

Prabhat Joshi

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Employment History

- Apr – July 2021 **Research Assistant**, Climate Analytics, Kathmandu, Nepal
Major responsibilities: Developing university-level and short course curricula on climate change and the Paris Agreement framework, and preparing resource booklet. Other tasks include supporting the desk research and review of relevant climate science and policy literature to inform content and materials development, as well as other Climate Action Enhancement Package (CAEP) activities of Climate Analytics team in Nepal.
- May – Sep 2020 **Research Assistant**, Dept. of Urban Water Management, Swiss Federal Institute of Aquatic Science and Technology (Eawag), Switzerland
Major responsibilities: Investigating how the installation of energy harvesting and water-recycling devices, such as heat or water recycling showers and wastewater heat exchangers at household level, affect the heat flux (and temperature evolution) in sewer lines, and how this fluctuation affects the performance of the receiving wastewater treatment plant.
- 2018 – 2019 **Graduate Student Assistant**, Institute of Environmental Engineering (IfU), ETH Zürich, Switzerland
Major responsibilities: Providing logistic and administrative support to the Co-ordinator of Master of Advanced Studies in Sustainable Water Resources such as updating website, exploring programme advertising options and summarising students' feedback
- 2016 – 2017 **Research Assistant**, Asian Institute of Technology (AIT), Thailand
Major responsibilities: Analysis of biogas yield, temperature, pH and oxidation reduction potential data from anaerobic digestion plants (Food waste to biogas project); compilation of information about water supply projects in Asia; preparation of scientific paper on food waste management policies and technologies in Asia
- 2015 – 2016 **Environmental Engineer**, NDI Consulting Pvt. Ltd., Lalitpur, Nepal
Major responsibilities: Responsible for several projects related to water supply and sanitation including devising a city sanitation plan for Birendranagar Municipality and devising a climate resilient water safety plan for drinking water projects in Nepal

Education

- Sep 2021 – Present **PhD in Environmental Engineering**, Swiss Federal Institute of Technology Zurich (ETH Zürich) and Swiss Federal Institute of Aquatic Science and Technology (Eawag), Switzerland
Working title: Exploring the potential of blue-green infrastructure in mitigating pluvial floods in data-scarce regions

Education (continued)

- 2017 – 2020 ■ **Master of Science (MS) in Environmental Engineering (Specialised in Urban Water Management)**, Swiss Federal Institute of Technology Zurich (ETH Zürich), Switzerland
Thesis: Bridging household water consumption and wastewater treatment: modelling the evolution of heat flow in sewers
- 2011 – 2015 ■ **Bachelor of Technology (B.Tech) in Environmental Engineering**, Kathmandu University, Nepal
Thesis: Stormwater Management Model Aided Design and Analysis of a Sewerage System for Lalitpur Ward No. 4, Nepal

Research Publications

1. Hadengue, B., **Joshi, P.**, Figueroa A., Larson T. & Blumensaat F. (Submitted). In-building heat recovery mitigates adverse temperature effects on biological wastewater treatment: a network-scale analysis of thermal-hydraulics in sewers. *Water Research*.
2. **Joshi, P.**, Leita J.P., Maurer M. & Bach P. M. (2020). Not all SuDS are created equal: Impacts of different approaches on combined sewer overflows. *Water Research*, 191, p. 116780
3. **Joshi, P.**, Visvanathan, C. (2019). Sustainable management practices of food waste in Asia: Technological and policy drivers. *Journal of Environmental Management*, 247, pp. 538-550.
4. **Joshi, P.**, Thi, D. D., Saeteaw, N., Jumpusri, Y., Salam, A. P., & Visvanathan, C. (2017). Development of a CSTR System for Mesophilic, Wet Anaerobic Digestion of Food Waste in Bangkok, Thailand. *The 5th International Symposium on Environmental Analytical Chemistry (ISEAC 5 - Asia)*. Ho Chi Minh City, Vietnam
5. Khatiwada, NR., Shakya, S., Sharma, S., Dangol, S. and **Joshi, P.** (2016) City Sanitation Plan: A Step Towards Total Water Cycle Management, *Society of Public Health Engineers Nepal (SOPHEN)*, Kathmandu, Nepal

Skills


- Languages ■ Strong reading, writing and speaking competencies for English and Nepali; Fluent in speaking Hindi with limited working proficiencies in reading and writing. Currently learning German (level A2)
- Programming ■ MATLAB (competent), R (intermediate)
- Misc. ■ ArcGIS (competent), AutoCAD (beginner), Academic research and technical writing, L^AT_EX typesetting and publishing

Miscellaneous Experience


Involvement and Recognition

- 2019 ■ **UNLEASH Innovation Lab**, as a participant in a global innovation lab focussing on SDG 6: Clean Water and Sanitation. Location: Shenzhen, China
- **Climate-KIC**, as a participant in a knowledge and innovation community focussing on a climate-resilient society. Location: Madrid-Valencia-Hamburg
- 2018 ■ **The Geneva Challenge**, Second prize at The Geneva Challenge (International Contest for Advancing Development Goals for Graduate Students). Location: Geneva, Switzerland
- 2017 ■ **Excellence Scholarship and Opportunity Programme (ESOP)**, for pursuing Master's Degree in ETH Zürich


Miscellaneous Experience (continued)

2011  **Nepal Government Scholarship**, for Engineering Studies at undergraduate level in Kathmandu University

Certification

2021  **General Member**, International Association for Hydro-Environmental Engineering and Research (Member no.: 85704)

2018  **Climate Reality Leader**, awarded by The Climate Reality Project in Berlin, Germany

2016  **Environmental Engineer**, awarded by Nepal Engineering Council, Government of Nepal