

Member - IWA | Engineers Australia accredited

IWA membership number 1629305

As a versatile environmental engineer, I possess 7 years of Australian and international experience in the environmental sector, especially in water resource engineering. With proven skills in project management, environmental investigations and impact assessment across various platforms, I develop innovative solutions to key research and engineering problems in the environmental sector.

AREAS OF EXPERTISE

- Numerical modelling of waterways and water networks
- Impact assessment of wastewater treatment plant outfalls
- Impact of stormwater runoff on urban waterways
- Surface water planning and management
- Environmental Protection Policy and Australian Rainfall & Runoff guidelines
- Integrated catchment management techniques
- Circular economy of water
- Stochastic and mechanistic modelling, on R and MATLAB
- Hydrological modelling in Source, MUSIC, HEC-RAS, TUFLOW and MIKE
- GIS skills, including spatial analysis on QGIS, ArcGIS, MapInfo and OpenJump
- Working in dynamic multifaceted and multicultural teams
- Communication, negotiation, and influence across highly diverse stakeholder groups
- Technical report writing, with an ability to translate technical findings into policy outcomes
- Conceptual design leadership and execution of research components in major projects

CAREER SUMMARY

Principal Modeller

Sydney Water, Parramatta NSW: Nov 2017 – Present

Environmental Consultant/Occupational Hygienist

ADE Consulting Group, Silverwater NSW: May 2017 – Nov 2017

Research Fellow – Water Resources

CSIR-National Environmental Engineering Research Institute: Nagpur, India: Jul 2015 – Feb 2017

QUALIFICATIONS

Certified as a Professional Environmental Engineer (ANZSCO Level 1)

Engineers Australia, 2016

Master of Environmental Engineering (Major: Water Resources Engineering)

University of Melbourne, Australia, 2014

Bachelor of Civil Engineering

Thesis: “Sustainable model for Biochar production and use”

Presenter: Seminar on Biochar – sustainable use and role in water management, 2013

First Class Distinction – Visvesvaraya Technological University, India, 2013

EMPLOYMENT HISTORY

Principal Modeller

Sydney Water, Parramatta NSW: Nov 2017 – Present

Working in the Asset Analytics modelling team as custodian and technical lead on hydrologic, hydrodynamic and water quality model of the Hawkesbury-Nepean River system. The model informs policy makers of the impacts of development in this growing region of Sydney over the next four decades on the Hawkesbury-Nepean River system.

Accountabilities

- Technical leadership of model development
- Provide modelling services to planners, external stakeholders, and regulators, through analytics and technical reports
- Programming on MATLAB for model interfacing, pre-processing of model input and post-processing of model results

Environmental Consultant/Occupational Hygienist

ADE Consulting Group, Silverwater NSW: May 2017 – Nov 2017

Worked as an environmental consultant to give clearance for hazardous materials during the decommissioning and dismantling of the Lyondell Basell Refinery in Clyde, NSW

Research Fellow – Water Resources

CSIR-National Environmental Engineering Research Institute: Nagpur, India: Jul 2015 – Feb 2017

I was recruited to this role to research the dissolved oxygen (DO) dynamics in the River Ganges, as part of a project sponsored by the Ministry of Water Resources India. This project investigated the impact of water quality on certain unique characteristics of the river.

PROFESSIONAL DEVELOPMENT

- **Application of Remote Sensing in Estimating Soil Moisture and Evapotranspiration**, Applied Remote Sensing Training Wing (ARSET) NASA, 2016
- **Data Scientist's Toolbox**, Certified by Coursera, 2016
- **Integrated Water Resources Management**, Fachhochschule Nordwestschweiz and Indian Water Works Association, 2015
- **Managing Surface Water Quality in Urbanizing Watersheds**, Ashoka Trust for Research in Ecology and Environment (ATREE), 2016
- **Free and Open Source Geospatial Tools (FOSS4G)**, Indian Institute of Science, 2015

TECH SKILLS

- R, MATLAB, HEC-RAS, TUFLOW, Source, MIKE+ and MUSIC for modelling and data analysis
- ArcGIS, QGIS, OpenJump, and MapInfo, for DEMs and Spatial Statistics.