Fortezza da Basso • FLORENCE (Italy)
30th September • 2nd October 2019

ISTT
International Society for Trenchless Technology

37TH INTERNATIONAL
NO-DIG
FLORENCE 2019

JOIN THE INTERNATIONAL NO-DIG FLORENCE!

FINAL PROGRAMME

www.nodigflorence2019.com

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CTSTT Chairman and National Chung-Hsing University Civil Engineering Professor, Taiwan

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DWA (German Association for water management, wastewater and waste) and Wismar University Professor (Department of Civil Engineering and Urban Water Management and Waste Management), Germany

Antonino Valenza
University of Palermo Professor (Civil, Environmental, Aerospace, Materials Engineering department), Italy

PROGRAM AT A GLANCE

30th SEPTEMBER 2019

08.00 Registration Opening - Spadolini Pavilion

	Technical Session Cavaniglia Pavilion Room A	Parallel Session Cavaniglia Pavilion Room B	Parallel Session Room Volta	Workshop & Industry Session Room Scherma
09.30	Welcome coffee - Cavaniglia Pavilion			
10.00 12.00	Opening Ceremony			
12.00	Exhibition Area			
13.00 14.00	Lunch break			
14.00 14.30	Panel Event 1 Urbanization and the important role of trenchless technologies Arizona State University	Trenchless Pipe replacement	Research & Development	14.00 - 15.00 Industry Session EKSO srl
14.30 16.00	Microtunneling Pipe Jacking Auger Boring			15.00 - 18.00 Workshop Le tecnologie di risanamento e rinnovamento del sistema idrico integrato (3 CFP Ordine Geologi) (3 CFP Ordine Ingegneri)
16.00 16.20	Coffee break			
16.20 18.00	Horizontal Directional Drilling	Trenchless Technology Case Studies	Mapping and Inspection of Underground Utilities	

1st OCTOBER 2019 - MORNING

	Technical Session Cavaniglia Pavilion Room A	Parallel Session Cavaniglia Pavilion Room B	Parallel Session Room Volta	Workshop & Industry Session Room Scherma
09.15 09.45	Panel Event 2 Standardization: tools for innovation - UNI (Italian National Standard Body)	Mapping and Inspection of Underground Utilities		09.15 - 09.45 Industry Session Ludwig Pfeiffer
09.45 11.00	International Standards CIGRE - Study Committee B1			10.00 - 11.00 Industry Session Anese srl
11.00 11.20	Coffee break			
11.20 12.00	Horizontal Directional Drilling	Research & Development		11.00 - 12.00 Industry Session Danphix spa
12.00 13.00	Pipe lining & Coatings			12.00 - 13.00 Industry Session Saint-Gobain PAM Italia
13.00 14.00	Lunch break			

- Technical Sessions will be in English and open only to delegates regularly registered to the congress
- The short courses will be in Italian and have a special registration fee
- Industry Sessions and the Exhibition area are open to anyone and free of charge
- Coffee breaks and lunches are open only to delegates regularly registered to the full congress

PROGRAM AT A GLANCE

1st OCTOBER 2019 - AFTERNOON

	Technical Session Cavaniglia Pavilion Room A	Parallel Session Cavaniglia Pavilion Room B	Parallel Session Room Volta	Workshop & Industry Session Room Scherma
14.00 15.00	Trenchless Technology Case Studies	Pipe lining & Coatings	14.00 - 14.30 Panel Event 3 Risk Assesment in excavation works - INAIL (National institute for occupational accident insurance)	14.00 - 15.00 Industry Session EKSO srl
15.00 16.00		Trenchless Pipe replacement	14.30 - 16.00 Mapping and Inspection of Underground Utilities	15.00 - 18.00 Workshop Microtunneling e direct pipe (3 CFP Ordine Geologi) (3 CFP Ordine Ingegneri)
16.00 16.20	Coffee break			
16.20 18.00	Horizontal Directional Drilling	Environmental & Sustainability Benefits of Trenchless	16.20 - 17.00 Mapping and Inspection of Underground Utilities	
			17.00 - 18.00 Industry Session BrianzAcque srl	

2nd OCTOBER 2019

	Technical Session Cavaniglia Pavilion Room A	Parallel Session Cavaniglia Pavilion Room B	Workshop & Industry Session Room Volta	Workshop & Industry Session Room Scherma
09.15 11.00	Microtunneling Pipe Jacking Auger Boring	Pipe lining & Coatings	09.30 - 10.30 Industry Session EKSO srl	
11.00 11.20	Coffee break		10.30 - 14.00 Workshop Le tecnologie di indagine conoscitiva e live demostration (4 CFP Ordine Geologi) (3 CFP Ordine Ingegneri)	10.00 - 15.00 Workshop Tecnologie di trivellazione orizzontale controllata - TOC live demostration (4 CFP Ordine Geologi) (3 CFP Ordine Ingegneri)
11.20 13.00	Research & Development	Pipe lining & Coatings		
13.00 14.00	Lunch break			
14.00 16.00	Plenary Session Worldwide Trenchless Market outlook ISTT Societies			
16.00	Closing Ceremony			
18.00	Exhibition Closing			

