



The 5th ICUMAS 2017

Regal Kowloon Hotel ♦ 29th – 31st March 2017

The 5th ICUMAS 2017

第5屆國際管綫管理大會

29th - 31st March 2017 · Regal Kowloon Hotel 富豪九龍酒店

Organizers :



Co-organizers :



Media Partners :



Sponsors:



Supporting Organizations (Government Departments - Hong Kong)



Supporting Organizations (Professional Organizations and Others)



Supporting Organizations (International)



(In alphabetical order)

EVENT REPORT

SUMMARY

The 5th ICUMAS 2017 was closed and marked with great success at the Regal Kowloon Hotel on 29th – 31st March 2017.

The Organizing Committee and event management team took more than six months in organizing this international event. ICUMAS 2017 were supported by 34 local and 20 non-local Supporting Organizations including Government Departments, Associations, Corporation, Academic Institutes and Professional Organizations.

ICUMAS 2017 attracted hundreds of participants from Hong Kong, Mainland and many overseas countries. There were over 250 participants attended Day 1 Conference and around 200 participants attended Day 2 Conference. Over 40 distinguished local, Mainland and overseas speakers from United States, United Kingdom, Israel, Malaysia and Brunei presented at the two-day conference expressing professional views and expertise on topics around the theme “BIM, Control & Utility Management for Smart City and The Sponge City”.

Joint Organizers and Co-organizers for ICUMAS 2017 are:

Joint organizers

- 1) International Institute of Utility Specialists (IIUS) 國際管綫專業學會
- 2) Hong Kong Institute of Utility Specialists (HKIUS) 香港管綫專業學會
- 3) Construction Industry Council (CIC-Hong Kong) 香港建造業議會
- 4) Control, Automatic & Instrumentation Division, The Hong Kong Institution of Engineers (HKIE – CAD) 香港工程師學會 – 控制、自動化及儀器儀表分部

Co-organizers

- 1) Smart City Consortium (SCC) 智慧城市聯盟
- 2) Chartered Institution of Civil Engineering Surveyors (Hong Kong Branch) (CICES) 英國特許土木工程測量師學會 (香港區)
- 3) Community, Construction Professionals’ Development Centre (CCPDC) 社區、建造及工程專業發展中心
- 4) Underground Pipeline Committee of CACP, China 中國城市規劃協會 – 地下管綫專業委員會

HONORABLE GUESTS OF ICUMAS 2017

Major guests attended the Conference include:

- Prof. Lap-chee TSUI, OC, GBS, JP (Victor and William Fung Foundation)
- Ir Chi-keung HON, JP (Development Bureau, HKSAR)
- Mr. Ka-kui CHAN, BBS, JP (Construction Industry Council)
- Ir Dr. King WONG (Hong Kong Institute of Utility Specialists)
- HJ Safar UNTONG (Sabah Surveyor Board)
- Ms. Ada Y. S. FUNG, BBS, JP (Housing Authority, HKSAR)
- Ir Chung-leung WONG (Water Supplies Department, HKSAR)
- Ir Fedrick Y. F. KAN (Drainage Services Department, HKSAR)
- Mr. Henry CHAU (Drainage Services Department, HKSAR)
- Ir Alfred Wing-hang SIT (Electrical & Mechanical Services Department, HKSAR)
- Mr. Hau-wai CHEUNG, JP (Construction Industry Council)
- Mr. Eric YEUNG (Smart City Consortium)
- Ir Bobby Mang-tung NG (Water Supplies Department, HKSAR)
- Ir Chun-keung NG (Hong Kong Institute of Utility Specialists)
- Mr. Zico Kai-yip KWOK (Hong Kong Institute of Utility Specialists)
- Mr. Clement SIO (The Macau Institution of Engineers)
- Mr. Shu-xi YU 俞述西 先生 (廣州市安全生產協會)
- Prof. Samuel T. ARIARATNAM (Arizona State University)
- Sr. Pengiran MATUSIN MATASAN (ASEAN Federation of Land Surveying and Geomatics)
- Prof. Yehiel ROSENFELD (Israel Institute of Technology)
- Sr. Dr. Mohd Yunus Mohd Yusoff (Surveying & Mapping of Malaysia)



Prof. TSUI Lap-chee, OC, GBS, JP having a nice sharing time with Dr. King WONG and Mr. CHEUNG Hau-wai JP, at the Reception before the Opening Ceremony



Conference proceedings were placed in souvenir bags for event participants

ICUMAS 2017 – Day 1 Conference (30 March 2017)

OPENING CEREMONY – WELCOMING SPEECH BY MR. CHAN KA-KUI, BBS, JP



Mr. CHAN Ka-kui BBS, JP, Chairman of the Construction Industry Council delivered a remarkable welcoming speech and welcomed all guests and participants at the ICUMAS 2017 Opening Ceremony.



