

28TH International
Conference and Exhibition

Suntec Singapore, International
Convention & Exhibition Centre

8-10 November 2010



Conference Programme



INTERNATIONAL NO-DIG 2010 Singapore

Supporting organisations



Official magazine of ISTT



North American Media Sponsor



Gold Sponsor



Silver Sponsor



2010's WORLD FORUM FOR TRENCHLESS TECHNOLOGY

The spotlight will be on Singapore as it hosts 2010's most prestigious and exciting forum for trenchless technologists at ISTT's 28th INTERNATIONAL NO-DIG 2010 Conference and Exhibition, 8-10 November this year.

No-Dig technology has made huge advances in recent years. There is increasing pressure from authorities around the world for contractors to utilise these modern engineering methods to minimise disruption during the installation and refurbishment of underground services.

This is a developing global industry. Products and techniques are reviewed and improved on a regular basis. New innovations are proven to enhance performance. Major projects are completed every day somewhere around the world, proving that trenchless techniques provide economic solutions and reduced environmental impact. The social costs are reduced, benefiting business communities, as well as the travelling public.

Mark your diaries now and make sure you are part of this year's most influential gathering to review the industry advances at INTERNATIONAL NO-DIG 2010, Singapore, 8 -10 November.

INTERNATIONAL EXHIBITION

Already the exhibition area has been expanded to accommodate the high demand for space from manufacturers and service providers around the world. Large international players are lining up alongside many niche companies to provide visitors with a real feast of products and technical innovations. Visit the show website www.nodigsingapore.com for an up to date list of exhibitors.

WORLD CLASS CONFERENCE

Speakers from some 23 countries are gathering together to share their knowledge and expertise on new products, techniques and research programmes. Experience of the challenges and solutions encountered in many engineering projects will be recounted. Attendance at the conference is a must to get up to date on all that's new and being developed in this specialised field.

GALA EVENING

Tuesday 9 November – Pan Pacific Hotel

Join your peers at a sumptuous and lively gala evening to be held at the Pan Pacific Hotel.

Price per person US\$120

Drinks reception sponsored by



ACCOMMODATION

There is a wide range of accommodation in Singapore to suit all tastes and budgets. The Headquarters Hotel is the Pan Pacific which is linked to Suntec by a sheltered bridge. Special rates have been negotiated and reservations can be made online at the show website.

Register now www.nodigsingapore.com

Day One — Monday 8 November

08.00	Registration Open (Registration desks also open from 14.00 – 18.00 on Sunday 7 November)		
09.00 – 10.15	OPENING SESSION Welcome address – ISTT Keynote speaker - Khoo Teng Chye, Chief Executive, PUB, Singapore Welcome to new ISTT Affiliated Societies		
09.30	Exhibition Open		
10.15 – 11.00	Coffee Break & Official Opening of Exhibition		
	TRACK A	TRACK B	TRACK C
	Session 1A Pressure Pipeline Assessment Moderator: Muthu Chandrasekaran	Session 1B Pipeline Rehabilitation Case Studies Moderator: Joe Barsoom	Session 1C
11.00 – 12.30	<p>The state of the art in pressure pipeline inspection technologies in the United States. <i>Henry R Derr, Brown & Caldwell, USA</i></p> <p>Development of a successful untethered leak detection technology for large diameter water pipelines. <i>Mark Holley, Pure Technologies Inc, USA</i></p> <p>Condition assessment and monitoring solutions for pre-stressed concrete cylinder pipes. <i>Jery Xue-Feng Jin, Balama Prima Equipment Ltd, China and Jon Boon, Pure Technologies, Hong Kong</i></p>	<p>Sewer rehabilitation in India. <i>Christian Dobretsberger, and Michael Pucher, Angerlehner Hoch-und Tiefbau, Austria</i></p> <p>Rehabilitation and replacement of seawater cooling mains to Government offices in the central business district, Hong Kong. <i>Danny IK Chan, Government of Hong Kong SAR, Edward CK Shum, Black & Veatch, Ray WC Fung and Ken MK Chan, U-Tech Engineering Co Ltd, Hong Kong</i></p> <p>City of Denver and City of Aurora, Colorado USA Trenchless experience. <i>Joseph Barsoom, Parsons Brinckerhoff, USA</i></p>	
12.30 – 13.30	Buffet Lunch		
	Session 2A Trenchless Research & Development Moderator: Dr Ian Moore	Session 2B Preserving Underground Assets Moderator: Jo Parker	Session 2C Horizontal Directional Drilling Moderator: Joel Chong
13.30 – 16.00	<p>Climatic, environmental and social cost-value in trenchless technologies in water and sewer pipeline rehabilitation. <i>Linne Lauesen, Svendborg Water Ltd, Denmark</i></p> <p>Jointed pipeline subjected to differential ground movement. <i>Masoumeh Saiyar, Ian D Moore and W Andrew Take, Queen's University, Kingston, Canada</i></p> <p>Determining the environmental parameters of trenchless technologies for construction practice. <i>Lucie Nenadalova, Czech Technical University in Prague, Czech Republic</i></p> <p>Hand operated trenchless construction and convenient research for trenchless technology in the third world. <i>Mohammad Haji Sotoudeh, Power & Water University of Technology, Iran</i></p>	<p>A long road to a new VISTA - UK. Developments in buried asset records. <i>Jo Parker, Watershed Associates, UK</i></p> <p>Preservation of underground assets - who is responsible? <i>Arvid Veidmark III, Specialized Services Co (SSC), USA</i></p> <p>No-Dig projects carried out in partnering – now we can document the results. <i>Claus Moller Pedersen, Arhus Water Ltd, Denmark</i></p> <p>Mapping the Underworld: Location Phase II - Latest Developments. <i>ACD Royal, CDF Rogers, P R Atkins, D N Chapman, G Curioni, N Meatje, University of Birmingham, M J Brennan, J M Muggleton, University of Southampton, A G Cohn, University of Leeds, K Goddard, P L Lewin, P Wang, University of Southampton, A Najji, S R Pennock, M A Redfern University of Bath, A J Saul, University of Sheffield, UK</i></p> <p>Radar tools for the detecting and mapping of sub surface utilities. <i>Pieter van Jaarsveld, Henri Prevost and Thomas Lee, IDS, Australia</i></p>	<p>Towards an objective method of verifying the bend radius of HDD installations. <i>Otto Ballintijn, Reduct NV, Belgium</i></p> <p>Horizontal Directional Drilling assistance. <i>Joel Chong, Orion Apac Pty Ltd and Peter Brown, Trenchless Advisor Pty Ltd, Australia</i></p> <p>The comparison of calculated methods of appropriate back reaming program using HDD. <i>Haitao Lan and Baosong Ma, China University of Geosciences, China</i></p> <p>The use of HDD to improve the fresh water supply to Cheung Chau Island, Hong Kong. <i>S K Lau, WSD, HK SAR Government, Ian Vickridge and Tony Lau, Black & Veatch Hong Kong</i></p> <p>Horizontal directional drilling in Wuhan - setting the standards for large pipeline projects in China. <i>Trixanna Nikkel, Balama Prima Equipment Ltd, Hong Kong, Zang Zhicheng, Balama Prima Equipment Ltd, China, Rene Albert, Vermeer Corporation, USA, Wei Rulin, Tianjin Shiji Dongda Pipe Crossing Eng Co Ltd, China</i></p>
16.00	Afternoon Tea Break		
17.30	Exhibition Close		

The organisers reserve the right to amend the programme or substitute speakers at any time if necessary.