30th September

	TECHNICAL SESSION - CAVANIGLIA PAVILION - ROOM A	PARALLEL SESSION- CAVANIGLIA PAVILION - ROOM B	PARALLEL SESSION - ROOM VOLTA	WORKSHOP & INDSUTRY SESSION - ROOM SCHERMA
09.30	Welcome coffee - Cavaniglia Pavilion			
10.00	**Opening Ceremony** **Dario Nardella** – Major of Florence **Jari Kaukonen** – ISTT Chairman **Paolo Trombetti** – IATT Chairman **Piero Petrucco** – Vice Chairman ANCE (Builders National Association) **Piero Torretta** – Chairman UNI (Italian National Standard Body) **Mattia Sica** – Energy Department Director UTILITALIA (Association of water energy and environmental agencies) **Sjarief Burhanuddin** – Director General (Indonesian Ministry of Public Works in Housing)			
12.00	**Exhibition Area**			
13.00 14.00	Lunch break	Lunch break	Lunch break	
		Trenchless Pipe Replacement	**Research & Development**	**Industry Session**
14.00 16.00	**14.00-14.30** **Panel Event 1** Urbanization and Important Role of trenchless technologies **Samuel Ariaratnam** (Arizona State University - USA) _____ **Microtunnelling/Pipe Jacking/Auger Boring** **Chairman: Mark André Haebler** - International Sales and Development OGL E-Power Pipe®: jet pump technology for long-distance drives in small diameters **Marc Peters** (Herrenknecht AG - Germany) TUnIS Navigation E-Power Pipe - Precise guidance of small diameter tunnelling machines **Jürgen Göckel** (VMT GmbH - Germany) Stability of surrounding soil by using under pinning pipe jacking method **Hideki Shimada** (Kyushu University, Department of Earth Resources Engineering - Japan) A microtunnel with a very little radius for a big pipeline **Vittorio Petrucco** (I.C.O.P. S.p.A. - Italy)	**Chairman: Feliciano Esposto** - IATT Board Member The Path Forward for Pipe Bursting asbestos cement Pipe while meeting existing US Regulations **Edward Alan Ambler** (AM Trenchless - USA) The use of new condition assessment technologies for selecting trenchless rehabilitation of wastewater networks in Ras al Khaimah, UAE **Abdul Qadir Malik** (Ras Al Khaimah Wastewater Agency - UAE) Design and Installation of Water Pipeline Renewals **Houming Ni** (Asoe Hose Manufacturing Inc - USA) Spray Applied Lining Systems Address Unique Infrastructure Problems **Karl Bissinger** (Vortex Europe AG - Germany) Water main rehabilitation with inserted hoses - Considerations on design and installation **Andreas Gross** (Raedlinger primus line GmbH - Germany) Experiences with rehabilitation of potable water pipes in Norway **Hendrik Panman** (Kjeldaas AS - Norway)	**Chairman: Alessandro Olcese** - Scientific Director IATT Polymeric Alloy Pipe with Restraint Joint System for HDD Applications **Gianfranco Battaglin e Nicola Melotti** (FITT – Italy) Electrification of directional drilling machines for sustainable trenchless excavations **Raffaele Savi** (E.G.T. srl - Italy) Numerical Analysis of the Behavior of Pressurized Underground Pipelines Rehabilitated by Cure-In-Place-Pipe Method **Keh-Jian Albert Shou** (National Chung-Hsing University - Tawain) The Design and Application of PE100 Pipe in Trenchless Technologies for New Installation and Rehabilitation – Aspects of new Materials and Support via Online Guide and Tool **Andrew Wedgner** (PE100+ Association - Germany) RedEx® + Pipe-Seal Internal sealing collars Partial Repair and Liner End Sealing for sewage and drinking water pipes **Susanne Leddig-Bahls** (IQS Engineering AG - Germany) Pipe-filling method for stabilizing empty ducts from the manhole **Kenjii Hiyoshi** (Nippon telegraph and telephone corporation - Japan)	**EKSO srl** **14.00 - 15.00** EKSO, sicurezza sul lavoro & l'esperienza del Flood Grouting SANIPOR **Sabrina Sabbatini, L. Maida, Csilla Pall** **15.00 - 18.00** **Workshop** Le tecnologie di risanamento e rinnovamento del sistema idrico integrato (3 CFP Ordine Geologi) - (3 CFP Ordine Ingegneri) La regolamentazione vigente **Prof. Stefano Mambretti** (Università degli Studi di Roma La Sapienza - Dipartimento di Ingegneria Civile, Edile ed Ambientale) Disciplinare tecnico **Ing. Stefano Tani** (MM spa - Responsabile Servizi Divisione Servizio Idrico) Progettazione di un intervento senza scavo: ispezioni iniziali, scelta della tecnologie e controllo di qualità cantiere **Prof. Stefano Mambretti** (Politecnico di Milano Dipartimento di Ingegneria Civile ed Ambientale) Approfondimenti sulle tecnologie trenchless per il risanamento e rinnovamento del Sistema Idrico Integrato e presentazione di case history Dibattito e chiusura lavori **Ing. Stefano Tani** (MM spa - Responsabile Servizi Divisione Servizio Idrico)
16.00 16.20	Coffee break	Coffee break	Coffee break	

