Shotcrete for Underground Support XIII

September 3-6, 2017
Kloster Irsee, Irsee, Germany

Conference Chair:
Dietmar Mähner
FH Münster, Germany

Conference Co-Chairs:
Matthias Beisler
ILF Consulting Engineers, Thailand

Frank Heimbecher
FH Münster, Germany

Engineering Conferences International
32 Broadway, Suite 314 - New York, NY 10004, USA
www.engconfintl.org – info@engconfintl.org
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<td>16:30 - 18:00</td>
<td>Conference check-in</td>
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<td>18:00</td>
<td>Dinner</td>
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<td>19:30</td>
<td>Concert by organist Roland Götz on historic organ</td>
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<td>21:00</td>
<td>Social period</td>
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Monday, September 4, 2017

07:30 – 09:00  Breakfast buffet

09:00 – 09:30  Conference Opening/Welcome Talks
Prof. Herbert Klapperich, ECI-Liaison
Prof. Dietmar Mähner, Conference Chair
Prof. Tarcisio Celestino, President, ITA
Prof. Conrad Boley, DGGT - German Geotechnical Society, Head of the "Rock Mechanics" Division
Rusty Morgan, Canada. Past-Chair ECI-SUS X
Guojun Li, Singapore, Past-Chair ECI-SUS XII
Preedee Ngamsantikul president of TUTG Thailand Underground & Tunneling Group

09:30 – 10:00  Multi layered shotcrete design
Matthias Werner Beisler, ILF Consulting Engineers, Austria

10:00 – 10:30  Tunnel shotcrete lining for hydroelectric projects in British Columbia
Lihe Zhang, Consulting & Testing Ltd., Canada

10:30 – 11:00  Coffee Break

11:00 – 11:30  In situ testing of early age energy absorption in sprayed fiber reinforced concrete - HyEA – test
Michael Kompatscher, Hagerbach Test Gallery Ltd, Switzerland

11:30 – 12:00  Limitation of strength of sprayed concrete
Sven Plückelmann, Ruhr University Bochum, Germany

12:00 – 12:30  Understanding the role of accelerators in wet-mix shotcrete
Ezgi Yurdakul, GCP Applied Technologies, USA

12:30 – 14:00  Lunch

14:00 – 14:30  Cellular sprayed concrete for simple and economic remixing
Kyong-Ku Yun, Kangwon National University, Korea

14:30 – 15:00  Possible applications of a highly ductile sprayed concrete as a measure for ground support and structural upgrade
Goetz Vollmann, Ruhr-University Bochum, Germany

15:00 – 15:30  Toward a better understanding of the placement of shotcrete: Nozzles and velocities
Marc Jolin, Laval University, Canada

15:30 – 15:45  TBD

15:45 – 16:15  Coffee Break
16:15 - 16:30  Underground support for Xe-Pian Xe-Namnoy hydropower project, Lao PDR - 128
Chawalit Tanomtin, Right Tunnelling Co., Ltd., Thailand

16:30 - 16:45  Application examples of a very economic way of cellular sprayed concrete on retaining wall and artificial rock
Kyong-Ku Yun, Kangwon National University, Korea

19:30  Dinner followed by social period
Tuesday, September 5, 2017

07:30 -09:00 Breakfast buffet

09:00 - 09:30 Design approach and verification of single shell lined tunnels
Thomas Marcher, SKAVA consulting ZT GmbH, Austria

09:30 - 10:00 Structural retrofitting of rescue tunnels in single shell shotcrete construction – requirements and experiences
Daniel Eickmeier, Federal Highway Research Institute (BAST), Germany

10:00 - 10:15 Production of a waterproofing construction in steel fiber concrete at the railway project Stuttgart 21
Andreas Schaab, HOCHTIEF Infrastructure GmbH, Germany

10:15 - 10:30 Concrete renovation and enhancing of fire protection of an existing tunnel with spayable polymer cement concrete (SPCC)
Stefan Peters, IMM, Germany

10:30 - 11:00 Coffee Break

11:00 - 11:30 The effects of local voids and imperfections of surrounding rock on the performance of existing tunnel lining
Jinyang Fu, Central South University, China

11:30 - 12:00 Earth pressure on anchor-shotcrete retaining structures
Juncheng Gao, Dalian University of Technology, China

12:00 - 12:30 Value engineering in engineering tunnels projects
Mahmoud Elshourbagy, Taibah University Al-Madina, Saudi Arabia

12:30 - 14:00 Lunch Break

14:00 - 14:30 Durable and sustainable shotcrete
Maria Thumann, OTH Regensburg, Germany

14:30 - 14:45 Determination of trigger levels for SCL and NATM
Max John, John Tunnel Consult, Austria

14:45 - 15:00 Rock-Support analysis for buckling failure at Cuiabá Mine decline
Felipe Pereira, AngloGoldAshanti, Brazil

15:00 - 15:15 Structural modifications to hydroelectric turbine draft tube ceiling using accelerated wet-mix steel fiber reinforced shotcrete applied up to 2m thick overhead
Shaun M. Radomski, Amec Foster Wheeler, Canada

15:15 - 15:30 Application of cellular sprayed concrete into two-lift concrete
Yun, Kyong-Ku Yun, Kangwon National University, Korea

15:30 - 16:00 Coffee Break
Tuesday, September 5, 2017 (continued)

16:00 - 16:15  Spray fibre reinforced concrete – performance criteria and testing method
                Benoit de Rivaz, Bekaert Maccaferi Underground Solution, France

16:15 - 16:30  Why is rheology important for shotcrete and how can it be improved?
                Ezgi Yurdakul, GCP Applied Technologies, USA

17:00          Nature Walk

20:00          Conference Dinner

Announcement of SUS XIV, 2019
Wednesday, September 6, 2017

07:30 – 09:00  Breakfast buffet

09:00 - 09:30  Specifying and testing fiber reinforced shotcrete: Advances and challenges
               Antoine Gagnon, Laval University, Canada

09:30 - 10:00  Shotcreting of ultra-high performance concrete
               Laurence Trucy, LafargeHolcim, France

10:00 - 10:30  Innovative shotcrete technologies for durable rapid underground development and infrastructure repairs exposed to severe conditions
               Nicolas Ginouse, King Shotcrete Solutions, Canada

10:30 - 11:30  Properties and function of permanent shotcrete linings waterproofed with bonded membranes
               Karl Gunnar Holter, BASF Construction Chemicals Europe AG, Switzerland

11:30  Lunch and departures