

## **BELLIE SIVAKUMAR**

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### **Areas of Teaching and Research Interests:**

Hydrology; Water resources engineering; Hydrologic modeling and forecasting; Complexity, nonlinearity, and scale; Catchment classification; Climate change impacts; Water planning, management, and policy; Water education

### **Education:**

Doctor of Philosophy (Civil Engineering), National University of Singapore, Singapore, April 1999  
Master of Engineering (Hydrology and Water Resources Engineering), Anna University, Madras, India, January 1994  
Bachelor of Engineering (Civil Engineering), Bharathiar University, Coimbatore, India, April 1992

### **Employment:**

2011–date : The University of New South Wales, Sydney, Australia; Associate Professor and ARC Future Fellow  
1999–date : University of California, Davis, USA; Post-graduate Researcher/Associate Project Scientist/Associate  
1998–1999 : The University of Arizona, Tucson, USA; Post-doctoral Fellow

### **Publication Summary:**

Edited Books – 1; Edited Journal Special Issues – 7; Journal Articles – 115; Book Chapters – 12; Conference Papers – 36

### **Selected Major Honors, Awards, and Fellowships:**

Australian Research Council Future Fellowship; Korea Science and Technology Societies' Brainpool Fellowship; Japan Society for the Promotion of Science Fellowship; American Geophysical Union Editors' Citation for Excellence in Refereeing (Water Resources Research & JGR-Atmospheres); ICSC World Laboratory Fellowship, Switzerland

### **Memberships in Professional Associations/Committees:**

Asia-Oceania Geosciences Society (AOGS); AOGS Hydrological Sciences Section Secretary; AGU; AGU Surface Hydrology Committee; American Society of Civil Engineers (ASCE); European Geosciences Union (EGU); EGU Hydroinformatics Sub-division Committee & Catchment Hydrology Sub-division Committee; International Association of Hydrological Sciences (IAHS); Modeling and Simulation Society of Australia and New Zealand (MSSANZ); MSSANZ Management Committee

### **Services to Academic and Scientific Communities:**

**Journal Associate Editor/Editorial Board Member:** Journal of Hydrology; ASCE Journal of Hydrologic Engineering; Hydrological Sciences Journal; Stochastic Environmental Research and Risk Assessment; Ecohydrology and Hydrobiology; International Journal of Water Resources Development; Water Science and Technology Library Book Series

**Reviewer:** Over 40 International Journals; National Science Foundation, USA; Australian Research Council; Research Grants Council (Hong Kong); University Grants Committee (Hong Kong)

**Conferences:** Technical sessions convened/chaired – 28; Committees served – 7

**Visiting Professor/Researcher:** UNSW, Australia; CSIRO, Australia; Lund University, Sweden; CERERE (ENPC), France; Inha University, South Korea; Kyushu University, Japan; The University of Hong Kong, Hong Kong

**Invited Lectures:** 42 (USA, Australia, Canada, China, France, Greece, Hong Kong, India, Japan, Korea, Taiwan, Thailand)

### **Five Selected Publications:**

1. Sivakumar, B. (2000). Chaos theory in hydrology: important issues and interpretations. *J. Hydrol.*, **227**, 1–20.
2. Sivakumar, B. (2004). Chaos theory in geophysics: past, present, and future. *Chaos Soliton Fract.*, **19**, 441–462.
3. Sivakumar, B., Berndtsson, R. (2010). *Advances in Data-Based Approaches for Hydrologic Modeling and Forecasting*. World Scientific Publishing Company, Singapore.
4. Sivakumar, B., Liang, S.-Y., Liaw, C.-Y., Phoon, K.-K. (1999). Singapore rainfall behavior: chaotic? *J. Hydrol. Eng.*, **4**, 38–48.
5. Sivakumar, B., Sorooshian, S., Gupta, H. V., Gao, X. (2001). A chaotic approach to rainfall disaggregation. *Water Resour. Res.*, **37**, 61–72.