metrostav a.s.                 | Wilhelm Ernst & Sohn Verlag                         |





## TECHNICAL EXCURSION

Three technical excursions to underground construction sites in Prague are prepared for the conference attendees for Wednesday morning the 16<sup>th</sup> June 2010.

### Excursion A

#### Blanka I complex of tunnels

The Blanka complex of tunnels in Prague is the largest underground project currently under construction in the Czech Republic.

The excursion should include a visit of a ventilation plant cavern excavated using NATM, which is one of the largest tunnel profiles excavated in the Czech Republic (excavated cross-sectional area of over 300 m<sup>2</sup>) including a 7 m-diameter extraction ventilation duct.

Unfortunately, no additional applications for Excursion A are currently possible.

### Excursion B

#### Blanka II complex of tunnels

This excursion will be focused on the mined Brusnice tunnel section, which leads from the northern portal of the Strahov tunnel, via Patočková Street, in the beginning through cut-and-cover tunnels. The NATM tunnel has two three-lane tubes connected by two cross-passages, the length of the tunnel is 550 m.

Unfortunately, no additional applications for Excursion B are currently possible.

### Excursion C

#### Utility tunnels in the historic centre of Prague

There is a wide network of utility tunnels in Prague, at the total length of about 90 km. The utility tunnels carry a combination of the majority of utility networks necessary for the life of the city. The total length of the utility tunnel network in the centre is 17 km long. It consists of main utility tunnels and distribution tunnels.

### Excursion registration

People interested in an excursion should announce their selection of excursion in the conference registration form or directly during the conference. The number of visitors for each excursion is limited.

For more information about Technical Excursions please see: [www.ita-aites.cz](http://www.ita-aites.cz)

## GENERAL INFORMATION

### REGISTRATION

Registration desk is located on 3<sup>rd</sup> conference floor next to the cloakroom. Participant can pick-up their conference materials as well as order additional services there (accommodation, taxi).

#### Registration and information desk will be open as follows:

Sunday, 13 June 2010	16:00–20:00
Monday, 14 June 2010	07:30–18:00
Tuesday, 15 June 2010	08:00–18:00



### SPEAKER READY ROOM

Speaker ready room is located in the Quadrant meeting room next to the meeting hall Zenit and Nadir. Opening hours are as follows:

Monday, 14 June 2010	07:30–18:00
Tuesday, 15 June 2010	08:00–18:00

### OFFICIAL CONFERENCE LANGUAGES

English, Czech / Slovak

### INTERPRETATION

Lectures will be simultaneously interpreted into English, German and Czech.

### INTERNET

As a courtesy to all participants, two internet terminals will be available in the Quadrant meeting room.

### COFFEE BREAKS

During the programme breaks, coffee breaks will be served free of charge to all participants. They will be served in the foyer and in the Maridian hall.

### LUNCH

Lunch will be served for registered participant on the 2<sup>nd</sup> floor in restaurant Veduta Brasserie.

### CAR PARKING

Underground parking space is available in the Clarion Congress Hotel Prague and participants arriving by car are advised to use these facilities. Parking fees are not included in the registration fee.







## REGISTRATION FEE

(the amounts are stated inclusive of VAT)

### Conference attendees

Registration fee received after 21<sup>st</sup> May 2010 and at the conference

11 500 CZK

### The registration fee covers:

- participation in the Technical Programme including the Exhibition and the Poster Section
- conference documents including Proceedings (book + CD)
- attendance at the Reception at Břevnov Monastery on 14<sup>th</sup> June 2010
- lunches and coffee breaks on 14<sup>th</sup> and 15<sup>th</sup> June 2010
- participation in the Excursion on 16<sup>th</sup> June 2010

### Students (this category includes postgradual students)

Registration fee

1 500 CZK

On registration, all students paying lower registration fee must proof their studies (eg. confirmation letter issued by the respective university)

### The registration fee covers:

- conference documents including Proceedings (a book + CD)
- lunches and coffee breaks on 14<sup>th</sup> and 15<sup>th</sup> June 2010
- participation in the Excursion on 16<sup>th</sup> June 2010

### Accompanying Persons

The fee for attendance at the Reception and participation in events for accompanying persons reduced fee if payment is received after 21<sup>st</sup> May 2010 or at the conference

2 300 CZK

### The fee for attendance only at the Reception

fee if payment is received after 21<sup>st</sup> May 2010 or at the conference

1 100 CZK

## REGISTRATION AND ACCOMMODATION

Submitting applications for registration and accommodation of Conference attendees and accompanying persons is possible only electronically through the CzTA web site at [www.ita-aites.cz](http://www.ita-aites.cz)

### Registration and accommodation of the participants will be handled by the Conference Secretariat:

GUARANT International / Underground Constructions Prague 2010  
Opletalova 22, 110 00 Praha 1, Czech Republic  
Tel.: +420 284 001 444, fax: +420 284 001 448,  
e-mail: [ps2010prague@guarant.cz](mailto:ps2010prague@guarant.cz), web: [www.ita-aites.cz](http://www.ita-aites.cz)

### Confirmation

All participants will receive letter of Confirmation via e-mail or fax within 3 working days.



