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ACADEMIC QUALIFICATIONS

January 2012 to March 2015	**Ph.D. in Civil Engineering** Sardar Vallabhbhai National Institute of Technology, Surat Title: Reuse of water treatment sludge in post-treatment of UASB reactor effluent.
July 2009 to June 2011	**M.Tech. in Civil (Environmental) Engineering** Sardar Vallabhbhai National Institute of Technology, Surat
July 2004 to June 2008	**B.E. in Civil Engineering** A.I.S.S.M.S. College of Engineering, Pune University of Pune

EMPLOYMENT HISTORY

April 2025 to present	**Assistant Professor** in Department of Environmental Engineering in **National Institute of Advanced Manufacturing Technology (CFTI under MoE, GoI),** Hatia, Ranchi
July 2019 to March 2025	**Assistant Professor** in Department of Applied Sciences and Humanities in **National Institute of Advanced Manufacturing Technology (CFTI under MoE, GoI),** Hatia, Ranchi
February 2019 to June 2019	**Senior Assistant Professor** in Civil Engineering Department in **Madanapalle Insititute of Technology and Science,** Madanapalle
February 2017 to January 2019	**National Post Doctoral Fellow (SERB funded)** Department of Civil Engineering, **Indian Institute of Technology Madras,** Chennai
21 October 2016 to 31 January 2017	**Senior Project Officer** at EWRE Lab, Department of Civil Engineering, **Indian Institute of Technology Madras,** Chennai

21 October 2016 to 31 January 2017	**Senior Project Officer** at EWRE Lab, Department of Civil Engineering, **Indian Institute of Technology Madras,** Chennai
01 July 2016 to 30 September 2016	**Senior Project Officer** at EWRE Lab, Department of Civil Engineering, **Indian Institute of Technology Madras,** Chennai
01 June 2015 to 07 June 2016	**Assistant Professor** in Civil Engineering Department in **Dr. D. Y. Patil Institute of Engineering and Technology**, Pimpri, Pune
11 July 2011 to 22 December 2011	**Assistant Professor** in Civil Engineering Department, **Marwadi Education Foundation's Group of Institutes**, Rajkot

INTERNATIONAL JOURNAL PUBLICATIONS (SCI INDEXED)

1. Rathod, C., Mathew, A., **Nair, A.T.**, 2025. *Urban air quality modelling and health impact analysis using geospatial methods and machine learning algorithms*, ***Asia-Pacific Journal of Regional Science***, 9, 693–731
2. Mathew, A., Shekar, P.R., **Nair, A.T.**, Mallick, J., Rathod, C., Bindajam, A.A., Alharbi, M.M., Abdo, H.G., 2024. *Unveiling urban air quality dynamics during COVID-19: a Sentinel-5P TROPOMI hotspot analysis*. ***Scientific Reports***, 14, 21624.
3. Patel, S., **Nair, A.T.**, Makwana, A.R., 2025. *Optimizing coagulation of Navy Blue RX dye and comparative study of performance of polyaluminium chloride and ferric chloride*. ***International Journal of Environmental Science and Technology***. 22, 477–488.
4. Gokul, P.R., Mathew, A., Bhosale, A., **Nair, A.T.**, 2023. *Spatio-temporal air quality analysis and PM2.5 prediction over Hyderabad City, India using artificial intelligence techniques*. ***Ecological Informatics***. 76, 102067.
5. **Nair, A.T**., Mathew, A., A R, A., Akbar, M.A., (2022), *Use of hazardous electric arc furnace dust in the construction industry: A cleaner production approach*. ***Journal of Cleaner Production***, 377, 134282.
6. Reddy A. S., **Nair A.T.,** (2022), *The fate of microplastics in wastewater treatment plants: An overview of source and remediation technologies*. ***Environmental Technology & Innovation***, 28, 102815.
7. **Nair, A. T.** (2021) *Bioaerosols in the landfill environment: an overview of microbial diversity and potential health hazards*, **Aerobiologia**, 37, 185-203.
8. **Nair, A. T.,** Senthilnathan, J., Shiva Nagendra S.M. (2019) *Application of the phycoremediation process for tertiary treatment of landfill leachate and carbon dioxide mitigation,* **Journal of Water Process Engineering**, 28, 322–330.

9. **Nair, A. T.,** Senthilnathan, J., Shiva Nagendra S.M. (2019) *Emerging perspectives on VOC emissions from landfill sites: Impact on tropospheric chemistry and local air quality*. **Process Safety and Environmental Protection,** 121, 143–154.

