



**JULY 14-15, 2011**

Softwarepark Hagenberg, Linz / Austria

**ITACET Foundation**  
Training Session

# SOFTWARE APPLICATION IN TUNNELLING

This first seminar on “Software Application in Tunnelling” focuses on comprehensive education and training of Tunnelling Engineers based on latest state of the art software controlled methods in virtually all fields of Tunnel Engineering and Construction. Main topic of this event will be the applicability of “Software Application in Tunnelling” in all relevant fields of Tunnel Engineering such as design, construction supervision and risk management as well as Construction Purposes. The importance of tunnelling software in both tunnel design and construction in general and also the possibilities and procedures for implementation will be shown. The conference will also focus on the usage of “Software Applications in Tunnelling” in connection with ground monitoring and related design interactions. Future developments of “Software Applications in Tunnelling” will be supported by related research projects in Tunnel Engineering thus providing extensive and useful additions and amendments.

## AGENDA - Thursday, July 14, 2011

09.00 - 09.30 Welcome and Opening Felix Amberg, Bruno Buchberger

### SESSION 1 OVERVIEW AND GENERAL ASPECTS | CHAIRMAN PIERGIORGIO GRASSO

09.30 - 09.55	New Math Methods: Symbolic Computation	Bruno Buchberger, RISC Institute
09.55 - 10.20	The Future of Numerical Computation in Tunnelling	Helmut F. Schweiger, Technical University of Graz
10.20 - 10.45	New Math Methods: Numerical Computation	Ronny Ramlau, RICAM Institute
10.45 - 11.15	Coffee Break	
11.15 - 11.45	Software Application in Tunnelling in View of a Consultant	Karl Grossauer, Amberg Engineering
11.45 - 12.15	Software supported Risk Management for large Motorway Concessionaires	Michael Steiner, Asfinag - Austrian Motorway Concessionaire
12.15 - 12.45	Software Application in Railway Tunnelling in View of a Client	Johann Herdina, ÖBB - Austrian Federal Railways
12.45 - 14.00	Lunch	

### SESSION 2 USE OF SOFTWARE IN TUNNEL ENGINEERING | CHAIRMAN NEJAD AYAYDIN

14.00 - 14.25	Ground Deformation Behavior and Trend Lines	Wulf Schubert, Technical University of Graz
14.25 - 14.50	Monitoring and Interpretation	Wulf Schubert, Technical University of Graz
14.50 - 15.15	Tunnel Lining Computation	Miroslav Marenc, Pöyry
15.15 - 15.45	Coffee Break	
15.45 - 16.10	Geotechnical Design Basics for Shallow Tunnels	Robert Galler, Mining University of Leoben
16.10 - 16.35	Use of Numerical Software for Research Projects	Byron Protopsaltis, Matthias Filus, Fides DV-Partner
16.35 - 17.00	Evaluation of Stresses in the Shotcrete Lining from 3D Measurements	Markus Brandtner, IGT Geotechnik & Tunnelbau
19.00	Seminar Banquet in the Ars Electronica Center Linz	Bookie Mountain Jazz Trio

## AGENDA - Friday, July 15, 2011

### SESSION 3 USE OF SOFTWARE IN TUNNEL CONSTRUCTION | CHAIRMAN PETER KOGLER

09.00 - 09.25	Geological Survey Software as Basis for Engineering	Kurt Klima, Technical University of Graz
09.25 - 09.50	TBM - Automation	Detlef Jordan, Aker Wirth
09.50 - 10.15	Monitoring Equipment for Software Controlled Systems	Klaus Rabensteiner, Geodata Leoben
10.15 - 10.40	Documentation and Controlling of Tunnel Projects	Friedrich Karl Blindow, Intertunnel
10.40 - 11.10	Coffee Break	
11.10 - 11.35	Numerical Modelling for a robust Risk Management Plan	Piergiorgio Grasso, Geodata Torino
11.35 - 12.00	Software - Controlled TBM - Tunnelling "Simtunnels"	Matthias Türtscher, Technical University of Innsbruck
12.00 - 12.25	Automatic Person Detecting System & Air Flow Monitoring for Underground Projects	Bernhard Wimmer, Durstmüller
12.25 - 12.50	RIAAT - A Software Tool for Probabilistic Cost and Risk Analysis	Philip Sander, SSP BauConsult
12.50 - 14.00	Lunch	

### SESSION 4 WORKSHOP SESSIONS ON SELECTED TOPICS (\*) | CHAIRMAN ANDRÉ ASSIS (\*) Rotation between 5 different Rooms

14.00 - 17.00	FE-Analysis 2 and 3 Dimensional Simulation	Miroslav Marenc, Pöyry
	Geotechnical Risk during Excavation	Wulf Schubert, Technical University of Graz
	Monitoring	Robert Galler, Mining University of Leoben
	Tunnel Site Organization / Software Guided Controlling	Harald Wagner, Tunnel Consultant
	Automated Real Time Cost Data Management: RFID in Underground Construction	Martin Smith, Matrics
17.00 - 17.40	Wrap-up "Round Table"	Piergiorgio Grasso, Harald Wagner, Nejad Ayaydin, Peter Kogler
18.00 - 19.00	Pitching Session for the Initialisation of new Cooperation Projects	Bruno Buchberger, RISC Institute

### ORGANIZING COMMITTEE



**Honorary Chairman**  
HE Abdullah Al Mogbel



**Conference Chairman**  
André Assis



**Organizing Chairman**  
Bruno Buchberger

# REGISTRATION

## CONFERENCE FEE

2 days*	EUR 270.00
Reduced fee for students	EUR 195.00
*incl. coffee breaks, lunches and banquet	

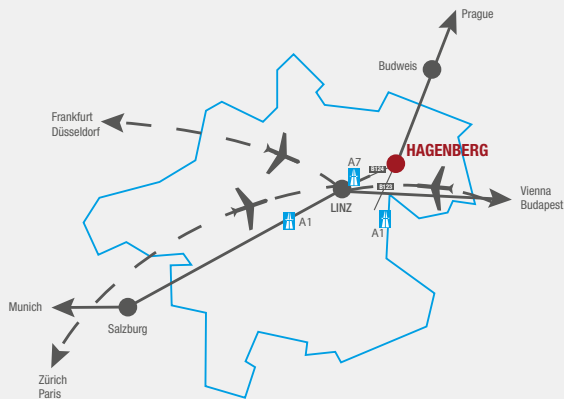
## REGISTRATION DEADLINE

July 10, 2011  
 Early Registration June 1, 2011 (10 % reduced fee)

For more detailed information please visit  
[www.itacet-software.com](http://www.itacet-software.com)

## CONFERENCE SECRETARIAT

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