Welcoming of honorable and major guests of ICUMAS 2017



Honorable guests and speakers at the Opening Ceremony



Main Hall was filled with hundreds of Conference participants

GUEST OF HONOR SPEECH – IR HON CHI-KEUNG, JP (DEVELOPMENT BUREAU)



Guest of Honor of the ICUMAS 2017 - Ir HON Chi-keung, JP, Permanent Secretary for Development (Works), Development Bureau, The Government of the HKSAR, presented a meaningful speech for the Conference



Vote of Thanks by Ir Dr. King Wong to Ir HON Chi-keung, JP,

KEYNOTE SPEECH – HJ SAFAR UNTONG (SABAH SURVEYORS BOARD)



Hj Safar UNTONG, the Board Chairman of Sabah Surveyors Board and the Director of Lands and Surveys delivered an excellent keynote speech

IR. DR. KING WONG (HONG KONG INSTITUTE OF UTILITY SPECIALISTS)



Dr. King WONG thanked Hj Safar UNTONG for his excellent speech and invited all special guests to come on stage for group photo

GROUP PHOTO AT THE OPENING CEREMONY



(From left) Mr. Eric YEUNG, Mr. Shu-xi YU, Ir Alfred Wing-hang SIT, HJ Safar UTONG, Ir Chi-keung HON, Prof. Lap-chee TSUI, Mr. Ka-kui CHAN, Ir Dr. King WONG, Ir Chung-leung WONG, Mr. Hau-wai CHEUNG and honorable guests and speakers



Prof. TSUI Lap-chee, OC, GBS, JP; Ir HON Chi-keung, JP; Mr. CHAN Ka-kui, BBS, JP; HJ Safar UNTONG; Ir Dr. King WONG, honorable overseas guests and speakers, and Organizing Committee members at the ICUMUS 2017 Opening Ceremony on 30th March 2017.

OFFICIAL OPENING OF ICUMAS 2017



Hj Safar UNTONG, Ir HON Chi-keung, JP and Dr. King WONG announced the official opening of the 5th ICUMAS 2017 with cheers and applause from all guests

KEYNOTE SPEECH



Ir Dr. King WONG (Hong Kong Institute of Utility Specialists) spoke on the topic of “Overview and Challenges of Utility Profession – A Case from Hong Kong”



Ir Chung-leung WONG, JP (Water Supplies Department) presented a speech on “Towards Smart Water Supply in Hong Kong - the Water Intelligent Network”

KEYNOTE SPEECH



Ir Fedrick KAN (Drainage Services Department) gave a wonderful speech on “Stormwater Management in Hong Kong – Towards a Sustainable and Resilient City”



Mr. Shu-xi YU 俞述西先生（廣州市安全生產協會）presented a keynote speech on “Improving Utility Safety for Guangzhou City” 對加強廣州地下管線安全管理的一點思考



Dr. King WONG presented an Appreciation Certificate to Mr. YU Shu-xi 俞述西先生 for a wonderful keynote speech.



Speakers and guests exchanged of ideas during coffee break time

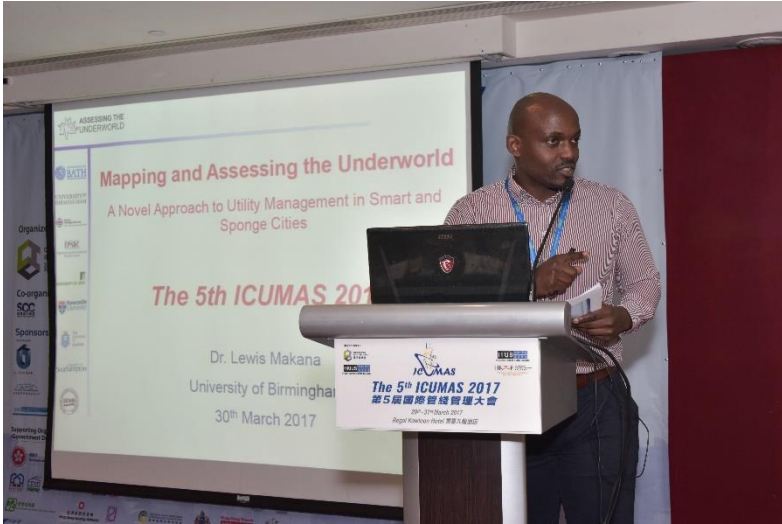
After morning coffee break, paper presentations were carried out at the Main Hall and Breakout room. Presentations at Main Hall are papers on Location and Condition while presentations at Breakout room are focused on Management.

