M Mansoor Ahammed (May 2025)

Office Address : Professor
Department of Civil Engineering
Sardar Vallabhbhai National Institute of Technology
Surat – 395 007

Home Address : Quarter No. B-303,
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Education

Ph.D. Environmental Engineering
Indian Institute of Technology, Kanpur, 1997

M.Tech. Environmental Engineering
Indian Institute of Technology, Kanpur 1991

B.Tech. Civil Engineering
Government Engineering College, Thrissur, Kerala 1989

Professional Experience

- Professor, Department of Civil Engineering, S V National Institute of Technology, Surat, January 2019 onwards
- Associate Professor in the Department of Civil Engineering, S V National Institute of Technology, Surat, April 2007 – January 2019
- Lecturer, Department of Civil Engineering, School of Engineering, Cochin University of Science and Technology, Kochi, January 1999 – March 2007
- Visiting Fellow, Delft Technological University, the Netherlands, October 2000 – January

2001

- Research Fellow, Indian Institute of Technology, Kanpur, January 1997-January 1999

Courses Taught

Post-Graduate

Applied Statistics for Engineers Environmental Chemistry and Microbiology
Air Pollution and Control Physico-chemical Processes in Environmental Eng
Biological Processes in Environmental Eng Environmental Systems Modelling
Sustainable Water and Sanitation Systems

Under-Graduate

Engineering Drawing	Basic Civil and Environmental Engineering
Environmental Engineering	Water Treatment and Distribution Systems
Municipal Wastewater Treatment	Municipal Solid Waste Management
Water and Wastewater Treatment	Air Pollution and Control
Environment and Health	Industrial Safety and Environment
Waste to Energy Technologies	

Sponsored Research Projects

- **Principal Investigator** : Use of water treatment plant sludge for the post treatment of UASB reactor treating municipal wastewater., Sponsored by SERB, DST, Rs 16.90 lakhs, (Co-PI Dr K D Yadav) (Completed 2018)
- **Principal Investigator :** Development and Performance Evaluation of Household and Community Solar Water Disinfection Systems, Sponsored by DST, Rs 13.85 lakhs, 2008-2012 (Co-PI Dr K D Yadav) (completed 2008-12)
- **Principal Investigator** : Effect of heavy metals on the performance of high-rate anaerobic reactors, sponsored by AICTE, Rs 5.25 lakhs (completed, 2000-2003).

Research Publications

Scopus Citations: 2051, h-index 21
https://www.scopus.com/authid/detail.uri?authorId=6701492367

Google Citations: 2970, h index 23
https://scholar.google.co.in/citations?user=ssExtN4AAAAJ&hl=en&oi=ao

PhD Thesis Supervision

- Meera V: Quality and treatment of roof-harvested rainwater, Completed 2008
- Abhilash T Nair: Use of Water treatment sludge for post-treatment of UASB reactor effluent, Completed 2015
- Abhipsa Makwana: Electrocoagulation for post-treatment of UASB reactor-treated municipal wastewater, completed 2017

- Mahesh Gadekar: Use of water treatment residuals for colour removal from textile wastewater, completed 2018
- Irshad N Shaikh: Characterization and physicochemical treatment of greywater, completed 2023
- Shobha Rawat: Clay-biomass composites for dye removal, completed 2025
- Khurram Parvez: Effect of organic composition on anaerobic digestion of organic fraction of municipal solid wastes, completed 2025
- Shubhani Sharma (ongoing)
- Niyati Patel (ongoing)