30th September

	TECHNICAL SESSION - CAVANIGLIA PAVILION - ROOM A	PARALLEL SESSION- CAVANIGLIA PAVILION - ROOM B	PARALLEL SESSION - ROOM VOLTA	WORKSHOP & INDSUTRY SESSION - ROOM SCHERMA
	Horizontal Directional Drilling	**Trenchless Technology Case Studies**	**Mapping and Inspection of Underground Utilities**	
16.20 18.00	**Chairman: Matthew Izzard** - UKSTT Vice President HDD marsdiep crossing between Den Helder and Texel, Length = 4.600 m **Ernst Fengler** (LMR Drilling GmbH - Germany) HDD drilling in hard and hardest rock in Europe - examples of job sites **Hans-Joachim Bayer** (TRACTO-TECHNIK - Germany) The Cornegliano Laudense natural gas storage project: HDD as solution for pipeline installation in urban areas **Vincenzo Nisii** (SAIPEM Engineering & Construction Onshore Division - Italy) Replacing a penstock pipe using directional drilling :chronicle of a non-standard jobsite **Paul Cavillon** (FOREXI – France) Steering the HDD **Hans Block** (Brownline - The Netherlands)	**Chairman: Keh-Jian Albert Shou** - CTSTT President No-dig renovation of pressure pipelines, re-connection techniques and case studies **Firmino Pires Barbosa** (Relineeurope AG - Germany) Installation of pre-support steel pipes to protect an historical building by a retractable mtbm **Riccardo Miotto** (Pato srl - Italy) Unique Horizontal Drain Installation under a Building Using - Pilot Tube Guided Auger Bore Methods **Michelle Macauley** (Macauley Trenchless - USA) Utilisation of microtunneling technology for construction of the new gas pipeline between Azerbaijan and Europe **Yann Rouillard** (Bessac - France) Palermo renovates water main to cope with seismic activity **Arnold Cekodhima** (Danphix spa - Italy)	**Chairman: Enrico Boi** - IDS Georadar North America President From Hades to Heaven? Developments on integrated buried asset information systems in the UK **Jo Parker** (Watershed Associates – United Kingdom) Leak detection using Helium as a tracer gas and the Primus Line solution for pipe rehabilitation **Avishay Schnaidman** (D&I Development and Implementation Ltd - Israel) A novel cyber-monitoring based asset management scheme for water distribution networks through fine-tuning genetic algorithm parameters **Kalyan Piratla** (Clemson university, Glenn Department of Civil Engineering - USA) Small or Big – we don't mind! Watermain Inspection Technologies **Piero Salvo** (GAME Consultants - Canada) WRc's Use of Focused Electrode Leak Location (FELL) to Assess Gravity Sewers in the United Kingdom, United States, and Germany, Before & After Trenchless Rehabilitation **Peter Henley** (WRc plc - USA)	

1st October

	TECHNICAL SESSION - CAVANIGLIA PAVILION - ROOM A	PARALLEL SESSION- CAVANIGLIA PAVILION - ROOM B	PARALLEL SESSION - ROOM VOLTA	WORKSHOP & INDSUTRY SESSION - ROOM SCHERMA
		Mapping and Inspection of Underground Utilities		Industry Sessions
09.15 11.00	09.15 - 09.45 Panel Event 2 Standardisation: tools for Innovation (UNI, Italian National Standard Body) **Ruggero Lensi** - Managing Director UNI **Alessandro Delvecchio** - Innovation Dept. UNI _____ International Standards **Chairman: Alessandro Olcese** - Scientific Director IATT UNI/PdR- guideline on low environmental impact underground infrastructure technology **Feliciano Esposto** (IATT- Italy) AWWA Watermain Rehabilitation Initiatives **Marc Knight** (University of Waterloo - Russia) Trenchless Technology **Sergio Chinosi** (CIGRE - Study Committee B1 (International Council on Large electric system)	**Chairman: Kimberlie Staheli** - Staheli Trenchless Consultant President Assessing the underworld – a three-infrastructure approach to remote sensing **Christopher Rogers** (University of Birmingham, Department of Civil Engineering - United Kingdom) The cadastre of underground infrastructure networks: the model of Lombardy Region **Chiara Dell'Orto** (Lombardy Region - Italy) A pipe detecting project and technical assistance in Bangladesh **Kito Kazuki** (TEPCO Power Grid - Japan) DEMD\"Deep Electromagnetic Detection\" **Jean Francois Maregiano** (JFM Conseils - France) An automated leakage detection model for water distribution pipeline system **Kalyan Piratla** (Clemson university, Glenn Department of Civil Engineering - USA)		09.15 - 09.45 LUDWIG PFEIFFER Case study trenchless rehabilitation of the wastewater network in Guayaquil / Ecuador **Miguel Freire** 10.00 - 11.00 ANESE srl Passato, presente, futuro e case histories **Marco Berti, Marcello Viti**
11.00 11.20	Coffee break	Coffee break		