MAIN HALL PAPER PRESENTATION



Paper presentation by **Ir Dr. Wallace LAI**
*Topic: Lab-based Validation of Utility Survey
Technologies and Methods*
(Ir Dr. Wallace LAI also won the Best Paper Award)

Ir Fedrick KAN from Drainage Services Department presented Certificate of Appreciation to Ir Dr. Wallace LAI



Dr. Lewis MAKANA
Topic: Mapping and Assessing the Underworld: A Novel Approach to Utility Management in Smart and Sponge Cities
(Dr. Lewis MAKANA was the winner for the Best Paper Award)

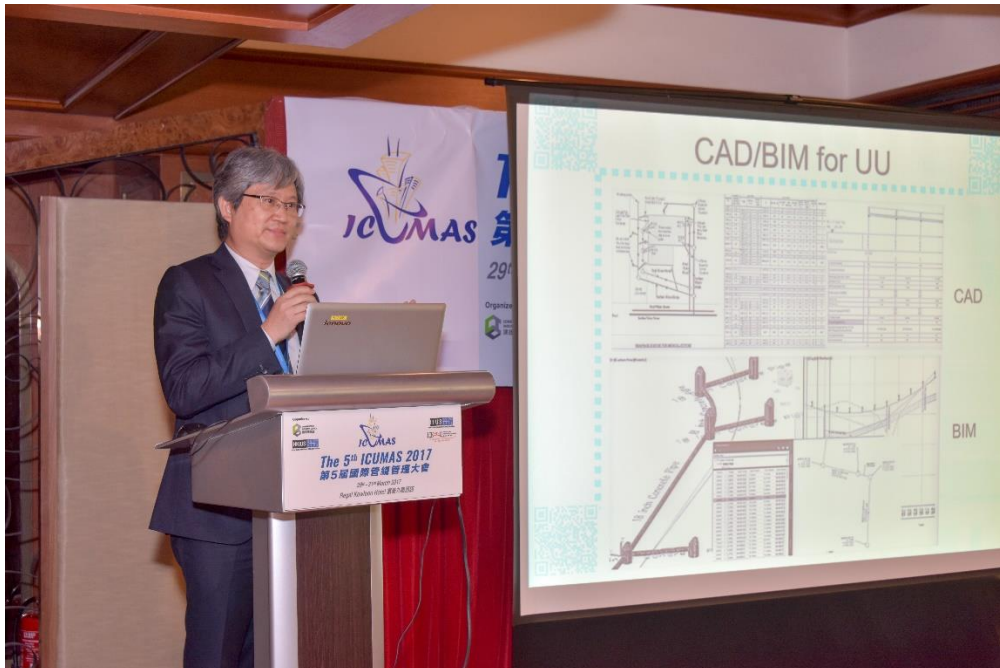


Mr. LIANG Kong Zheng
Topic: Recent Robotic Technology For infrastructure and Utilities Construction And Maintenance: A Review



Ir Kwok Leung NGAI
 Topic: Smart Water Network in Hong Kong

BREAKOUT ROOM PAPER PRESENTATION



Ir Chun Keung NG
 Topic: Evolution of BIM and Information exchange in project lifecycle



Mr. ZHANG Yong Ming 張永命 先生

Topic: Key points on survey of hidden peril of water supply pipelines in Guangzhou City



Ms. WANG Ming Zhu, Annie

Topic: Transformation of Semantic Information-rich Underground Utility Models Between BIM and Web GIS



Dr. Jack C P CHENG

Topic: BIM, Augmented Reality and Computer Vision: Opportunities and Challenges for Utility Management



Demonstration by using VR equipment

Building Information Modelling (BIM) is a new tool to manage information relating in asset creation and asset management. It is a new way of working using new technology to facilitate project management, construction process control, cross-disciplinary collaboration, stakeholders' communication, decision making support, productivity management, risk management, etc.