10. **Nair, A. T.,** Ahammed, M. M**.**, (2017) *Influence of sludge characteristics on coagulant recovery from water treatment sludge: A preliminary study*. **Journal of Material Cycle and Waste Management,** 19, 1228–1234.

11. **Nair, A.T.,** Ahammed, M.M., (2015) *The reuse of water treatment sludge as a coagulant for post-treatment of UASB reactor treating urban wastewater*. **Journal Cleaner Production,** 96, 272–281.

12. **Nair, A.T.,** Ahammed, M.M., (2015) *Water treatment sludge for phosphate removal from the effluent of UASB reactor treating municipal wastewater,* **Process Safety and Environmental Protection,** 94, 105–112.

13. **Nair, A.T.,** Ahammed, M.M., (2014) *Coagulant recovery from water treatment plant sludge and reuse in post-treatment of UASB reactor effluent treating municipal wastewater*. **Environmental Science and Pollution Research,** 21, 10407–10418.

14. Ahammed, M.M, Dave, S., **Nair, A. T.** (2015) *Effect of water quality parameters on solar water disinfection: a statistical experiment design approach*, **Desalination and Water Treatment** 56, 315 – 326.

15. **Nair, A. T.,** Makwana, A. R., Ahammed, M. M**.**, (2014) *The use of response surface methodology for modelling and analysis of water and wastewater treatment processes: a review*. **Water Science and Technology,** 69, 464–478.

16. **Nair, A.T.,** Ahammed, M.M., Davra, K.,(2014) Influence *of operating parameters on the performance of household slow sand filter*. **Water Science & Technology: Water Supply**, 14, 643–649.

BOOK CHAPTERS

1. Mishra, V., Makwana, A.R., **Nair, A.T**., 2024. Chapter 5 - Bioaerosol emission from composting sites: characteristics, associated health impacts, and control approaches, in: Singh, N.K., Sanghvi, G., Yadav, M. (Eds.), Bioaerosols Emission from Anthropogenic Sources, Advances in Pollution Research. Woodhead Publishing, pp. 85–100. https://doi.org/10.1016/B978-0-443-15319-8.00005-8. (Scopus Indexed)

2. Kumari, I., **Nair, A.T.**, 2022. Biofuel Production from Conventional Feedstocks: Challenges and Alternatives, in: Guldhe, A., Singh, B. (Eds.), Novel Feedstocks for Biofuels Production. Springer Nature Singapore, Singapore, pp. 1–15. https://doi.org/10.1007/978-981-19-3582-4_1.

3. **Nair, A.T.**, Devaanandan, S., Shiva Nagendra, S.M., 2021. Short-Term Variation of Particulate Matter and Black Carbon During Deepawali Festival in an Urban Area, in: Shiva Nagendra, S.M., Schlink, U., Müller, A., Khare, M. (Eds.), Urban Air Quality Monitoring, Modelling and Human Exposure Assessment. Springer Singapore, Singapore, pp. 107–118. https://doi.org/10.1007/978-981-15-5511-4_8.

4. Sruthi, V., Jyothirmai, P., Anagha, E., Aishwarya, S., **Nair, A.T.**, Chakraborty, S., Sivagami, K., 2022. Microalgae Coupled Biofuel Production and Carbon Capture from Thermal Power Plant: A Biorefinery Approach, in: Nandabalan, Y.K., Garg, V.K., Labhsetwar, N.K., Singh, A. (Eds.), Zero Waste Biorefinery. Springer Singapore, Singapore, pp. 325–343. https://doi.org/10.1007/978-981-16-8682-5_12. (Scopus Indexed)

CONFERENCE PUBLICATIONS (SCOPUS INDEXED)

1. Patel, C., **Nair, A.T.,** Makwana, A.R., 2022. Electrooxidation of leachate : Understanding the effect of cathode material and process optimization using Response surface methodology. Materials Today Proceedings 77, 148–155. https://doi.org/10.1016/j.matpr.2022.11.033

2. Prajapati, M., Makwana, A.R., **Nair, A.T.**, Popli, S.A., 2022. Biotransformation of Flower Waste: Effect of Bulking Agent and Microbes, in: IOP Conference Series: Earth and Environmental Science. p. 012037. https://doi.org/10.1088/1755-1315/1086/1/012037

3. Roushan, R.K., **Nair, A.T.**, 2025. Coagulation of Dye Wastewater: Statistical Optimization Using Response Surface Methodology, in: Roshan Dash, R., Mohapatro, S., Behera, M. (Eds.), Pollution Control for Clean Environment—Volume 1. Springer Nature Singapore, Singapore, pp. 357–365.