1st October

	TECHNICAL SESSION - CAVANIGLIA PAVILION - ROOM A	PARALLEL SESSION- CAVANIGLIA PAVILION - ROOM B	PARALLEL SESSION - ROOM VOLTA	WORKSHOP & INDSUTRY SESSION - ROOM SCHERMA
	Horizontal Directional Drilling	Research & Development		Industry Sessions
11.20 12.00	**Chairman: Dec Downey -** Trenchless Opportunities Ltd and Past ISTT Chairman The role of torque in the reaming process in HDD applications **Renzo Chirulli** (Vermeer EMEA - The Netherlands) The Development of Real-time Detection and Wireless Transmission System of Drilling Parameters in HDD Reaming Hole **Xuming Zhu** (China University of Geosciences - China)	**Chairman: Antonino Valenza** - University of Palermo Investigation of cracks found in the circumferential direction on Jacking pipes **Yuki Kaneshiro** (TEPCO Power Grid - Japan) A Novel IoT Application System Using Wearable PPG Heart Rate Monitoring Devices to Improve Safety Management for Shield Tunnel Construction Projects **Josh Huang** (Gini Biotech Corporation Limited - Taiwan) The DLT Method: Stress Test for Pressure Pipes **Andreas Haacker** (Siebert-Knipschild GmbH - Germany) Innovative monitoring of railway tracks during trenchless crossings **Jack Butterworth** (Lynx+ - France) Contact Mechanics and its Normalized Indices for Trenchless Cutting Associated with Machine Learning **Li-Hsien Chen** (National Taipei University of Technology - Taiwan)		11.00 - 12.00 **DANPHIX SpA** Trenchless renovation projects with installation length > 1 km **Arnold Cekodhima** 12.00 - 13.00 **SAINT - GOBAIN PAM Italia** La posa senza scavo con tubazioni in ghisa sferoidale: i materiali, le prestazioni, le tecniche **Alessandro Giusto**
	Pipe Lining & Coatings			
12.00 13.00	**Chairman: Trevor Gosatti** - Council Representative ASTT Design of liners for circular & non-circular shapes according to the new French ASTEE 3R-2014 V2.0 method - Influence of geometrical imperfections of host pipe & liner **Olivier Thepot** (Eau de Paris - France) Cipp relining of a dn 300 mm pressure steel water pipe anchored under the ancient Bridge of the Academy in the historic center of Venice **Gianluca Paro** (Risanamento Fognature spa - Italy) Design & building contracts as a performing opportunity to CIPP sewers rehabilitation - BrianzAcque case study **Simone Cellitti** (Brianzacque srl - Department of Engineering and Spatial Planning - Italy)			
13.00 14.00	Lunch break	Lunch break		

1st October

	TECHNICAL SESSION - CAVANIGLIA PAVILION - ROOM A	PARALLEL SESSION- CAVANIGLIA PAVILION - ROOM B	PARALLEL SESSION - ROOM VOLTA	WORKSHOP & INDSUTRY SESSION - ROOM SCHERMA
	Trenchless Technology Case Studies	**Pipe Lining & Coatings**		**Workshop & Industry Session**
14.00 15.00	**Chairman: Wout Broere** - Delft University of Technology A New FRP Solution for Reconstruction of Deteriorated Pipes and Culverts **Mo Ehsani** (PipeMedic by QuakeWrap - Usa) Rehabilitation of a 10 km long asbestos- cement drinking water trunk main in Spain with flexible relining technology **Jorge Lamazares** (Sinzatec Canalizaciones - Spain) Recent developments of GRP solutions in the booming transportation market **Laurent Hesters** (Amiblu France - France) A case study in successful sewer network rehabilitation with uv cured cipp & traditional/ non-traditional survey technologies **Jan Börje Persson** (BKP Berolina Polyester GmbH & Co - Germany) Consideration in planning successful trenchless utility installations **Loui Thomsen** (Department of Water and Nature Aalborg COWI - Denmark) Successful Installation of CFRP and GFRP on Pipe Bridges in Scotland, UK **Amber Jasmine Wagner** (Aegion Corporation - USA)	**Chairman: Francesco Napolitano** - University of Rome "La Sapienza" Renovation of sewerage networks under pressure with cured-in-place pipes; RSV leaflet 1.2 **Susanne Leddig-Bahls** (IQS EngineeringAG - Germany) A unique example of close fit lining technology for the renewal of water pipes along the bridge "Ponte Punta Penna" in Taranto **Gianluca Casamassima, Federica Fuselli** (Acquedotto Pugliese - Italy) CIPP | Advantages, risks and potentials of LED curing **Niklas Ernst** (Bluelight GmbH- Germany)	14.00 - 14.30 **Panel Event 3** Risk assessment in excavation works **Luca Rossi** INAIL (National institute for occupational accident insurance) _____ **Mapping and Inspection of Underground Utilities** **Chairman: Luca Rossi** - INAIL (National institute for occupational accident insurance) The Italian solution on the Cadastre of technological infrastructures **Sergio Farruggia** (Associazione Stati Generali dell'Innovazione - Italy) GPR and pipeline & cable locator development **Shintaro Hiromori, Takaharu Nakauchi** (Osaka Gas Co - Japan) Safety Measures for Reducing Asset Strikes **Scott Landes** (Infrastructure Resources Rhino Marking and Protection Systems - USA) No-dig investigation around Palazzo Vecchio, Florence - Italy **Massimo Coli** (University of Florence, DST - Italy)	EKSO srl 14.00 - 15.00 Un approccio finanziario al Nodig: investments in research and development of no-dig. The point of view of private equity funds **Giuseppe Incarnato** 15.00 - 18.00 **Workshop** Microtunnelling e direct pipe (3CFP Ordine dei Geologi) (3CFP Ordine degli Ingegneri) La normativa vigente: UNI/PdR 26.2:2017 "tecnologia di realizzazione delle infrastrutture interrate a basso impatto ambientale – "Posa di tubazioni a spinta mediante perforazioni orizzontali" La fattibilità dei Microtunnel, indagini preventive geognostiche ed indagini sui sottoservizi esistenti **Prof. Quintilio Napoleoni** (Università degli Studi di Roma La Sapienza - Ingegneria Civile, Edile ed Ambientale) Elementi di progettazione, materiali e modalità di esecuzione del microtunnelling rettilineo e curvilineo **Ing. Ugo Lazzarini** (Consultant) Elementi di progettazione e modalità di esecuzione del direct pipe **Prof. Quintilio Napoleoni** (Università degli Studi di Roma La Sapienza - Ingegneria Civile, Edile ed Ambientale) I Fanghi di perforazione Presentazione di case history **Ing. Ugo Lazzarini** (Consultant)
16.00 16.20	Coffee break	Coffee break	Coffee break	