Ms. Ada Y S FUNG, BBS, JP
(Construction Industry Council and Housing Authority)

Ms. Ada FUNG is the Deputy Director (Development & Construction) of Housing. She is also Chairperson of Hong Kong Construction Industry Council (CIC) Committee on Construction Safety and Chairperson of CIC's Working Group on Roadmap for BIM Implementation.

Ms. Ada FUNG delivered an excellent keynote speech at the opening of the BIM Session on the topic of "*BIM in Hong Kong: What is Your Contribution?*" which is the main theme of the BIM Session of this Conference.



Mr. CHEUNG Hau-wai, Executive Director of Construction Industry Council presented Certificate of Appreciation to Ms. Ada FUNG



Mr. Ka-kui CHAN, BBS, JP, Ms. Ada Y. S. FUNG, BBS, JP, Mr. Hau-wai CHEUNG JP, Dr. King WONG and all guest speakers took photo at the BIM Session chaired by Construction Industry Council on 30th March 2017.

From Project Client's Perspective:

1. Upcoming Plan for BIM Adoption in Speaker's Organisation.
2. What Other BIM Stakeholders Could Do to Facilitate Project Clients (esp. Your Organisation) to Require BIM in Construction Projects?

PRESENTATIONS BY GUEST SPEAKERS



Mr. Vitus NG
Development Bureau



Mr. David KWOK
Airport Authority

BIM Session Speakers



Mr. Stewart MACFARLANE
MTR Corporation Limited



Mr. Francis LEUNG
Founding Chairman, HKIBIM

BIM Session Speakers



Ms. Rosana Wong
Yau Lee Holding Limited



BIM Session Speakers and guests exchanged during coffee break time



Dr. King WONG, Dr. Jack CHENG, Mr. Francis LEUNG, Mr. Ivan KO and Ms. Stella LEUNG



Ms. Ada FUNG, Mr. Larry Gillanders and guests sharing at break time

From Professional's and Regulator's Perspective:

1. Upcoming Plan for BIM Promotion/ Implementation in Speaker's Organisation.
2. What Your Organisation Could Do to Facilitate Project Clients to Require BIM in Construction Projects?

PRESENTATIONS BY GUEST SPEAKERS



Ms. Rachel CHOW

Hong Kong Institute of Architects



Mr. Antonio CHAN

Hong Kong Institution of Engineers

BIM Session Speakers



Mr. Raymond KAM
Hong Kong Institute of Surveyors



Mr. NG Chun-keung
Hong Kong Institute of Utility Specialist

BIM Session Speakers



Mr. David FUNG
Hong Kong Institute of BIM



Ms. Miranda LUI
Global BIM Centre of Excellence

BIM Session Speakers



Mr. Joe WU
Small and Medium Enterprise



Mr. Raymond KUNG
Independent Checking Unit, Housing Department

BIM Session Speakers



Mr. Wales YEUNG
Buildings Department

There were 14 excellent guest speaker presentations at the CIC's BIM Session around the theme "BIM in Hong Kong: What is your Contribution?"

ICUMAS 2017 – Day 2 Conference (31 March 2017)



Mr. Martin KEE, Prof. Samuel T. ARIARATNAM, Dr. King WONG, Mr. C. K. NG and guests at Day 2 Conference Reception



Ir Dr. Chung-nin KO, Moderator of Day 2 Keynote Session introduced and welcomed speakers for this session

KEYNOTE SPEECH



Mr. Eric YEUNG (Smart City Consortium)
Topic: What Makes "A Smart City" Smart



Dr. C. N. KO presented Certificate of Appreciation to Mr. Eric YEUNG for his wonderful keynote speech

KEYNOTE SPEECH



Mr. Pengiran MATUSIN MATASAN
(ASEAN Federation of Land Surveying and Geomatics) ASEANFLAG
Topic: ASEAN Surveyors - Forging Synergies, Focused Initiatives



Dr. C. N. KO presented Certificate of Appreciation to Mr. Pengiran MATUSIN MATASAN for his excellent keynote speech

KEYNOTE SPEECH



Mr. Martin KEE

(Institution of Gas Engineers & Managers - Far East District Section)

Topic: How Natural Gas Changes Cities in Mainland China?