Register now www.nodigsingapore.com

Day Two — Tuesday 9 November

DAY 2 OPENING SESSION																																	
9.00 – 10.00	<p>Welcome address</p> <p>Keynote speaker - Mr. Mohd Akhir Md Jiwa</p> <p>Director General, Sewerage Services Ministry of Energy, Green Technology and Water, Malaysia</p>																																
09.30	Exhibition Open																																
	<table border="1"> <thead> <tr> <th>TRACK A</th> <th>TRACK B</th> </tr> </thead> <tbody> <tr> <td> <p>Session 3A</p> <p>Infrastructure Investment</p> <p>Moderator: Dr Ray Sterling</p> </td> <td> <p>Session 3B</p> <p>Laterals Rehabilitation & Renewal</p> <p>Moderator: Dr Jason Lueke</p> </td> </tr> <tr> <td> <p>10.00 – 11.30</p> <p>Improving water quality in highly urbanized catchments through sewer rehabilitation programme. <i>M P Astuti, S L Krishna, B T Tan and, Y H Lau, PUB, Singapore</i></p> <p>Development of underground infrastructure for utilities in Colombia, South America. <i>Juan Carlos Gutierrez, Empresas Publicas de Medellin, Colombia</i></p> <p>A study of the jacking force for a curved pipejacking. <i>K J Shou and J M Jiang, National Chung-Hsing University, Taiwan</i></p> </td> <td> <p>Advancements in lateral sewer rehabilitation methods and asset management. <i>Ray Sterling, Louisiana Tech University, Jason Leuke, Arizona State University, USA</i></p> <p>Renewal of laterals by means of CIPP techniques. <i>Peter Lystbaek, Per Aarsleff, Denmark</i></p> <p>High stress crack resistance polyethylene for advanced trenchless installation. <i>Kang Peck Tze and David Walton, Borouge Pte Ltd, Singapore and Peter Hayes, Borouge Pte, UAE</i></p> </td> </tr> <tr> <td colspan="2">11.30 – 12.00 Coffee Break</td> </tr> <tr> <td></td> <td> <table border="1"> <thead> <tr> <th>Session 4A</th> <th>Session 4B</th> </tr> </thead> <tbody> <tr> <td> <p>Microtunneling Innovations</p> <p>Moderator: Dr David Chapman</p> </td> <td> <p>Pipeline Rehabilitation & Renewal</p> <p>Moderator: J.F. Maregiano</p> </td> </tr> <tr> <td> <p>12.00 – 13.30</p> <p>Latest methods of small diameter sewer construction. <i>Paul Nicholas, Akkerman Inc, USA</i></p> <p>Example of long distance/curved line small diameter pipe driving through bedrock and boulder soil. <i>Tomonori Majima, Commutere Corporation, Japan, Kunihiro Maeda, Airec Engineering Corporation, Japan</i></p> <p>The innovative direct 'pipe method' – case histories. <i>René von Rautenkranz, Herrenknecht, Thailand</i></p> </td> <td> <p>UV cured structural lining. Overcoming the challenges. <i>Borje Persson, BKP-Berolina Polyester, Germany</i></p> <p>Flood grouting significantly reduces peak infiltration rates in Wisconsin sanitary sewers. <i>Andy Lukas, Brown & Caldwell, USA, Csilla Pall, Sanipor, Austria and Mark Lloyd, Mequon City, USA</i></p> <p>Development of the transport infrastructure in Poland with the application No-Dig with CC-GRP materials. <i>Adam Wysokowski, University of Zielona Gora, Cezary Madryas, Wroclaw University of Technology, and Lech Skomorowski, Hobas System, Poland</i></p> </td> </tr> <tr> <td colspan="2">13.30 – 14.30 Buffet Lunch</td> </tr> <tr> <td></td> <td> <table border="1"> <thead> <tr> <th>Session 5A</th> <th>Session 5B</th> </tr> </thead> <tbody> <tr> <td> <p>On-Grade Case Studies</p> <p>Moderator: Dr Ma Baosong</p> </td> <td> <p>Pipeline Rehabilitation & Renewal</p> <p>Moderator: Dr Wout Broere</p> </td> </tr> <tr> <td> <p>14.30 – 17.00</p> <p>Case studies of axis on-grade sewer technology. <i>Samuel T Ariaratnam, Arizona State University and John Milligan, Vermeer Corporation, USA</i></p> <p>The world record in microtunnelling using Hobas pipes da 3000 mm in Warsaw. <i>Andrzej Kuliczkowski and Anna Parka, Kielce University, Poland, Dariusz Kosiorowski, Jacek Lesiecki, and Piotr Pawelczyk, Hobas System, Poland</i></p> <p>Large diameter microtunnelling in Karvina. <i>Cestmir Krkoska and Karel Franczyk, Subterra, Czech Republic</i></p> <p>Planning pipe jacking operations through simulation modelling based on a twin-tunnel microtunnelling site in Hong Kong. <i>Sze-Chun Lau, Halcrow China Ltd, Hong Kong, Ming Lu, University of Alberta, Canada and Eric Lo, Black & Veatch, Hong Kong</i></p> <p>Micro-tunnelling towards the Atlantic Ocean <i>Ing Cheng Chin Keong, I.CO.PS.PA, Italy and Ing Guido Meier, Implenia Construction Ltd, Switzerland</i></p> </td> <td> <p>Resin spray lining - developments and challenges. <i>Norman Howell, John De Rosa, Subterra, UK</i></p> <p>Application of flash setting material for temporary earthquake disaster restoration of gas pipelines using fly ash cement mixtures. <i>Hideki Shimada, Kyushu University, Yasuhiro Yoshida, Sankyo Material Co, Koichi Araki, Takashi Sasaoka, Shuickhi Fujita, Kikuo Matsui, Kyushu University, Masuhiko Iino, Sankyo Material Co, and Takahisa Tomii, Fuso Technology Co, Japan</i></p> <p>Techniques to seal infiltration within waste water networks to meet INI targets. <i>Ian Ramsay, Trelleborg Pipe Seals, Singapore</i></p> <p>Cable-conduit repair technology for more effective use of conduits facilities. <i>Toshiro Inamura, Yasushi Yamazaki, Toru Korekuni, NTT Access Network Service Systems Laboratories, Takatomo Harada and Hideki Oomuro, Kubota, and Takeshi Akiyama, Nippon Dentsu Co Japan</i></p> <p>Compact Pipe. <i>Wim Elzink, Wavin Overseas, Netherlands</i></p> </td> </tr> <tr> <td colspan="2">17.00 – 17.30 Afternoon Tea Break</td> </tr> <tr> <td>17.30</td> <td>Exhibition Close</td> </tr> <tr> <td>19.00 – 23.00</td> <td> <p>Gala Dinner – Pan Pacific Hotel (ticket holders only)</p> <p>Drinks reception sponsored by DCI</p> </td> </tr> </tbody> </table> </td> </tr> </tbody> </table> </td></tr></tbody></table>	TRACK A	TRACK B	<p>Session 3A</p> <p>Infrastructure Investment</p> <p>Moderator: Dr Ray Sterling</p>	<p>Session 3B</p> <p>Laterals Rehabilitation & Renewal</p> <p>Moderator: Dr Jason Lueke</p>	<p>10.00 – 11.30</p> <p>Improving water quality in highly urbanized catchments through sewer rehabilitation programme. <i>M P Astuti, S L Krishna, B T Tan and, Y H