

# Department of Civil and Environmental Engineering 土木及環境工程學系 Newsletter 2017 (July-Dec)



In the 2017/18 Theme-based Research Scheme administered by the Hong Kong Research Grants Council, Prof. Tao Wang of the Department of Civil and Environmental Engineering (CEE) was awarded more than HK\$33 million for his collaborative project with a theme in sustainable environment. This is the first time that a proposal from PolyU has been awarded. 90% of the funding will come from the RGC, with the remaining 10% from PolyU.

CEE Corporate Video



CEE Programme Video





## CEE Activities

### Visit by Mr Kam-sing Wong, Secretary for the Environment, HKSAR Government

On 21 December 2017, Mr Kam-sing Wong, Secretary for the Environment of the HKSAR Government, Prof. Timothy W. Tong, the President, and senior management of the University visited the Department of Civil and Environmental Engineering (CEE).

Prof. You-lin Xu, Dean of the Faculty of Construction and Environment, and Prof. William H.K. Lam extended the warmest welcome to the group.

On behalf of the Environmental Unit of CEE, Prof. Xiang-dong Li, Prof. Tao Wang, Prof. C.S. Poon, Chair Professors, and Dr Henry Po-heng Lee, Assistant Professor, introduced the facilities and equipment in the Laboratory for Advanced Environmental Studies, Atmospheric Research Laboratory, Concrete Materials Laboratory and Water Analysis Laboratory, as well as the latest research achievement and development of the Department.



### Visit by Departmental Academic Advisor

Invited by the Department of Civil and Environmental Engineering (CEE) of PolyU, Prof. Amr Elnashai, Vice President/Vice Chancellor for Research and Technology Transfer, University of Houston, paid his first visit to CEE in the capacity of Departmental Academic Advisor from 18 to 22 December 2017.

During his visit, Prof. Elnashai met with the Departmental management, academic staff members at different levels, technical and administrative supporting colleagues to understand the operations of the Department. Throughout the visit, Prof. Elnashai gave insightful and constructive comments for the betterment of CEE in various aspects.

He also met with our undergraduate and postgraduate student representatives, and research students to learn more about the teaching and learning from students' point of view.





# CEE Activities

## Joint Workshop with Seoul National University

A delegation of more than 10 academic staff and students from the Department of Civil and Environmental Engineering of Seoul National University (SNU) came to PolyU on 20 November 2017 to participate in a workshop on recent advances in construction management and transportation, environmental engineering, and structural engineering. Jointly organized by the 2 Departments of Civil and Environmental Engineering from SNU and PolyU, the workshop promoted knowledge exchange and collaboration.

A welcoming address was delivered by Prof. You-lin Xu, Dean of the Faculty of Construction and Environment (FCE), after which Prof. William H.K. Lam, Head of PolyU's Department of Civil and Environmental Engineering (CEE), and Prof. Ho-kyung Kim, Head of the respective department at SNU, introduced their department one after another before the participants separated into 3 groups to attend one of three parallel sessions. Representatives of the Korean delegation spoke at each of them before their PolyU counterparts.



Introducing their research in the session on bridge/wind engineering, structural/system reliability, and disaster/hazard resilience were Prof. Jin-guang Teng, Prof. Siu-lai Chan, Prof. Kwok-fai Chung, Prof. Xia Yong, Prof. Yiqing Ni, Dr Jian-guo Dai, Dr Songye Zhu, Dr Siu-kai Lai, and Dr You Dong. In the session on construction management and transportation, Prof. Albert Chan, Head of the Department of Building and Real Estate (BRE), and his colleagues, Dr Joon-oh Seo and Dr Min-koo Kim, as well as Prof. William H.K. Lam, Head of CEE, Prof. Anthony Chen, Dr Mark Hsu and Dr Tony Sze, briefed participants on their ongoing research projects, while their CEE colleagues Dr Henry Po-heng Lee, Dr Shao-yuan Leu and Dr Yi Jiang spoke in the session on environmental engineering. The workshop facilitated discussion and further collaboration between the 2 universities.



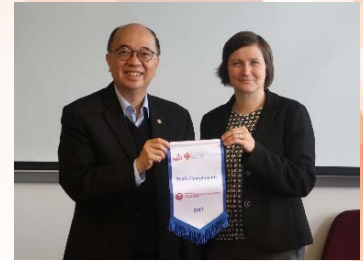


## CEE Activities

### Visit by Finland National Research Center (VTT)

On 27 November 2017, the Department of Civil and Environmental Engineering (CEE) of PolyU received a delegation from Finland National Research Center (VTT).

Dr Erja Turunen, Executive Vice President of VTT, first gave an introduction on VTT, after which Prof. William H.K. Lam, Head of CEE, and Prof. Jin-Guang Teng, Director of Research Institute for Sustainable Urban Development (RISUD) of PolyU introduced theirs.



Prof. Xiaoli Ding, Team Leader of RISUD Division of Smart Cities and Associate Dean of the Faculty of Construction and Environment of PolyU and Dr Yuhong Wang, Associate Professor of CEE, then gave a brief on their research projects.



