

Parallel Session 1A: Integrated Planning I S421

Moderator: Raymond CHAN

15:50-16:05	Rethinking the Underground: The “Ville 10D” Experimental Methods and Recommendations in the Greater Paris Monique LABBÉ, Architect DPLG, Les Ateliers Monique Labbé, France
16:05-16:20	Three Emblematic Achievements of Paris: The Adaptability of Underground Spaces as a Facilitator of City Transformation Monique LABBÉ, Architect DPLG, Les Ateliers Monique Labbé, France
16:20-16:35	Master Planning of Cavern Development in Hong Kong: Unlock Hidden Land Resources for Sustainable City Development Mark WALLACE, Ove Arup & Partners Hong Kong Limited, Hong Kong, China
16:35-16:50	Updated Guidelines for Cavern Engineering - Geoguide 4: Guide to Cavern Engineering (2nd Edition) Mark WALLACE, Ove Arup & Partners Hong Kong Limited, Hong Kong, China
16:50-17:05	Bankable and Investment-Ready Underground Space Developments Han ADMIRAAL, Antonia CORNARO, ITA Committee on Underground Space – ITACUS, Switzerland
17:05-17:20	Towards Integrated Planning through Improved Geoscience Knowledge and Use of the Urban Subsurface – The EU COST Sub-Urban Action (TU1206) Diarmad CAMPBELL, British Geological Survey, United Kingdom
17:20-17:30	Q&A Panel

Parallel Session 1B: Underground Space Applications S423-S424

Moderator: Fang Le PENG

15:50-16:05	Creation of a Subterranean Public Space under a Recreated Headland on Sydney Harbour Ken O'NEILL, NSW Bridges Leader, Infrastructure at Aurecon, Australia
16:05-16:20	Deep Shanghai Project- A Resilient Strategy for Infrastructure Integration Huanqing LI, Associated Research Centers for the Urban Underground Space (ACUUS), Canada
16:20-16:35	The Contribution of Underground Development to Slope Safety in Hong Kong Kwok Choi NG, Independent Engineering Geologist, Hong Kong, China
16:35-16:50	Adaptive Re-use of an Underground Explosive Magazine Stuart W MILLIS, Ove Arup and Partners Hong Kong Limited, Hong Kong, China
16:50-17:05	Underground Cemetery Construction in Jerusalem Arik GLAZER, Rolzur Eternal Green Solution, Petach Tikva, Israel
17:05-17:20	A Sewer transformed into a Museum: An Exceptional Achievement in Montréal Louise POTHIER, Pointe-à-Callière, Montréal Archaeology and History Complex, Canada
17:20-17:30	Q&A Panel

Parallel Session 1C: Transportation Network S426-S427

Moderator: Guy BRIDGES

15:50-16:05	Tokyo Metro Project - Strategies to reduce Vehicle and Platform Congestion of Tozai Line Shinji KONISHI, Improvement Construction Department, Tokyo Metro Corporation, Japan
16:05-16:20	Tokyo Metro Ginza Line Renovations (Shitamachi Area) Shuntaro AKIYAMA, Manager, Architectural Design Section, Engineering Division, Metro Development Co., Ltd., Japan
16:20-16:35	Planning, Design and Construction of MTR Cavern Stations for Hong Kong New Railways Derek Chi Lok KWOK, MTR Corporation Limited, Hong Kong, China
16:35-16:50	MTR Railway Tunnel Crossings in Hong Kong Neil Wai Hang NG, MTR Corporation Limited, Hong Kong, China
16:50-17:05	Construction and Operation of Large Underground MTR Stations – Homantin Station, Admiralty Station and West Kowloon Station Nelson Kin Wa YEUNG, MTR Corporation Limited, Hong Kong, China
17:05-17:20	Hong Kong - SCL 1103 - A Redesign Exercise and the Lessons Learnt Francois DUDOUIT, Vinci Construction Grands Projects, Hong Kong, China
17:20-17:30	Q&A Panel