Lau, PUB, Singapore</i></p> <p>Development of underground infrastructure for utilities in Colombia, South America. <i>Juan Carlos Gutierrez, Empresas Publicas de Medellin, Colombia</i></p> <p>A study of the jacking force for a curved pipejacking. <i>K J Shou and J M Jiang, National Chung-Hsing University, Taiwan</i></p>	<p>Advancements in lateral sewer rehabilitation methods and asset management. <i>Ray Sterling, Louisiana Tech University, Jason Leuke, Arizona State University, USA</i></p> <p>Renewal of laterals by means of CIPP techniques. <i>Peter Lystbaek, Per Aarsleff, Denmark</i></p> <p>High stress crack resistance polyethylene for advanced trenchless installation. <i>Kang Peck Tze and David Walton, Borouge Pte Ltd, Singapore and Peter Hayes, Borouge Pte, UAE</i></p>	11.30 – 12.00 Coffee Break			<table border="1"> <thead> <tr> <th>Session 4A</th> <th>Session 4B</th> </tr> </thead> <tbody> <tr> <td> <p>Microtunneling Innovations</p> <p>Moderator: Dr David Chapman</p> </td> <td> <p>Pipeline Rehabilitation & Renewal</p> <p>Moderator: J.F. Maregiano</p> </td> </tr> <tr> <td> <p>12.00 – 13.30</p> <p>Latest methods of small diameter sewer construction. <i>Paul Nicholas, Akkerman Inc, USA</i></p> <p>Example of long distance/curved line small diameter pipe driving through bedrock and boulder soil. <i>Tomonori Majima, Commutere Corporation, Japan, Kunihiro Maeda, Airec Engineering Corporation, Japan</i></p> <p>The innovative direct 'pipe method' – case histories. <i>René von Rautenkranz, Herrenknecht, Thailand</i></p> </td> <td> <p>UV cured structural lining. Overcoming the challenges. <i>Borje Persson, BKP-Berolina Polyester, Germany</i></p> <p>Flood grouting significantly reduces peak infiltration rates in Wisconsin sanitary sewers. <i>Andy Lukas, Brown & Caldwell, USA, Csilla Pall, Sanipor, Austria and Mark Lloyd, Mequon City, USA</i></p> <p>Development of the transport infrastructure in Poland with the application No-Dig with CC-GRP materials. <i>Adam Wysokowski, University of Zielona Gora, Cezary Madryas, Wroclaw University of Technology, and Lech Skomorowski, Hobas System, Poland</i></p> </td> </tr> <tr> <td colspan="2">13.30 – 14.30 Buffet Lunch</td> </tr> <tr> <td></td> <td> <table border="1"> <thead> <tr> <th>Session 5A</th> <th>Session 5B</th> </tr> </thead> <tbody> <tr> <td> <p>On-Grade Case Studies</p> <p>Moderator: Dr Ma Baosong</p> </td> <td> <p>Pipeline Rehabilitation & Renewal</p> <p>Moderator: Dr Wout Broere</p> </td> </tr> <tr> <td> <p>14.30 – 17.00</p> <p>Case studies of axis on-grade sewer technology. <i>Samuel T Ariaratnam, Arizona State University and John Milligan, Vermeer Corporation, USA</i></p> <p>The world record in microtunnelling using Hobas pipes da 3000 mm in Warsaw. <i>Andrzej Kuliczkowski and Anna Parka, Kielce University, Poland, Dariusz Kosiorowski, Jacek Lesiecki, and Piotr Pawelczyk, Hobas System, Poland</i></p> <p>Large diameter microtunnelling in Karvina. <i>Cestmir Krkoska and Karel Franczyk, Subterra, Czech Republic</i></p> <p>Planning pipe jacking operations through simulation modelling based on a twin-tunnel microtunnelling site in Hong Kong. <i>Sze-Chun Lau, Halcrow China Ltd, Hong Kong, Ming Lu, University of Alberta, Canada and Eric Lo, Black & Veatch, Hong Kong</i></p> <p>Micro-tunnelling towards the Atlantic Ocean <i>Ing Cheng Chin Keong, I.CO.PS.PA, Italy and Ing Guido Meier, Implenia Construction Ltd, Switzerland</i></p> </td> <td> <p>Resin spray lining - developments and challenges. <i>Norman Howell, John De Rosa, Subterra, UK</i></p> <p>Application of flash setting material for temporary earthquake disaster restoration of gas pipelines using fly ash cement mixtures. <i>Hideki Shimada, Kyushu University, Yasuhiro Yoshida, Sankyo Material Co, Koichi Araki, Takashi Sasaoka, Shuickhi Fujita, Kikuo Matsui, Kyushu University, Masuhiko Iino, Sankyo Material Co, and Takahisa Tomii, Fuso Technology Co, Japan</i></p> <p>Techniques to seal infiltration within waste water networks to meet INI targets. <i>Ian Ramsay, Trelleborg Pipe Seals, Singapore</i></p> <p>Cable-conduit repair technology for more effective use of conduits facilities. <i>Toshiro Inamura, Yasushi Yamazaki, Toru Korekuni, NTT Access Network Service Systems Laboratories, Takatomo Harada and Hideki Oomuro, Kubota, and Takeshi Akiyama, Nippon Dentsu Co Japan</i></p> <p>Compact Pipe. <i>Wim Elzink, Wavin Overseas, Netherlands</i></p> </td> </tr> <tr> <td colspan="2">17.00 – 17.30 Afternoon Tea Break</td> </tr> <tr> <td>17.30</td> <td>Exhibition Close</td> </tr> <tr> <td>19.00 – 23.00</td> <td> <p>Gala Dinner – Pan Pacific Hotel (ticket holders only)</p> <p>Drinks reception sponsored by DCI</p> </td> </tr> </tbody> </table> </td> </tr> </tbody> </table>	Session 4A	Session 4B	<p>Microtunneling Innovations</p> <p>Moderator: Dr David Chapman</p>	<p>Pipeline Rehabilitation & Renewal</p> <p>Moderator: J.F. Maregiano</p>	<p>12.00 – 13.30</p> <p>Latest methods of small diameter sewer construction. <i>Paul Nicholas, Akkerman Inc, USA</i></p> <p>Example of long distance/curved line small diameter pipe driving through bedrock and boulder soil. <i>Tomonori Majima, Commutere Corporation, Japan, Kunihiro Maeda, Airec Engineering Corporation, Japan</i></p> <p>The innovative direct 'pipe method' – case histories. <i>René von Rautenkranz, Herrenknecht, Thailand</i></p>	<p>UV cured structural lining. Overcoming the challenges. <i>Borje Persson, BKP-Berolina Polyester, Germany</i></p> <p>Flood grouting significantly reduces peak infiltration rates in Wisconsin sanitary sewers. <i>Andy Lukas, Brown & Caldwell, USA, Csilla Pall, Sanipor, Austria and Mark Lloyd, Mequon City, USA</i></p> <p>Development of the transport infrastructure in Poland with the application No-Dig with CC-GRP materials. <i>Adam Wysokowski, University of Zielona Gora, Cezary Madryas, Wroclaw University of Technology, and Lech Skomorowski, Hobas System, Poland</i></p>	13.30 – 14.30 Buffet Lunch			<table border="1"> <thead> <tr> <th>Session 5A</th> <th>Session 5B</th> </tr> </thead> <tbody> <tr> <td> <p>On-Grade Case Studies</p> <p>Moderator: