

A. Research

a. Research outputs:

1. Journal papers

- **Jamwal, P.** et al., 2022. A multi-pronged approach to source attribution and apportionment of heavy metals in urban rivers; implications for standards, monitoring and enforcement. *Ambio (Under review)*
- Ashwini, A., **Jamwal, P.**, Tamin, A. V., 2022. Environmental surveillance of antimicrobial resistance in a rapidly developing catchment. *Environmental monitoring and assessment (Under review)*
- **Jamwal, P.**, Phillips, D., Gowda, R., 2022. Assessing performance of local materials for the treatment of dry weather flows in open drains: Results of semi-controlled field experiment research in Bangalore, India. *Ecological Engineering* 175, 106506.
- Verma, R., **Jamwal, P.**, 2022. Sustenance of Himalayan springs in an emerging water crisis. *Environmental monitoring and assessment* 194, 1–18.
- Lele, S., **Jamwal, P.**, Menon, M., 2021. Challenges in Regulating Water Pollution in India. *Economic & Political Weekly* 56, 47.
- Raj, A.V., **Jamwal, P.**, Anju, A.K., Kumar, P., Biswas, D., Rao, L., Helliwell, R., Richards, S., Ellis, R., Koseoglu, N., 2021. A novel approach to baseline water quality assessment at local and catchment scale: a case study from Berambadi, India. *Environmental monitoring and assessment* 193, 1–20.
- Pickard, A., White, S., Bhattacharyya, S., Carvalho, L., Dobel, A., Drewer, J., **Jamwal, P.**, Helfter, C., 2021. Greenhouse gas budgets of severely polluted urban lakes in India. *Science of the Total Environment* 798, 149019.
- Subramanian, PS Ganesh, Anjali V. Raj, **Priyanka Jamwal**, Stephanie Connelly, Jagadeesh Yeluripati, Samia Richards, Rowan Ellis, and Lakshminarayana Rao. "Decentralized treatment and recycling of greywater from a school in rural India." *Journal of Water Process Engineering* 38 (2020): 101695.
- **Jamwal, Priyanka**, Durba Biswas, and Daniel Phillips. "Provisional green infrastructure: transdisciplinary approaches to address contamination in urban streams." *Water Science and Technology* 82, no. 11 (2020): 2209-2219.
- **Jamwal, Priyanka**, Durba Biswas, and Daniel Phillips. "Waste Water Management in Cities: Notes from Bengaluru and Nelamangala." *Economic and political weekly* 55, no. 26-27.
- Kookana, Rai S., Pay Drechsel, **Priyanka Jamwal**, and Joanne Vanderzalm. "Urbanisation and emerging economies: Issues and potential solutions for water and food security." *Science of The Total Environment* 732 (2020): 139057.
- **Jamwal Priyanka**, Anjali V Raj, Samia Richards, L N Rao and Stepahanie 2019. Performance evaluation of planted vs unplanted HSSF-constructed wetlands: A case study from southern India. *Ecological engineering (Under review)*

- Rai Kookana; Pay Drechsel; **Priyanka Jamwal**; Joanne Vanderzalm 2019. Urbanisation in the Developing Economies and Implications for Water and Food Security. *Science of the Total Environment* (Under review)
- **Jamwal, P.**; Brown, R.; Kookana, R.; Drechsel, Pay; McDonald, R.; Vorosmarty, C. J.; van Vliet, M. T. H.; Bhaduri, A. 2019. The future of urban clean water and sanitation. *One Earth*, 1(1):10-12. doi: 10.1016/j.oneear.2019.08.010
- **Jamwal, P.**, Phillips, D., & Karlsrud, K. (2019). Assessing local materials for the treatment of wastewater in open drains. *Water Science and Technology*, 79(5), 895-904.
- Lele, S., Srinivasan, V., Thomas, B. K., & **Jamwal, P.** (2018). Adapting to climate change in rapidly urbanizing river basins: insights from a multiple-concerns, multiple-stressors, and multi-level approach. *Water International*, 43(2), 281-304.
- Lele, Sharachchandra, V. Srinivasan, Bejoy K. Thomas, and **Priyanka Jamwal**. Adapting to climate change in rapidly urbanizing river basins: insights from a multiple-concerns, multiple-stressors, and multi-level approach. *Water International*, (43), 2 (2018): 281-304
- **Jamwal, P.** Fate of nutrients in the human dominated ecosystems - A case study of Jakkur Lake in Bengaluru. *Resonance*, (22), 3 (2017): 79-290
- Thomas, Bejoy K., Sharachchandra Lele, V. Srinivasan, and **Priyanka Jamwal**. Rethinking resilience in urbanizing river basins. In *Seminar*, vol. 694: 55-58. Seminar Publications, 2017.
- **Jamwal, P.**, Naveen, M. N., and Y. Javeed. Estimating fast and slow reacting components in surface water and groundwater using a two-reactant model. *Drinking Water and Science Journal*, 9 (2016):19-25
- **Jamwal, P.** and M.S. Mohan Kumar. Effect of flow velocity on chlorine decay in water distribution network: A pilot loop study. *Current science*, (114), 8 (2016): 1349-1354
- **Jamwal, P.**, T. Md. Zuhial., P. Raje. Urs. V. Srinivasan and S. Lele. Contribution of Sewage treatment to pollution abatement of urban streams: A case study from Bangalore. *Current science*, (108), 4 (2015): 677-685
- Srinivasan. Veena., Bejoy. K. Thomas, **Priyanka Jamwal**, and Sharachchandra Lele. Climate vulnerability and adaptation of water provisioning in developing countries: approaches to disciplinary and research-practice integration. *Current Opinion in Environmental Sustainability*, (5), 3-4 (2013): 378-383
- **Jamwal, P.**, Mittal, A.K and Mouchel, J.M. Non-point source microbial pollution: a case study of Delhi. *Physics Chemistry of Earth*. (12), 36 (2011): 490-499
- **Jamwal, P.**, and Mittal, A.K. Removal of physiochemical and biological contaminants in different stages of wastewater treatment for Delhi city: implications to water use. *Resource Conservation and Recycling*, (4), 54 (2010): 211-221
- **Jamwal, P.**, Mittal, A.K and Mouchel, J.M. Efficiency evaluation of wastewater treatment plants based on different treatment technologies in Delhi (India). *Environmental Monitoring and Assessment*, (1-4), 153 (2008): 293-305
- **Jamwal, P.**, Mittal, A.K and Mouchel, J.M. Effects of urbanization on the quality of the urban runoff for Delhi watershed, *Urban water*, (3), 5 (2007):247-257
- **Jamwal, P.**, Mittal, A.K and Mouchel J.M. Study of the effect of different factors on fate of indicator micro-organisms in urban sewer systems, *Environmental Engineering and Management Journal*, (3), 5 (2006): 375- 381.

2. Book chapters

- Carvalho, L., **Jamwal, P.**, Lele, S., Dobel, A., 2021. Urban lake restoration. CEH, UK
- **Jamwal, P.**, Lele, S., 2021. Regulating surface water quality for irrigation WATER USE in peri-urban areas. *In Agricultural water governance: Sustainable practices and strategies*, edited by. Ramesh M K. And Bhat Sairam, 83-93. Centre for Environmental Law, Education, Research & Advocacy, National Law School of India University, Bengaluru, Indian Council for Agricultural Research –Indian Institute of Water Management, Bhubaneshwar Department of Agricultural Economics University of Agricultural Sciences, Bengaluru.
- **Jamwal, P.** 2018. Remediation of Contaminated Urban Streams: A Decentralized Ecological Wastewater Treatment Approach. In *Water Remediation* (pp. 29-41). Springer, Singapore.
- **Jamwal, P.** and Lele, S. 2017. Addressing Pollution in Urban Rivers: What we learnt from the Vrishabhavathy River in Bengaluru. In Hiremath, A. J., Rai, N. and Siddhartha, A. (Eds), *Transcending boundaries: Reflecting on twenty years of action and research at ATREE.* (pp. 104-113). Bangalore: ATREE.
- Srinivasan. V, S. Lele, B.K. Thomas and **P. Jamwal** 2017. Whose River? The Changing Waterscape of the Upper Arkavathy Under Urbanisation. In Hiremath, A. J., Rai, N. and Siddhartha, A. (Eds), *Transcending boundaries: Reflecting on twenty years of action and research at ATREE.* (pp. 122-130). Bangalore: ATREE.
- B. K Thomas, N. Deepthi, and **P. Jamwal** 2017. Going With the Flow? Urban Wastewater and Livelihoods Change in Peri-urban Bengaluru. In Hiremath, A. J., Rai, N. and Siddhartha, A. (Eds), *Transcending boundaries: Reflecting on twenty years of action and research at ATREE.* (pp. 114-121). Bangalore: ATREE.