Parallel Session 2A: Integrated Planning II S421

Moderator: K P CHEUNG

15:50-16:05	A Longitudinal Study of Pedestrian Movement in Successive Redesign Projects at Les Halles, Paris John ZACHARIAS, Peking University, Beijing, China
16:05-16:20	Improvement of Public Spaces in Central Tokyo Terminal Station Areas Through Public-Private Partnerships: Improvement of Tokyo Station Underground Plaza Yu YOSHIOKA, MITSUBISHI ESTATE Co., Ltd., Japan
16:20-16:35	Opportunities and Challenges of Underground Space Development in Densely Developed Urban Areas Jeffrey C.F. WONG, Geotechnical Engineering Office, Civil Engineering and Development Department, Hong Kong, China
16:35-16:50	Geosystem and Ecosystem Services – Exploring Opportunities for Inclusion in Urban Underground Space Planning Nikolai BOBYLEV, Institute of Earth Sciences, Saint Petersburg State University, Russia
16:50-17:05	The Potential of Underground Space Renovation in Central CBD District for Traffic Congestion Mitigation Yupeng WANG, School of Human Settlements and Civil Engineering, Xi'an Jiaotong University, China
17:05-17:20	Underground Space Planning in Urban Built-up Areas: A Case Study of Qingdao, China Yong-Kang QIAO, Research Center for Underground Space & Department of Geotechnical Engineering, Tongji University, Shanghai, China
17:20-17:30	Q&A Panel

Parallel Session 2B: Design & Construction I S423-S424

Moderator: Sanja ZLATANIC

15:50-16:05	Challenging TBM Projects in Difficult Conditions: Large Subsea Tunnel and Long Mountain Tunnel Tae Young KO, TBM Team, SK E&C, Korea
16:05-16:20	Characterizing Complex Underground Conditions using Big Data Analytics, Geostatistics and 3D Modeling Michael A. MOONEY, Center for Underground, Colorado School of Mines, USA
16:20-16:35	Minimising Disruption through the Use of a Mega TBM in an Urban Environment - Waterview Connection Tom IRELAND, Aurecon, New Zealand
16:35-16:50	Vulnerability Assessment of Land Subsidence Induced Risk in Shanghai, China Shui-Long SHEN, State Key Laboratory of Ocean Engineering, Shanghai Jiao Tong University, Shanghai, China
16:50-17:05	Design Method for Strengthening Underground Steel Concrete Structures with High Performance Textile Reinforced Cement Patrice HAMELIN, Consultant I2C Ingénierie Composite Construction, France
17:05-17:20	Use of Drill-and-blast Method to Construct MTR Caverns and Tunnels for Hong Kong New Railways Brian Wai Yan SUEN, MTR Corporation Limited, Hong Kong, China
17:20-17:30	Q&A Panel

Parallel Session 2C: Risks and Safety S426-S427

Moderator: Michel DRFFAYET

15:50-16:05	The Study on Evaluation Index System for Safe Operation of Urban Underground Space Yingjuan QIAO, Shanghai Municipal Engineering Design & Research Institute (group) Co., LTD, China
16:05-16:20	Fire and Smoke Effects to Occupants and Evacuation Procedures in a METRO Station Athanasios MAVRIKOS, School of Mining & Metallurgical Engineering, NTUA, Greece
16:20-16:35	Design Challenges of the Westconnex Arndcliffe Ventilation Connections Harry ASCHE, Aurecon, Australia
16:35-16:50	Experimental Study on Staircase Evacuation in Double-layer Tunnel Hui JIN, Key Laboratory of Urban Underground Engineering of the Education Ministry, Beijing Jiaotong University, Beijing, China
16:50-17:05	Research on Optimization Strategies of Public Safety in Urban Underground Commercial Space in Harbin Yuan LI, School of Architecture, Harbin Institute of Technology, China
17:05-17:20	Inspection Methods for Interior Finish in Tokyo Metro Stations Yoji AOKI, Tokyo Metro Co., Ltd., Japan
17:20-17:30	Q&A Panel

