

M Mansoor Ahammed



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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

- Associate Professor in the Department of Civil Engineering, S V National Institute of Technology, Surat, April 2007 onwards
- 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

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) (Ongoing 2014-)
- **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).

SELECTED RECENT PUBLICATIONS

Refereed International Journals

- 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**, (in press) doi:10.2166/ws.2013.042
- Nair A.T., and Ahammed M M (2016). Influence of sludge characteristics on coagulant recovery from water treatment sludge: a preliminary study, **Journal of Material Cycles and Waste Management**, (in press) DOI 10.1007/s10163-016-0513-0
- Tundia K R, Ahammed M M and George D. (2016) The effect of operating parameters on the performance of a biosand filter: a statistical experiment design approach, **Water Science and Technology: Water Supply**, 16, 775-782; DOI: 10.2166/ws.2015.191
- 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
- Ahammed M M and Dave S (2015) Effect of source water quality on solar disinfection rate under multiple experimental conditions, **Journal of Water, Sanitation and Hygiene for Development**, 4, 714-719; DOI: 10.2166/washdev.2014.120
- 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. 464-478. doi:

10.2166/wst.2013.733

- 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
- 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
- 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
- Yadav K D, Tare V and Ahammed, M.M. (2010). Influence of soil characteristics on biomass growth and reproduction of earthworm *Eisenia fetida* **Dyanmic soil, Dynamic Plant**, 4, 108-112.
- 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

Refereed International Conferences

- 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.
- Gadekar M R and Ahammed M M (2016) Decolouration of textile dye wastewater using water treatment residual, International Conference on Recent Advances in Civil Engineering, Kochi, January 14-16.
- Thomas T N, Ahammed MM, Ghorpade A G (2015) Water Treatment Residuals for Removal of Chromium, International Water Association Conference on

Micropollutants, Singapore, November 22-25.

- Mohan L, Gudla S, Pandey R, Makwana A R, Ahammed M M (2015) Greywater treatment using electrocoagulation, International Conference on New Frontiers in Chemical, Energy and Environmental Engineering, Warangal, March 20-22.
- Ahammed M M, Solanki C and Nair AT (2014) Long-term performance evaluation of biosand filters modified with zero-valent iron. 5th International Slow sand and Alternative Biological Filtration Conference, Nagoya, Japan, June 19-21..
- Makwana A R and Ahammed M M (2014) Electrocoagulation for Post-Treatment of UASB Reactor Treating Municipal Wastewater, 1st Specialist Conference on Municipal Water Management and Sanitation in Developing Countries, Bangkok, Thailand, December 2-4.
- Thomas T N and Ahammed M M (2014) Removal of Chromium Using Water Treatment Residuals, 1st Specialist Conference on Municipal Water Management and Sanitation in Developing Countries, Bangkok, December 2-4.
- George D and Ahammed M M (2014) Effect of Operating Parameters on the Performance of Biosand Filter, International Conference on 2nd International Conference on Materials Mechanics and Management, Thiruvananthapuram, December 17-19.
- Lekshmi M., Ahammed M M and Nair A T (2014) Electrocoagulation for greywater treatment, The 12th IWA Conference on Small Water and Wastewater Systems and Resources Oriented Sanitation, Muscat, Oman, November 2-4.
- Nair A T, Ahammed M M and George D (2014) Modified biosand filter for simultaneous removal of bacteria and arsenic, The 12th IWA Conference on Small Water and Wastewater Systems and Resources Oriented Sanitation, Muscat, Oman, November 2-4.
- 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.
- Ahammed M M, Shakwala N J and Yadav K D (2012) The use of aluminium water works sludge for the treatment of dyeing industry wastewater. International Conference on Wastewater Purification and Reuse, March 28-30, 2012, Heraklion, Greece.
- Chaudhari R, Ahammed M M, Dave, S, Yadav K D. (2012) Solar disinfection of natural waters with modified solar concentrators, Proceedings of the IWA World Water Congress, September 16-21, Busan, South Korea.
- Meera V and Ahammed M M (2012) Factors affecting the quality of roof-harvested rainwater, International Conference on Environmentally Sustainable Urban Ecosystems (ENSURE 2012), Guwahati, India
- Ahammed M M and Shakwala N J (2011) The use of water treatment residuals in the treatment of textile industry wastewater. Proceedings of the International Conference on Water, Energy and Environment, November 14-17, 2011, Sharjah, UAE