## CANCELLATIONS AND REFUNDS

The Conference Secretariat must be notified in writing about cancellation of your registration or hotel accommodation. The appropriate refunds will be made after the Conference. The following cancellation conditions will apply:

### Cancellation of your registration:

Cancellation after May 1, 2010

100% cancellation fee

### Cancellation of hotel accommodation:

Cancellation after April 4, 2010

one night cancellation fee

No arrival

one night cancellation fee

## SOCIAL PROGRAMME

A reception will be held for conference attendees and accompanying persons. It will take place in the historic building of the Břevnov Monastery on Monday, 14<sup>th</sup> June 2010 from 19:30.



From Clarion Congress Hotel Prague: take tram number 15 in front of the hotel to tram stop **Břevnovský klášter** (40 minutes away). From the centre of Prague: take **line A** to **Malostranská station**, change to tram number 22 and go to tram stop **Břevnovský klášter**.







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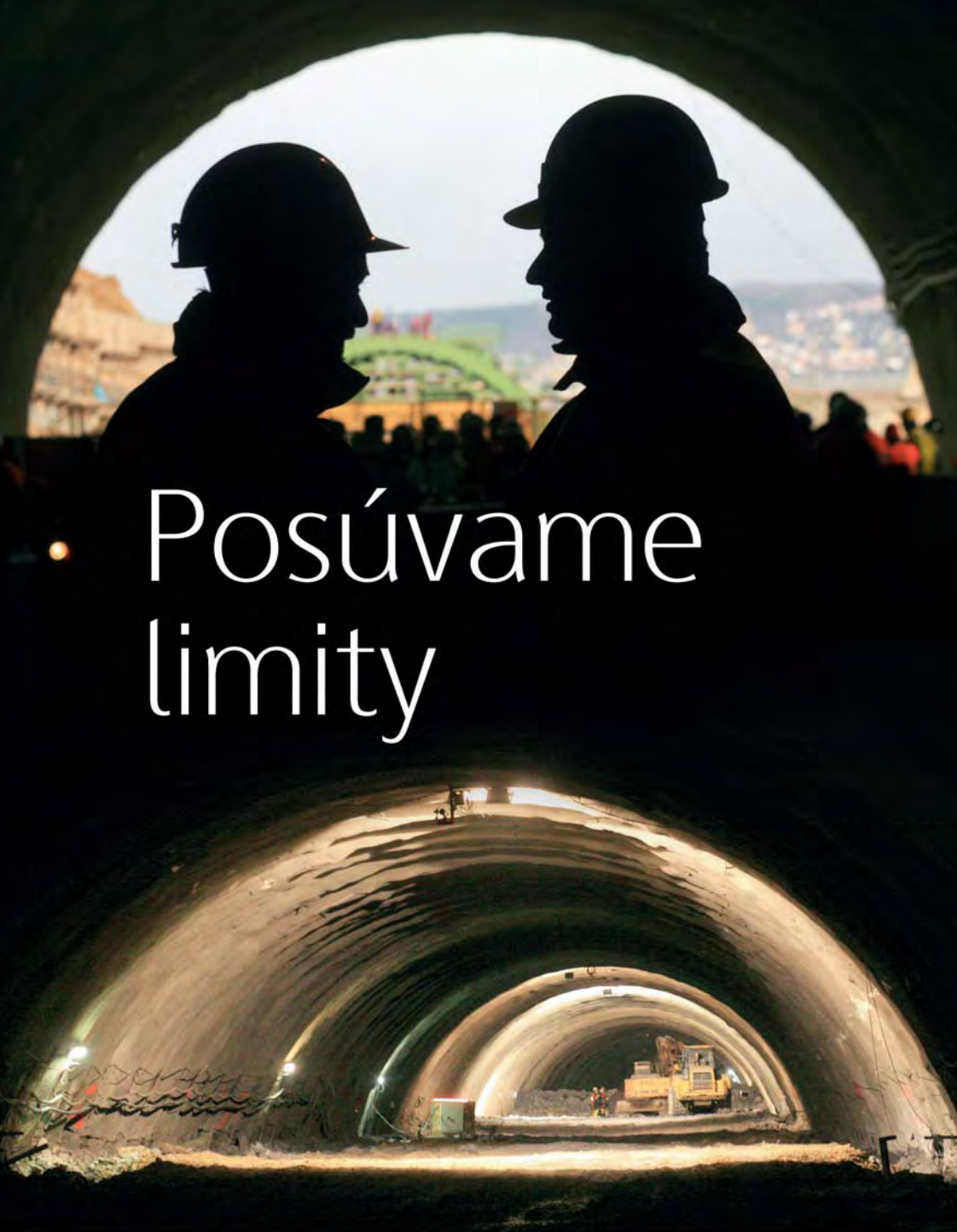
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Viac informácií  
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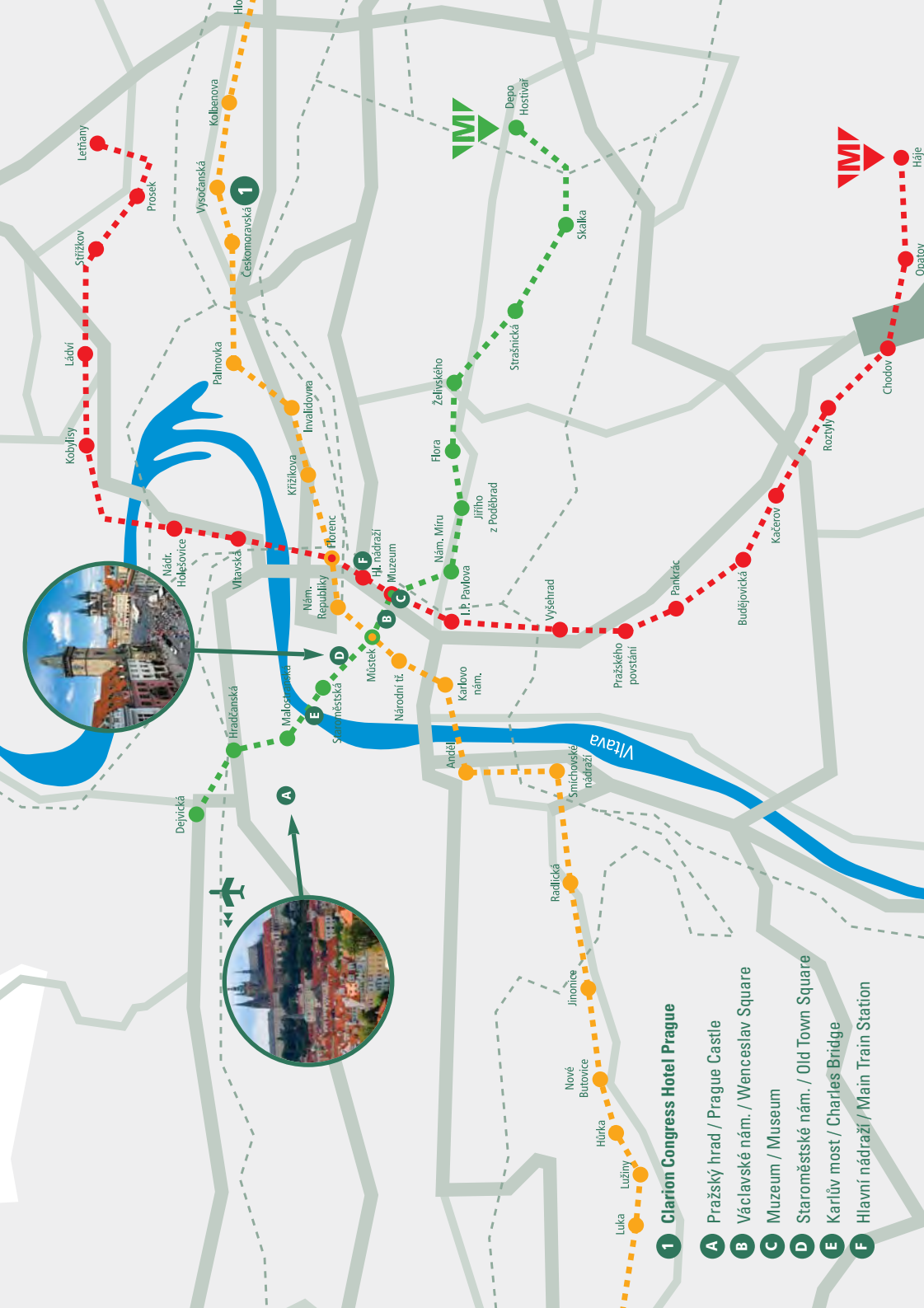


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# 1 Clarion Congress Hotel Prague

- A** Pražský hrad / Prague Castle
- B** Václavské nám. / Wenceslav Square
- C** Muzeum / Museum
- D** Staroměstské nám. / Old Town Square
- E** Karlův most / Charles Bridge
- F** Hlavní nádraží / Main Train Station