Parallel Session 3A: Integrated Planning III S421

Moderator: Jacques BESNER

10:35-10:50	Study on Setting Reserve Protection Layer in Urban Underground Space Planning Yiqun FAN, Shanghai Municipal Engineering Design Institute (Group) Co., Ltd, China
10:50-11:05	How to Distinguish Different Uses of the (Urban) Subsurface – a Missing Discourse Loretta von der TANN, Department of Civil, Environmental and Geomatic Engineering, University College London, UK
11:05-11:20	The Need for Coherent Three-dimensional Planning of Swedish Urban Areas Fredrik MOSSMARK, Geological Survey of Sweden, Sweden
11:20-11:35	Study on the Influence Mechanism of Underground Space in the Development of Land Diversity —Taking Shapingba Station as an Example Yuanyuan WU, Southwest Jiaotong University, School of Architecture and Design, China
11:35-11:50	The Recent Situation and Prospect Analysis of the Development of Urban Underground Space in China Xiaozhao LI, Nanjing University, China, People's Republic of China
11:50-12:05	An Integrated Underground Space Use Approach in Core Area of Indian Cities – A Case of George Town in Chennai Santhakumar SWAMIDURAI, Department of Architecture, SAP Campus, Anna University, Chennai, India
12:05-12:20	The Versatility Approach in the Formation of the Underground Architecture in the Second Pahlavi Era (Case Study: Quran Museum) and Its Utilization Necessity in Sustainable Development of the City of Tehran Mohammad Mahdi SAFAEE, Faculty Member of the School of Art and Architecture at Islamic Azad University, South Tehran Branch, Iran
12:20-12:30	Q&A Panel

Parallel Session 3B: Underground Space Applications II S423-424

Moderator: Xiao Zhao LI

10:35-10:50	The Planning and Construction of Underground Stereo Garage in Muddy Soft Ground: A Case Study of Spc Method in Wenzhou, China Qiong YI, Department of Geotechnical Engineering, Tongji University, Shanghai, China
10:50-11:05	Conceptual Framework for an Advanced Underground Physics Research Laboratory in Hong Kong Stuart ROSS, Ove Arup & Partners Hong Kong Limited, Hong Kong, China
11:05-11:20	Exploring Underground Solution for Accommodating Concrete Batching and Asphalt Production Plants Clayton Y K CHAN, AECOM Asia Company Limited, Hong Kong, China
11:20-11:35	Landfill Mining: A Promising Recovery of the Shallow Urban Underground Dimitris KALIAMPAKOS, School of Mining and Metallurgical Engineering, National Technical University of Athens, Greece
11:35-11:50	The Defining of the Models for the Infrastructural Installation Planning in Belgrade Through the Use of the Integrated Underground Utility Tunnels Nemanja ŠIPETIĆ, Faculty of Architecture, University of Belgrade, Republic of Serbia
11:50-12:05	Integrated Underground Solutions in Urban Areas - State-of-the-art Applications and Project Examples Michael REHBOCK, Amberg Engineering AG, Regensdorf-Watt, Switzerland
12:05-12:20	Study on Planning of New Underground Railway & New Station in the Yaesu-Kyobashi-Nihonbashi District Masami YOKOTSUKA, Civil Engineering Management Division, Kajima Corporation, Japan
12:20-12:30	Q&A Panel

Parallel Session 3C: Human Factors & Communication S426-427

Moderator: Tony HO

10:35-10:50	Assessment of Impressions of Underground Spaces Based on Questionnaires Using Virtual Reality Images Akane TOCHIGI , Department of Civil and Environmental Engineering, Yamaguchi University, Japan
10:50-11:05	Shall we have Underground Office Spaces? Underground Workspaces do not affect Office Work's Perception of Workspace and Job Satisfaction Ying SU , School of Civil and Environmental Engineering, Nanyang Technological University, Singapore
11:05-11:20	Does Knowing You're Underground affect your Perception of the Space? Vicknaeshwari MARIMUTHER , School of Civil and Environmental Engineering, Nanyang Technological University, Singapore
11:20-11:35	Architectural Design, Perception, and Health in Underground Working Environments Zheng TAN , École des Hautes Études d'Ingénieur, Yncréa Hauts-de-France, France
11:35-11:50	The Educational Potential of Modern Metro Systems Athanassios MAVRIKOS , School of Mining and Metallurgical Engineering, National Technical University of Athens, Greece
11:50-12:05	From Conception to Consensus – Importance of Public Engagement and its Challenges for Underground Projects Marion K. W. KAN , Geotechnical Engineering Office, Civil Engineering and Development Department, Hong Kong, China
12:05-12:20	Communicating and Promoting Underground Spaces - To Policy Makers, Users and the Public George I. CHRISTOPOULOS , Nanyang Business School, Nanyang Technological University, Singapore
12:20-12:30	Q&A Panel