Dr Ma Baosong</p> </td> <td> <p>Pipeline Rehabilitation & Renewal</p> <p>Moderator: Dr Wout Broere</p> </td> </tr> <tr> <td> <p>14.30 – 17.00</p> <p>Case studies of axis on-grade sewer technology. <i>Samuel T Ariaratnam, Arizona State University and John Milligan, Vermeer Corporation, USA</i></p> <p>The world record in microtunnelling using Hobas pipes da 3000 mm in Warsaw. <i>Andrzej Kuliczkowski and Anna Parka, Kielce University, Poland, Dariusz Kosiorowski, Jacek Lesiecki, and Piotr Pawelczyk, Hobas System, Poland</i></p> <p>Large diameter microtunnelling in Karvina. <i>Cestmir Krkoska and Karel Franczyk, Subterra, Czech Republic</i></p> <p>Planning pipe jacking operations through simulation modelling based on a twin-tunnel microtunnelling site in Hong Kong. <i>Sze-Chun Lau, Halcrow China Ltd, Hong Kong, Ming Lu, University of Alberta, Canada and Eric Lo, Black & Veatch, Hong Kong</i></p> <p>Micro-tunnelling towards the Atlantic Ocean <i>Ing Cheng Chin Keong, I.CO.PS.PA, Italy and Ing Guido Meier, Implenia Construction Ltd, Switzerland</i></p> </td> <td> <p>Resin spray lining - developments and challenges. <i>Norman Howell, John De Rosa, Subterra, UK</i></p> <p>Application of flash setting material for temporary earthquake disaster restoration of gas pipelines using fly ash cement mixtures. <i>Hideki Shimada, Kyushu University, Yasuhiro Yoshida, Sankyo Material Co, Koichi Araki, Takashi Sasaoka, Shuickhi Fujita, Kikuo Matsui, Kyushu University, Masuhiko Iino, Sankyo Material Co, and Takahisa Tomii, Fuso Technology Co, Japan</i></p> <p>Techniques to seal infiltration within waste water networks to meet INI targets. <i>Ian Ramsay, Trelleborg Pipe Seals, Singapore</i></p> <p>Cable-conduit repair technology for more effective use of conduits facilities. <i>Toshiro Inamura, Yasushi Yamazaki, Toru Korekuni, NTT Access Network Service Systems Laboratories, Takatomo Harada and Hideki Oomuro, Kubota, and Takeshi Akiyama, Nippon Dentsu Co Japan</i></p> <p>Compact Pipe. <i>Wim Elzink, Wavin Overseas, Netherlands</i></p> </td> </tr> <tr> <td colspan="2">17.00 – 17.30 Afternoon Tea Break</td> </tr> <tr> <td>17.30</td> <td>Exhibition Close</td> </tr> <tr> <td>19.00 – 23.00</td> <td> <p>Gala Dinner – Pan Pacific Hotel (ticket holders only)</p> <p>Drinks reception sponsored by DCI</p> </td> </tr> </tbody> </table>	Session 5A	Session 5B	<p>On-Grade Case Studies</p> <p>Moderator: Dr Ma Baosong</p>	<p>Pipeline Rehabilitation & Renewal</p> <p>Moderator: Dr Wout Broere</p>	<p>14.30 – 17.00</p> <p>Case studies of axis on-grade sewer technology. <i>Samuel T Ariaratnam, Arizona State University and John Milligan, Vermeer Corporation, USA</i></p> <p>The world record in microtunnelling using Hobas pipes da 3000 mm in Warsaw. <i>Andrzej Kuliczkowski and Anna Parka, Kielce University, Poland, Dariusz Kosiorowski, Jacek Lesiecki, and Piotr Pawelczyk, Hobas System, Poland</i></p> <p>Large diameter microtunnelling in Karvina. <i>Cestmir Krkoska and Karel Franczyk, Subterra, Czech Republic</i></p> <p>Planning pipe jacking operations through simulation modelling based on a twin-tunnel microtunnelling site in Hong Kong. <i>Sze-Chun Lau, Halcrow China Ltd, Hong Kong, Ming Lu, University of Alberta, Canada and Eric Lo, Black & Veatch, Hong Kong</i></p> <p>Micro-tunnelling towards the Atlantic Ocean <i>Ing Cheng Chin Keong, I.CO.PS.PA, Italy and Ing Guido Meier, Implenia Construction Ltd, Switzerland</i></p>	<p>Resin spray lining - developments and challenges. <i>Norman Howell, John De Rosa, Subterra, UK</i></p> <p>Application of flash setting material for temporary earthquake disaster restoration of gas pipelines using fly ash cement mixtures. <i>Hideki Shimada, Kyushu University, Yasuhiro Yoshida, Sankyo Material Co, Koichi Araki, Takashi Sasaoka, Shuickhi Fujita, Kikuo Matsui, Kyushu University, Masuhiko Iino, Sankyo Material Co, and Takahisa Tomii, Fuso Technology Co, Japan</i></p> <p>Techniques to seal infiltration within waste water networks to meet INI targets. <i>Ian Ramsay, Trelleborg Pipe Seals, Singapore</i></p> <p>Cable-conduit repair technology for more effective use of conduits facilities. <i>Toshiro Inamura, Yasushi Yamazaki, Toru Korekuni, NTT Access Network Service Systems Laboratories, Takatomo Harada and Hideki Oomuro, Kubota, and Takeshi Akiyama, Nippon Dentsu Co Japan</i></p> <p>Compact Pipe. <i>Wim Elzink, Wavin Overseas, Netherlands</i></p>	17.00 – 17.30 Afternoon Tea Break		17.30	Exhibition Close	19.00 – 23.00	<p>Gala Dinner – Pan Pacific Hotel (ticket holders only)</p> <p>Drinks reception sponsored by DCI</p>
TRACK A	TRACK B																																
<p>Session 3A</p> <p>Infrastructure Investment</p> <p>Moderator: Dr Ray Sterling</p>	<p>Session 3B</p> <p>Laterals Rehabilitation & Renewal</p> <p>Moderator: Dr Jason Lueke</p>																																
<p>10.00 – 11.30</p> <p>Improving water quality in highly urbanized catchments through sewer rehabilitation programme. <i>M P Astuti, S L Krishna, B T Tan and, Y H Lau, PUB, Singapore</i></p> <p>Development of underground infrastructure for utilities in Colombia, South America. <i>Juan Carlos Gutierrez, Empresas Publicas de Medellin, Colombia</i></p> <p>A study of the jacking force for a curved pipejacking. <i>K J Shou and J M Jiang, National Chung-Hsing University, Taiwan</i></p>	<p>Advancements in lateral sewer rehabilitation methods and asset management. <i>Ray Sterling, Louisiana Tech University, Jason Leuke, Arizona State University, USA</i></p> <p>Renewal of laterals by means of CIPP techniques. <i>Peter Lystbaek, Per Aarsleff, Denmark</i></p> <p>High stress crack resistance polyethylene for advanced trenchless installation. <i>Kang Peck Tze and David Walton, Borouge Pte Ltd, Singapore and Peter Hayes, Borouge Pte, UAE</i></p>																																
11.30 – 12.00 Coffee Break																																	