M.Tech. Thesis Supervision

Guided 45 M.Tech. dissertation

Selected Publications in Refereed Journals

- Shaikh, I.N., Ahammed M.M. (2024) Effect of washing method and detergent type on laundry greywater characteristics, **Journal of Water Process Engineering**, 66, 106103, https://doi.org/10.1016/j.jwpe.2024.106103
- Parvez K., Ahammed M.M. (2024) Development of an anaerobic digestibility index for organic solid wastes, **Biomass and Bioenergy**, 187, 107298, doi.org/10.1016/j.biombioe.2024.107298
- Parvez K, Ahammed M.M. (2024) Effect of composition on anaerobic digestion of organic fraction of municipal solid wastes: A review, **Bioresource Technology Reports,** 25, 101777, https://doi.org/10.1016/j.biteb.2024.101777.
- Rawat, S., Ahammed, M.M. (2024) Clay-moringa seedcake composite for removal of cationic and anionic dyes, **Chemosphere**, 350, 2024
- Shaikh, I.N., Ahammed M.M. (2024) Comparative evaluation of different pre-treatment alternatives for granular media filters treating greywater and their ranking using analytical hierarchy process. **Water Science and Technology**, 89, 2625–2645. doi: https://doi.org/10.2166/wst.2024.155
- Dixit A, Ahammed M M. (2023) Use of modified biochar for removal of endocrine disrupting compounds from water and wastewater: A review, **Bioresource Technology Reports,** 23, 2023, 101519
- Raj D.A., Ahammed M.M. Shaikh, I.N., (2023). Use of zero-valent iron-modified sand filters for greywater treatment: performance evaluation and modelling using response surface methodology, **Environmental Science and Pollution Research**, doi.org/10.1007/s11356-023-31182-4
- Sharma S, Ahammed M M. (2023) Application of modified water treatment residuals in water and wastewater treatment: A review, **Heliyon,** 9, e15796, doi.org/10.1016/j.heliyon.2023.e15796.
- Rawat, S., Ahammed, M.M. (2023) Dye removal by clay-pumpkin seed cake composite: modelling and optimization. **International Journal of Environmental Science and Technology**, 20, 12481–12498. https://doi.org/10.1007/s13762-022-04667-x
- Daniel, M., Ahammed, M.M., Shaikh, I.N. (2023) Selection of Greywater Reuse Options Using Multi-criteria Decision-making Techniques. **Water Conservation Science and Engineering,** 8, https://doi.org/10.1007/s41101-023-00181-4

- Kheskwani U, Ahammed M M, (2023) Removal of water pollutants using plant-based nanoscale zero-valent iron: A review. **Water Science and Technology,** 88, 1207–1231. doi: https://doi.org/10.2166/wst.2023.270
- Kumar, A., Ahammed, M.M., Shaikh, I.N. (2023) Zero-valent iron-modified sand filters for greywater treatment. **International Journal of Environmental Science and Technology,** 20, 5183–5196 https://doi.org/10.1007/s13762-022-04222-8
- Suryavanshi, A V, Ahammed, M M, Shaikh I N (2023) Energy, Economic, and Environmental Analysis of Waste-to-Energy Technologies for Municipal Solid Waste Treatment: A Case Study of Surat, India, **Journal of Hazardous, Toxic and Radioactive Waste,** 27, ascelibrary.org/doi/10.1061/JHTRBP.HZENG-1191
- Shaikh, I.N., Ahammed, M.M. (2022) Quantity and quality characteristics of greywater from an Indian household. **Environmental Monitoring and Assessment**, 194, https://doi.org/10.1007/s10661-022-09820-0
- Baby M.G., Ahammed M.M. (2022) Nutrient removal and recovery from wastewater by microbial fuel cell-based systems – A review. **Water Science and Technology,** 86, 29–55. doi: https://doi.org/10.2166/wst.2022.196
- Shaikh, I. N., Ahammed, M. M. (2023). Sand filtration for greywater treatment: long-term performance evaluation and optimization by response surface methodology. **Urban Water Journal**, 20, 450–464. https://doi.org/10.1080/1573062X.2023.2179928
- Rawat, S., Ahammed, M.M. (2021) Clay–Biomass Composites for Water Purification, **Journal of Hazardous, Toxic and Radioactive Waste,** 26, https://doi.org/10.1061/(ASCE)HZ.2153-5515.0000703,
- Shaikh I N, Ahammed M M (2022) Granular media filtration for on-site treatment of greywater: A review. **Water Science and Technology,** 86, 992–1016. doi: https://doi.org/10.2166/wst.2022.269
- Shaikh, I.N., Ahammed, M.M (2021) Coagulation Followed by Continuous Sand Filtration for Treatment of Graywater, **Journal of Hazardous, Toxic and Radioactive Waste**, 25, https://doi.org/10.1061/(ASCE)HZ.2153-5515.0000640
- Shaikh, I.N., Ahammed, M.M. (2021) Effect of operating mode on the performance of sand filters treating greywater. **Environmental Science and Pollution Research**, 28, 38209–38223. https://doi.org/10.1007/s11356-021-13413-8
- Gadekar, M.R., Ahammed, M.M. (2020) Use of water treatment residuals for colour removal from real textile dye wastewater. **Applied Water Science,** 10, https://doi.org/10.1007/s13201-020-01245-9
- Shaikh I N, Ahammed M M (2020) Quantity and quality characteristics of greywater: A review, **Journal of Environmental Management,** 251, 110266
- Gadekar, M.R. and Ahammed, M.M (2019) Modelling dye removal by adsorption onto water treatment residuals using combined response surface methodology-artificial neural network approach, **Journal of Environmental Management**, 231, 241-248. doi: 10.1016/j.jenvman.2018.10.017
- George D. and M. M.Ahammed (2019) Effect of zero-valent iron amendment on the performance of biosand filters, **Water Science and Technology: Water Supply** (in press) https://doi.org/10.2166/ws.2019.032
- Sruthi G, Ahammed M M and Makwana A R (2018) Effect of source water/wastewater quality on bacterial removal during electrocoagulation, **Water Science and Technology**, 77, 1460-1468; DOI: 10.2166/wst.2018.024
- Vinitha E V, Ahammed M M and Gadekar M R (2018) Chemical coagulation of greywater: modelling using artificial neural networks, **Water Science and Technology**, 2017, 869-877. doi.org/10.2166/wst.2018.263