After the introduction, the group moved on to discuss the possibility of exchange of research results, funding mechanism, and long-term collaboration.

### PolyU 80th Anniversary Celebration Dinner

On 7 December 2017, the PolyU's 80th Anniversary Celebration Dinner was held at the Hong Kong Convention and Exhibition Centre. The Department invited Mr Freeman CHEUNG, Senior Vice President Environment (Greater China) of AECOM, Ir CHOI Kin Hung Joseph, Executive Director and CEO of Hsin Chong Construction Co. Ltd., Ir CHOY Siu Chung Adam, Deputy Managing Director of Meinhardt, Ir David LAU, Director of Chun Wo Construction Holdings Company Limited, Ir MAK Chai Kwong, Adjunct Professor of CEE and Ir WAI Chi-sing, Managing Director of Urban Renewal Authority to share this joyful moment.





## Staff Achievements

### Prof. Jin-guang Teng Elected to Chinese Academy of Sciences

Prof. Jin-guang Teng, Chair Professor of Structural Engineering and Director of the Research Institute for Sustainable Urban Development, has recently been honoured with election to membership of the Chinese Academy of Sciences (CAS). Membership of CAS is the highest academic title conferred by the Chinese government for achievements in scientific and technological research.



Since joining PolyU in 1994, Prof. Teng has made a lasting impact with his research on the structural use of fibre-reinforced polymer (FRP) composites in construction and thin-walled steel structures. He hopes to leverage Hong Kong's advanced research to contribute to the Belt and Road initiative as well as the development of the Guangdong-Hong Kong-Macao Greater Bay Area.

### Prof. C.S. Poon's group won the Academy Award 2017 for Best Contribution to "Sustainable Production" Globally

Prof. C.S. Poon's group won the Academy Award 2017 for Best Contribution to "Sustainable Production" presented by the 23<sup>rd</sup> SETAC Europe LCA Case Studies Symposium, which was held from 27 to 28 November 2017 in Barcelona, Spain.



In the category "**Best Contribution to Sustainable Production**" with an initial selection of 134 contributions, only 4 papers were selected to the final nominations.



*Md. Uzzal Hossain, C.S. Poon\*, Y.H. Dong, D. Xuan (2018). Evaluation of environmental impact distribution methods for supplementary cementitious materials. Renewable and Sustainable Energy Reviews 82(1): 597-608.*

### 2017 SHM Person of the Year

Congratulations to Prof. Yiqing Ni, Professor of CEE, who was selected by "Structural Health Monitoring (SHM): An International Journal" as the "2017 SHM Person of the Year".



The award was presented at the 11th International Workshop on Structural Health Monitoring which was held from 12 to 14 September 2017, at Stanford University, California, USA.



## CEE Seminars

### Insights from Research Assessment Exercise (RAE) Review

To strive for the next level of research excellence, CEE has invited renowned scholars, who have served in the previous RAE panels, to give academics insights into the next RAE. Their talks attracted colleagues from different departments of the Faculty.



15 September 2017

**Prof. Elizabeth Deakin**, Professor Emerita of City and Regional Planning and Urban Design of the University of California



28 September 2017

**Prof. Nigel J.D. Graham**, Professor of Department of Civil and Environmental Engineering, Imperial College London

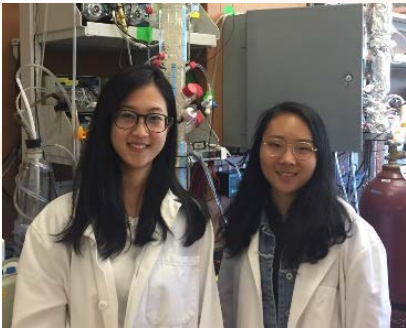


11 October 2017

**Prof. John Carter**, Emeritus Professor of School of Engineering of The University of Newcastle, Australia

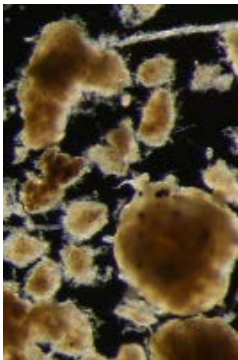
## Student Awards

### PolyU Undergraduate Summer Research Sponsorship



Ms Sunny Wei and Ms Li-wen Wang, students of BSc (Hons) Environment and Sustainable Development, were awarded the "PolyU Undergraduate Summer Research Sponsorship". The award sum is HK\$100,000.

Their research project is entitled "Estimated local several wastewater plants: Sludge Volume Index, Ratio of the granules, Phosphate release rate, and Microbial Community (16S rRNA Sequencing)".



Ms Wei and Ms Wang are co-supervised by Dr Henry Po-heng Lee, Assistant Professor of CEE and Dr Mari Winkler, Assistant Professor of College of Engineering, University of Washington, USA.