Dr. C. N. KO presented Certificate of Appreciation to Mr. Martin KEE for his wonderful keynote speech

KEYNOTE SPEECH



Sr Dr. Mohd Yunus MOHD YUSOFF (Department of Survey Mapping, Malaysia)
Topic: Governance of Underground Utility Mapping in Malaysia



Dr. C. N. KO presented Certificate of Appreciation to Sr Dr. Mohd Yunus MOHD YUSOFF for his wonderful keynote speech

KEYNOTE SPEECH



Prof. Samuel T. ARIARATNAM (Arizona State University)

Topic: Consequences of Poor Mapping and Locating Practices During Horizontal Directional Drilling



Dr. C. N. KO presented Certificate of Appreciation to Prof. Samuel T. ARIARATNAM for his terrific presentation

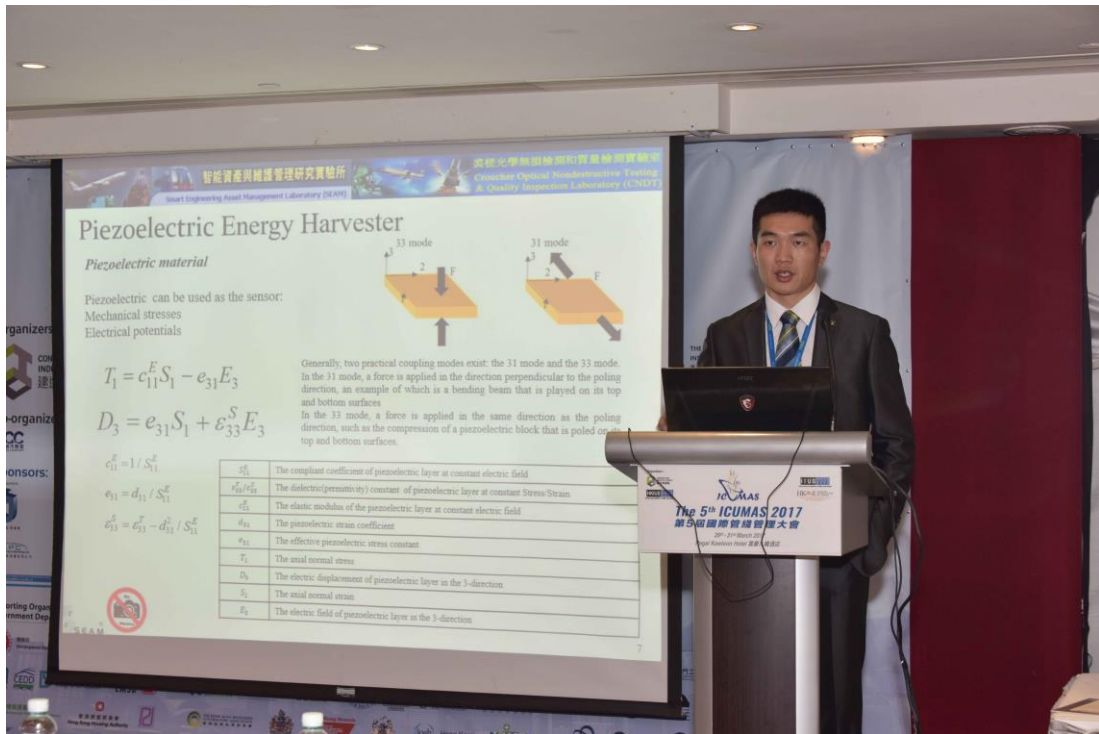


Ir Prof. Peter W. TSE

Topic: Recommended Certification Process For Education Programs and Training Schemes In Physical Asset Management