- Ghorpade A and Ahammed M M (2018) Water treatment sludge for removal of heavy metals from electroplating wastewater, **Environmental Engineering Research**, 23, 92-98. doi: https://doi.org/10.4491/eer.2017.065
- Gadekar, M.R. and Ahammed, M.M (2018) Removal of disperse dye from aqueous solution in fixed-bed column by water treatment residuals, **Desalination and Water Treatment**, 102, 264-272 doi: 10.5004/dwt.2018.21840
- Makwana A R and Ahammed M M (2017) Electrocoagulation process for the post-treatment of anaerobically treated urban wastewater, **Separation Science and Technology,** 52, 1412-1422
- Nair A.T., and Ahammed M M (2017). Influence of sludge characteristics on coagulant recovery from water treatment sludge: a preliminary study, **Journal of Material Cycles and Waste Management,** 19, 1228-1234
- Makwana A R and Ahammed M M (2016) Continuous electrocoagulation process for the post-treatment of anaerobically-treated municipal wastewater, **Process Safety and Environmental Protection**, 102, 724-733. DOI: http://dx.doi.org/10.1016/j.psep.2016.06.005
- Gadekar, M.R. and Ahammed, M.M (2016) Coagulation/flocculation process for dye removal using water treatment residuals: modelling through artificial neural networks, **Desalination and Water Treatment,** 57, 26392-26400 https://doi.org/10.1080/19443994.2016.1165150
- Nair A.T., and Ahammed M M (2015). The use of water treatment sludge as a coagulant for post-treatment of UASB reactor treating urban wastewater **Journal of Cleaner Production**, 96, 272-281, DOI: 10.1016/j.jclepro.2013.12.037
- Ahammed M M, Dave S and Nair AT (2015) Effect of water quality parameters on solar water disinfection: a statistical experiment design approach, **Desalination and Water Treatment**, 56, 315, DOI:10.1080/19443994.2014.940398
- Nair A.T., and Ahammed M M (2015) Water treatment sludge for phosphates removal from the effluent of UASB reactor treating municipal wastewater, **Process Safety and Environmental Protection**, 94, 105-112. doi:10.1016/j.psep.2015.01.004
- Nair A.T., Makwana A and 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. doi:10.2166/wst.2013.733
- Nair AT, Ahammed M M and Davra,K, (2014) Influence of Operating Parameters on the Performance of Household Slow Sand Filter, ***Water Science and Technology : Water Supply,*** 14, 643–649 doi:10.2166/ws.2014.021
- Ahammed M M and Dave S (2014) Effect of source water quality on solar disinfection rate under multiple experimental conditions, ***Journal of Water, Sanitation and Hygiene for Development*** (In press) doi:10.2166/washdev.2014.120
- Nair A.T., and 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, 2014
- Chaudhari R, Ahammed M M and Dave S (2013). Solar disinfection of natural waters with modified solar concentrators, ***Water Science and Technology : Water Supply***, 13, 462–468. doi:10.2166/ws.2013.042
- Yadav K D, Tare V and Ahammed M M (2012). Integrated composting–vermicomposting process for stabilization of human faecal slurry, ***Ecological Engineering***, 47, 24– 29. DOI: 10.1016/j.ecoleng.2012.06.039
- Ahammed, M.M. and Davra K (2011). Performance evaluation of biosand filter modified with iron oxide-coated sand for household treatment of drinking water, ***Desalination,*** 276,