1st October

	TECHNICAL SESSION - CAVANIGLIA PAVILION - ROOM A	PARALLEL SESSION- CAVANIGLIA PAVILION - ROOM B	PARALLEL SESSION - ROOM VOLTA	WORKSHOP & INDSUTRY SESSION - ROOM SCHERMA
	Horizontal Directional Drilling	Environmental and Sustainability Benefits of Trenchless	Mapping and Inspection of Underground Utilities	
16.20 17.00	**Chairman: Jens Hölterhoff** - GSTT President Experimental Study on Pullback Loads for Steel Pipelines Installed by Horizontal Directional Drilling **Ashkan Faghih** (University of Alberta - Canada) The Drilling Contractors Association (DCA-Europe) A European Organisation for Quality and Education in HDD **John Stoelinga** (Drilling Contractors Association, DCA - Germany) Gas storage plant with annulus filling **Marcello Viti** (Anese srl - Italy) Horizontal directional drilling, pipeline installation by pulling or pushing **Henk Kruse** (Deltares - The Netherlands) Smart technologies for the enhancement of productivity and, digital integration and safety in hdd projects **Jasper Van't Westende** (Vermeer EMEA - Netherlands)	**Chairman: Valeria Mezzanotte** - University of Milan, Bicocca Novel business models in support of trenchless cities **Christopher Rogers** (University of Birmingham - United Kingdom) Innovation for the environment: the experience of Marche Multiservizi s.p.a **Niko Bruni** (Marche Multiservizi spa - Italy) New technical solutions for the burial of distribution networks: benefits and reasons why **Luca Venturi, Valeria Nascimben** (Langmatz GmBh - Germany) Trenchless solutions for the installation of gas distribution networks. **Thorsten Schulte** (TRACTO-TECHNIK - Germany) Selection of criteria and methods for a comparative evaluation of environmental sustainability of opencut and no-dig technologies for new installations and in situ rehabilitation of water pipes **Martina Ferrini** (University of Milan, Bicocca, DISAT – Italy)	**Chairman: Feliciano Esposto** - IATT Board Member Condition monitoring of excavated CIPP-liners to ensure lifespan **Love Pallon** (RISE Research Institutes of Sweden - Sweden) The adoption of a Dial Before You Dig System by New Zealand in order to protect the underground infrastructure **Jan-Willem Nijman** (PelicanCorp / BeforeUDig – Italy)	
17.00 18.00			Industry Session 17.00 - 18.00 BrianzAcque srl Risanamento strutturale di collettori fognari con tecnica "Cured in Place Pipe": il caso studio di BrianzAcque	