	<table border="1"> <thead> <tr> <th>Session 4A</th> <th>Session 4B</th> </tr> </thead> <tbody> <tr> <td> <p>Microtunneling Innovations</p> <p>Moderator: Dr David Chapman</p> </td> <td> <p>Pipeline Rehabilitation & Renewal</p> <p>Moderator: J.F. Maregiano</p> </td> </tr> <tr> <td> <p>12.00 – 13.30</p> <p>Latest methods of small diameter sewer construction. <i>Paul Nicholas, Akkerman Inc, USA</i></p> <p>Example of long distance/curved line small diameter pipe driving through bedrock and boulder soil. <i>Tomonori Majima, Commutere Corporation, Japan, Kunihiro Maeda, Airec Engineering Corporation, Japan</i></p> <p>The innovative direct 'pipe method' – case histories. <i>René von Rautenkranz, Herrenknecht, Thailand</i></p> </td> <td> <p>UV cured structural lining. Overcoming the challenges. <i>Borje Persson, BKP-Berolina Polyester, Germany</i></p> <p>Flood grouting significantly reduces peak infiltration rates in Wisconsin sanitary sewers. <i>Andy Lukas, Brown & Caldwell, USA, Csilla Pall, Sanipor, Austria and Mark Lloyd, Mequon City, USA</i></p> <p>Development of the transport infrastructure in Poland with the application No-Dig with CC-GRP materials. <i>Adam Wysokowski, University of Zielona Gora, Cezary Madryas, Wroclaw University of Technology, and Lech Skomorowski, Hobas System, Poland</i></p> </td> </tr> <tr> <td colspan="2">13.30 – 14.30 Buffet Lunch</td> </tr> <tr> <td></td> <td> <table border="1"> <thead> <tr> <th>Session 5A</th> <th>Session 5B</th> </tr> </thead> <tbody> <tr> <td> <p>On-Grade Case Studies</p> <p>Moderator: Dr Ma Baosong</p> </td> <td> <p>Pipeline Rehabilitation & Renewal</p> <p>Moderator: Dr Wout Broere</p> </td> </tr> <tr> <td> <p>14.30 – 17.00</p> <p>Case studies of axis on-grade sewer technology. <i>Samuel T Ariaratnam, Arizona State University and John Milligan, Vermeer Corporation, USA</i></p> <p>The world record in microtunnelling using Hobas pipes da 3000 mm in Warsaw. <i>Andrzej Kuliczkowski and Anna Parka, Kielce University, Poland, Dariusz Kosiorowski, Jacek Lesiecki, and Piotr Pawelczyk, Hobas System, Poland</i></p> <p>Large diameter microtunnelling in Karvina. <i>Cestmir Krkoska and Karel Franczyk, Subterra, Czech Republic</i></p> <p>Planning pipe jacking operations through simulation modelling based on a twin-tunnel microtunnelling site in Hong Kong. <i>Sze-Chun Lau, Halcrow China Ltd, Hong Kong, Ming Lu, University of Alberta, Canada and Eric Lo, Black & Veatch, Hong Kong</i></p> <p>Micro-tunnelling towards the Atlantic Ocean <i>Ing Cheng Chin Keong, I.CO.PS.PA, Italy and Ing Guido Meier, Implenia Construction Ltd, Switzerland</i></p> </td> <td> <p>Resin spray lining - developments and challenges. <i>Norman Howell, John De Rosa, Subterra, UK</i></p> <p>Application of flash setting material for temporary earthquake disaster restoration of gas pipelines using fly ash cement mixtures. <i>Hideki Shimada, Kyushu University, Yasuhiro Yoshida, Sankyo Material Co, Koichi Araki, Takashi Sasaoka, Shuickhi Fujita, Kikuo Matsui, Kyushu University, Masuhiko Iino, Sankyo Material Co, and Takahisa Tomii, Fuso Technology Co, Japan</i></p> <p>Techniques to seal infiltration within waste water networks to meet INI targets. <i>Ian Ramsay, Trelleborg Pipe Seals, Singapore</i></p> <p>Cable-conduit repair technology for more effective use of conduits facilities. <i>Toshiro Inamura, Yasushi Yamazaki, Toru Korekuni, NTT Access Network Service Systems Laboratories, Takatomo Harada and Hideki Oomuro, Kubota, and Takeshi Akiyama, Nippon Dentsu Co Japan</i></p> <p>Compact Pipe. <i>Wim Elzink, Wavin Overseas, Netherlands</i></p> </td> </tr> <tr> <td colspan="2">17.00 – 17.30 Afternoon Tea Break</td> </tr> <tr> <td>17.30</td> <td>Exhibition Close</td> </tr> <tr> <td>19.00 – 23.00</td> <td> <p>Gala Dinner – Pan Pacific Hotel (ticket holders only)</p> <p>Drinks reception sponsored by DCI</p> </td> </tr> </tbody> </table> </td> </tr> </tbody> </table>	Session 4A	Session 4B	<p>Microtunneling Innovations</p> <p>Moderator: Dr David Chapman</p>	<p>Pipeline Rehabilitation & Renewal</p> <p>Moderator: J.F. Maregiano</p>	<p>12.00 – 13.30</p> <p>Latest methods of small diameter sewer construction. <i>Paul Nicholas, Akkerman Inc, USA</i></p> <p>Example of long distance/curved line small diameter pipe driving through bedrock and boulder soil. <i>Tomonori Majima, Commutere Corporation, Japan, Kunihiro Maeda, Airec Engineering Corporation, Japan</i></p> <p>The innovative direct 'pipe method' – case histories. <i>René von Rautenkranz, Herrenknecht, Thailand</i></p>	<p>UV cured structural lining. Overcoming the challenges. <i>Borje Persson, BKP-Berolina Polyester, Germany</i></p> <p>Flood grouting significantly reduces peak infiltration rates in Wisconsin sanitary sewers. <i>Andy Lukas, Brown & Caldwell, USA, Csilla Pall, Sanipor, Austria and Mark Lloyd, Mequon City, USA</i></p> <p>Development of the transport infrastructure in Poland with the application No-Dig with CC-GRP materials. <i>Adam Wysokowski, University of Zielona Gora, Cezary Madryas, Wroclaw University of Technology, and Lech Skomorowski, Hobas System, Poland</i></p>	13.30 – 14.30 Buffet Lunch			<table border="1"> <thead> <tr> <th>Session 5A</th> <th>Session 5B</th> </tr> </thead> <tbody> <tr> <td> <p>On-Grade Case Studies</p> <p>Moderator: Dr Ma Baosong</p> </td> <td> <p>Pipeline Rehabilitation & Renewal</p> <p>Moderator: Dr Wout Broere</p> </td> </tr> <tr> <td> <p>14.30 – 17.00</p> <p>Case studies of axis on-grade sewer technology. <i>Samuel T Ariaratnam, Arizona State University and John Milligan, Vermeer Corporation, USA</i></p> <p>The world record in microtunnelling using Hobas pipes da 3000 mm in Warsaw. <i>Andrzej Kuliczkowski and Anna Parka, Kielce University, Poland, Dariusz Kosiorowski, Jacek Lesiecki, and Piotr Pawelczyk, Hobas System, Poland</i></p> <p>Large diameter microtunnelling in Karvina. <i>Cestmir Krkoska and Karel Franczyk, Subterra, Czech Republic</i></p> <p>Planning pipe jacking operations through simulation modelling based on a twin-tunnel microtunnelling site in Hong Kong. <i>Sze-Chun Lau, Halcrow China Ltd, Hong Kong, Ming Lu, University of Alberta, Canada and Eric Lo, Black & Veatch, Hong Kong</i></p> <p>Micro-tunnelling towards the Atlantic Ocean <i>Ing Cheng Chin