

PROFILE

Name	<u>Dr. Raman Sharma</u>
Designation	<u>Principal Scientist</u>
Qualification	<u>Ph.D. IIT Delhi (Environmental Engineering and Management)</u> <u>M.Tech. (Environmental Engineering)</u> <u>B. Tech. (Chemical Engineering)</u>
Experience (in years)	<u>13 years</u>
Expertise (for e.g.: Water, Waste, Energy, Business Development etc.)	<u>Water Quality Management</u>
Publications (in Nos.)	<p>https://scholar.google.com/citations?user=olGc5G8AAAAAJ&hl=en</p> <p>International Journal</p> <ol style="list-style-type: none"> Sharma, R., Chandel, M. K., Delebarre, A. and Alappat, B. (2013). "200MW Chemical looping combustion based thermal power plant for clean power generation " <i>International Journal of Energy Research</i>. 37, 49-58 (doi: 10.1002/er.1882). Sharma, R., Delebarre, A. and Alappat, B. (2014). "Cold model testing of a recirculating fluidized bed reactor working in alternate aeration - fuel burning cycles for chemical looping" <i>Canadian Journal of Chemical Engineering</i>. 92, 156-167 (doi 10.1002/cjce.21779). Sharma, R., Delebarre, A. and Alappat, B. J. (2014). "Chemical-looping combustion — an overview and application of the recirculating fluidized bed reactor for improvement" <i>International Journal of Energy Research</i>. 38, 1331-1350 (doi: 10.1002/er.3151). Sharma, R., Delebarre, A. and Alappat, B. (2014). "Composting of municipal solid waste for carbon credits-A case study from India" <i>Waste Management</i>. 34, III-IV (doi:10.1016/S0956-053X(14)00307-9). Sharma, R., May, J., Alobaid, F., Ohlemüller, P., Ströhle, J., Epple, B. (2017). "Euler-Euler CFD simulation of the fuel reactor of a 1 MWth chemical-looping pilot plant: Influence of the drag models and specular coefficient" <i>Fuel</i>. 200, 435-446 (http://dx.doi.org/10.1016/j.fuel.2017.03.076).

6. Tomar S., Lokachari N., **Sharma R.** (2018). "Superiority of Re-circulating Fluidized Bed Reactor Over Existing Reactor Arrangements for Chemical Looping Combustion—A Review". In: Singh V., Yadav S., Yadava R. (eds) Energy and Environment. Water Science and Technology Library, 80, 77-87. Springer, Singapore (https://doi.org/10.1007/978-981-10-5798-4_8).
7. Gupta, U., Sharma, S. K., Goyal, S. K. and **Sharma, R.** (2022). "Removal of heavy metals from integrated industrial waste water using canna lilly: A hydroponic system for phytoremediation potential" International Advanced Research Journal in Science, Engineering and Technology. 9(4), 17-29 (<http://DOI:10.17148/IARJSET.2022.9403>).

National Journal

1. **Sharma, R.**, Delebarre, A. and Alappat, B. (2012). "Solid waste management for carbon credits". Journal of the Institution of Public Health Engineers, India, Vol. 2012-13, No.2, July 2012, pp. 9-17.
2. **Sharma, R.** and Alappat, B. (2009). "Technologies for carbon credits - An overview" Journal of the Institution of Public Health Engineers, India, Vol. 2009-10, No. 3, pp 14-22.

International Conferences

1. Kumar, K., **Sharma, R.**, Mandal, P. and Goyal, S. K. (2022). "Municipal landfill leachate treatment by employing moving bed bio-film reactor technology: A review." *Proc., International Conference on Emerging Technology and Management Trends in Environment and Sustainability*, Budge Budge Institute of Technology, 24 Parganas (S), Kolkata, West Bengal-700137, India.
2. Kumar, K., Sharma, R. and Goyal, S. K. (2022). "Current practices for the management of sludge generated from common effluent treatment plants." *Proc., International Conference on Adopting Green Initiatives for Sustainability*, Priyadarshani College of Engineering, Nagpur, India.
3. Gupta, U., **Sharma, R.**, Prakash, M., Saxena, P. and Goyal, S. K. (2018). "Phytoremediation of few metals from waste water by Canna Indica and Cyprus species" *Proc., International Biodiversity Congress*, Forest Research Institute, Dehradun, India.

