

PASTE·2017

Program*

14 June 2017

09:00-17:00 Short Course

15 June 2017

08:00-23:00 Registration

16 June 2017

Opening Ceremony & Keynote Speech

TECHNICAL SESSION SPONSOR



08:30-09:20 Opening Ceremony

09:20-10:05 Aixiang Wu
University of Science and Technology
Beijing, China
Keynote: Development and Challenge of Paste Technology in China

10:05-10:25 Richard Jewell
Australian Centre for Geomechanics,
Australia
Keynote: Reducing the Risk from Major TSF Failures

10:25-10:55 MORNING BREAK

10:55-11:25 Runcang Yu & Shihu Shi
China ENFI Engineering Corporation
Keynote: China's Experience in the Development of Paste Backfill
Technology

11:25-12:10 Lionel Pullum
Commonwealth Scientific and
Industrial Research Organization
Keynote: Recent advances in suspension transport mechanics of
paste and thickened tailings like materials

12:10-13:30 LUNCH

Thickening

TECHNICAL SESSION SPONSOR



14:00-14:20 Mika Kosonen
Dewatering Automation, Outotec,
Finland
Performance Optimization of Paste Thickening

14:20-14:40 Jerold Johnson
WesTech Engineering, Inc., USA
Feedwell is the Heart of a Thickener

14:40-15:00 Behnam Pirouz
ATC Williams, Australia
Thickener Performance Variability: Underflow Solids Concentration
and Flowrate

15:00-15:20	Fangqiu Gu Golder Associates Ltd., Canada	Challenges Associated with the Design of a Dewatering Plant that will Undergo a Large Increase in Tailings Throughput During the Initial Years of the Project
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15:20-15:50	AFTERNOON BREAK	
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Tailings Disposal

TECHNICAL SESSION SPONSOR



15:50-16:10	Sijing Cai University of Science and Technology Beijing, China	Study on Liquefying-damage of Mine Tailings Dam in Earthquake
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16:10-16:30	Paweł Stefanek KGHM Polska Miedź, Poland	Surface Tailings Disposal at the Żelazny Most TSF, Today and into the Future
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16:30-16:50	Nicholas Thompson SRK Consulting Pty Ltd., Australia	Thickened Tailings Deposition for Closure
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16:50-17:10	Sue Longo Golder Associates Ltd., Canada	Paste Technology – Not Just for Mining Anymore
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17:10-17:30	Tim Fitton Fitton Tailings Consultants, Australia	Avoiding Large Tailings Dams Without Going Underground – Robinsky's Thickened Tailings Concept
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17:30-17:50	Lois Boxill BASF Canada	Uncertainty Ranges in Estimating e_0 and Low-Density Consolidation Characteristics for Polymer Treatment Assessments
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18:00-19:30	DINNER	
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17 June 2017

Case Studies (1)

TECHNICAL SESSION SPONSOR



08:30-08:50	Zhiqiang Yang State Key Laboratory of Comprehensive Utilization of Nickel and Cobalt Resources, China	Research Progress of Backfill Key Technologies for Deep Resources Mining in Jinchuan Nickel Mine
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08:50-09:10	Shusheng Li Feny Co., Ltd	Perfect Combination of Process and Equipment -- Two Carriages for Green Mines
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09:10-09:30	Chris Lee Golder Associates Ltd., Canada	An Examination of Improvements in Co-disposal of Waste Rock with Backfill
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09:30-09:50	Diyuan Li Central South University, China	Strength and Transportability of Cemented Phosphogypsum Paste Backfilling Slurry
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09:50-10:10	John Almas Sika China, Tunneling and Mining, China	Translating Paste Backfill Admixture Results from the Laboratory into the Field
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10:10-10:40	MORNING BREAK	
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Mine Fill (1)

TECHNICAL SESSION SPONSOR



10:40-11:00	Hongjiang Wang University of Science and Technology Beijing, China	The Effects of Mixing Time on Cement Paste Slurry Transportation and Mechanical Property
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11:00-11:20	Jian Deng Lakehead University, Canada	Reliability Analysis and Design of Backfills in a Cut-and-fill Method
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11:20-11:40	Nong Zhang China University of Mining and Technology	Dynamic Coordination Mechanism of Paste Strength and Roof Load for Gob-side Entry Retaining
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11:40-12:00	Xiaohui Liu Beijing JCHX Mine Technology Research Institute Co., Ltd., China	JCHX Paste Backfilling Lab & Experimental Technique
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12:00-13:30	LUNCH	
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Mine Fill (2)