Certificate of Appreciation presented to Ir Prof. Peter W. TSE by Dr. King WONG

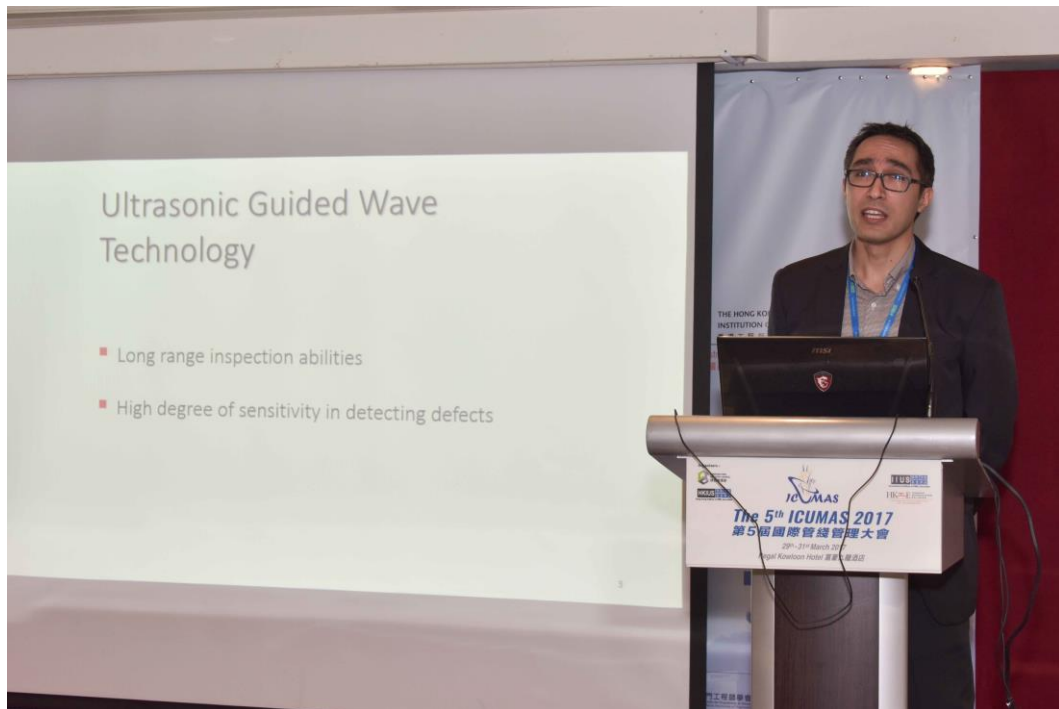


Mr. SUN Shi Long

Topic: Study of Piezoelectric Vibration Energy Harvester Design with Magneto Rheological Elastomers



Certificate of Appreciation presented to Mr. SUN Shi Long by Prof. Peter W. TSE



Mr. Javad ROSTAMI

Topic: Detection of Hidden Corrosion in Pipes Carrying Gas into Hong Kong Residential Buildings by Ultrasonic Guided Waves and Advanced Signal Processing Technique



Certificate of Appreciation presented to Mr. Javad ROSTAMI by Prof. Peter W. TSE

Mr. Javad ROSTAMI also won the Best Student Paper Award



Mr. Larry GILLANDERS

Topic: Small-Diameter Pipe Rehabilitation - Patented Lead Free, Leak Free Epoxy Lining Technology



Certificate of Appreciation presented to Mr. Larry GILLANDERS by Prof. Peter W. TSE

BREAKOUT ROOM PAPER PRESENTATIONS



Ir Dr. Pui-lam NG

Topic: Utilisation of Engineered Cementitious Composites (ECC) for Manhole Covers



Mr. ZHENG Hong Biao 鄭洪標 先生

Topic: Application of digital technology in pipeline detection



Mr. HO Chun Yiu, Alan

Topic: The Design of Internal Alignment Clamp for PE Pipe Fusion



Mr. WONG Chan Kong, Chris

Topic: Gas Network Asset Life Cycle Costing Model



Certificates of Appreciation were presented to all paper presentation speakers by Dr. King WONG and Sr Miranda LUI



Dr. Isabelle Y S CHAN, Moderator for the afternoon Keynote and Guest Speakers Session introduced and welcomed all speakers

