



Profile	Water engineer combining fluid mechanics, modelling, statistics and computing to develop adaptive, low-carbon, data-driven solutions in hydrology, hydraulics and water and wastewater treatment, aligned with SDG6, SDG11 and SDG13. Research funding of £5.1M in total, from sources including EPSRC, Horizon Europe, UKRI Knowledge Transfer Partnerships, STFC, the Royal Society, the British Council and industry partners.	
Research	Sustainable and circular water technologies. Decentralised, low-energy, resource-recovering systems, including batch reverse osmosis desalination, plant-based coagulants and anaerobic baffled reactors. Climate-resilient infrastructure. How a changing climate affects railways, tunnels, buildings and buried pipes, with flood-resilience and nature-based drainage research through the National Buried Infrastructure Facility (NBIF). Advanced modelling and uncertainty quantification. Machine learning, computer vision, stochastic and Bayesian methods, including Markov chain Monte Carlo, to predict and optimise complex hydro-environmental systems.	
Appointments	2026 to present	Associate Professor in Water Engineering, University of Birmingham
	2013 to 2026	Assistant Professor in Water Engineering, University of Birmingham
	2009 to 2013	Research Fellow, Catholic University of America
Education	2009	PhD in Civil Engineering, University of Birmingham
	2006	MSc in Hydraulic Structures (First Class), Ferdowsi University of Mashhad
	2003	BSc in Civil and Environmental Engineering (First Class), Ferdowsi University of Mashhad
Teaching and supervision	• Modules: Surface and Groundwater Hydrology; Open Channel Flow Hydraulics; Water Transmission and Treatment; Management Information Systems and Simulation (MSc). Civil Engineering lead, Integrated Design Project 2 (2020 to 2023). Fellow of the Higher Education Academy. • Supervision: 18 doctoral researchers supervised or co-supervised (11 as main supervisor, 11 completed). Supervises BEng, MEng and MSc projects every year since 2013.	
Leadership	2026 to present	PGR Admissions Lead, School of Engineering
	2023 to 2026	Head of Education and NSS lead, Civil Engineering
	2016 to 2023	Third Year Director, Civil Engineering
Service and recognition	• Editorial Board, Cambridge Prisms: Water. Guest editor of special issues of the journals Water and Sustainability (2024). • Keynote speaker: British Hydrological Society, Machine Learning and AI for Hydrology and Water (2025); ICEARC (2025). • Reviewer for EPSRC, the Canada Foundation for Innovation, COST and the Irish Research Council. External PhD examiner at Manchester, UCL, Bradford and São Paulo State University. • Collaborations with São Paulo State University, Bursa Technical University, Nagoya University and Egypt's National Research Centre. • Graduate member, Institution of Civil Engineers; member, International Association for Hydro-Environment Engineering and Research.	

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- 2 Alsaeed, B. S., Hunt, D. V. L. and **Sharifi, S.** (2024) A Sustainable Water Resources Management Assessment Framework (SWRM-AF) for Arid and Semi-Arid Regions—Part 1: Developing the Conceptual Framework. *Sustainability*, 16(7), 2634. doi.org/10.3390/su16072634
- 3 Oyinlola, M., Kolade, O., Schröder, P., Odumuyiwa, V., Rawn, B., Wakunuma, K., **Sharifi, S.**, Lendelvo, S., Akanmu, I., Whitehead, T., Mtonga, R., Tijani, B. and Abolfathi, S. (2024) The environment for a digitally enabled circular plastics economy in Africa: lessons from cross-sectional stakeholder engagements. *Journal of Strategy and Management*, 19(3), 623-658. doi.org/10.1108/JSMA-07-2023-0153
- 4 Okoro, B. U., **Sharifi, S.**, Jesson, M., Bridgeman, J. and Moruzzi, R. (2021) Characterisation and performance of three Kenaf coagulation products under different operating conditions. *Water Research*, 188, 116517. doi.org/10.1016/j.watres.2020.116517
- 5 Bordbar, A., **Sharifi, S.** and Hemida, H. (2021) Investigation of the flow behaviour and local scour around single square-shaped cylinders at different positions in live-bed. *Ocean Engineering*, 238, 109772. doi.org/10.1016/j.oceaneng.2021.109772
- 6 **Sharifi, S.**, Murthy, S., Takács, I. and Massoudieh, A. (2014) Probabilistic parameter estimation of activated sludge processes using Markov Chain Monte Carlo. *Water Research*, 50, 254-266. doi.org/10.1016/j.watres.2013.12.010
- 7 Razaz, M., Kawanisi, K., Nistor, I. and **Sharifi, S.** (2013) An acoustic travel time method for continuous velocity monitoring in shallow tidal streams. *Water Resources Research*, 49(8), 4885-4899. doi.org/10.1002/wrcr.20375
- 8 Massoudieh, A., **Sharifi, S.** and Solomon, D. K. (2012) Bayesian evaluation of groundwater age distribution using radioactive tracers and anthropogenic chemicals. *Water Resources Research*, 48(9), 2012WR011815. doi.org/10.1029/2012WR011815
- 9 **Sharifi, S.** and Hosseini, S. M. (2011) Methodology for Identifying the Best Equations for Estimating the Time of Concentration of Watersheds in a Particular Region. *Journal of Irrigation and Drainage Engineering*, 137(11), 712-719. [doi.org/10.1061/\(ASCE\)IR.1943-4774.0000373](https://doi.org/10.1061/(ASCE)IR.1943-4774.0000373)
- 10 **Sharifi, S.**, Sterling, M. and Knight, D. W. (2010) Prediction of end-depth ratio in open channels using genetic programming. *Journal of Hydroinformatics*, 13(1), 36-48. doi.org/10.2166/hydro.2010.087

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