3. Reports and discussion papers

- **Jamwal Priyanka.** Water quality of Vrishabhavathy River (V River) during Lockdown (2020).
- **Jamwal Priyanka,** Chandan Gowda and Praveen Kumar. “A rapid water quality assessment of Vembanad Lake” (2018).
- Lele, Sharachchandra, Veena Srinivasan, **Priyanka Jamwal,** K. Bejoy Thomas, and Meghana Eswar. "Water management in Arkavathy basin: A situation analysis" (2013).

4. Seminar proceedings

- Anjali V Raj, Priyanka Jamwal, Laurence Carvalho. Assessing resilience of nature-based solutions to variable pollutant loadings: A case study of constructed wetland at Jakkur lake; Annual Work Seminar, ATREE, 24-26 August 2021
- Akash Ashwini, Priyanka Jamwal, Abi T Vanak. Prevalence of AMR in the catchments experiencing rapid expansion of the poultry industry: A case study from Baramati. Annual Work Seminar, ATREE, 24-26 August, 2021.
- Sminu T. V, Priyanka Jamwal. Optimising the treatment efficiency of constructed wetland. Annual Work Seminar, ATREE, 24-26 August 2021

- Anjali V Raj, Priyanka Jamwal, Samia Richards, Lakshmi Raveendran, Shahana Shirin, Rao Narayana, Rachel Helliwell (2019). Chlorination of rainwater: A lab-scale pilot study. Annual Work seminar, ATREE, 2 – 4 August 2019.
- Sumita Bhattacharyya, Priyanka Jamwal, Laurence Carvalho, Durba Biswas 2019. Comparative study of urban lake responses to wastewater treatment, ATREE, 2 – 4 August 2019.
- Shahana Shirin, Priyanka Jamwal, Paolo Bombelli, Pavan Mutteparwar, Sumitha Bhattacharyya (2019) Microbial analysis of soil in Plant- Bio Electrochemical System, ATREE, 2 – 4 August 2019.
- Lakshmi Raveendran, Priyanka Jamwal, Rao Narayana, Anjali V Raj, Shahana Shirin, Rachel Helliwell (2019). Decentralised Grey Water Treatment - Reducing Ground Water Consumption, ATREE, 2 – 4 August 2019.
- Philipps. D., Karlsurd, K and **P. Jamwal** (2017). Strategic in-stream systems (STRAIn-s): A decentralized, anticipatory approach to urban wastewater decontamination within Bangalore and beyond. Annual Work seminar, ATREE, 2 – 4 August, 2017.
- Biswas. D and **Jamwal. P** (2017). Groundwater and sanitation nexus in peri-urban towns: Learnings from the field. Annual Work seminar, ATREE, 2 – 4 August, 2017.
- Thomas, B. K, **P. Jamwal**, S. Lele and V. Srinivasan (2014). 'Thinking About Urban Resilience: The Case of Water Scarcity and Wastewater Reuse in Bengaluru', Urban Resilience: Proceedings of the Colloquium, Bengaluru: Public Affairs Centre, ISBN 9788188816378.
- **Jamwal. P**, T. Md. Zuhail, Praveen Raje Urs and Malavika Gopinath (2013). Estimation of organic load along the Vrishabhavathy River, Karnataka, India. Annual Work seminar, ATREE, 6 – 8 August, 2013.

5. Editorials and commentaries (in academic journals)

- Biswas. D and **Jamwal P**. Swachh Bharat Mission - Groundwater Contamination in Peri-urban India, Economic and Political weekly (52), 20 (2017): 18-20.

6. Conference papers (oral or poster)

- Fones. G., **P. Jamwal.**, Gravell. A. and Mills. A. Graham (2018). *Applications of Chemcatcher for screening pharmaceuticals in the effluent of sewage treatment plant in Bangalore, India*, In 10th International Passive Sampling Workshop (IPSW), 9 – 11 May 2018, Dublin, Ireland.
- K.B. Chandan., P. Raje. Urs., and **P. Jamwal** (2016). *Benchmarking efficiency and efficacy of decentralized STPs using life cycle approach: A case study of Bangalore, India*, In: Thirty-second National Convention of Environmental Engineers. Organised by The Institution of Engineers (India), 5 – 6 August 2016, Pune Local Center, India.
- **Jamwal P.**, S. Lele and M. Menon (2016). *Rethinking water quality standards in the context of urban rivers*, In: Urbanization and the Environment. Organised by Indian Society for Ecological Economics, January 4 - 6, 2016. Bangalore, India.
- **Jamwal, P.**, Mohammed. Idris, P. Raje. Urs and S. Lele (2015). *Rethinking framework for instream and effluent water quality in the context of urban wastewater reuse in agriculture*, In: National Conference on Challenges in Environmental Research, 4 - 6 June 2015, IIT Guwahati, India.
- **Jamwal, P.**, Naveen. M. N & Y. Javeed (2015). *Estimating fast and slow reacting component in surface and groundwater using 2R model*, In: National Conference on Challenges in Environmental Research, 4 - 6 June 2015, IIT Guwahati. Assam, India.

- **Jamwal, P** (2015). *Water Quality in Urban Landscapes Issues & Challenges*, In: National Conference on Sustainable Management of Urban Environmental Issues, Dayananda Sagar College of Arts, Science & Commerce, Bangalore, 30 March 2015, Bangalore, India.
- **Jamwal, P** (2014). *Wastewater treatment and reuse: complexities and challenges in Bangalore*, In: Indo-US workshop on *Best Practices and Eco-restoration technologies for enhancing functional quality of urban landscapes*, 3 - 5 November 2014, Bangalore, India.
- **Jamwal, P** and T. Md. Zuhail (2013). *Impact of wastewater reuse in peri urban areas*, In: Indo-UK Perspective on Water Quality: Threats, Technologies and Options, 8 August 2013, IISc, Bangalore, India.