2nd October

	TECHNICAL SESSION - CAVANIGLIA PAVILION - ROOM A	PARALLEL SESSION - CAVANIGLIA PAVILION - ROOM B	WORKSHOP & INDSUTRY SESSION - ROOM VOLTA	WORKSHOP & INDSUTRY SESSION - ROOM SCHERMA
	Microtunnelling/Pipe Jacking/Auger Boring	Pipe Lining & Coatings	Workshop & Industry session	Workshop & Industry Session
09.15 11.00	**Chairman: Claudio Mastronardi** - Member of IATT Technical Microtunnelling Commission The choice of the best technology for laying an underground pipe. a successful case: crossing the Adda river by the direct pipe method **Mara Tonelli** (I.C.O.P. spa - Italy) Short-Segment Jacking of Water Main for Realignment under Limited Space in Urban Area **Wu Shihchi** (Taipei Water Departmen - Taiwan) Microtunneling projects for power-transmission pipes- steep slopes and casing technology **Masahiro Yoshimoto** (TEPCO Power Grid Inc. - Japan) Tight curved microtunnel in Auckland; New Zealand **Yann Rouillard** (Bessac, France) Technology transfer - how dredging and shipbuilding innovations are improving (micro) tunnelling operations **Tobias Vraets** (Royal IHC, The Netherlands)	**Chairman: Jo Parker** - UKSTT Co-opter members Sensors Monitoring and Trenchless Technologies: Two Essential Keystones toward a Deep Innovation of Smart Pipes Backbones **Costantino Giaconia** (University of Palermo-Dep of Engineering Italy) Advances in CIPP Pressure Pipe Liner Testing and Design **Mark Knight** (University of Waterloo - Russia) Rehabilitation of a 3000 mm water supply line under operating conditions in Buenos Aires" **Jens Hölterhoff** (Prof. Hölterhoff Ingenieur Consulting - Germany) Pipe rehabilitation systems – how do you ensure that the system will withstand the rigors of day to day operation and maintenance **Richard David Swan** (Picote Solutions OY Ltd - United Kingdom) Quality Control Factors of CIPP Construction Management on Water Main Rehabilitation **Wei Cheng Chen** (Taipei Water Department - Taiwan)	09.30 - 10.30 **EKSO srl** The Future Is Now: EKSO Srl **Giancarlo Orsini** 10.30 - 14.00 **Workshop** Le tecnologie di indagine conoscitiva (4CFP Ordine dei Geologi) (3CFP Ordine degli Ingegneri) La normativa vigente: - UNI/PdR 26.1:2017 "tecnologia di realizzazione delle infrastrutture interrate a basso impatto ambientale – sistemi per la localizzazione e mappatura delle infrastrutture nel sottosuolo" - UNI/PdR 38:2018 – Marcatura elettronica di reti interrate e infrastrutture nel sottosuolo Le tecniche di investigazione non distruttive: telecamere e video ispezioni, ricerca perdite e localizzatori elettromagnetici. **Dott. Geol. Paolo Papeschi** (DS Georadar, GEO Business Unit director) Le indagini geognostiche **Dott. Geol. Riccardo Martelli** (Presidente Ordine dei Geologi della Toscana) Metodo GPR (Ground Probing Radar): un aiuto per la progettazione degli interventi Il Radar Interferometrico Terrestre per il monitoraggio statico e dinamico di versanti, frane e strutture. **Dott. Geol. Paolo Papeschi** (DS Georadar, GEO Business Unit director) Dimostrazione live	10.00 - 15.00 **Workshop** Tecnologie di trivellazione orizzontale controllata - TOC (4CFP Ordine dei Geologi) (3CFP Ordine degli Ingegneri) La normativa vigente: UNI/PdR 26.3:2017 "tecnologia di realizzazione delle infrastrutture interrate a basso impatto ambientale - "Sistemi di perforazione guidata: Trivellazione Orizzontale Controllata (TOC)" La fattibilità TOC, indagini preventive geognostiche ed indagini sui sottoservizi esistenti. **Dott. Geol. Alessandro Olcese** Direttore Scientifico IATT La TOC: elementi di progettazione e modalità di esecuzione in ambito urbano ed extraurbano Tipologia di tubazioni e materiali utilizzati nella posa tramite TOC **Prof. Quintilio Napoleoni** (Università degli Studi di Roma La Sapienza - Ingegneria Civile, Edile ed Ambientale) Dimostrazione live presso il Parco d'Arte Enzo Pazzagli (trasferimento A/R da Fortezza da Basso)
11.00 11.20	Coffee break	Coffee break		

2nd October

	TECHNICAL SESSION - CAVANIGLIA PAVILION - ROOM A	PARALLEL SESSION - CAVANIGLIA PAVILION - ROOM B	PARALLEL SESSION - ROOM VOLTA	WORKSHOP & INDSUTRY SESSION - ROOM SCHERMA
	Research & Development	Pipe Lining & Coatings		
11.20 13.00	**Chairman: Henk Kruse** - Deltares Senior Geotechnical Consult Experimental characterization of mini-trenches on road pavements **Alessandro Corradini** (University of Perugia - Department of Civil and Environmental Engineering - Italy) Application of solubilizing surfactant in trenchless drilling fluid **Lanbo Xu** (China University of Geosciences - China) New Performance of a NO-DIG Technology: Pipetronics e MULTI - one Robot-System with extended applications **Christian Noll** (Pipetronics GmbH & Co. KG - Germany) A novel monitoring procedure for assess the correct road pavement restoration after the One-Day-Dig mini-trenching installation **Alessandro Corradini** (University of Perugia - Department of Civil and Environmental Engineering - Italy) Business and the SDG's **Per Holm** (CEO BluKolding, Denmark)	**Chairman: Antonino Valenza** - University of Palermo Pipe Preservation during Trenchless Installations: No Need to Take Unnecessary Risks **Cristian Grecco** (TDC International AG - Switzerland) Hydroelectric pipeline rehabilitation, Blueline - uv liner system **Matteo Vicentini, Matteo Cecchin** (ENEL - Italy) Joining methods for CIPP products in pressure pipe systems **Jens Wahr** (D&S - Germany) FRP 101: taking the mystery out of trenchless repair of pressure pipes with carbon FRP **Mo Ehsani** (PipeMedic by QuakeWrap - USA)		
13.00 14.00	Lunch break	Lunch break		
14.00 16.00	**Plenary session** **Worldwide trenchless market outlook** **Chairman: Jari Kaukonen** - ISTT President FiSTT - **Jari Kaukonen**, President IATT - **Paolo Trombetti**, President FSTT - **Jean Marie Joussin**, International Director UKSTT - **Matthew Izzard**, Vice President CISTT - **Arlex Toro**, President			
16.00 16.45	Closing Ceremony			
18.00	Exhibition Closing			

