

BELLIE SIVAKUMAR

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Research and Teaching Interests

Hydrologic modeling; Transboundary water management; Large-scale water projects; Climate change impacts on water; Ecosystem modeling; Water quality; Sediment transport; Environmental sustainability; Human-water interactions; Hydrology education; Infectious diseases; Complex systems

Education History

Ph. D. (Civil Engineering), National University of Singapore, Singapore, April 1999

M. E. (Hydrology and Water Resources), Anna University, Madras, India, January 1994

B. E. (Civil), Bharathiar University, Coimbatore, India, April 1992

Employment History

08/2019–Date : Professor, Indian Institute of Technology Bombay, Powai, Mumbai, India
12/2011–07/2019 : Associate Professor/Adjunct Associate Professor, The University of New South Wales, Sydney, Australia
09/1999–07/2018 : PGR/Associate Project Scientist/Associate, University of California, Davis, USA
02/2010–12/2011 : Senior Research Associate, UNSW, Sydney, Australia
11/2006–07/2007 : Lecturer, Griffith University, Nathan, Queensland, Australia
08/1998–08/1999 : Post-doctoral Fellow, The University of Arizona, Tucson, USA

Other Work Experience/Research Visits (Selected only)

05/2018 – Date : Visiting Professor, Tsinghua University, Beijing, China
02/2018–07/2019 : Visiting Professor, Indian Institute of Technology Bombay, Powai, India
01/2008–12/2009 : Associate Researcher, Inha University, Incheon, South Korea
03/2006–11/2006 : JSPS Visiting Research Fellow, Kyushu University, Fukuoka, Japan
06/2002–07/2002 : Visiting Scientist, CEREVE (ENPC), Paris, France
04/2001–06/2001 : Visiting Scientist, University of Hong Kong, Hong Kong
05/2000–07/2000 : Guest Researcher, Lund University, Sweden
03/1993–02/1995 : Project Associate, Indian Institute of Technology, Madras, India

Honors and Awards (Selected only)

Fellow, Asia-Oceania Geosciences Society (AOGS) (2023)
Australian Research Council Future Fellowship (2011–2015)
Korea Science and Technology Societies' Brainpool Fellowship (2008–2009)
Japan Society for the Promotion of Science Fellowship (2006–2007)
AGU Editors' Citation for Excellence in Refereeing for *Water Resources Research* (2005)
AGU Editors' Citation for Excellence in Refereeing for *JGR–Atmospheres* (2002)
ICSC World Laboratory Fellowship, Switzerland (1998–1999)
National University of Singapore Research Scholarship (1995–1998)
Bharathiar University Silver Medalist (1987–1991)

Professional Activities, Memberships, and Collaborations

Editorial Board (Selected journals only)

Editor-in-Chief, *Hydrology* (2018–2020); Associate Editor, *Journal of Hydrology* (2012–Date); Associate Editor, *ASCE Journal of Hydrologic Engineering* (2012–Date); Associate Editor, *Stochastic Environmental Research and Risk Assessment* (2008–2023); Associate Editor, *Hydrological Sciences Journal* (2005–2011); Editorial Board Member, *Ecohydrology & Hydrobiology* (2013–Date)

Reviewer (Selected Journals and Funding Agencies only)

Australian Research Council; *Advances in Water Resources*; *Environmental Modeling & Software*; *Geophysical Research Letters*; *Hydrology and Earth System Sciences*; *Journal of Geophysical Research (Atmos)*; *Journal of Hydraulic Engineering*; *Journal of Hydrology*; National Science Foundation; Research Grants Council & University Grants Council (Hong Kong); *Water Research*; *Water Resources Research*

Memberships/Committees in Professional Organizations (Selected only)

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

Conference Session Convener/Organizer/Scientific Committee (Selected only)

AGU Fall Meeting 2005 (San Francisco, USA); MODSIM 2005 (Melbourne, Australia); Western Pacific Geophysics Meeting (WPGM) 2006 (Beijing, China); MODSIM 2007 (Christchurch, New Zealand); AOGS 2009 (Singapore); WPGM 2010 (Taipei, Taiwan); EGU 2011 (Vienna, Austria); ACCESS 2013 (Singapore) – Technical Program Committee for Environment; AOGS 2013 (Brisbane) – Local Advisory Committee

Invited Lectures

55 (Australia, Canada, China, France, Greece, Hong Kong, India, Japan, Korea, Taiwan, Thailand, UK, USA)

Publications

Publication Summary

Books/Edited Books – 3; Edited Journal Special Issues – 12; Journal Articles – 254; Book Chapters – 23; Conference Papers/Abstracts – 225

Five Selected Publications

1. **Sivakumar, B.** (2000). Chaos theory in hydrology: important issues and interpretations. *J. Hydrology*, **227**(1–4), 1–20.
2. **Sivakumar, B.**, Berndtsson, R. (2010). *Advances in Data-Based Approaches for Hydrologic Modeling and Forecasting*. World Scientific Publishing Company, Singapore, 519 pp.
3. **Sivakumar, B.** (2011). Global climate change and its impacts on water resources planning and management: Assessment and challenges. *Stoch. Environ. Res. Risk Assess.*, **25**(4), 583–600.
4. **Sivakumar, B.**, Woldemeskel, F.M. (2014). Complex networks for streamflow dynamics. *Hydrol. Earth Syst. Sci.*, **18**, 4564–4578.
5. **Sivakumar, B.** (2017). *Chaos in Hydrology: Bridging Determinism and Stochasticity*. Springer, The Netherlands, 394 pp.