### Occupational Safety and Health Best Project Award 2017

Mr Jerry Chui, graduate of BSc (Hons) Environment and Sustainable Development in 2017, was awarded the Certificate of Merit in Occupational Safety and Health Best Project Award 2017 presented by Occupational Safety and Health Council on his final year project "A study of hand-arm vibration of construction workers in Hong Kong"

Mr Chui's final year project was supervised by Dr Siu-kai Lai.



### "Best Paper Award" from the 9th National Symposium on the Fire Technology of Structures

Dr Wan-yang Gao, former Post-doctoral fellow of CEE, won the "Best Paper Award" at the 9th National Symposium on the Fire Technology of Structures which was held from 13 to 14 October 2017 in Lanzhou, China. The research paper is entitled "Experimental Study on Fire-damaged RC Slabs Strengthened with Shotcrete Made of FRP Textile-Reinforced Cementitious Matrices" co-authored by W.Y. Gao, K.X. Hu, J.G. Dai and L.J. Fang.



Dr Gao was previously supervised by Dr Jian-guo Dai, Associate Professor of CEE. Dr Gao has just joined Shanghai Jiaotong University as a Research Associate Professor.

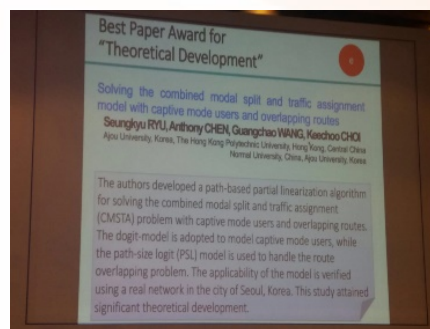


## Student Awards

### “Best Paper Award for Theoretical Development” from the 12th International Conference of Eastern Asia Society for Transportation Studies

Prof. Anthony Chen, Professor of CEE, received the “Best Paper Award for Theoretical Development” presented by the 12th International Conference of Eastern Asia Society for Transportation Studies (EASTS), which was held from 18 to 21 September 2017 in Ho Chi Minh City, Vietnam.

Prof. Chen’s paper was entitled “Solving the combined modal split and traffic assignment model with captive mode users and overlapping routes”.



### “Young Researchers and Graduates Symposium (YRGS) Best Paper Award” from the 8th Asia and Pacific Young Researchers and Graduates Symposium (YRGS2017) held at The University of Tokyo



Mr Jun-qi Huang, PhD student of CEE, won the "YRGS Best Paper Award" at the 8th Asia and Pacific Young Researchers and Graduates Symposium (YRGS2017) which was held at The University of Tokyo, Japan from 7 to 8 September 2017. His research paper was entitled "Flexural Behavior of Precast Geopolymer Concrete Sandwich Panels Enabled with FRP Connectors".

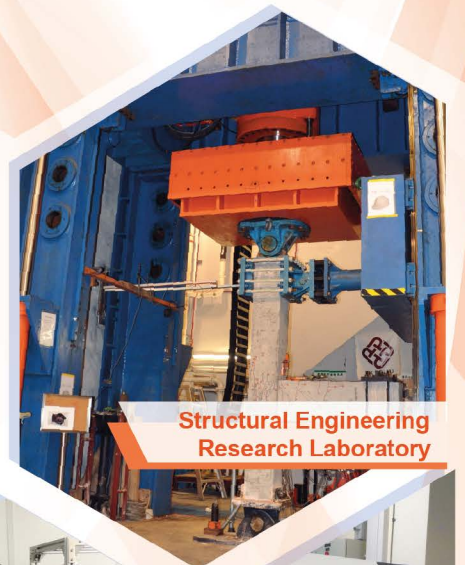
Mr Huang is supervised by Dr Jian-guo Dai, Associate Professor of CEE.

## Donation Slip

**Your gift – of any amount – will make a difference to the students in CEE**

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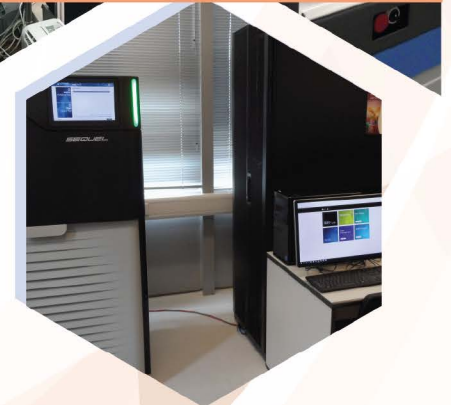
Your donation will support various activities of the Department such as student development, scholarship, bursary, research, etc. Please send this form to Room ZS972, Department of Civil and Environmental Engineering, Hung Hom, The Hong Kong Polytechnic University, Hong Kong (by post), [ceenqir@polyu.edu.hk](mailto:ceenqir@polyu.edu.hk) (by email) or (852) 334 6389 (by fax). Upon receipt of your preformat reply, we will contact you separately for the detailed arrangements. The information collected from you will be used for the purpose of donation only. You have the right to request access to and correction of information held by us about you. If you wish to access or correct your personal data, please contact our Department. Thank you in advance for your contribution.



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