GENERAL INFORMATION

Congress Venue

Fortezza da Basso
Viale Filippo Strozzi, 1 - 50129 Florence (Italy)

Organizing Committee

ITALIAN ASSOCIATION FOR TRENCHLESS TECHNOLOGY

www.iatt.it - iatt@iatt.info
Tel. +39 06 39721997

Organizing Secretariat

OIC meeting specialists

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Viale G. Matteotti 7 - 50121 Florence (Italy)
Tel +39 055 50351
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GENERAL INFORMATION

Photography and Video Material

An official photographer will be present at the No-DIG 2019 and will take pictures and videos during scientific sessions, in the common areas and during social events. Pictures could be reproduced online or on promotional material, whether in print, electronic or other media, including social media and websites. The organizers reserve the right to crop, splice, treat and edit any photographs taken at the NO-DIG conference. The participant waives the right to inspect or approve the finished product, including written or electronic copy. Naturally, participants always have the right for their picture to be removed. Should you wish to have your picture removed, please let us know and we will take action accordingly.

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Fortezza da Basso
FLORENCE
30th September • 2nd October 2019

Ekso S.r.l. nasce nel 1998, con l'obiettivo di introdurre nel mercato italiano, soluzioni alternative ai sistemi tradizionali di ripristino di condotte, tubazioni e infrastrutture di collettamento/trasferimento, sia di tipo industriale che civile. Credendo nell'innegabile vantaggio delle tecniche Trenchless/NODIG, ed in particolare del "relining" CIPP rispetto al tradizionale "scava e sostituisci", Ekso ne acquisisce i know how e ne sviluppa le potenzialità, ottimizzandone vantaggi e risultati. Siamo riusciti nell'arco oltre 20 anni di attività, a porci sul mercato come la realtà più importante in Italia nel settore del risanamento condotte senza scavo. Il partner di riferimento più affidabile.

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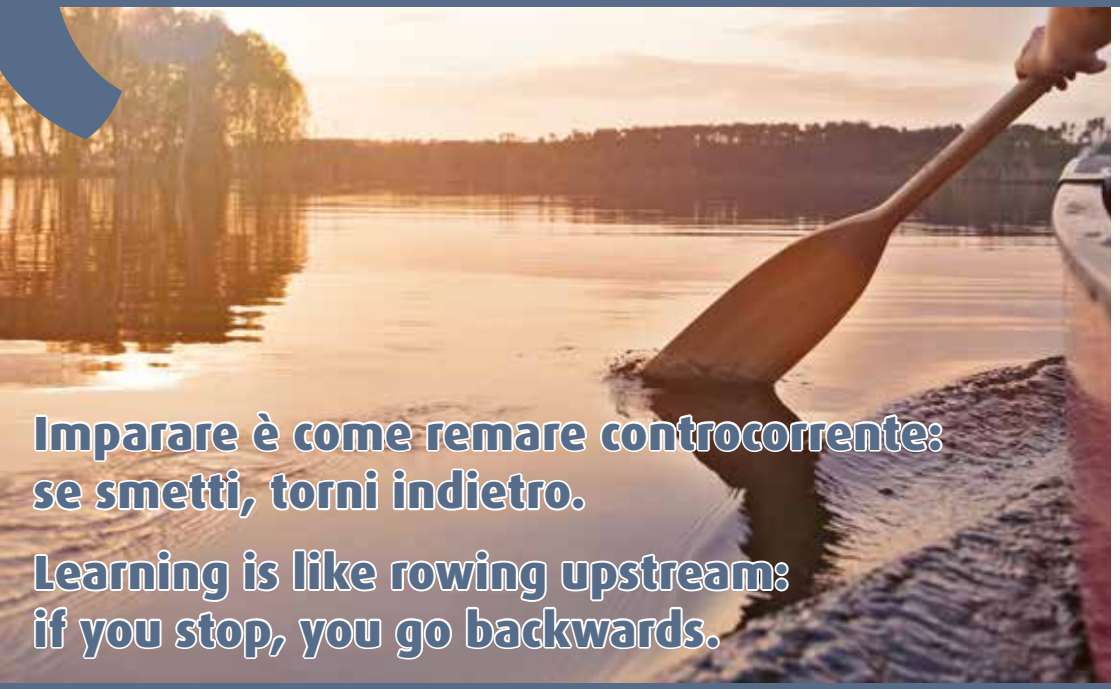
30-09-2019 ore 14.00-15.00 Sessione Parallela Sala della Scherma	**EKSO sicurezza sul lavoro & l'esperienza del Flood Grouting SANIPOR** Relatore: Sabrina Sabbatini, L. Maida EKSO srl, Csilla Pall SANIPOR
1-10-2019 ore 14.00-15.00 Sessione Parallela Sala della Scherma	**Un approccio finanziario al Nodig : Investments in research and development of no-dig. A point of view of private equity funds** Relatore: Ing. G. Incarnato Chairman & Ceo I.G.I. INVESTIMENTI GROUP
02-10-2019 ore 9.30-10.30 Sessione Parallela Sala della Volta	**The Future Is Now: EKSO Srl** Relatore: Giancarlo Orsini



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[IT] Come esperti nel settore del risanamento e rinnovamento di tubazioni con sistemi NO DIG e rispettiva conoscenza degli sviluppi e innovazioni nel settore, ci impegniamo sempre di più a trasmettere know-how specialistico. Il tutto per offrire una possibilità formativa ai tecnici che si trovano a dover affrontare le problematiche giornaliere della manutenzione ordinaria e straordinaria di reti esistenti. Per farlo, forniamo da anni il ns. contributo tecnico all'organizzazione di seminari specialistici di alto livello.