Keong, I.CO.PS.PA, Italy and Ing Guido Meier, Implenia Construction Ltd, Switzerland</i></p> </td> <td> <p>Resin spray lining - developments and challenges. <i>Norman Howell, John De Rosa, Subterra, UK</i></p> <p>Application of flash setting material for temporary earthquake disaster restoration of gas pipelines using fly ash cement mixtures. <i>Hideki Shimada, Kyushu University, Yasuhiro Yoshida, Sankyo Material Co, Koichi Araki, Takashi Sasaoka, Shuickhi Fujita, Kikuo Matsui, Kyushu University, Masuhiko Iino, Sankyo Material Co, and Takahisa Tomii, Fuso Technology Co, Japan</i></p> <p>Techniques to seal infiltration within waste water networks to meet INI targets. <i>Ian Ramsay, Trelleborg Pipe Seals, Singapore</i></p> <p>Cable-conduit repair technology for more effective use of conduits facilities. <i>Toshiro Inamura, Yasushi Yamazaki, Toru Korekuni, NTT Access Network Service Systems Laboratories, Takatomo Harada and Hideki Oomuro, Kubota, and Takeshi Akiyama, Nippon Dentsu Co Japan</i></p> <p>Compact Pipe. <i>Wim Elzink, Wavin Overseas, Netherlands</i></p> </td> </tr> <tr> <td colspan="2">17.00 – 17.30 Afternoon Tea Break</td> </tr> <tr> <td>17.30</td> <td>Exhibition Close</td> </tr> <tr> <td>19.00 – 23.00</td> <td> <p>Gala Dinner – Pan Pacific Hotel (ticket holders only)</p> <p>Drinks reception sponsored by DCI</p> </td> </tr> </tbody> </table>	Session 5A	Session 5B	<p>On-Grade Case Studies</p> <p>Moderator: Dr Ma Baosong</p>	<p>Pipeline Rehabilitation & Renewal</p> <p>Moderator: Dr Wout Broere</p>	<p>14.30 – 17.00</p> <p>Case studies of axis on-grade sewer technology. <i>Samuel T Ariaratnam, Arizona State University and John Milligan, Vermeer Corporation, USA</i></p> <p>The world record in microtunnelling using Hobas pipes da 3000 mm in Warsaw. <i>Andrzej Kuliczkowski and Anna Parka, Kielce University, Poland, Dariusz Kosiorowski, Jacek Lesiecki, and Piotr Pawelczyk, Hobas System, Poland</i></p> <p>Large diameter microtunnelling in Karvina. <i>Cestmir Krkoska and Karel Franczyk, Subterra, Czech Republic</i></p> <p>Planning pipe jacking operations through simulation modelling based on a twin-tunnel microtunnelling site in Hong Kong. <i>Sze-Chun Lau, Halcrow China Ltd, Hong Kong, Ming Lu, University of Alberta, Canada and Eric Lo, Black & Veatch, Hong Kong</i></p> <p>Micro-tunnelling towards the Atlantic Ocean <i>Ing Cheng Chin Keong, I.CO.PS.PA, Italy and Ing Guido Meier, Implenia Construction Ltd, Switzerland</i></p>	<p>Resin spray lining - developments and challenges. <i>Norman Howell, John De Rosa, Subterra, UK</i></p> <p>Application of flash setting material for temporary earthquake disaster restoration of gas pipelines using fly ash cement mixtures. <i>Hideki Shimada, Kyushu University, Yasuhiro Yoshida, Sankyo Material Co, Koichi Araki, Takashi Sasaoka, Shuickhi Fujita, Kikuo Matsui, Kyushu University, Masuhiko Iino, Sankyo Material Co, and Takahisa Tomii, Fuso Technology Co, Japan</i></p> <p>Techniques to seal infiltration within waste water networks to meet INI targets. <i>Ian Ramsay, Trelleborg Pipe Seals, Singapore</i></p> <p>Cable-conduit repair technology for more effective use of conduits facilities. <i>Toshiro Inamura, Yasushi Yamazaki, Toru Korekuni, NTT Access Network Service Systems Laboratories, Takatomo Harada and Hideki Oomuro, Kubota, and Takeshi Akiyama, Nippon Dentsu Co Japan</i></p> <p>Compact Pipe. <i>Wim Elzink, Wavin Overseas, Netherlands</i></p>	17.00 – 17.30 Afternoon Tea Break		17.30	Exhibition Close	19.00 – 23.00	<p>Gala Dinner – Pan Pacific Hotel (ticket holders only)</p> <p>Drinks reception sponsored by DCI</p>										
Session 4A	Session 4B																																
<p>Microtunneling Innovations</p> <p>Moderator: Dr David Chapman</p>	<p>Pipeline Rehabilitation & Renewal</p> <p>Moderator: J.F. Maregiano</p>																																
<p>12.00 – 13.30</p> <p>Latest methods of small diameter sewer construction. <i>Paul Nicholas, Akkerman Inc, USA</i></p> <p>Example of long distance/curved line small diameter pipe driving through bedrock and boulder soil. <i>Tomonori Majima, Commutere Corporation, Japan, Kunihiro Maeda, Airec Engineering Corporation, Japan</i></p> <p>The innovative direct 'pipe method' – case histories. <i>René von Rautenkranz, Herrenknecht, Thailand</i></p>	<p>UV cured structural lining. Overcoming the challenges. <i>Borje Persson, BKP-Berolina Polyester, Germany</i></p> <p>Flood grouting significantly reduces peak infiltration rates in Wisconsin sanitary sewers. <i>Andy Lukas, Brown & Caldwell, USA, Csilla Pall, Sanipor, Austria and Mark Lloyd, Mequon City, USA</i></p> <p>Development of the transport infrastructure in Poland with the application No-Dig with CC-GRP materials. <i>Adam Wysokowski, University of Zielona Gora, Cezary Madryas, Wroclaw University of Technology, and Lech Skomorowski, Hobas System, Poland</i></p>																																
13.30 – 14.30 Buffet Lunch																																	
	<table border="1"> <thead> <tr> <th>Session 5A</th> <th>Session 5B</th> </tr> </thead> <tbody> <tr> <td> <p>On-Grade Case Studies</p> <p>Moderator: Dr Ma Baosong</p> </td> <td> <p>Pipeline Rehabilitation & Renewal</p> <p>Moderator: Dr Wout Broere</p> </td> </tr> <tr> <td> <p>14.30 – 17.00</p> <p>Case studies of axis on-grade sewer technology. <i>Samuel T Ariaratnam, Arizona State University and John Milligan, Vermeer Corporation, USA</i></p> <p>The world record in microtunnelling using Hobas pipes da 3000 mm in Warsaw. <i>Andrzej Kuliczkowski and Anna Parka, Kielce University, Poland, Dariusz Kosiorowski, Jacek Lesiecki, and Piotr Pawelczyk, Hobas System, Poland</i></p> <p>Large diameter microtunnelling in Karvina. <i>Cestmir Krkoska and Karel Franczyk, Subterra, Czech Republic</i></p> <p>Planning pipe jacking operations through simulation modelling based on a twin-tunnel microtunnelling site in Hong Kong. <i>Sze-Chun Lau, Halcrow China Ltd, Hong Kong, Ming Lu, University of Alberta, Canada and Eric Lo, Black & Veatch, Hong Kong</i></p> <p>Micro-tunnelling towards the Atlantic Ocean <i>Ing Cheng