KEYNOTE SPEECH

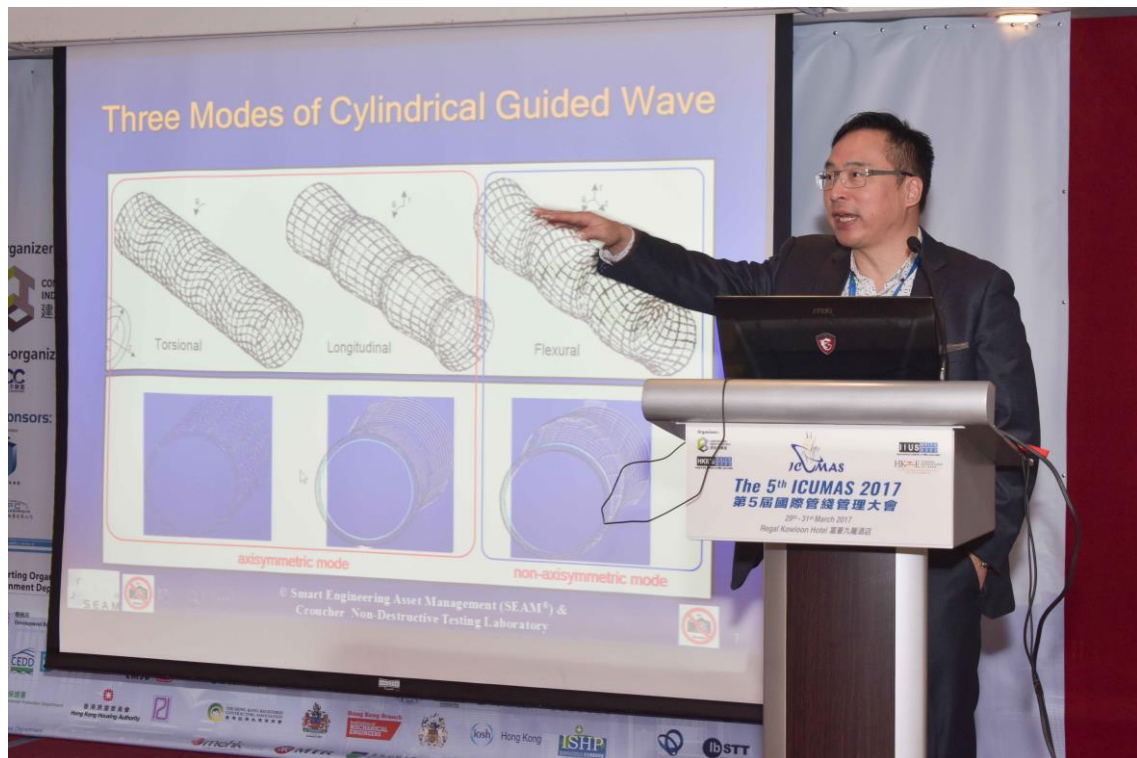


Prof. Yehiel ROSENFELD (Israel Institute of Technology)
Topic: Harnessing Evolving Technologies for Better Quality of Life in Cities



Certificate of Appreciation presented to Prof. Yehiel ROSENFELD by Dr. Isabelle CHAN