TECHNICAL SESSION SPONSOR



14:00-14:20	Pengliang Liu China Coal Research Institute CCRI	Technology and practice of mechanized backfill mining for water protection with aeolian sand paste-like
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14:20-14:40	Ryan L. Veenstra North Queensland Zinc, Glencore Australia, Australia	Evaluation of Mount Heaney leads slag to produce a cemented backfill
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14:40-15:00	Juanhong Liu University of Science and Technology Beijing, China	Performance and optimization of unclassified tailings filling material
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15:00-15:30	AFTERNOON BREAK	
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Rheology & Transport

TECHNICAL SESSION SPONSOR



15:30-15:50	Peter Peschken Putzmeister Solid Pumps GmbH, Germany	Backfilling of Pastes and Long Distance Transport of High Density Slurries with Double Piston Pumps
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15:50-16:10	Peter Scales The University of Melbourne, Australia	Variability of Shear Yield Stress – Measurement and Implications for Mineral Processing
16:10-16:30	Michael Santarossa James Cook University, Australia	Digital Imaging and Laser Measurement of Paste Pipe Wear
16:30-16:50	Peter Goosen Paterson & Cooke Consulting Engineers (Pty) Ltd., South Africa	Pumping System Design Challenges for High-Density Iron Ore Tailings with Highly Variable Slurry Rheology
16:50-17:10	Hein Krimpenfort FELUWA PUMPS, Germany Brad Ricks Brass Engineering, Unites States	The Largest Piston Diaphragm Pump in the World: From Drawing Board to Operational Experience
17:10-17:30	Pradipto Bhattacharyya Rheology Solutions Pty Ltd., Australia	Assessment of On-line Rheology as a Control Tool for Thickened Tails

18:00-19:30

DINNER

18 June 2017

Case Studies (2)

TECHNICAL SESSION SPONSOR



08:30-08:50	Lei Guo China ENFI Engineering Corporation	Design and Construction of Paste Filling and Paste Stockpiling United Disposal System in Baiyinchagan Polymetallic Mine
08:50-09:10	Scott O'Brien McLanahan Corporation, USA	Filtered Tailings Adds Value in Competitive Cost Industries
09:10-09:30	Xiaocong Yang Beijing General Research Institute of Mining & Metallurgy, China	Mechanics of Mine Backfill and Its Application
09:30-09:50	Raymond Guang Golder Associates, Canada	Application of In-line Polymer Addition for Tailings Disposal – Learning and Challenges Part II
09:50-10:10	Hongnan Yu PSEI Group	Operation Practice of High Density Tailings Stacking
10:10-10:20	Australian Centre for Geomechanics, Australia	Paste 2018 Promotion
10:20-10:40	Closing ceremony	

11:00-12:30

LUNCH

Visit to JCHX Paste Backfilling Lab

13:00-16:30	First Batch: Take a bus to JCHX Paste Backfilling Lab at 13:00	
14:00-17:30	Second Batch: Take a bus to JCHX Paste Backfilling Lab at 14:00	

Brief Introduction of JCHX Paste Backfilling Lab:

JCHX Paste Backfilling Lab, located in Miyun Economic Development Zone, 70 km from Beijing downtown, is jointly established by JCHX Mining Management Co., Ltd., University of Science and Technology Beijing (USTB) and Putzmeister Machinery Co., Ltd. (Putzmeister). The laboratory covers an area of 2000 m². This is the first paste backfilling laboratory that can complete full range of industrial-grade paste filling test in China. The Laboratory is made up of a paste backfilling pilot plant and a physical performance test lab with more than 200 sets of equipment. It provides an excellent experimental platform for theoretical research and commercial application of paste backfilling.

The pilot plant is made up of four experimental units, such as tailings hydrocyclone classification, tailings deep-cone thickening, paste preparation and paste pipe loop test, each experimental unit can switch between open & closed circuits. By means of self-developed control program and multi-point video monitoring system, the pilot plant can meet various needs for exploring experiment and verification experiment, and provide an excellent platform for the theoretical research and engineering implementation about paste backfilling technology.

In Physical Performance Test Lab, the basic physical properties of backfilling materials, rheological properties of paste and strength property of paste backfill are tested and researched. It is equipped with more than 40 extra-precision instruments and apparatus, such as laser particle size analyzer, concrete rheometer and servo compression testing machine etc.

In 2014, the Paste Backfilling Laboratory was approved by BMSTC as "International Cooperation Base for Green Mining Technology based on Paste Backfilling", which got through the inspection and acceptance in 2015, and thereafter granted with a special program from BMSTC in 2016.



Laboratory Appearance



Pipeline Layout



Deep-cone Thickener

***This program is for reference only and subject to change.**