b. Ongoing/Completed Projects: List of funded projects

- **2021-2026**: Co-Investigator, REAL-Water Program to Expand the Rural Water Services Knowledge Base Principal -Investigator: Veena Srinivasan, **USAID**.
- **2021-2022**: Principle Investigator- Restoration of Hennagara Lake -Developing a Detailed Project Report plan. **HCL Foundation**
- **2021 -2024**: Co-investigator. Greengates project. **EAWAG, Zurich**
- **2019-21**: Co-Investigator, Sustainable and healthy food systems (SHEFS) Principal -Investigator: Abi Vanak, **Welcome Trust, UK**.
- **2019-21**: Co-Investigator, SUNRISE, Sustainable Use of Natural Resources to Improve Human Health and Support Economic Development-SUNRISE: Research Council UK, Principal-Investigator: Carvahlo Laurence, **Center for Ecology and Hydrology UK**.
- **2019-20**: Strategic in-stream systems: A Decentralised anticipatory approach to wastewater contamination in Bangalore. Principal -Investigator: Priyanka Jamwal (ATREE)
- **2017-20**: Co-Investigator, Global innovation for sustainable rural communities, Funded by the Scottish Government, Principal -Investigator: Rachel Helliwell, James Hutton Institute, UK. (USD 206,000)
- **2017-18**: Co-Investigator, Groundwater and sanitation nexus in small towns of Bangalore: Case study of Nelamangala, Funded by Arghyam's Groundwater- Sanitation (GW-SAN) Nexus Programme, Principal-Investigator: Durba Biswas, ATREE (USD 15,000)
- **2017-18**: Co-Investigator, BES for treating of wastewater and monitoring of effluent quality, Funded by Global Challenges Research Fund, Research Council UK, Principal-Investigator: Paolo Bombelli, University of Cambridge, UK. (USD 30,000)
- **2017-18**: Co-Investigator, Microfluidics Diagnostics for Water Quality: Applications in Decentralised Water Treatment, Funded by Global Challenges Research Fund, Research Council UK, Principal-Investigator: Helen Bridle, Herriot Watt Institute, UK (USD 30,000)
- **2015-20**: Co-Investigator, Citizen's dashboard for Bengaluru's lakes, Funded by Oracle CSR, Principal-Investigator: Veena Srinivasan, ATREE (USD 45,000)
- **2011-16**: Principal-Investigator, Rural-urban conundrum: political economy of social and environmental transformation in agrarian landscapes, Funded by Sir Dorabji Tata Trust and the Allied Trusts, Co-Investigator-Bejoy Thomas, ATREE (USD 110,000)
- **2014-16**: Co-Investigator, 2035 Vision for Sustainable Water and Wastewater Management in Bangalore, Funded by Royal Norwegian Embassy, Principal-Investigator: Veena Srinivasan ATREE (USD 110,000)

- **2012-15:** Co-Investigator. Adapting to climate change in urbanizing watersheds (ACCUWa), Funded by International Development Research Centre (IDRC). Principal-Investigator: Sharachchandra Lélé (USD 500,000)
- **2012-15:** Principal-Investigator: Water distribution network study on fate and transport of contaminant and its decontamination by Pilot-Scale Tests, Funded by Department of Science and Technology (USD 15,000)
- **2014:** Co-Investigator. Strategy and action plan for strengthening the ecological and integrity of Dal Lake. 6 months study, Funded by United Nations Development Programme (USD, 88000).

c. **Proposals: Provide list of submitted proposals**

- Quantifying phosphorus removal potential of floating islands: Living lab experiments a Jakkur lake, Power grant, SERB, Department of Science and Technology
- Integrating the green blue and grey in twinned watersheds (Lubbock and Bengaluru): Nature-based solutions for water quality management, Fulbright-Nehru Academic and Professional Excellence (F-N APE) Fellowship, United States-India Educational Foundation
- **2018-** Global Water Observatory and Solution Hub (GWOSH), submitted to Research Council of UK: Global Challenges Research Fund UK (in review)
- **2018 - ALLSTAR** – Action on Local biological Sewage Treatment for Agricultural Re-use submitted to European Commission – Horizon 2020, Indian Department of Science and Technology (DST) and Indian Department of Biotechnology (DBT) (in review)
- **2018 - Rapid and low-cost water quality monitoring** – a step towards sustainable water resource management, IMPRINT, submitted to the Department of Science and Technology (DST) (in review)
- **2018 - Bio- Electrochemical System (BES)** as self-sustainable method of wastewater monitoring, with the University of Cambridge, submitted to The University of Chicago and Tata Trusts (unsuccessful)
- **2018-** Strategic in-stream systems: A Decentralised anticipatory approach to wastewater contamination in Bangalore with The Common studio, submitted to The University of Chicago and Tata Trusts (unsuccessful)
- **2017-**Strategic In-stream Systems (STRAINS): A Decentralized, Anticipatory Approach to Urban Wastewater Contamination Within India’s Emerging Cities, submitted to HCL CSR (unsuccessful)
- **2017-** Decentralised ecological wastewater treatment solutions for surface water bodies in India, submitted to Natural Environment Research Council UK and Department of Science and Technology India (unsuccessful)

d. **Invited talks/keynote addresses**

- **2022 Feb:** Panel member/speaker “Sustainable FHTC models for local bodies to deploy in water quality affected locations” National Water, Sanitation and Hygiene (WASH) Conclave organized by NIRDPR in Collaboration with Ministry of Jal Shakti, Ministry of Panchayati Raj, UNICEF and WaterAid

- **2022 Feb:** Invited Talk “Challenges to Drinking Water Quality and Standards in India – Panel Discussion” Training Programme under the National Jal Jeevan Mission Centre for Environmental Law, Education, Research and Advocacy, NLSIU, Bengaluru
- **2022 Jan:** Expert mentor “Managing water quality of lakes filled with reused water” organized by INREM foundation in collaboration with water quality network
- **2022 Jan:** Invited talk in workshop on “Water for all Addressing issues surrounding water quality, quantity and waste water treatment in India”. DST-UKIERI Partnership Development International.
- **2021 November:** Invited lecture on “Approaches to water quality monitoring” for master in wildlife students NCBS, organized by IIHS Bangalore.
- **2021 June:** Invited talk, Workshop on Fluorosis and emerging water pollutants in East Africa: With a Focus on Nakuru, organized by SEI and the University of York.
- **2021 August:** Invited lecture on “Waste Water Management” National Training Programme on Audit of Environmental Management in PSEs, organized by International Centre for Environment Audit and Sustainable Development (iCED), Jaipur
- **2021 May:** GEO AquaWatch Project Updates Webinar Series “Data transparency: Moving from grab sample to real-time water quality monitoring” organized by the university of Stirling ,UK
- **2021 March:** Invited speaker ‘Strengthening Agricultural Water Use Law, Policy and Management in India’ Online National Seminar, Organized by CEERA, NLSIU and the University of Agricultural Sciences, GKVK, Bengaluru, in collaboration with ICAR-IIWM, Bhubaneswar
- **2021 March:** STRAINS system for treating dry weather flows: Interaction session, Organized by Bangalore sustainability forum, Bangalore, India
- **2021 March:** Guest lecture on “Waste Management and Mismanagement” certificate course on Waste supply chain management organized by Samvada, Baduku - Center For Livelihoods Learning, Center For Sustainable Development.
- **2021 February:** Invited talk on “Constructed wetlands” on World wetland day organized by Jalaphosan and Bangalore Sustainability Forum
- **2021 January:** Guest lecture on Water quality management, certificate course on integrated water resource management jointly organized by ATREE and ACIWRM (Govt. Of Karnataka, India)
- **2020 December:** Invited lecture on “Sustainable Waste Water Recycling in Urban Areas” National Training Program on “Audit of Water Pollution and Marine Biodiversity” organized by International Centre for Environment Audit and Sustainable Development (iCED), Jaipur
- **2020 November:** Invited lecture on “Waste Water Management in Indian Cities” Training Schedule of National Training Program on ‘Audit of Sustainable Cities and Communities’ (2nd November to 06th November, 2020) organized by International Centre for Environment Audit and Sustainable Development (iCED), Jaipur
- **2020 October:** Invited talk/lecture on Lake Management and rejuvenation, Certificate course, organized by Bangalore university water institute, ATREE, BIOME, Friends of lake group.
- **2020 October:** Invited talk in Webinar on "Clean Water and Sanitation for All" jointly organized by IWWA Patna, SDF-IE(I) and NIT Patna

