

CV of Dr. Mingfu Guan

1. Academic Qualification

- 2014: PhD in Hydro-morphodynamic modelling, University of Leeds, United Kingdom
- 2008-2010: Master programme in Hydrology and Water Resources, Dalian University of Technology, China
- 2008: BEng in Hydraulic Engineering, Dalian University of Technology, China

2. Positions Held (Chronological Order)

- 2018-Current: Assistant Professor, Department of Civil Engineering, HKU, Hong Kong
- 2017-2019 : Scientific Researcher, Natural Resource Institute in Finland
- 2016-2018: Research Fellow, Department of Geography, Loughborough University, UK
- 2014-2016: Research Fellow, School of Civil Engineering, University of Leeds, UK
- 2013-2014: Research Fellow, Department of Built Environment, Aalto University, Finland

3. Research Areas Related to Ocean Science, Technology and/or Policy

Dr. Guan's research has mainly focused on computational hydraulics, catchment hydrology, urban stormwater risk, sediment transport processes and their modelling techniques. He has expertise in computational fluid dynamics and its applications in various natural environments, including river, estuary, coastal and nearshore waters.

4. Funded Research Projects as Principal Investigator (PI), Co-PI or Co-Investigator (Co-I) over the Past 5 Years (Maximum 5 Projects):

- *Smart approach to the prediction and management of coastal flooding in highly urbanised area*, funded by Early Career Scheme Grant by Research Grant Council, **PI**, 358,115HKD, 2020-2022.
- *Novel dynamic models for natural-dam failure floods and their mechanisms*, funded by National Natural Science Foundation of China, **PI**, 270,000 RMB, 2020-2022
- *High-performance numerical model ling of flood dynamics in coastal urbanised areas*, funded by HKU Seed Fund, **PI**, 300,000HKD, 2019-2021.
- *Urban resilience to intense rainfall and surface water flooding in a changing climate*, Fellowship Grant funded by UK Engineering and Physical Science Research Council, EP/R007411/1, **PI**, £331,632, 2018-2021.
- *Urban flood risk modelling*, Open Fund by State Key Laboratory at Sichuan University, **PI**, 80,000RMB, 2017-2019.

5. Five Key Publications over the Past 5 Years (*Corresponding author)

- Ahilan, S.*, **Guan M.***, Wright, N., Sleight, A., Allen, D., Arthur, S., Haynes, H. and Krivtsov, V., 2019. Modelling the long-term suspended sedimentological effects on stormwater pond performance in an urban catchment. *Journal of Hydrology*, 571, 805-818.
- **Guan M.***, S. Ahilan, D. Yu, Y. Peng, N. Wright, 2018. Numerical modelling of hydro-morphological processes dominant by fine suspended sediment: a case study in a stormwater pond, *Journal of Hydrology*, 556, 87-99.
- **Guan M.***, Liang, 2017. A two-dimensional hydro-morphological model for river hydraulics and morphology with vegetation. *Environmental Modelling and Software*, 88, 10-21.
- **Guan M.***, N.G. Wright, P.A. Sleight., S. Ahilan, R. Lamb, 2016. Physical complexity to model morphological changes at a natural channel bend. *Water Resources Research*, 52, 6348-6364.
- **Guan M.***, N. Sillanpää, H. Koivusalo, 2015. Modelling and assessment of hydrological changes in a developing urban catchment. *Hydrological Processes*, 29, 2880-2894.

6. Awards and Recognition

- 2017: UK Engineering and Physical Science Research Council Fellowship (EPSRC) Award
- 2012: Win the 3rd place of IAHR UK Section Young Persons' Paper Competition
- 2010-2013: University of Leeds PhD Scholarships
- 2008-2010: Fully Funded Postgraduate Scholarship, Dalian University of Technology
- 2008: Distinguished Graduate Award of Dalian, China