287-293 DOI: 10.1016/j.desal.2011.03.065

- Yadav K D, Tare V and Ahammed, M.M. (2011). Vermicomposting of source-separated human faeces by *Eisenia fetida*: Effect of stocking density on feed consumption rate, growth characteristics and vermicompost production, ***Waste Management***, 31,1162-1168. DOI: 10.1016/j.wasman.2011.02.008
- Yadav K D, Tare V and Ahammed, M.M. (2010). Vermicomposting of source-separated human faeces for nutrient recycling, ***Waste Management***, 30, 50-56. DOI: 10.1016/j.wasman.2009.09.034
- Ahammed, M.M. and Meera V (2010). Metal oxide/hydroxide-coated dual-media filter for simultaneous removal of bacteria and heavy metals from natural waters ***Journal of Hazardous Materials***, 181, 788–793. DOI: 10.1016/j.jhazmat.2010.05.082
- Meera V and Ahammed, M.M. (2008). Solar disinfection for household treatment of roof-harvested rainwater, ***Water Science and Technology : Water Supply*** 8(2), 153-160.
- Meera V and Ahammed, M.M.. (2006) Water quality of rooftop rainwater harvesting systems : A review. ***Journal of Water Supply Research and Technology – Aqua,*** 55, 257-493. www.iwaponline.com/jws/055/jws0550257.htm
- Ahammed, M.M.. and Meera V. (2006). Iron hydroxide-coated sand for treatment of roof-harvested rainwater. ***Journal of Water Supply Research and Technology – Aqua,*** 2006, 55, 493-498. doi:10.2166/aqua.2006.052