- Dalal F, Dave S, Ahammed M M and Yadav K D (2011) Comparative evaluation of different solar water disinfection systems, Proceedings of the 4th International Water Association-ASPIRE Conference – Toward Sustainable Water Supply and Recycling Systems, Tokyo, Japan
- Meera V and Ahammed M M (2011) Factors affecting the quality of roof-harvested rainwater, Proceedings of the International Conference on Environmental Science and Technology, Rhodes, Greece, B686-691.
- Foram D, Dave S, Ahammed M M, Chaudhari R and Yadav K D (2011). Disinfection of natural water using solar radiation with or without solar concentrators. Proceedings of the International Conference on Sustainable Water Resources Management and Treatment Technologies, NEERI, Nagpur, India
- Foram D, Dave S, Ahammed M M, Chaudhari R and Yadav K D (2011). Comparative evaluation of different solar water disinfection systems. International Workshop on Advances in Disinfection Technologies, Nagpur, India
- Dawra K, Ahammed M M and Nair A T (2011) Performance evaluation of a biosand filter for household treatment of drinking water, Proceedings of the International Conference on Sustainable Water Resources Management and Treatment Technologies, NEERI, Nagpur, India

Chapter in a Book

- Ahammed M M, Solanki C and Nair AT (2014) Long-term performance evaluation of biosand filters modified with zero-valent iron. Progress in Slow Sand and Alternative Biofiltration Processes, Nakamoto N, Graham N, Collins MR and Gimbel R (Ed) IWA Publishing, London, UK.
- Meera V and Ahammed, M.M. (2012) Roof-harvested rainwater: Quality and health risk. In *Human and Animal Health: Environmental Perspectives* S. R. Garg (Ed), SS Publishing House, India
- Ahammed, M.M. (2011) Household water treatment for developing countries. In *Environmental Security: Human and Animal Health*, S. R. Garg (Ed), IBDC Publishers, India
- Ahammed, M.M.. and Tare V. (1994). Evaluation of potential of various biological processes for the treatment of distillery wastes. In *Advances in Environmental Science and Technology*, Ashish Publications, New Delhi, India.

Citations

Google Scholar:

<https://scholar.google.co.in/citations?user=ssExtN4AAAAJ&hl=en&oi=ao>

Scopus: citations 234, h-index 8 (August 2016)

Courses Taught

Post-Graduate

Applied Statistics for Engineers
 Environmental Chemistry and Microbiology
 Unit Processes in Environmental Engineering
 Unit Operations in Environmental Engineering
 Air Pollution and Control
 Sustainable Water and Sanitation Systems

Environmental Systems Modelling

Under-Graduate

Environmental Engineering I

Engineering Drawing

Basic Civil and Environmental Engineering

Water Treatment and Distribution Systems

Municipal Solid Waste Management

Water and Wastewater Treatment

Air Pollution and Control

Ph.D. Thesis Guidance

- Meera V. Thesis Title : Quality and treatment of roof-harvested rainwater Completed, 2008.
- Abhilash T. Nair. Title : Use of water treatment sludge for the post-treatment of UASB reactor effluent. Completed 2015
- Abhipsa Makwana. Ongoing 2012-
- Mahesh R Gadekar. Ongoing 2014-

Conferences Attended Abroad

- International Water Association Conference on Micropollutants, Singapore, November 22-25, 2015
- 1st 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 Waste Management in Smart Cities, 9-13 May, 2016. (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)
- Two-day National Workshop on Ecological Sanitation, 20-21 October 2011 (with Dr KD Yadav)

Professional Contribution

- **Reviewed papers for:** Environmental Science and Technology (American Chemical Society), Water Research (Elsevier), Journal of Environmental Management (Elsevier), Journal of Environmental Chemical Engineering (Elsevier), Journal of Cleaner Production (Elsevier), International Biodeterioration and Biodegradation (Elsevier), Separation Science and Technology (T&F) Desalination and Water Treatment (T&F), Journal of Water and Health (WHO), Journal of Hazardous Materials (Elsevier), Waste Management (Elsevier), Journal of Industrial and Engineering Chemistry (Elsevier), Chemical Engineering Science (Elsevier), Journal of Water Reuse and Desalination (International Water Association), Water Resources Management, Science of the Total Environment (Elsevier), Water Management (Institution of Civil Engineers, UK), Water Science and Technology (International Water Association), Environmental Engineering and Management Journal, Water Science and Technology – Water Supply (International Water Association), Water and Environment Journal (Wiley-Blackwell), Journal of Environmental Engineering (Institution of Engineers, India).
- **Reviewed Book Proposal for :** CRC Press
- **Member,** 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

Important Administrative Duties

PG In-charge, Environmental Engineering, 2008-13

Laboratory-in-charge, Environmental Engineering, 2013-till date

Departmental Coordinator, PhD, 2011-till date

Member Secretary, Department PG Board, 2008-12

Co-coordinator, MINDBEND 2008

Examination Superintendent (Institute level) : 2007-08

Membership in Professional Societies

Member, International Water Association

Life Member, Indian Society for Technical Education

Life Member, Indian Society for Hydraulics

Life Member, Indian Water Works Association