

SUN YABIN

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Research Interests:

Hydrodynamic modelling; Hydrological modelling; Remote sensing; GIS; Artificial intelligence; Food Security

Education:

Doctor of Philosophy (Hydroinformatics), National University of Singapore, Singapore, 2011
Master of Engineering (Ocean Hydrodynamics), Tianjin University, China, 2005
Bachelor of Engineering (Coast Engineering), Tianjin University, China, 2002
Bachelor of Engineering (Engineering Economics), Tianjin University, China, 2002

Employment:

2011–date : Research Fellow, Tropical Marine Science Institute, National University of Singapore
2009-2010 : Research Associate, Singapore-Delft Water Alliance, National University of Singapore

Publication Summary:

Journal Articles – 11; Keynote Papers – 3; Conference Papers – 22

Selected Major Honors, Awards, and Fellowships:

Best Poster Award, AOGS, 2015; Willis Research Network Fellowship, UK, 2016

Memberships in Professional Associations/Committees:

Asia-Oceania Geosciences Society (AOGS); AOGS Hydrological Sciences Section Secretary; Hydroinformatics Society

Services to Academic and Scientific Communities:

Journal Reviewer: Journal of Hydrology; Journal of Hydroinformatics; International Journal for Numerical Methods in Fluids; Water

AOGS SERVICE

Currently, Section Secretary for Hydrological Sciences (HS), AOGS
Chair/Co-chair for HS/AS sessions in AOGS 2016

Five Selected Publications:

1. **Sun, Y.**, Babovic, V. and Chan, E. S., 2012. Artificial neural networks as routine for error correction with an application in Singapore regional model. *Ocean Dynamics*, 62 (5), 661-669.
2. **Sun, Y.**, Doan, C. D., Dao, A. T., Liu, J. and Liong, S. Y., 2014. Improving numerical forecast accuracy with ensemble Kalman filter and chaos theory: case study on Ciliwung river model. *Journal of Hydrology*, 512 (2014), 540-548.
3. **Sun, Y.**, Wendi, D., Kim, D. E. and Liong, S. Y., 2016. Technical note: Application of artificial neural networks in groundwater table forecasting – a case study in Singapore. *Hydrology and Earth System Sciences*, 20, 1405-1412, doi:10.5194/hess-20-1405-2016.
4. Wendi, D., Liong, S. Y., **Sun, Y.** and Doan, C. D., 2016. An innovative approach to improve SRTM DEM using multispectral imagery and Artificial Neural Network. *Journal of Advances in Modeling Earth Systems*, 8, doi:10.1002/2015MS000536.
5. **Sun, Y.**, Wendi, D., Kim, D. E. and Liong, S. Y., 2016. Development and application of an integrated hydrological model for Singapore freshwater swamp forest. *Procedia Engineering*, 2016, 1002-1009, doi: 10.1016/j.proeng.2016.07.589.