[EN] As experts in pipes rehabilitation and renovation with NO DIG technologies and a corresponding awareness of developments and innovations in our sector, we keep working harder to transmit our expertise.
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9 ottobre 2019, Milano

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Il pozzetto della rete fognaria: sigillatura e risanamento idraulico e/o strutturale con le tecnologie trenchless (NO DIG)

Per maggiori informazioni sui corsi contattare:
Sara Sturla, Tecnedit S.r.l.,
Via Delle Foppette, 6 – 20144 Milano
Tel.: 02 36517115
mail: commerciale@tecneditedizioni.it

9th October 2019, Milan

tecnedit

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Sewerage system manhole: sealing and hydraulic and/or structural renewal with trenchless technologies (NO DIG)

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Via Delle Foppette, 6 – 20144 Milan
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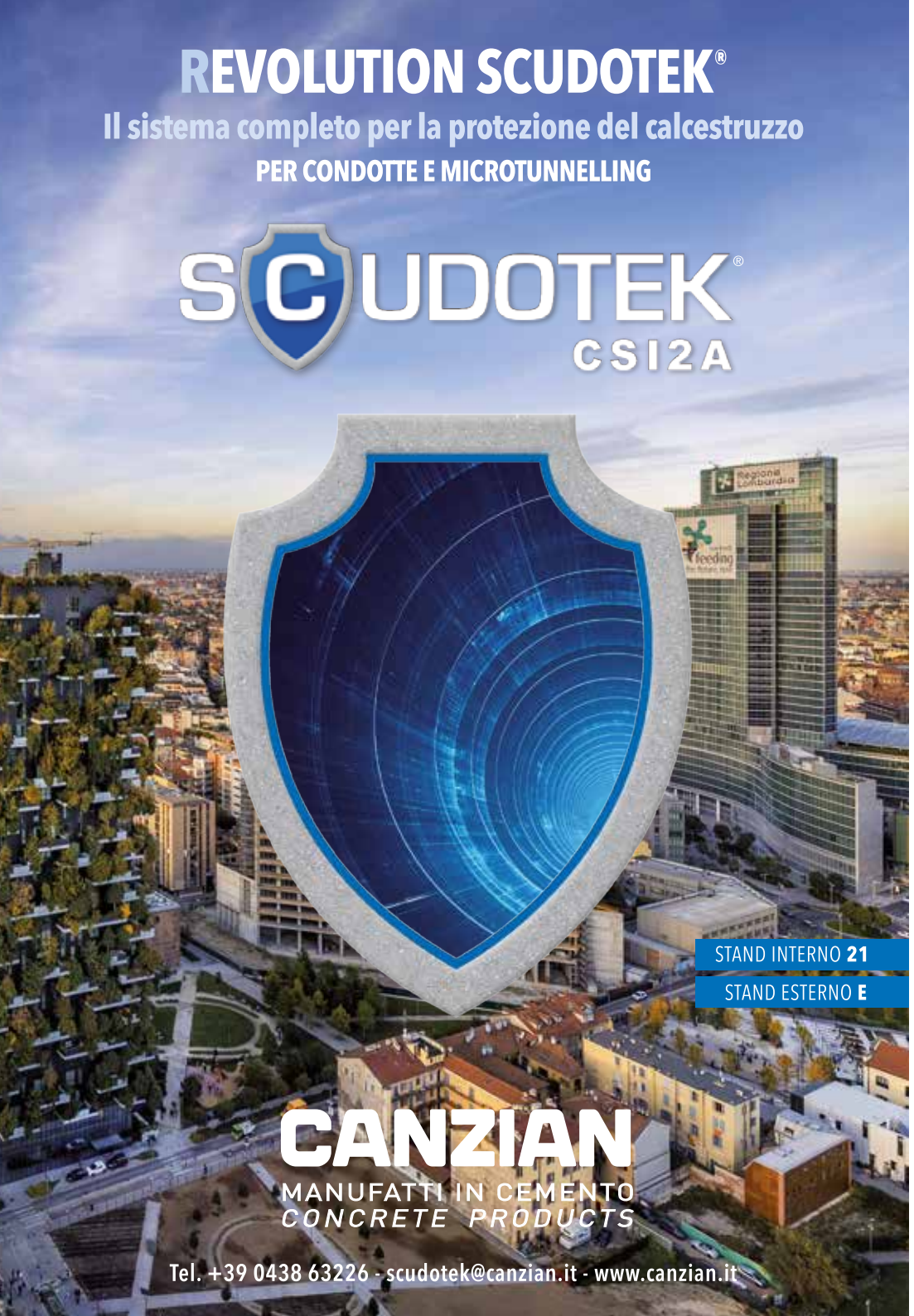

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