Chin Keong, I.CO.PS.PA, Italy and Ing Guido Meier, Implenia Construction Ltd, Switzerland</i></p> </td> <td> <p>Resin spray lining - developments and challenges. <i>Norman Howell, John De Rosa, Subterra, UK</i></p> <p>Application of flash setting material for temporary earthquake disaster restoration of gas pipelines using fly ash cement mixtures. <i>Hideki Shimada, Kyushu University, Yasuhiro Yoshida, Sankyo Material Co, Koichi Araki, Takashi Sasaoka, Shuickhi Fujita, Kikuo Matsui, Kyushu University, Masuhiko Iino, Sankyo Material Co, and Takahisa Tomii, Fuso Technology Co, Japan</i></p> <p>Techniques to seal infiltration within waste water networks to meet INI targets. <i>Ian Ramsay, Trelleborg Pipe Seals, Singapore</i></p> <p>Cable-conduit repair technology for more effective use of conduits facilities. <i>Toshiro Inamura, Yasushi Yamazaki, Toru Korekuni, NTT Access Network Service Systems Laboratories, Takatomo Harada and Hideki Oomuro, Kubota, and Takeshi Akiyama, Nippon Dentsu Co Japan</i></p> <p>Compact Pipe. <i>Wim Elzink, Wavin Overseas, Netherlands</i></p> </td> </tr> <tr> <td colspan="2">17.00 – 17.30 Afternoon Tea Break</td> </tr> <tr> <td>17.30</td> <td>Exhibition Close</td> </tr> <tr> <td>19.00 – 23.00</td> <td> <p>Gala Dinner – Pan Pacific Hotel (ticket holders only)</p> <p>Drinks reception sponsored by DCI</p> </td> </tr> </tbody> </table>	Session 5A	Session 5B	<p>On-Grade Case Studies</p> <p>Moderator: Dr Ma Baosong</p>	<p>Pipeline Rehabilitation & Renewal</p> <p>Moderator: Dr Wout Broere</p>	<p>14.30 – 17.00</p> <p>Case studies of axis on-grade sewer technology. <i>Samuel T Ariaratnam, Arizona State University and John Milligan, Vermeer Corporation, USA</i></p> <p>The world record in microtunnelling using Hobas pipes da 3000 mm in Warsaw. <i>Andrzej Kuliczkowski and Anna Parka, Kielce University, Poland, Dariusz Kosiorowski, Jacek Lesiecki, and Piotr Pawelczyk, Hobas System, Poland</i></p> <p>Large diameter microtunnelling in Karvina. <i>Cestmir Krkoska and Karel Franczyk, Subterra, Czech Republic</i></p> <p>Planning pipe jacking operations through simulation modelling based on a twin-tunnel microtunnelling site in Hong Kong. <i>Sze-Chun Lau, Halcrow China Ltd, Hong Kong, Ming Lu, University of Alberta, Canada and Eric Lo, Black & Veatch, Hong Kong</i></p> <p>Micro-tunnelling towards the Atlantic Ocean <i>Ing Cheng Chin Keong, I.CO.PS.PA, Italy and Ing Guido Meier, Implenia Construction Ltd, Switzerland</i></p>	<p>Resin spray lining - developments and challenges. <i>Norman Howell, John De Rosa, Subterra, UK</i></p> <p>Application of flash setting material for temporary earthquake disaster restoration of gas pipelines using fly ash cement mixtures. <i>Hideki Shimada, Kyushu University, Yasuhiro Yoshida, Sankyo Material Co, Koichi Araki, Takashi Sasaoka, Shuickhi Fujita, Kikuo Matsui, Kyushu University, Masuhiko Iino, Sankyo Material Co, and Takahisa Tomii, Fuso Technology Co, Japan</i></p> <p>Techniques to seal infiltration within waste water networks to meet INI targets. <i>Ian Ramsay, Trelleborg Pipe Seals, Singapore</i></p> <p>Cable-conduit repair technology for more effective use of conduits facilities. <i>Toshiro Inamura, Yasushi Yamazaki, Toru Korekuni, NTT Access Network Service Systems Laboratories, Takatomo Harada and Hideki Oomuro, Kubota, and Takeshi Akiyama, Nippon Dentsu Co Japan</i></p> <p>Compact Pipe. <i>Wim Elzink, Wavin Overseas, Netherlands</i></p>	17.00 – 17.30 Afternoon Tea Break		17.30	Exhibition Close	19.00 – 23.00	<p>Gala Dinner – Pan Pacific Hotel (ticket holders only)</p> <p>Drinks reception sponsored by DCI</p>																				
Session 5A	Session 5B																																
<p>On-Grade Case Studies</p> <p>Moderator: Dr Ma Baosong</p>	<p>Pipeline Rehabilitation & Renewal</p> <p>Moderator: Dr Wout Broere</p>																																
<p>14.30 – 17.00</p> <p>Case studies of axis on-grade sewer technology. <i>Samuel T Ariaratnam, Arizona State University and John Milligan, Vermeer Corporation, USA</i></p> <p>The world record in microtunnelling using Hobas pipes da 3000 mm in Warsaw. <i>Andrzej Kuliczkowski and Anna Parka, Kielce University, Poland, Dariusz Kosiorowski, Jacek Lesiecki, and Piotr Pawelczyk, Hobas System, Poland</i></p> <p>Large diameter microtunnelling in Karvina. <i>Cestmir Krkoska and Karel Franczyk, Subterra, Czech Republic</i></p> <p>Planning pipe jacking operations through simulation modelling based on a twin-tunnel microtunnelling site in Hong Kong. <i>Sze-Chun Lau, Halcrow China Ltd, Hong Kong, Ming Lu, University of Alberta, Canada and Eric Lo, Black & Veatch, Hong Kong</i></p> <p>Micro-tunnelling towards the Atlantic Ocean <i>Ing Cheng Chin Keong, I.CO.PS.PA, Italy and Ing Guido Meier, Implenia Construction Ltd, Switzerland</i></p>	<p>Resin spray lining - developments and challenges. <i>Norman Howell, John De Rosa, Subterra, UK</i></p> <p>Application of flash setting material for temporary earthquake disaster restoration of gas pipelines using fly ash cement mixtures. <i>Hideki Shimada, Kyushu University, Yasuhiro Yoshida, Sankyo Material Co, Koichi Araki, Takashi Sasaoka, Shuickhi Fujita, Kikuo Matsui, Kyushu University, Masuhiko Iino, Sankyo Material Co, and Takahisa Tomii, Fuso Technology Co, Japan</i></p> <p>Techniques to seal infiltration within waste water networks to meet INI targets. <i>Ian Ramsay, Trelleborg Pipe Seals, Singapore</i></p> <p>Cable-conduit repair technology for more effective use of conduits facilities. <i>Toshiro Inamura, Yasushi Yamazaki, Toru Korekuni, NTT Access Network Service Systems Laboratories, Takatomo Harada and Hideki Oomuro, Kubota, and Takeshi Akiyama, Nippon Dentsu Co Japan</i></p> <p>Compact Pipe. <i>Wim Elzink, Wavin Overseas, Netherlands</i></p>																																
17.00 – 17.30 Afternoon Tea Break																																	
17.30	Exhibition Close																																
19.00 – 23.00	<p>Gala Dinner – Pan Pacific Hotel (ticket holders only)</p> <p>Drinks reception sponsored by DCI</p>																																





