Aman Majid

Environmental Change Institute

University of Oxford

South Parks Road

Oxford, OX1 3QY

aman.majid@new.ox.ac.uk

+44(0)797685066

www.amanmajid.com

Pakistani and British

Professional Interests	Energy-water nexus, systems modelling, energy policy, sustainable development, demand-side response, and remote sensing	
Current Appointments	University of Oxford —Postdoctoral Researcher, Environmental Change Institute —Research Associate, Oxford Martin School	2021– 2020–
Previous Appointments	University of Oxford Graduate Research Assistant	2018–
	University of Auckland Visiting Researcher	2019–2020
	International Institute for Applied Systems Analysis (IIASA) Visiting Research Fellow (YSSP)	2018
	University of Sheffield Undergraduate Research Fellow	2015–2016
Other Experience	PricewaterhouseCoopers (PwC) Newcastle, UK <i>Risk Analyst</i>	2015
	IBM London, UK Energy and Utilities Consultant	2014–2015
	MBA Polymers Nottingham, UK Process Optimisation and Controls Engineer	2013
Teaching	University of Oxford —Tutor in Mathematics and Fluid Dynamics (New College) —Tutor in Scientific Programming (NERC DTP) —Teaching Assistant in Biodiversity and Conservation	2017–2019 2017–2018 2017–2018

Education University of Oxford D.Phil., Environmental Science and Engineering EDF Energy CASE Fellowship NERC-Oxford Doctoral Fellowship University of Sheffield M.Eng., Chemical Engineering (First Class Hons.) University of Sheffield Best Graduate Award Siddall Prize for academic and personal achievement Harley Scholarship Departmental Prize for best research student Maria Skłodowska-Curie Fellowship, European Union Young Scientist Fellowship (YSSP), IIASA and NERC

2016-2021

2011-2016

2019

2018

2017

Programming Python, R, Git, Linux, MATLAB, MTEX and Software QGis, ArcGIS, Excel, VBA, Ansys Fluent

Languages English, Urdu, Hindi, and Spanish

Publications

Majid, A., Cardenes, I., Zorn, C., Russell, T., Colquhoun, K., Bañares-Alcantara, R., and Hall, J.W., 2020. An Analysis of Electricity Consumption Patterns in the Water and Wastewater Sectors in South East England, UK. *Water*, 12(1), DOI:https://doi.org/10.3390/w12010225.

Young Engineer Prize, Institute of Chemical Engineers (IChemE)

Cardenes, I., Hall, J.W., Eyre, N., **Majid, A.**, and Jarvis, S., 2020. Quantifying the energy consumption and greenhouse gas emissions of changing wastewater quality standards. *Water Science and Technology*, 228(1), DOI:https://doi.org/10.2166/wst.2020.228.

Majid, A., Val Martin, M., Lamsal, L.N., and Duncan, B.N., 2017. A decade of changes in nitrogen oxides over regions of oil and natural gas activity in the United States. *Elementa: Science of the Anthropocene*, 5(1), DOI:http://doi.org/10.1525/elementa.259.

Papers in Review

Majid, A., van Zyl, K., and Hall, J.W., The influence of temporal variability and reservoir management on demand-response in the water sector: a study from London, UK.

Majid, A., Mortazavi-Naeini, M., and Hall, J.W. Efficient pathways to zero-carbon energy use by water supply utilities: an example from London, UK.

Working Papers

Majid, A., Downward, T., and Hall, J.W.An open-source water, wastewater, and electricity simulation model: an example from Greater London, UK.

Majid, A., Cüceloğlu, G., Gal, N., and Hall, J.W. Meeting energy goals through political cooperation: the case of Israel, Jordan, and the Palestinian Authority.

Majid, A., Pant, R., and Hall, J.W. Evaluating the robustness of Jamaica's power system to climatic shocks.

Selected Talks

Transboundary resources water and energy resources management in Israel, Palestine, and Jordan. 2020. *Decision-Making Under Deep Uncertainty (DMDU) Society Annual Assembly*, Online.

Simulating temporal variability in energy-water systems using themulti-commodity flow algorithm for robust operations and infrastructure planning. 2019. *EGU General Assembly 2019*, Vienna, Austria.

The energy-water nexus: opportunities for a national transition in the UK. 2018. *EDF Energy Seminar Series*, EDF R&D, London, UK.

The energy-water nexus: integrated systems modelling. 2018. *University of São Paulo Workshop on the energy-water nexus*, São Carlos Campus, Brazil.

Risk-based water resources planning: a blueprint for the UK water sector. 2018. *ITRC-MISTRAL assembly*, Institute of Civil Engineers, London, UK.

Using machine learning to reduce energy consumption in the water sector. 2017. *Institute of Chemical Engineers Water SIG*, Rugby, UK.

Aerosol impacts from the U.S. fracking industry: a case-study using MODIS and OMI observations. 2015. *AeroCenter Seminar Series*, NASA, Greenbelt, U.S.

Referees

Professor Jim Hall FREng

Professor of Climate Risks, University of Oxford jim.hall@eci.ox.ac.uk

Professor Réne Bañares-Alcantara

Reader in Engineering Science, University of Oxford rene.banares@eng.ox.ac.uk

Dr. Maria Val Martin

Lecturer in Environmental Systems, University of Sheffield m.valmartin@sheffield.ac.uk

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