Parallel Session 4A: Integrated Planning IV S421

Moderator: Lennon CHOY

14:00-14:15	Connecting the Station to the City Takeshi MORIYA, Improvement Construction Department, Tokyo Metro Corporation, Japan
14:15-14:30	Reconstruction of Regional Underground Space Network and Optimization of Slow Traffic System through Metro Station: A Case Study of Gangxia North Hub of Shenzhen Yu WANG, School of Architecture, Tianjin University, China
14:30-14:45	Study on the Influence Mechanism of Underground Space on the Development of Land Connectivity and Spatial Autocorrelation in Shibuya Station Fengxu SHE, Department, Southwest Jiaotong University, China
14:45-15:00	The Integration of the Metropolitan Railways into the Modern City Life Athanasios MAVRIKOS, School of Mining and Metallurgical Engineering, National Technical University of Athens, Greece
15:00-15:15	Experience and Sustainability Indicators of Underground High-speed Railway Passing Urban Areas Wenjun ZHU, Department of Civil Engineering, Tsinghua University, China
15:15-15:30	Investigation and Consideration on Integrated Development of Metro-led Underground Space: A Case of Metro Line 10 in Shanghai Yun-Hao DONG, Research Center for Underground Space & Department of Geotechnical Engineering, Tongji University, China
15:30-15:40	Q&A Panel

Parallel Session 4B: Design & Construction II S423-424

Moderator: Johnny CHEUK

14:00-14:15	FRP Anchors used as Temporary Tie-backs in Retaining Walls - Case Study of Doha Metro Pierre HOFMANN, Geotechnical Product-Line Manager, Dextra Group, Hong Kong, China
14:15-14:30	Performance of Soil-nailed Slope Excavation with Seepage Cut-off Wall Hoong Ping LAI, Golder Associates (Singapore) Pte Ltd, Singapore
14:30-14:45	Precision Analysis and Control of Pipe Roof Jacking below Urban Expressway: a Case Study of Large Underpass in Shanghai Chihao CHENG, Department of Geotechnical Engineering, Tongji University, Shanghai, China
14:45-15:00	Impacts of Subway Development on Historical Buildings Yunxiao XIN, School of Earth Science and Engineering, Nanjing University, China
15:00-15:15	Strength and Deformability of Deep Foundations Clay Grounds in Underground Structures and High-rise Buildings Ilizar MIRSAYAPOV, Kazan State University of Architecture and Engineering, Russian Federation
15:15-15:30	Choosing a Calculation Method for Stress-strain of Supports and Lining of Transport Tunnels Mikhail Olegovich LEBEDEV, Deputy Director General on Research Activities, OAO "NIPPII "Lenmetrogioprotrans", CES, Russian Federation
15:30-15:40	Q&A Panel

Parallel Session 4C: Innovation and Technologies S426-427

Moderator: Sammy CHEUNG

14:00-14:15	A Customizable, Virtual-Reality-Based, Assessment, Design and Training Tool for Underground Office Spaces You Win YEAP , School of Computer Science and Engineering, Nanyang Technological University, Singapore
14:15-14:30	Innovative Precast Arch Tunnel System Applied to a Korean Expressway Dimitri PLANTIER , Reinforced Earth, Hong Kong, China
14:30-14:45	Innovative Technologies for Planning and Design of Underground Space Development Thomson Man Kit LAI , AECOM Asia Company Limited, Hong Kong, China
14:45-15:00	Distributed Agency Between 2D and 3D Representation of the Subsurface Fransje HOOIMEIJER , Urbanism, University of Technology Delft, The Netherlands
15:00-15:15	Multi-method Infrastructure Planning and Monitoring – Increasing Efficiency by Integrated Planning and Automated Technologies Jessica Ka Yi CHIU , Norwegian Geotechnical Institute (NGI), Norway
15:15-15:30	Using iBeacon Technology for Underground and Indoor Positioning Man Sing WONG , Department of Land Surveying and Geo-Informatics, The Hong Kong Polytechnic University, Hong Kong, China
15:30-15:40	Q&A Panel