- **Sept 2020:** Invited talk, Webinar on Approaches towards Restoration of Urban Lakes: A case study from Bangalore, India organized by Indo-UK water Centre (Feedback attached).
- **2020 June:** Invited lecture on “Waste Water Management in PSEs: Technological aspects related to STPs and ETPs” National Training Programme on Audit of Environmental Management in PSEs, organized by International Centre for Environment Audit and Sustainable Development (iCED), Jaipur
- **2020 January:** Invited lecture on Rejuvenation of rivers in the Five-Day in-service Training Programme for AIS officers, officers under the CSS and CSSS on "Environmental Governance in India: Administrative, Legislative And Judicial Perspective" on January 6th 2020, International Training Centre, National Law School of India University, Nagarbhavi, Bengaluru.
- **2020 January:** Organised a field visit to a "Vrishabhavathi Valley visit/Sewage Treatment Plant, Kengeri" the Five-Day in-service Training Programme for AIS officers, officers under the CSS and CSSS on "Environmental Governance in India: Administrative, Legislative And Judicial Perspective" on January 6th 2020, International Training Centre, National Law School of India University, Nagarbhavi, Bengaluru.
- **2019 November:** Invited talk on nature-based approaches to address water quality issues in the catchments at the Herriot watt University, November 28th 2019, Edinburgh, United Kingdom
- **2019 October:** Keynote address on Approaches to address water quality challenges at the local scale: from data to solutions at the Sustainable Water in the 21st Century conference, October 1st, Royal Society of Chemistry, London, United Kingdom
- **2019 September:** Invited talk on Water quality management at the local scale: from data to solutions Indo-UK Scoping, UNEP Panel discussion, Water Future Conference September 24th to September 28th 2019
- **2019 August:** Invited lecture on Audit of Water Pollution and Conservation of Lakes, Rivers and other Wetlands, International Centre for Environment Audit and Sustainable Development (iCED), August 26th to August 30th, 2019
- **2019 July:** Invited lecture on Design Organise and Management of Water Quality Monitoring under National Hydrology Project, Bengaluru, India, 10th- 12th July 2019
- **2019 May:** Talk on Enhancing Freshwaters in India Going Down to the Lake of Fire and Foam at the Center for Ecology and Hydrology, May 16th 2019, Edinburgh United Kingdom.
- **2019 March:** Invited Lecture on Water bodies restorations at the Regional Training Centre, Indian Audit and Accounts Department, Bengaluru is conducting Training Programme for Directly recruited Assistant Audit Officers, March 7th 2019
- **2019 February:** Invited Lecture at the Department of Biochemistry, University of Cambridge, February 4th 2019, Cambridge, United Kingdom.
- **2019 February:** Invited Lecture at Center for ecology and Hydrology, February 13th 2019, Edinburgh United Kingdom.
- **2019 January:** Key Note address in the DST-SERB & DAE- BRNS National Level Workshop on “Recent Advancement in Water Quality Monitoring and Sustainable Management for Human Health Care” Sri Shakthi Institute of Engineering and Technology January 3rd 2019, Coimbatore, India.

- **May 2018:** Water quality management: the effect of industrial effluents on human health, **Invited Talk**, Planetary Health Annual Meeting, University of Edinburgh, 2018-05-28, University of Edinburgh, UK, <https://planetaryhealthannualmeeting.org/>
- **March 2018:** Catchment-based strategy to address water quality issues in rapidly urbanising habitations, **Key Note address**, E-Sail International Conference, 2018-03-01, Christ University campus, Bangalore, India.
- **October 2017:** Strategic In-stream Systems (STRAIn-s): A Decentralized, Anticipatory Approach to Urban Wastewater De-contamination Within Indian Emerging Cities, **Invited Talk**, Frontiers of Engineering for Development symposium , Research councils UK, 2017-09-17, Oxford Union, UK. [https://www.raeng.org.uk/policy/international-policy-and-development/gcrf-international-development/frontiers-of-engineering-for-development/past-symposia-\(1\)/symposium-3](https://www.raeng.org.uk/policy/international-policy-and-development/gcrf-international-development/frontiers-of-engineering-for-development/past-symposia-(1)/symposium-3)
- **November 2017:** Catchment-based strategy to address water quality issues in rapidly urbanising habitations, **Invited Talk**, 2nd Information & Networking, Event: EU-India Call on Water, Bengaluru, 30 -11-2017, Bangalore, India
- **July 2017:** Surface water quality management in urbanising watersheds: Key issues Challenges and way forward, **Invited Talk**, Department of Civil Engineering, Christ College, 2017-07-08, Bangalore, India
- **March 2017:** Surface water quality management in urbanising watersheds: Key issues Challenges and way forward, **Invited Talk**, Society of Civil Engineering, 2017-03-27, NIT Hamirpur, Himachal Pradesh
- **January 2017:** Sustainable Development and Water issue- Scarcity, Pollution and Water conservation management, **Invited Talk**, Training programme on Environment Audit, Regional Training Centre (RTC), 2017-01-04, Bangalore, India
- **November 2016:** Place History: An important determinant of human health: A case study of peri urban Bangalore, **Invited Talk**, Saint John's Medical College , 2016-11-02, Bangalore, India
- **September 2016:** Water Pollution and Sustainable Waste Water Recycling in Urban Areas, National Training Program Audit of waste and water issues, **Invited Talk**, International Centre for Environment Audit & Sustainable Development (iCED), 2016-09-22, Jaipur, India
- **September 2016:** Surface water quality management in urbanising watersheds: present scenario and future directions, **Invited Talk**, School of liberal arts APU, Azim Permji University, 2016-09-26, Bangalore, India
- **July 2016:** City and its wastewater : Key issues and challenges, **Invited Talk**, National Workshop on Advocating for Scaling Safe water Solutions, Freshwater Action Network South Asia (FANSA) , 2016-07-21, Himachal Pradesh, India
- **April 2016:** Diagnosing the water quality problem in the Vrishabhavathy watershed in Bangalore: A problem-driven approach, **Invited Talk**, Indo-UK Workshop on Water Quality Source Protection, Indian Institute of Science, 2016-04-30, Bangalore, India
- **January 2016:** Wastewater reuse in urbanizing watersheds: issues and challenge, **Invited Talk**, Urbanized: New Frontiers of Development, Centre for international governance innovation uptown Waterloo, The University of Waterloo, 2016-01-26, Waterloo, Canada
- **May 2016:** Surface water quality management in urbanising watersheds: Key issues, **Invited Talk**, Open Data Meet: datameet.org, 2016-05-14, Bangalore, India

- **May 2016:** Water Pollution and Sustainable Waste Water Recycling in Urban Areas, **Invited Talk**, National Training Programme on Audit of Waste Management and Water issues, The International Centre for Environment Audit and Sustainable Development (iCED), 2016-05-09, Jaipur, India
- **April 2016:** Jakkur lake water quality-key issues and challenges, **Invited Talk**, Srishti Institute of Art Design & Technology, 2016-04-04, Bangalore, India
- **February 2016:** Rethinking the framework for regulating water quality in urbanizing watersheds, **Invited Talk**, Public lecture series, The Water Institute, University of Waterloo, 2016-02-22, Waterloo, Canada
- **October 2015:** Linking urban wastewater discharges to water quality of Peri-Urban areas: A case study of Bangalore city, **Invited Talk**, 1st Indo-Chinese Young Engineering Leaders Conclave (ICON-1) , I.I.T. Gandhinagar, 2015-10-07, Gandhinagar, India
- **December 2015:** Water Pollution and Sustainable Waste Water Recycling in Urban Areas, **Invited Talk**, National Training Programme on Audit of Waste Management and Water issues, The International Centre for Environment Audit and Sustainable Development (iCED), 2015-12-18, Jaipur, India
- **November 2015:** Water quality and health risk, **Invited Talk**, Training programme on Environment Audit, Regional Training Centre (RTC), 2015-11-18, Bangalore, India
- **March 2015:** Water Quality in Urban Landscapes Issues & Challenges, **Key Note address**, National Conference on Sustainable Management of Urban Environmental Issues, Dayananda Sagar College of Arts, Science & Commerce, Bangalore, 2015-03-30, Bangalore, India
- **June 2015:** Heavy metals budget in Peenya stream, **Invited Talk**, workshop on Linking Robotics, Citizen Science and Remote Sensing to Advance Water Science in Data-Scarce Regions, ATREE, 2015-06-12, Bangalore, India
- **April 2014:** Water and wastewater treatment technology, **Invited Talk**, Training programme on Environment Audit at Regional Training Centre (RTC), 2014-04-30, Bangalore, India

