## MERIN GRACE BABY

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### **Professional Summary**

I am a dedicated PhD student at IFPEN (France) with a strong academic background and practical experience. I hold a master's degree in environmental engineering from the National Institute of Technology (NIT), Surat, India, and an undergraduate degree in Civil Engineering from Government Engineering College (GEC), Kozhikode, India. My professional experience spans the metal manufacturing and water treatment industries, where I have gained valuable expertise. My PhD thesis focuses on "Quantification of fragmentation and aging of microplastics (MPs) in the environment" directed by PhD. HdR. Maria-Fernanda Romero-Sarmiento in collaboration with J. Gerritse (Deltares, Netherlands), A. Beltran-Sanahuja (Alicante University, Spain), Sébastien Rohais (IFPEN) and H. Wolter (The Ocean Cleanup, Netherlands).

### **Industrial Experience**

Assistant Manager-HSE & Sustainability at Sterlite Copper, Vedanta Limited: (July 2022-October 2023)

Major responsibility includes monitoring and mitigation of pollution, coordinating projects to attain ESG targets and tracking sustainability KPIs (BRSR, ISO, GRI and carbon emission calculation), ensuring environmental compliance aligning to National and International regulatory framework. In addition, actively participated in Enablon-ESG integration initiative.

Intern: at Paradigm environmental strategies Pvt Ltd.: (June-July 2021) Worked on design of various wastewater treatment units.

## **Academic Qualifications**

- > PhD Ongoing (2023 2026): Sorbonne university, Paris, France
- Masters in environmental engineering (2020-2022): Sardar Vallabhbhai National Institute of Technology, Surat, India CGPA: 9.55 [Gold Medal]
- Bachelors in civil engineering (2015-2019): APJ Abdul Kalam technological university, India CGPA:8.65

## Publications

**Merin Grace Baby**, M. Mansoor Ahammed; Nutrient removal and recovery from wastewater by microbial fuel cell-based systems – A review. *Water Sci Technol* 1 July 2022; 86 (1): 29–55. doi: https://doi.org/10.2166/wst.2022.196

### Main Projects Undertaken

- <u>Nutrient removal/recovery by using microbial fuel cell: effect of cathode surface area to volume ratio</u>: (*August 2021 July 2022*) : To establish a relationship between nutrient removal/recovery and coulombic efficiency on treating municipal wastewater in an MFC by varying different parameters. Supervised by Prof: M Mansoor Ahammed
- Quantification of microplastics in food containers: (August 2021-December 2021) :

To evaluate the presence of microplastic in food containers that are available in the local market of Surat, India by laboratory methods specified by NOAA, SEM and FTIR analysis. Supervised by Prof: Kunwar D Yadav

 <u>Affordable Rapid mass housing:</u> (August 2018- July 2019) : This project addresses the plight of flood victims for rapid mass housing which is both affordable and feasible according to the topography and climatic conditions in Kerala considering GFRG panel building and shipping container houses compared to conventional housing technology. Supervised by Prof: Ragesh P P

# **Extra-Curricular Activities**

- Successfully completed an e-learning course on "Material recovery facility" organized by Ecoparadigm environmental strategies (30-10-2021)
- Completed online course on "Wastewater treatment plants, STP technologies, Design & Engineering, O&M, Real- Time Monitoring systems, and Audit" organized by Ecotech. (June to August 2021).
- Participated in "Disruptor" an event organized by Welspun group for finding best business ideas and selected as one of the top hundred ideas (national level).
- Participated in the Webinar training program on "Ecosystem Restoration" conducted by Environmental Management & Policy Research Institute (Department of Forest, Ecology & Environment, Govt. of Karnataka) (11/06/2021).
- Completed short term training program on "Air pollution: sources, control and modelling" (15-19th February, 2021) organized by civil engineering department, SVNIT, Surat.
- Successfully completed and became one of the topper candidates in the eight-week online course (NPTEL) on "Ecology and Environment" (October 2018).
- Actively participated in flood rehabilitation work at LSGD Thirunelli Panchayat, Wayanad (28/08/201802/09/2018).
- Participated in technical fest "Tathva16" conducted by NIT Calicut. Participated and won 2nd position in the event CADfrolic "Prithvi19" conducted by department of civil engineering NIT Calicut.
- Successfully completed TEQUIP II sponsored "entrepreneurship development program" organized by Government engineering college Kozhikode (20/07/2016-27/07/2016)
- > Participated in various programs organized by Bharath scout & guides and awarded Rajyapuraskar.

# REFERENCE

Dr. M. Mansoor Ahammed Professor, SV National Institute of Technology Surat, India mansoorahammed@gmail.com