Chapter in a Book

- Sharma S, Ahammed M M (2025) Color and nutrient removal using water treatment residuals, *Nutrients and Colored Compounds in Wastewater: Advanced Treatment and Recovery*, Yaser et al. (ed) Elsevier
- Raj A D, Ahammed M M (2024) Nano-zerovalent iron for water and wastewater treatment In *Nanomaterials in Environmental Analysis*, Kailasa et al (ed), Elsevier
- Shaikh I N, Ahammed M M (2023) Use of coagulation for on-site greywater treatment and resue, *Resource Recovery in Municipal Waste Waters*, Sillanpää et al (ed), Elsevier
- Yadav M, Tandel B, Ahammed M M (2022) Advanced soft computing techniques in modeling noise pollution health impacts, *Current Trends and Advances in Computer-Aided Intelligent Environmental Data Engineering*, Marques G and Ighalo J O (ed) Elsevier
- Gadekar M, Ahammed M M (2021) Modeling Undefined Complexities of Wastewater Treatment Processes With Artificial Neural Network, *Soft Computing Techniques in Solid Waste and Wastewater Management*, Karri, R R et al. (ed), Elsevier
- Shaikh I N, Ahammed M M, Krishnan S M P (2019) Graywater treatment and reuse in *Sustainable Water and Wastewater Processing*, Galanakis C (ed), Elsevier
- Meera V, Ahammed M M (2018) Factors affecting quality of roof-harvested rainwater, in A. K. Sarma et al. (ed.), *Urban Ecology, Water Quality and Climate Change, Water Science and Technology Library* 84, https://doi.org/10.1007/978-3-319-74494-0_15
- Ahammed M M (2017) Water Treatment Municipal, *Reference Module in Life Sciences*, Elsevier, DOI10.1016/B978-0-12-809633-8.13125-5
- Ahammed M M, Solanki C, Nair AT (2014) Long-term performance evaluation of biiosand filters modified with zero-valent iron. *Progress in Slow Sand and Alternative Biofiltration Processes*, in NakamotoN, Graham N, Collins MR and Gimbel R (ed) IWA Publishing, London, UK

Selected Publications in Refereed International Conferences

- George D and Ahammed M M (2018) Effect of zero-valent iron amendment on the performance of biosand filters, International Water Association (IWA) World Water Congress, Tokyo, Japan, September 16-21, 2018
- Makwana A R and Ahammed M M (2018) Microbial removal during electrocoagulation of anaerobically-treated municipal wastewater, Second International IWA Conference on Disinfection and Disinfection Byproducts, Beijing, China, May 14-18, 2018
- Vinitha E V and Ahammed M M (2017) Effect of greywater characteristics on its chemical coagulation, Seventh International IWA-ASPIRE Conference, Kuala Lumpur, Malaysia, September 11-14, 2017
- Ahammed M M (2017) The Effect of water coolers on the microbiological quality of drinking water, Second International Water and Health Conference, Antlya, Turkey, February 13-17, 2017
- Ghorpade, A G, Ahammed M M (2016) Water treatment sludge for removal of heavy metals from electroplating wastewater, International Conference on Particle Separation, Oslo, Norway, June 22-24.
- Thomas T N and Ahammed M M and Ghorpade AG (2015) Water treatment residuals for removal of chromium, Ninth IWA Specialist Conference on Micropollutants Hazardous Substances in Water, Singapore, November 22-25, 2015.
- Makwana A R and Ahammed M M (2014) Electrocoagulation for the post-treatment of uasb reactor treating municipal wastewater, First Specialist Conference on Municipal Water Management and Sanitation in Developing Countries, Bangkok, Thailand, December 2-4, 2014
- Ahammed M M, Solanki C and Nair AT (2014) Long-term performance evaluation of biiosand filters modified with zero-valent iron. 5th International Slow sand and Alternative Biological Filtration Conference, Nagoya, Japan, June 19-21..
- Nair, A T and Ahammed M M, (2014) Biosand filtration : a sustainable option for household treatment of drinking water International Symposium on Integrated Water Resources Management, Kozhikode, February 19-21.
- Ahammed M M and Meera V, (2014) Quality and treatment of roof-harvested rainwater International Symposium on Integrated Water Resources Management, Kozhikode, February 19-21.
- Davra, K, Nair A T and Ahammed M M (2013) Influence of operating parameters on the performance of household slowsand filter, Eleventh International Conference on Small Water and Wastewater Systems and Sludge Management , Harbin, China October 27-30.