e. **Major visits of faculty within the country and abroad**

- **2020 February:** Invited to visit the James Hutton Institute and the CEH Wallingford to discuss prospects for the future collaborations, February 24th to February 28th 2020.
- **2019 Feb:** Invited to visit the University of Cambridge: Funded by Global Challenges Research Fund seed grant: February 1st to February 15th 2019
- **2019 May:** Invited to visit the Centre of Ecology and Hydrology (CEH), United Kingdom UK Government-Funded by LTS-ODA SUNRISE Project (Task 2.2 Enhancing Freshwaters – India), May 11th to May 27th 2019
- **2019 Nov:** Invited to visit Heriot-Watt University: Funded by Global Challenges Research Fund seed grant - “Microfluidics Diagnostics for Water Quality: Applications in Decentralised Water Treatment”. November 25th to December 3rd 2019
- **2018 August:** Invited to attend stakeholder meeting on Grassroots Field Exposure Initiative (GFES) in the Water Quality Management sector in West Bengal, Supported by the India-UK Water Centre (IUKWC), 5-8 August 2018, India

- **2018 May:** Invited to present my work on water pollution and the associated Health risk at the Annual Planetary health alliance meeting held in the University of Edinburgh, 29-31 May 2018, United Kingdom
- **2018 March:** Invited to attend the pre-proposal workshop on Global Water Observatory and Solution Hub (GWOSH), Supported by the University of Stirling, Scotland, 6-9 March 2018, United Kingdom
- **2017 October:** Invited to attend the Frontiers of Engineering for Development symposium, Supported by the Research councils UK, Oxford Union 17-20 September 2017, United Kingdom
- **2016 February:** Visiting Professor at the University of Waterloo, Waterloo, Supported by Royal Bank of Canada (RBC), 01 – 28 February 2016, Canada.

f. Academic conferences/symposia/workshops

- **2018 June:** Groundwater Sanitation Nexus, Workshop on Groundwater Sanitation Nexus Research Programme, IHS Bangalore, 19th June 2018 Bangalore, India.
- **2018 May:** Planetary Health Annual Meeting, University of Edinburgh, 29-31 May 2018 Edinburgh, United Kingdom. <https://planetaryhealthannualmeeting.org/>
- **2018 March:** GCRF-Water Observatory and Solutions Hub (G-WOSH) Full application workshop, 6-9 March 2018, Stirling Highland Hotel, Stirling, United Kingdom.
- **2017 October:** Frontiers of Engineering for Development symposium, Oxford University, 17-20 September 2017, United Kingdom. <https://www.raeng.org.uk/policy/international-policy-and-development/gcrf-international-development/frontiers-of-engineering-for-development>
- **2017 December:** Rethinking Water Management in Bengaluru, Workshop supported by IDRC, Royal Norwegian Embassy and Oracle, Alliance Francaise, 19th December 2017 Bangalore, India.
- **2017 July:** Unlock Bengaluru 2017, Water Research Institute , 8th July 2017, Bangalore, India, Panelist <http://wri-india.org/events/unlock-bengaluru-2017>
- **2016 November:** Indo-UK Scoping Workshop on Water Quality, Department of Science and Technology, UK Natural Environment Research Council (NERC), and Engineering and Physical Sciences Research Council (EPSRC), 17 – 18 November 2016, New Delhi, India. <http://www.nerc.ac.uk/latest/events/list/water-workshop/>
- **2016 September:** Women in science, Workshop supported by the Indian Academy of Sciences, Bengaluru in association with Azim Premji University, 17th September 2016, Bangalore, India. <http://www.azimpremjiuniversity.edu.in/SitePages/events-other-events-women-in-science.aspx>
- **2016 November:** Apartment Level Waste-Water Treatment and Reuse, In Bengaluru, Meeting Organised 5th November 2016, ATREE, Bangalore, India.
- **2016 August:** Managing surface water quality in urbanising watersheds, National Workshop, Organised by ATREE, 5th August 2016, Bangalore, India, Speaker, http://www.atree.org/nws_mswquw_schedule_2016
- **2016 August:** Adapting to Climate Change in Urbanising Watersheds, National Dissemination Workshop, 22-23 August 2016, New Delhi, India <https://www.atree.org/content/adapting-climate-change-urbanising-watersheds-national-dissemination-workshop-aug-22-23-2016>

- **2016 February:** Urbanized: New Frontiers of Development, Centre for international governance innovation uptown Waterloo, The University of Waterloo, 26 – 29 February 2016, Waterloo, Canada, Panelist, <http://indevconference.com/>
- **2016 January:** Rethinking water quality standards in the context of urban rivers, Eighth INSEE Biennial Conference, 2016, Bengaluru Urbanization and the Environment, Indian society for ecological economics (INSEE), 4th January 2016, Bangalore, India. <http://ecoinsee.org/conference/2016>
- **2015 October:** Rethinking framework for instream and effluent water quality in the context of urban wastewater reuse in agriculture , National conference on National Conference on Challenges in Environmental Research, IIT Guwahati, Assam, 7-8 October 2015, Guwahati, Assam, Speaker, <http://www.iitg.ac.in/env/Abstract%20book%20NCOCER-2015.pdf>

B. Teaching, training and capacity building

a. Teaching: List of courses coordinated

- Co-ordinator, **Basic Environmental Science course**, ATREE academy
- Environmental Auditing, **iCED, Jaipur** (Government of India), India (External)
- Occasional lectures on an introduction to water and wastewater treatment, for early and mid-career professionals based in academic centres and NGOs (External)
- Integrated water resource management, **ACIWRM** (Govt. Of Karnataka, India (External)
- Environmental Auditing, **iCED, Jaipur** (Government of India), India (External)
- Fundamentals of Environmental Science (C1B), Research methods (C4) co-taught, ATREE PhD programme (Internal)-Coordinator of the course.
- Water and Wastewater Treatment Systems, M.E water resources course, co-taught in the Civil Engineering Department, IISc Bangalore (External)
- Occasional lectures on introduction to water and wastewater treatment, for early and mid-career professionals based in academic centers and NGOs (External)
- Environmental Auditing, iCED, Jaipur (Government of India), India (External)
- Environmental Auditing, Regional Training Centre (RTC) (Karnataka state Government) , (External)

b. Mentorship: List of students

- **Shrutee Dasare**, Doctoral Student, ATREE, 2021: Thesis title – Nature based solution for effluent treatment
- **Sminu M**, Doctoral Student, ATREE, 2020: Tentative Thesis title – Low-cost technology to address water quality issues in urbanising catchments.
- **Sumita Bhattacharyya**, Doctoral Student, ATREE, 2017: Thesis title – Water Quality criteria for Urban Lakes
- **Ruchi Verma**, Doctoral Student, ATREE, 2017: Thesis title – Assessing the impact of land use change on river ecosystem health using remote sensing

c. DACs served on (external and internal)

