

# Kun Zhang

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## SKILLS

### Urban Storm-water and Watershed Hydrologic Modeling:

- Modeling about urban hydrology & hydraulics and urban runoff pollution using SWMM, SWAT.

### Groundwater & Subsurface Hydrologic Modeling:

- Modeling about subsurface hydrology using GSFLOW, MODFLOW, VS2D, and COMSOL;

### Spatial Analysis:

- Geographic information system (GIS); FragStats;

### Computer Languages:

- MATLAB; C (C++); Fortran; global optimization (GA);

### English Fluency:

- IELTS Total: 7.0 (Reading 8.5, Listening 6.5, Speaking 6.0, Writing 6.0);
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## EDUCATION BACKGROUND

Ph.D. Civil Engineering	The University of Hong Kong	2016-Now
M.S. Environmental Engineering	Beijing University of Civil Engineering and Architecture	2013-2016
B.S. Water Supply and Drainage Engineering	Sichuan University	2009-2013

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## PROFESSIONAL APPOINTMENT

Teaching assistant	The University of Hong Kong	Sep 2016-Now
Research assistant	The University of Hong Kong	Aug-Sep 2016

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## RESEARCH PUBLICATIONS

### Peer Review Papers

**Zhang, K.**, Chui, T.F.M, Yang, Y. (2018). Simulating the hydrologic performance of LID practices in shallow groundwater via a modified SWMM. *Journal of Hydrology*, 566, 313-331. (IF: 3.727)

**Zhang, K.**, Chui, T.F.M. (2018). Interactions between shallow groundwater and LID underdrain flow at different temporal scales. *Hydrological Processes (In press)*. (IF: 3.181)

**Zhang, K.**, Chui, T.F.M. (2018). Linking hydrological and bioecological benefits of green infrastructure across spatial scales – a literature review. *Science of the Total Environment*, 646, 1219-1231. (IF: 4.61)

**Zhang, K.**, Chui, T.F.M. (2018). A comprehensive review of spatial allocation of LID-BMP-GI practices: Strategies and optimization tools. *Science of the Total Environment*, 621, 915-929. (IF: 4.61)

**Zhang, K.**, Chui, T.F.M. (2017). Evaluating hydrologic performance of bioretention cells in shallow groundwater. *Hydrological Processes*, 31, 4122-4135. (IF: 3.18)

**Zhang, K.**, Che, W., Zhang, W., Zhao, Y. (2016). Discussion about initial runoff and volume capture ratio of annual rainfall. *Water Science and Technology*, 74(8), 1764-1772. (IF: 1.20)

Che, W., **Zhang, K.**, Zhang, W., Zhao, Y. (2016). Analysis of initial runoff and total runoff volume control. *China Water & Wastewater (Chinese)*, 32(6): 9-14.

**Zhang, K.**, Ma, X., Liang, Y., Zhang, R. (2016). Experimental research about denitrification and dephosphorization efficiency WTR bioretention cells. *Environmental Engineering (Chinese)*, 34.

Che, W., **Zhang, K.** (2015). Inspection of urban runoff pollution control based on background of sponge city

development. *Construction Science and Technology (Chinese)*, (1): 32-36.

Che, W., **Zhang, K.** (2015). Discussion on some problems in waterlogging prevention and sponge city development. *Construction Science and Technology (Chinese)*, (1): 22-28.

### **Conference Proceedings**

**Zhang, K.**, Chui, T.F.M. (2018). Development of a coupled surface-subsurface hydrological model to evaluate low impact development practices in shallow groundwater. 2018 International Sponge City Conference, Xi'an, China.

Che, W., **Zhang, K.**, Zhao, Y. (2015). Discussion about first flush and pollution capture ratio of annual rainfall. *Proceeding of IWA-ASPIRE Conference & Exhibition*, 36-37.

### **Under Review and Preparation**

**Zhang, K.**, Chui, T.F.M. Modeling the impact of spatial allocation of low impact development practices in shallow groundwater using a coupled hydrological model. (*Under preparation*)

**Zhang, K.**, Chui, T.F.M. Implementing green infrastructure in shallow groundwater environment: Challenges, progresses and strategies. (*Under preparation*)

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## **TEACHING/MENTORING**

### **Course Taught As Teaching Assistant**

Tutorial session of Groundwater Hydrology (CIVL6029)	The University of Hong Kong	Sep 2018-Now
Lab session of Hydrology & Hydraulics (CIVL2014)	The University of Hong Kong	Feb 2017-Now
Tutorial session of Fluid Mechanics (CIVL2013)	The University of Hong Kong	Feb 2017-Jul 2017

### **Postgraduate Students Mentored**

- Thesis title: Should Hong Kong implement low impact development? (Au Hon Chung, The University of Hong Kong) Jul 2018-Present

### **Undergraduate Students Mentored**

- Thesis title: Ecological benefits of low impact development in highly urbanized areas (Aayushman Singh, The University of Hong Kong) Jul 2018-Present
- Thesis title: Identifying priority locations for implementing low impact development practices in Hong Kong (Lam Chun Ho, The University of Hong Kong) Jul 2018-Present
- Thesis title: Study on the responses of shallow groundwater to multi-bioretenion systems (Wong Shing Hin, The University of Hong Kong) Sep 2017-Jul 2018

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## **RESEARCH ACTIVITIES**

### **Research Projects**

**Involvement in a government-sponsored consultancy porous pavement project: CE9/2014 SWHSTW Further Expansion Design and Construction consultancy** Aug 2017 - Now

- In charge of implementing the artificial rainfall event experiments and natural rainfall monitoring, writing progress reports, performing semi-monthly data logging and semi-monthly traffic counting

### **Conference Presentations**

**Poster presentation at AOGS 15<sup>th</sup> Annual Meeting 2018, Honolulu, Hawaii** May 2018

- Title: A modified hydrology-hydraulic model to simulate surface – subsurface hydrologic dynamics of low impact development practices in urban catchments

**Oral presentation at AGU Fall Meeting 2017, New Orleans, United States** Dec 2017

- Title: Optimal designs of bioretention cell in shallow groundwater

**Oral presentation at IWA-ASPIRE Conference & Exhibition, Beijing, China** Sep 2015

- Title: Discussion about first flush and pollution capture ratio of annual rainfall

### **Academic training**

**Invited to participate in the proposal development training workshop held by Asia-Pacific Network for Global Research (APN) with full financial support** Sep 2018

**Invited to join the 2018 Water, Feedbacks, Complexity Symposium** Nov 2018

### **Membership**

Student member of AGU Dec 2017-Now

Student member of IAHR-HK Oct 2016-Now

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### **HONORS AND AWARDS**

Seasonal champion of the Research Seminar Series New College of The University of Hong Kong 2017, 2018

Postgraduate Scholarships The University of Hong Kong 2017

City-level Outstanding Graduates Award Beijing Municipal Commission of Education 2016

University-level Outstanding Graduates Award Beijing University of Civil Engineering and Architecture 2016

University-level Outstanding Graduates Award Sichuan University 2013

University-level Outstanding Students Sichuan University 2011, 2012

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### **SERVICES AND OUTREACH**

Co-led (with Ting Fong May Chui) one workshop at The University of Hong Kong on Hydro-environment and climate change Feb 2017

Reviewer of Science of the Total Environment July 2018 - Present

Reviewer of Water Science and Technology Feb 2018 - Present

Reviewer of Hydrological Processes Feb 2018 - Present

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