Patent granted

Shaikh I N and Ahammed M M 2023, Process Patent: Zerovalent iron modified filter No. 426406, The Patent Office, Government of India

Conferences Attended Abroad

- International Water Association (IWA) 18th World Conference on Anaerobic Digestion, Istanbul, Turkey, June 2-6, 2024
- International Water Association (IWA) World Water Congress, Tokyo, Japan, September 16-21, 2018
- Second International IWA Conference on Disinfection and Disinfection Byproducts, Beijing, China, May 14-18, 2018
- Seventh International IWA-ASPIRE Conference, Kuala Lumpur, Malaysia, September 11-14, 2017

- Second International Water and Health Conference, Antlya, Turkey, February 13-17, 2017
- Ninth IWA Specialist Conference on Micropollutants Hazardous Substances in Water, Singapore, November 22-25, 2015.
- First Specialist Conference on Municipal Water Management and Sanitation in Developing Countries, Bangkok, Thailand, December 2-4, 2014
- 5th International Slow sand and Alternative Biological Filtration Conference, Nagoya, Japan, June 19-21, 2014
- Eleventh International Conference on Small Water and Wastewater Systems and Sludge Management , Harbin, China October 27-30, 2013
- International Conference on Wastewater Purification and Reuse, Heraklion, Greece March 28-30, 2012
- IWA World Water Congress, Busan, South Korea, , September 16-21, 2012
- International Conference on Water, Energy and Environment, Sharjah, UAE, November 14-17, 2011
- 4th International Water Association-ASPIRE Conference – Toward Sustainable Water Supply and Recycling Systems, Tokyo, Japan, October 2-7, 2011

Short-term Training Programmes Conducted

- One-week short term training programme on Advances in Waste Management Techniques, 23-27 January 2017 (with Dr K D Yadav)
- One-week short term training programme on Waste Management in Smart Cities, 9-13 May, 2016. (with Dr K D Yadav)

- Two-Day finishing school on Statistics for Experimenters (TEQIP) 28-29 March, 2017 (with Dr K D Yadav)
- One-week short term training programme on Advances in Waste Management Techniques, 23-27 June 2014. (with Dr K D Yadav)
- Two-Day finishing school on Statistics for Experimenters (TEQIP) 28-29 March, 2014 (with Dr K D Yadav)
- One-week short term training programme on Sustainable waste management techniques (TEQIP), 3-7 June 2013. (with Dr K D Yadav)
- One-week AICTE-sponsored short term training programme on Sustainable Water and Waste Management Techniques, 27-31 July 2009. (with Dr KD Yadav)

Professional Contribution

- **Reviewed papers for:** Environmental Science and Technology, Water Research, Journal of Environmental Management, Science of the Total Environment, Water Management, Chemosphere, Journal of Hazardous Materials, Journal of Industrial and Engineering Chemistry, Waste Management, Chemical Engineering Science, Journal of Environmental Chemical Engineering, J Cleaner Production, Separation Science and Technology, Environmental Technology, Environmental Science and Pollution Research, Journal of Water and Health, Journal of Water Reuse and Desalination, Water Resources Management, Water Science and Technology, Water and Environment Journal, Applied Water Chemistry, Open Water, Environmental Engineering and Management Journal, Environmental Engineering Research, Water Science and Technology – Water Supply, Journal of Water Supply Research and Technology: Aqua, Environment, Development and Sustainability, Korean Journal of Chemical Engineering, International Journal of Chemical Reactor Engineering, Environmental

Monitoring and Assessment

- **Membe**r, Board of Studies in Engineering, Cochin University of Science and Technology, Kerala (2006-07)
- **Member**, Board of Studies in Engineering, Kannur University, Kerala (2005-07)

Major Consultancy Projects

EIA of Cochin Metro

Environmental Audit

Environmental Damage Compensation reports

Important Administrative Duties

- Head of the Department, Civil Engineering, August 2019-August 2021
- Head, Institute Career Development Cell, March 2022-March 2024
- Faculty In-charge, M.Tech. Environmental Engineering, 2008-13
- Laboratory-in-charge, Environmental Engineering, 2013-2015, 2017-2019, 2023-25
- Departmental Coordinator, PhD, 2011-2017
- Departmental Coordinator, TEQIP-III

Membership in Professional Societies

Member, International Water Association

Member, American Chemical Society

Member, Institution of Engineers (India)

Member, Indian Desalination Association

Life Member, Indian Society for Technical Education

Life Member, Indian Society for Hydraulics

Life Member, Indian Water Works Association