4. **Sharma, R.** (2017). "Attrition of solid particles in recirculating fluidized bed reactor" Humboldt Colloquium "Germany and India – Partners in Education and Research" Bengaluru, India 23–25 November 2017.
5. **Sharma, R.,** Delebarre, A. and Alappat, B. (2016). "Recirculating Fluidized Bed Reactor for Chemical-Looping." *Proc., Fluidization XV Conference*, Quebec, Canada, May 22-26, 2016.
6. **Tomar, S.,** Sai, N. K. L. and Sharma, R. (2015). "Superiority of Re-circulating Fluidized Bed Reactor over existing reactors arrangements for Chemical-Looping Combustion – A review." *Proc., International Conference on Water, Environment, Energy and Society*, Bhopal, India, March 15-18, 2016.
7. **Sharma, R.,** Delebarre, A. and Alappat, B. J. (2012). "Chemical-Looping Combustion in a Spouted Bed with a Central Riser Tube." *Proc., 62nd Canadian Chemical Engineering Conference*, Vancouver, October 14-17, 2012.
8. **Sharma, R.,** Delebarre, A. and Alappat, B. J. (2011). "Recirculating Fluidized Bed Reactor for Chemical-Looping Combustion." *Proc., International Conference On Sustainable water resources management and Climate change adaptations*, National Institute of Technology Durgapur, West Bengal, India, pp 359-367.
9. **Sharma, R.,** Delebarre, A. and Alappat, B. J. (2007). "Material suitability for chemical looping combustion process." *Proc., International Conference on Materials for the future*, Government Engineering College, Thrissur, Kerala, India, pp 44-52.
10. **Sharma, R.,** Khitoliya, R. K. and Rao, S. V. (2005). "Environmental impact assessment and water resources projects." *Proc., International R & D Conference on Water Resources*, Central Board of Irrigation and Power, Bangalore, India, pp II34-II41.

National Conferences

1. Prakash, R., **Sharma, R.** and Goyal, S. K. (2018). "Assessment of biological treatment for removal of ammonia from surface water." *Proc., National Conference on Environmental Challenges for New India*, Dr. Bhim Rao Mabedkar College, University of Delhi, India, 89.

	<ol style="list-style-type: none"> 2. Gupta, U., Sharma, R., Prakash, M. and Goyal, S. K. (2018). "Plant Based Sewage Treatment Plant." <i>Proc., National Conference on Environmental Challenges for New India</i>, Dr. Bhim Rao Mabedkar College, University of Delhi, India, 93. 3. Sharma, R., Delebarre, A. and Alappat, B. (2010). "Chemical-looping based power generation for carbon capture." <i>Proc., Fourth CUSAT National Conference on Recent Advances in Civil Engineering</i>, Organized by Cochin University of Science and Technology, India, pp 302-305. 4. Sharma, R. and Bali, M. (2007). "Non conventional energy resources and environmental pollution." <i>Proc., National Conference on Grand Challenges in Electrical Engineering</i>, Organized by RIEIT, Rail Majra, Nawanshahar, Punjab, Sponsored by Bharat Heavy Electricals Limited and Indian Society for Technical Education, India, pp 94-98. 5. Sharma, R., Bali, M. and Sharma, N. K. (2006). "Solid waste management of Chandigarh." <i>Proc., National Conference on Impact of Science and Technology on Nature, Environment and Mankind</i>, Organized by B. B. S. B. Engg. College, Fatehgarh Sahib, Punjab, Sponsored by Indian Society for Technical Education, India, pp 72-77. 6. Sharma, R., Khitoliya, R. K. and Arora, S. K. (2005). Importance of landfill sites in the management of municipal solid waste." <i>Proc., National Scientific and Technical Seminar</i>, Organized by Advanced Research Laboratory, Sec 30, Chandigarh, Sponsored by Defence Research Development Organization, Ministry of Defense, Government of India, pp 10-14. 7. Sharma, R. and Khitoliya, R. K. (2004). "Role of environmental laws in developmental planning." <i>Proc., National Workshop on Environmental Policy and Law for promoting Sustainable Development</i>, Organized by Indian Environmental Society, Sponsored by Central Pollution Control Board, New Delhi, India, pp 131-137.
Patents	<u>Nil</u>
Honors & Awards (If any)	<ol style="list-style-type: none"> 1. Best Junior Scientist Award for the year 2020 – Awarded best junior scientist award by CSIR-NEERI for the year 2020.

	<p>2. INSA Award – 2016. Selected for the bilateral exchange program of INSA. I visited the Institute for Energy Systems and Technology, Technische Universität Darmstadt, Germany in June – July 2016.</p> <p>3. Ranked 1st in the University during my B. Tech. and received “University Gold Medal” from The Governor of Punjab, India.</p> <p>4. Ranked 1st in University during my M. Tech. and received “University Medal” from Chief Justice of India.</p>
<p>Research Scholars (in Nos.)</p>	<p><u>Ongoing - 01</u></p>