- Rashmi Kulranjan, Doctoral Student, **ATREE**, 2019
- Diorbhail Wentworth, Doctoral student, 2021, **University of Edinburgh**, Exploring the feasibility of a circular economy for food security from nutrient recycling from sewage in India (Co-Supervisor)

d. List of Research Assistants (RA) and Interns

- Anjali V Raj, RA Water quality, **Mysore University**, REAL water project
- Akash Ashwini, RA Water quality, **Periyar Maniammai University, Thanjavur, Tamil Nadu**, Sustainable and healthy food systems (SHEFS), Oct 2019-2022
- Chandan Gowda, RA, MSc in Environmental Science (Specialization – Applied aquatic ecology for sustainability)- **IHE Delft- Institute for Water Education** (2018 – 2020)
- Shahana Shirin, RA Water quality, **Mysore University**, Decentralised wastewater treatment system (DWWTs), 2018-2020
- Ramya RA Water quality, **Bangalore university**, Strategic instream treatment systems (STRains), April 2019-Dec 2020
- Meenakshi Palaniyappan, Intern, Project Title: Factors That Affect Aquatic Avian Abundance and Diversity in Urban Lakes of Bengaluru, Masters in Science (Biological Sciences), **Bangalore University**, February-2020- September 2020
- Vishnu Praveen Nelavagal, Intern, Project Title: Comparative study of heavy metal content in urban lakes with different catchment characteristics in Bengaluru city, Bachelor of Sciences (Environmental Earth Science), **Aberystwyth University**, Wales, UK, August 2020- February 2021
- Lakshmi Raveendran, RA water quality, **Anna university Chennai**, Decentralised wastewater treatment system (DWWTs), June 2018-Nov 2019
- Anusree K Anju, RA Water quality, **NIT Suratkal**, Decentralized wastewater treatment - global innovation for sustainable rural communities, 2017-07-01, till date.
- Mahesh J, Intern, **Mysore University**, Exploring the presence of antibiotic-resistant bacteria in lakes receiving treated/untreated wastewater, 2018-01-01, 2018-03-05
- Praveen Kumar, RA Water quality, **Annamalai University**, Decentralized wastewater treatment - global innovation for sustainable rural communities, 2017-07-01, 2018-07-01
- Praveen Raje Urs, RA water quality, **Bangalore University**, Adapting to climate change in urbanizing watersheds (ACCUWa), 2014-03-01, 2017-07-01
- Abhijit Sreepada, Intern, **Ashoka University**, Identification of pollution sources in Bellandur Lake catchment , 2018-06-10, 2018-07-10
- Malkan Syed, Intern, **Department of Chemical Engineering, Siddaganga Institute of Technology (SIT)**, Fate and transport of pollutant in Bellandur Lake Catchment, 2018-06-10, 2018-07-31
- Isabel S Seguin, Intern, **Massachusetts Institute of Technology**, Are Floating Wetlands a Viable Water Treatment Option for Bangalore's Lakes?, 2017-07-01, 2017-08-09
- Sowmya Murugan, Intern, **ISER Thiruvananthapuram**, Filtration Experiment - Assess and compare the passive performance and efficiency of various filter materials on water quality, 2017-04-01, 2018-06-01

- Aswathy S, Intern, **ISER Thiruvananthapuram**, Spatial Case Study Of Groundwater And Sanitation Nexus In Peri Urban Small Towns Of Bangalore, 2017-04-01, 2018-06-01
- Janis Lobo, Student, Environmental Engineering, **University of Waterloo**, Jakkur Lake Remediation Project, 2016-10-01, 2017-03-31
- Aseela Naqvi, Intern, Environmental Engineering, **University of Waterloo**, Jakkur Lake Remediation Project, 2016-10-01, 2017-03-31
- Noorulain Salim, Intern, Environmental Engineering, **University of Waterloo**, Jakkur Lake Remediation Project, 2016-10-01, 2017-03-31
- Joy Liu, Intern, Environmental Engineering, **University of Waterloo**, Jakkur Lake Remediation Project , 2016-10-01, 2017-03-31
- Divya Nayak, RA, **Carnegie Mellon University**, Adapting to climate change in urbanizing watersheds (ACCUWa), 2015-07-01, 2016-08-18
- Mohammed Idris, RA, **Bangalore University**, Adapting to climate change in urbanizing watersheds (ACCUWa), 2014-12-22, 2016-05-09
- Panthagada Kavitha, Intern, **IIT Bhubaneswar**, Efficiency evaluation of Jakkur lake Sewage treatment plant, 2016-05-01, 2016-07-13
- Naveen M N, Intern, **National Institute of Engineering Mysore**, Modelling Chlorine decay in a Scaled Water Distribution System, 2015-01-01, 2015-06-30
- Syeda Arshiya, Intern, **National Institute of Engineering Mysore**, Modelling Fecal coliform decay in a Water Distribution System, 2015-11-01, 2016-03-31

e. Outreach

1. Training Workshops/Summer Schools/Conferences organised:

- **2020 July:** Meeting organized with member secretary **KSPCB** on “Water Pollution in Bengaluru: Issues and Solutions” by Sharachchandra Lele and Priyanka Jamwal on 4th July 2020.
- **2020 October:** Expert consultation meeting, “Impacts of depleting water quality on public health in Bengaluru city” - One health framework, organized by IPH Bengaluru, 5th October 2020.
- **2019 January:** STRains System- Showcasing US-India Science and Technology Cooperation at an event in Chennai, India. IIT Madras’ SHAASTRA 2019
- **2019 September:** Managing water quality in Bengaluru lakes, **Special session**, Water Future Conference September 24th to September 28th 2019
- **2019 December:** Solutions for Rejuvenating Bengaluru’s Lakes, organised by CEH, UK and ATREE, Royal Orchid Convention Center, Bangalore, India December 11-12, 2019, Supported by SUNRISE Project.
- **2018 November:** Indo-UK workshop on monitoring and analysis strategies for anthropogenic pollutants in environmental and waste waters, **Project dissemination Workshop** supported by Royal Council of UK: Global Challenges Research Fund, Bangalore, 12 November, 2018.
- **2017 December:** Rethinking Water Management in Bengaluru, **Project dissemination Workshop** supported by IDRC, Royal Norwegian Embassy and Oracle, Alliance Francaise, Bangalore, 19 December, 2017

- **2017 May:** Surface water quality monitoring: Key issues, challenges and the way forward, **Workshop** supported by Indo-UK water Centre (IUKWC) ATREE, Bangalore, May 18, 2017
- **2016 November:** Apartment level wastewater treatment and reuse in Bengaluru, **Meeting** Organised 5th November, 2016, Attended by KSPCB officials, BWSSB officials, Resident associations, Expert members.
- **2016 August:** Adapting to Climate Change in Urbanising Watersheds, **National dissemination Workshop** supported by IDRC, TSWT and DST, New Delhi, 22-23 August, 2016.
- **2016 August:** Managing surface water quality in urbanising watersheds, **National Workshop** supported by TSWT, IDRC and DST, Bangalore, 8 August, 2016
- **2015 June:** Water and society, **Summer school**, Adapting to Climate change in an urbanising watersheds, supported by IDRC, Bangalore, 15-26 June 2015, 25 fresh masters and early doctorate students.

