



## CURRICULUM VITAE



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### Education

1. DPhil. Geography and the Environment, 2016, University of Oxford, U.K. Title: Risk-based flood protection decisions in the context of climatic variability and change.
2. MEng. (Hons) Environmental Engineering, 2009, Universiti Kebangsaan Malaysia (UKM), Malaysia.
3. BEng. (Hons) Civil Engineering, 2007, Universiti Teknologi Malaysia (UTM), Malaysia

### Areas of Interest

1. Flood risk assessment and management
2. Statistical hydrology
3. Water Resources Modelling
4. Spatial analysis

### Professional Qualification/Membership/Affiliation

1. Member, British Hydrological Society (BHS), UK
2. Member, International Association of Hydrological Sciences (IAHS)
3. Member, Institute of Engineers Malaysia (IEM)
4. Member, Board of Engineers Malaysia (BEM)

### Appointments and teaching experiences

Position	Duration
1. Senior lecturer, Department of Civil Engineering, Faculty of Engineering, UPM Courses taught throughout academic positions: Civil Engineering Design Project, Hydraulics, Fluid dynamics, Water and Wastewater Engineering	11 August 2016 to date
2. Tutor, Department of Civil Engineering, Faculty of Engineering, UPM	Nov 2007 to 12 August 2016

### Attended training and research contributions

#### Attended Training

1. Training courses on Introduction to River Hydrology and Hydraulics, and Flood Risk Analysis and Management, HR Wallingford and CIWEM, 25 – 28 Februari 2015, Oxford, UK.
2. Participant, Seminar on Hydrology for Flood Risk Management, Joint National and South East Section Meeting of the British Hydrological Society, 21 November 2013, London, UK
3. Participant, Conference on changing extremes in hydrology, 15 April 2013, Oxford, UK

- Participant, Flooding Conference, Institution of Civil Engineers, 13 May 2015, London, UK

### Journals

- Rehan, B.M., 2018. An innovative micro-scale approach for vulnerability and flood risk assessment with the application to property-level protection adoptions. *Nat. Hazards*. <https://doi.org/10.1007/s11069-018-3175-5>.
- Rehan, B.M., 2018. Accounting public and individual flood protection measures in damage assessment: A novel approach for quantitative assessment of vulnerability and flood risk associated with local engineering adaptation options. *J. Hydrol.* 563, 863–873. <https://doi.org/10.1016/j.jhydrol.2018.06.061>
- Rehan, B.M., Hall, J.W., 2016. Uncertainty and sensitivity analysis of flood risk management decisions based on stationary and nonstationary model choices, in: *E3S Web of Conferences*. <https://doi.org/10.1051/e3sconf/20160720003>
- Rehan, B. and Hall, J. (in preparation) Nonstationarity versus stationarity: Implication to risk-based flood management decisions. Targeted journal: *Water Resources Research*.

### Conferences

- Balqis Rehan** and Jim Hall: *Risk-based appraisal of flood mitigation strategies under variable climate*, Tyndall Centre's Third Annual PhD Conference, Cardiff, 3 - 5 April 2013.
- Balqis Rehan** and Jim Hall: *Exploring the limits of stationarity in flood frequency analysis and optimal investment decisions*, European Symposium on Flood Frequency Estimation and Implications for Risk Management, Potsdam, Germany, 6 - 7 March 2014
- Balqis Rehan** and Jim Hall: *Flood risk management decision analysis with finite historical records and highly variable climate effects*, Proceedings of the Second International Conference on Vulnerability and Risk Analysis and Management (ICVRAM2014), 13 - 16 July 2014, University of Liverpool, UK. American Society of Civil Engineers (ASCE).
- Balqis Rehan** and Badronnisa Yusof: *Robustness of risk-based optimization methodology in flood protection investment*, Malaysia-Korea Seminar on Healthy River Basin, 17 – 18 February 2016, Kuala Lumpur, Malaysia.
- Balqis Rehan**: *How robust is a risk-based optimized protection design to future uncertainties?* (Abstract accepted for oral presentation). 37<sup>th</sup> International Association for Hydro-Environment Engineering and Research (IAHR) World Congress, 13-18 August 2017, Kuala Lumpur, Malaysia

### Awards/Recognition

No.	Award Type	Title	Award Authority	Level	Year
1.	Inisiatif Putra Muda Grant (IPM) – team leader	Flood risk assessment for a vulnerable riverine residential area in the north east states of Peninsular Malaysia	Universiti Putra Malaysia	University	2017
2.	Fundamental Research Grant (FRGS) – team member	Quantifying threats to food (rice) security in Malaysia under climate change and mitigation using a weather-based risk approach	Ministry of Higher Education	National	2017

3.	Travel Grants (400 pounds)	BHS travel grants	British Hydrological Society (BHS), United Kingdom	Members of the BHS society under 35	2016
4.	Travel, Conference and Fieldwork Grants (200 pounds)	Wolfson travel grants	Wolfson College, University of Oxford	Current students of Wolfson college	2014
5.	Travel Grant (500 pounds)	ECI small grant	Environmental Change Institute (ECI), University of Oxford	Environmental Change Institute (ECI)	2013
6.	Certificate	Excellence in teaching	Faculty of Engineering, Universiti Putra Malaysia	Faculty	2011