GUEST SPEECH

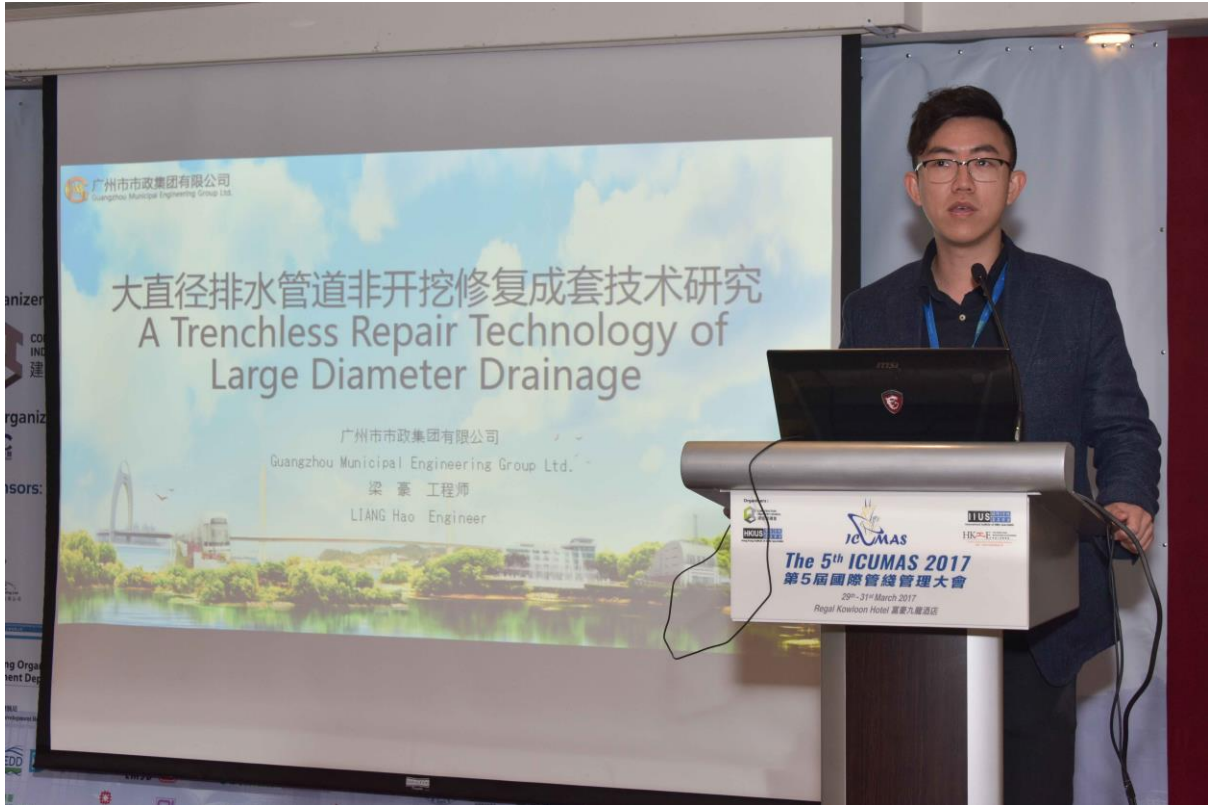


Ir Dr. Peter TSE (City University of Hong Kong)
Topic: Condition Assessment to Pipes



Certificate of Appreciation presented to Ir Dr. Peter TSE by Dr. Isabelle CHAN

GUEST SPEECH



Mr. LIANG Hao 梁豪 先生 (廣州市市政集團有限公司)

Topic: A Trenchless Repair Technology of Large Diameter Drainage 大直徑排水幹管非開挖修復成套技術



Certificate of Appreciation presented to Mr. LIANG Hao by Dr. Isabelle CHAN



Dr. ZHANG Jian-jun 張健君 博士 (深圳市市政設計院)

Topic: *Integrated Pipeline Tunnel Used in Municipal Engineering in China 綜合管廊在市政工程中的應用*



Certificate of Appreciation presented to Dr. ZHANG Jian-jun by Dr. Isabelle CHAN

GUEST SPEECH



Mr. William KWAN (Hong Kong Broadband Network Limited)
Topic: GIS – Enabling a Smarter Optical Network Monitoring Systems



Certificate of Appreciation presented to Mr. William KWAN by Dr. Isabelle CHAN



Ir Dr. King WONG (Chair of Organizing Committee) and
Ir Dr. Louis LOCK (Co-chair of Organizing Committee)



Student Helpers and staff were setting up Facebook live for the
“UTILITY PROFESSIONALS SUMMIT”

UTILITY PROFESSIONALS SUMMIT

Panel discussion on
 “Utility Survey Methods and How Accurate Surveys Can Help in Project Safety and Progress?”



“Utility Professionals Summit” - Panel members from different countries



←(From left)
 Mr. ZHENG Hong Biao (Mainland)
 Prof. Yehiel ROSENFELD (Israel)
 Mr. Pengiran MATUSIN MATASAN (Brunei)



(From left)→
 Dr. Lewis MAKANA (United Kingdom)
 Prof. Samuel T. ARIARATNAM (United States)
 Dr. King WONG (Hong Kong)



Interactions between speaker and audience –
Dr. Lewis MAKANA answered questions from Dr. Louis LOCK

PRESENTATION OF BEST PAPER AWARD



Dr. King WONG presented Best Paper Award to **Dr. Lewis MAKANA**

PRESENTATION OF BEST PAPER AWARDS



Dr. Peter TSE presented Best Paper Award to **Dr. Wallace LAI** (collected by representative)



Dr. Louis LOCK presented Best Student Paper Award to **Mr. Javad ROSTAMI**

ICUMAS 2017 CLOSING CEREMONY



Prof. Yehiel ROSENFELD, Prof. Samuel ARIARATNAM, Sr Pengiran MATUSIN MATASAN, Sr Dr. Mohd Yunus Mohd Yusoff, Dr. King WONG, Dr. Louis LOCK, Dr. Peter TSE, representatives from Supporting and Sponsoring Organizations, and Organizing Committee members at the ICUMUS 2017 Closing Ceremony on 31 March 2017