C. General Outreach

1. Publications:

a. Popular articles National and international media:

- **Feb 2022:** Floating solution or confusion? , Bangalore Mirror
<https://bangaloremirror.indiatimes.com/bangalore/civic/floating-solution-or-confusion/articleshow/89390630.cms>
- **January 2022:** A new approach to decontaminating Bengaluru’s wastewater, Vrushal Pendharkar, Priyanka Jamwal, Daniel Phillips and Ramya. Citizen matters
<https://bangaluru.citizenmatters.in/new-approach-to-decontaminate-bengaluru-wastewater-sewage-73144>
- **Jan 2022:** Testing the still waters. Bangalore Mirror,
<https://bangaloremirror.indiatimes.com/bangalore/cover-story/testing-the-still-waters/articleshow/88763313.cms>
- **December 2021:** Pharmaceutical waste contaminates India's main rivers.
<https://phys.org/news/2021-12-pharmaceutical-contaminates-india-main-rivers.html>.
- **March 2021:** Lockdown, rain revive groundwater level. Hindustan times,
<https://www.hindustantimes.com/cities/bengaluru-news/lockdown-rain-revive-groundwater-level-101616531250170.html>
- **March 2021:** **Priyanka Jamwal**, Laurence Carvalho, Sanjana Alex and Shashank Palur “Eutrophication in Lakes.” Citizen matters (**upcoming**)
- **December 2020:** Anjali V Raj and **Priyanka Jamwal**. How do excess nutrients cause problems in lakes? Lake series. Insight article #5. Centre for Social and Environmental Innovation, ATREE
- **November 2020:** **Jamwal Priyanka** “Covid-19, lockdown and water quality.” **In perspective**, Deccan Herald.
- **July 2020:** **Priyanka Jamwal** and Sanjana Alex. Why Bellandur Lake spews toxic froth, and how to stop it. Citizen matters

- **June 2020:** Sanjana Alex, **Priyanka Jamwal**, Shashank Palur, Veena Srinivasan, Shubha Ramachandran and Suma Rao. Why Bengaluru lakes catch fire, and how to prevent this. Citizen matters.
- **March 2020:** Veena Srinivasan, Apoorva R, **Priyanka Jamwal** and Sumita Bhattacharyya “How do we solve Bangalore’s lake problem?.” Insight article#2. Centre for Social and Environmental Innovation, ATREE
- **December 2019:** App to help test the water quality of lakes. The Hindu. <https://www.thehindu.com/news/national/karnataka/app-to-help-test-water-quality-of-lakes/article30280698.ece>
- **July 2019:** Water Pollution: Why We Must Consider This Part Of The Water Crisis. She the people. <https://www.shethepeople.tv/home-top-video/water-pollution-toxic-waste-india>
- **August 2019:** A Quarter of Humanity Faces Looming Water Crises. New York Times. <https://www.nytimes.com/interactive/2019/08/06/climate/world-water-stress.html>
- **July 2019:** No, tap water is not safer than RO water: Fact check. The News Minute. <https://www.thenewsminute.com/article/no-tap-water-not-safer-ro-water-fact-check-105542>
- **September 2019:** Researchers highlight problems of Bengaluru's lakes. The Hindu. <https://www.thehindu.com/news/cities/bangalore/researchers-highlight-problems-of-city-lakes/article29512607.ece>
- **September 2017:** Srinivasan Veena. S. Lele., J. Krishnaswamy and **P. Jamwal**. Economic times. Rallying to protect our rivers is great. But let’s get the science right. <https://economictimes.indiatimes.com/opinion/poke-me/poke-me-rallying-to-protect-our-rivers-is-great-but-lets-get-the-science-right/articleshow/60412430.cms>
- **April 2016:** Lele, S., **P. Jamwal** and V. Srinivasan. Managing our lakes and sewage. Deccan Herald. <https://www.deccanherald.com/content/539203/managing-our-lakes-sewage.html>

b. Outreach to wider audiences

- **July 2021:** Covid-19 in sewage: Should effluent reuse be stopped? Opinion piece, Deccan herald , <https://www.deccanherald.com/opinion/in-perspective/covid-19-in-sewage-should-effluent-reuse-be-stopped-1003413.html>
- **September 2021:** How do we manage nutrient levels in urban lakes? Lakes Series Insight Article #6, by Anjali V Raj, Priyanka Jamwal, Centre for Social and Environmental Innovation, ATREE, <https://www.csei.org/bangalores-lakes-insights>
- **December 2020:** How do excess nutrients cause problems in lakes? Lakes Series Insight Article #5, by Anjali V Raj, Priyanka Jamwal, Centre for Social and Environmental Innovation, ATREE, <https://www.csei.org/bangalores-lakes-insights>
- **November 2020:** Games of Drones. Bangalore Mirror. <https://bangaloremirror.indiatimes.com/bangalore/cover-story/games-of-drones/articleshow/79271951.cms>
- **April 2020:** Does COVID-19 virus survive in sewage? Bengaluru citizens group asks in report. <https://www.thenewsminute.com/article/does-covid-19-virus-survive-sewage-bangaluru-citizens-group-asks-report-123477>

2. Government committees served on or contributed to:

- **Bellandur Lake Committee:** Member, Urban Development Department, Karnataka
- **Karnataka State Water Policy-Task Group:** Member (Sub Group –Water Quality), Karnataka Jnaana Aayoga
- **National Water Mission:** Invited to contribute to the water quality chapter of the state specific Action plan, National Water Mission

3. Media appearances (TV /radio interviews/talks):

- **November 2020:** Interview on **BBC world radio:** To be aired in March 2021: BBC World Service- Water Series
- **October 2020:** Featured in A City and its Water' theme organised by **TEDx** Biome Environmental Trust: TED's YouTube channel. <https://countdown.ted.com/>
- **November 2019:** ATREE YouTube Channel, ATREE and James Hutton Institute together launched the 'The Youth Training Programme (YTP)' on June 27th, 2019 at Berambadi Government School, Gundlupet, Karnataka. <https://www.youtube.com/watch?v=IEaSLGII5wE>
- **2016:** ATREE YouTube Channel, Wastewater: a curse or an untapped resource-Panel discussion on the World Water Day 2016. https://www.youtube.com/watch?v=w_9his6x5Jg
- **July 2016:** TV, English, News9, Pollution sensors to revive lakes, Lakes, Sensors, Pollution. 2016-07-10, https://youtu.be/V_sAdvlIXec,
- **2016:** ATREE YouTube Channel, River or Sewer: The Story of Vrishabhavathy River in Bengaluru, Southern India, <https://www.youtube.com/watch?v=lhFgpsy4fyU> (**Maximum views on ATREE official YouTube Channel**)

4. Legislation /Regulatory Input:

- Using passive sapling monitoring devices for water quality monitoring, Demonstrated the use of Chemcatchers to monitor surface water quality to the key officers of Karnataka State Pollution Control Board, 2017-05-10
- Water quality monitoring of Urban streams, Presented findings of TSWT project to the key officers of Karnataka State Pollution Control Board , 2016-04-05
- Water management in urbanising watersheds, Presented findings of ACCUWa project to the key officers of Bangalore Water Supply And Sewerage Board , 2016-04-05
- Water management in urbanising watersheds, Presented findings of TSWT project presented to the key officers of Karnataka state Pollution control board, 2015-03-31

D. Institutional Service

a. ATREE Committees: Duration and whether as Chair or Member

- Committee Against Sexual Harassment, Member, 2016-01-01, till date
- ATREE Academic committee, member, 2022- till date
- Waste Management Committee, Chair, 2017-04-01, till date
- Hostel warden, 2017-04-04, till date
- Waste Management Committee, Member, 2016-03-01, 2017-04-01

- Salary Task Force, Member, 2017-10-15

b. Institutional representation

- **Karnataka State Water Policy:** Member, (Water quality –Sub group), Karnataka Jnaana Aayoga
- **Bellandur Lake Committee:** Member, Urban Development Department, Karnataka
- **National Water Mission:** Invited to contribute to the water quality chapter of the state specific Action plan, National Water Mission

E. Other recognition

a. Involvement of faculty in other academic activities:

1. Journal reviewer/grant reviewer

- Physics and Chemistry of the Earth, Reviewer
- Water and Environment Journal, Reviewer
- Journal of Environmental Management, Reviewer
- Current Science, Reviewer
- Landscape and Urban planning, Reviewer
- Drinking Water and Science Journal , Reviewer

2. Any other professional activities

- Invited by KSPCB along with several members from various organisation to formulate guidelines for the Bangalore Lakes watchdog committee
- ATREE signed an MOU with Karnataka state pollution control board (KSPCB). In the MOU, ATREE seeks help from KSPCB to conduct a pollution monitoring study on urban river

b. Academic Visitors hosted:

- **Carvalho Laurence**, Professor, Centre for Ecology and Hydrology, Edinburgh, UK, Partnership involving monitoring of GHG from Lakes in and around Bangalore- Part of SUNRISE Project, **February 2019.**
- **Bob Ferrier**, Director of Research, James Hutton Institute, UK, Signed MOA with ATREE, **September 2019.**
- **Alan Jenkins**, Deputy Director CEH and Director of Science, hosted the visit to sign an MOU with ATREE, **September 2019.**
- **Mark J Bailey**, Executive Director, Centre for Ecology and Hydrology, hosted a visit to sign an MOU with ATREE, **September 2019.**
- **Supratik Guha**, Professor, University of Chicago, United States of America, Partnership involving water quality monitoring of Jakkur Lake-Part of Water to Cloud Project, **April 2018.**
- **Paolo Bombelli**, Post-doctoral fellow, Department of Biochemistry, University of Cambridge, United Kingdom, Joint project on wastewater treatment using BES systems, **April 2018.**

- **Carvalho Laurence**, Professor, Centre for Ecology and Hydrology, Edinburgh, UK, Partnership involving monitoring of GHG from Lakes in and around Bangalore- Part of SUNRISE Project, **February 2018**.
- **Neil Robertson**, Professor, University of Edinburgh, UK, Partnership involving assessing the effectiveness of photocatalytic beads for disinfecting drinking water-part of Global Innovation project (JHI), **February 2018**.
- **Gary Fones**, Professor, University of Portsmouth, Portsmouth UK, Joint project on Passive sampling devices for water quality monitoring, **May 2017**.
- **M. S. Mohan Kumar**, Professor, Department of Civil engineering, Indian Institute of Science Bangalore, hosted visit to attend workshop on Surface water quality monitoring: Key issues, challenges and the way forward, ATREE, **May 2017**.
- **Richard Alan**, Business Sector Lead: Environment at the James Hutton Institute, hosted visit to attend ATREE@20: Conference on Conservation Science and Sustainable Development, **January 2017**.

F. Professional service and achievements

a. Achievements

1. Awards

- **Water Quality Workshop Grant**, Royal Society of Chemistry, British Council, UK, **November 2018** <https://www.atree.org/events/indo-uk-workshop-monitoring-and-analysis-strategies-anthropogenic-pollutants-environmental>
- **Researcher Exchange Grant**, NERC, UK and the Ministry of Earth Sciences, India, **May 2017**
- **RBC Fellowship**, Royal Bank of Canada, Canada, **February 2016**
- **Fast Track Young Scientist Award**, Department of Science And Technology, India, **March 2012**
- **Postdoctoral Research Associate Fellowship**, from Indian Institute of science, Bangalore, India, **September 2008**
- **Research Assistantship Fellowship**, Ministry of Human Resource Development (MHRD), India **March 2005**
- **EGIDE Scholarship**, for nine months sandwich program of Ministere Affairs Etrangeres Boursier du Gouvernement Francais as a Research Fellow in CEREVERE Paris, France, **December 2004**

2. Press coverage

- **2020 November**: Games of Drones. Bangalore Mirror. <https://bangaloremirror.indiatimes.com/bangalore/cover-story/games-of-drones/articleshow/79271951.cms>
- **2020 April**: Does COVID-19 virus survive in sewage? Bengaluru citizens group asks in report. <https://www.thenewsminute.com/article/does-covid-19-virus-survive-sewage-bengaluru-citizens-group-asks-report-123477>

- **2018 June:** Newspaper, English, Deccan Chronicle, 38 apartments yet to install STPs: KSPCB 2018-06-01. <https://deccanchronicle.com/nation/current-affairs/280618/38-apartments-yet-to-install-stps-kspcb.html>
- **2018 March:** Newspaper, English, The Hindu, STP has residents of gated community worried, 2018-03-24. <http://www.thehindu.com/news/cities/bangalore/stp-has-residents-of-gated-community-worried/article23344427.ece#>
- **2018, February:** News Channel, English, The national geographic , Why This Lake Keeps Catching on Fire, 2018-02-14. <https://news.nationalgeographic.com/2018/02/bangalore-india-lake-bellandur-catches-fire-pollution/>
- **2018 January:** Blog/Portal, English, The news minute, Bellandur-lake-fire: green-court-orders-apartments-catchment-area-build-stps , 2018-01-30.
- **2018 January:** Newspaper, English, The Hindu, Pleading with officials had no impact, Bangalore, city, 2018-01-29. <http://www.thehindu.com/news/cities/bangalore/pleading-with-officials-had-no-impact/article22568358.ece>
- **2018 January:** Newspaper, English, The news minute, Bellandur lake fire: NGT directs K'taka to submit timelines to treat lake by Jan 29, 2018-01-25. <https://www.thenewsminute.com/article/bellandur-lake-fire-ngt-directs-k-taka-submit-timelines-treat-lake-jan-29-75331>
- **2017 November:** Newspaper, English, The news minute, Swachh Bharat Abhiyan in peri-urban areas: Is groundwater being contaminated? 2017-11-17. <https://www.thenewsminute.com/article/does-bbmp-even-care-about-setting-waste-processing-units-bengaluru-seems-not-79045>
- **2017 October:** Newspaper, English, Water bodies near Ooty polluted by industrial effluents, 2017-10-05. <https://timesofindia.indiatimes.com/city/coimbatore/water-bodies-near-ooty-polluted-by-industrial-effluents/articleshow/60946985.cms>
- **2017 August:** Newspaper, English, Indian Express, Green Chaturthi has feet of clay, 2017-08-28. <http://www.newindianexpress.com/cities/bengaluru/2017/aug/23/green-chaturthi-has-feet-of-clay-1647343.html>
- **2016 December:** Newspaper, English, The Economics Times, Peenya effluent getting into veggies, says study, 2016-12-13. <http://economictimes.indiatimes.com/news/politics-and-nation/peenya-effluent-getting-into-veggies-says-study/articleshow/55954254.cms>
- **2016 August:** Newspaper, English, The Hindu, Illegal industrial discharge harming Vrishabhavathi, says ATREE study, 2016-08-06. <http://www.thehindu.com/news/cities/bangalore/illegal-industrial-discharge-harming-vrishabhavathi-says-atree-study/article8949499.ece>
- **2016 August:** Newspaper, English, The Times of India, 50% heavy metal discharge from Peenya Industrial Area goes straight into Vrishabhavathi river , 2016-08-06. <http://timesofindia.indiatimes.com/city/bengaluru/50-heavy-metal-discharge-from-Peenya-Industrial-Area-goes-straight-into-Vrishabhavathi-river/articleshow/53564720.cms>
- **2016 August:** Newspaper, English, Bangalore Mirror Bureau, City's Oldest Stp Has Zero Impact On Water It Treats, 2016-08-06. <http://www.bangaloremirror.com/bangalore/others/Citys-oldest-STP-has-zero-impact-on-water-it-treats/articleshow/53565108.cms>

- **2016 July:** TV, English, News9, Pollution sensors to revive lakes, 2016-07-10. https://youtu.be/V_sAdvlIXec
- **2016 July:** Newspaper, English, The Economic Times , Bengaluru's Jakkur lake turns wasteland; redesign begins, 2016-07-18. <http://economictimes.indiatimes.com/news/politics-and-nation/bengalurus-jakkur-lake-turns-wasteland-redesign-begins/articleshow/53259465.cms>
- **2016 July:** Newspaper, English, Deccan Herald, City's oldest STP in Vrushabhavathi underutilised: Study, 2016-07-04. <http://www.deccanherald.com/content/532558/citys-oldest-stp-vrushabhavathi-underutilised.html>
- **2016 May:** Newspaper, English, Bangalore Mirror Bureau, Heavy metals found in the only river that runs through the city, 2016-05-03. <http://epaperbeta.timesofindia.com/Article.aspx?eid=31820&articlexml=Heavy-metals-found-in-the-only-river-that-03052016003022>
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