Day Three — Wednesday 10 November

09.30	Exhibition Open	
	TRACK A	TRACK B
	Session 6A Asset Management Moderator: Dr Robert Stein	Session 6B Water Main Rehabilitation Moderator: Dr Dec Downey
9.00 – 11.00	<p>Infrastructure asset management guardian of the buried treasure. <i>Dr Ing. R. Stein, Stein & Partner GmbH and Dipl.-Ing. A. Uhlenbroch, S&P Consult GmbH, Germany</i></p> <p>Microbiological Induced Corrosion (MIC) protection for concrete sewerage structures and cementitious liners <i>Moosa Damerchie, Conshield Technologies Inc. and William E. Shook AP/M Permaform</i></p> <p>Quality requirements for pipeline rehabilitation. <i>Hans Tottrup, Per Aarsleff, Denmark</i></p> <p>Technological advancement in mineralic protection material for enclosed structure against biogenic / corrosion attack. <i>Michael Goldschmidt, MC-Bauchemie, Müller GmbH & Co, KG, Germany, and Jesse Goh, MC-Bauchemie Müller GmbH & Co, KG – Asia Pacific, Singapore</i></p>	<p>Structural CIPP rehabilitation of water mains in a busy urban environment. <i>Ben Coté, Sanexen Environmental Services, Aqua-Pipe, Canada</i></p> <p>Proving a new product for water mains rehabilitation – experiences with MIPP. <i>Gerry Boyce and Dec Downey, Aqualiner, UK</i></p> <p>Case Study - Small diameter CIPP watermain in the City of Montreal. <i>Piero Salvo, Genivar and Tony Di Fruscia, City of Montreal, Canada</i></p> <p>No-dig technologies - innovative solutions for efficient and fast pipe rehabilitation. <i>Ulrike Rabmer-Koller, Rabmer Holding, Austria</i></p>
11.00 – 11.30	Coffee Break	
	Session 7A Pipe Jacking and Ramming Moderator: John Hemphill	Session 7B Pipeline Rehabilitation & Renewal Moderator: Kyoko Kondo
11.30 – 13.00	<p>NE water construction by using Japanese pipe jacking machines in Singapore. <i>Toru Sato, Hideki Shimada, Takashi Sasaoka, Kikuo Matsui, Kyushu University and Tony Suzuki, Iseki Poly-Tech, Japan</i></p> <p>Application of a rectangular pipe jacking machine for long distance and curved pipeline construction. <i>Fumihiko Matsumoto, Tomo Morita and Eiji Sakai, Alpha Civil Engineering Co, Japan</i></p> <p>Fundamental study on the effect of pipe jacking on deeper underground areas. <i>Takashi Senda, Hideki Shimada, Takashi Sasaoka, Kikuo Matsui, Masaya Hirai, Kyushu University and Tomo Morita, Alpha Civil Engineering, Japan</i></p>	<p>Analytical study on a restoration method for pipeline positions in case of clay soil. <i>Masashi Komura, Koichi Araki, Kyushu University and Fusho Technology, Hideki Shimada, Takashi Sasaoka and Kikuo Matsui, Kyushu University, Japan</i></p> <p>Singapore's experience in using different methods of trenchless technology for sewer rehabilitation. <i>S L Krishna, M P Astuti, and B T Tan, PUB Singapore</i></p> <p>Sewerage pipeline rehabilitation method. Development of SPR method for high degree curves. <i>Yukitoshi Iwasa, Tokyo Metropolitan Sewerage Service Corporation, Mitsuhiro Watanabe, Sekisui Chemical Co Ltd, and Hamao Yamashiro, Adachi Construction & Industry Co, Japan</i></p>
13.00 – 14.00	Closing Ceremony	
14.00 – 15.00	Buffet Lunch	
16.00	Exhibition Close	

The organisers reserve the right to amend the programme or substitute speakers at any time if necessary.

Register now www.nodigsingapore.com

CONFERENCE REGISTRATION FEES

Members of ISTT*		Non Members of ISTT:	
Registration fee	US\$750	Registration fee	US\$950
One day registration	US\$375	One day registration	US\$475
*ISTT member rates are also extended to ICE, IES, MWA and TUCSS members			

The full delegate registration fee includes attendance at all sessions shown on the published programme, refreshments and buffet lunch, conference papers and free entrance to the exhibition.

Gala Dinner – Tuesday 9 November – Pan Pacific Hotel

Price per person	US\$120
------------------	---------

REGISTER NOW

Visit the show website where you will find full information on the event including how to register, updated list of exhibitors, conference details and everything you will need to plan your visit. Register in advance to ensure your place at the Conference www.nodigsingapore.com. Registration will be open 3pm–5.30pm, Sunday 7 November and 7.30am, Monday 8 November.

How to Pay

By Credit Card:

All major credit cards accepted
(Please note the registration fee will be charged in UK Sterling)

By Bank Transfer:

Bank: Lloyds TSB, 1 Caxton Street, Butler Place, London SW1H 0PR, UK

Account Name: Westrade Group Ltd (No 2)
Sort Code: 30-98-97
US\$ Account Number: 11625993
IBAN: GB06 LOYD 3098 9711 6259 93
BIC: LOYDGB21031
SWIFT: LOYDGB2L

Booking Conditions

Admission to the Conference can only be guaranteed to delegates whose fees are paid in full at the time of registration. A cancellation charge of US\$100 will be made for all cancellations. No refunds will be made for cancellations notified after 15 October.

ENQUIRIES

INTERNATIONAL NO-DIG 2010 is organised on behalf of International Society for Trenchless Technology (ISTT) by



WESTRADE GROUP LTD
112-114 High Street
Rickmansworth
Herts WD3 1AQ, UK
Tel: +44 (0) 845 094 8066
Fax: +44 (0) 870 429 9275
Email: trenchless@westrade.co.uk
Web: www.westrade.co.uk



Supported by:



Register now www.nodigsingapore.com