

Curriculum Vitae

Prof. Anurag Garg
Institute Chair Professor in Sciences and Engineering,
Environmental Science and Engineering Department (ESED), IIT Bombay
Fellow, International Society for Energy Environment and Sustainability (ISEES)
Phone No.: +91-22-25767861; Email: a.garg@iitb.ac.in

Professional Qualifications

- B.E. (Civil Engineering) from University of Roorkee, Roorkee (INDIA) in 1995.
- M.E. (Chemical Engineering) with specialization in Industrial Pollution Abatement from University of Roorkee, Roorkee (INDIA) in year 1999. Received University Medal for standing first in the class.
- Ph.D. (Environmental Engineering) from Indian Institute of Technology Roorkee, Roorkee (INDIA) (Formerly University of Roorkee, Roorkee) in year 2005. The Ph.D. thesis was highly acclaimed by examiners.

Experience: 20 years (Post – Ph. D.)

- August 2005 – March 2007: Research Officer, Centre for Resource Management and Efficiency (formerly Integrated Waste Management Centre) in School of Applied Sciences, Cranfield University, Cranfield, UK
- June 2007 – September 2010: Assistant Professor (Contract), Centre for Environmental Science & Engineering (CESE), IIT Bombay
- October 2010 – August 2014: Assistant Professor, CESE, IIT Bombay
- September 2014 – December 2018: Associate Professor, CESE, IIT Bombay
- December 2018 onwards: Professor, Environmental Science and Engineering Department (ESED) (formerly CESE), IIT Bombay
- November 2021- November 2024: Maharashtra Pollution Control Board (MPCB) Chair Professor, Environmental Science and Engineering Department (ESED), IIT Bombay
- January 2025 onwards: Institute Chair Professor in Sciences and Engineering, Environmental Science and Engineering Department (ESED), IIT Bombay
- *February 2022 – February 2025: Associate Dean – III (Infrastructure Planning and Support), IIT Bombay*

I was also an Associate Faculty in Centre for Urban Science & Engineering (CUSE), IIT Bombay during 2021-2024.

Research Areas of Interest

- Solid waste treatment – Composting, energy from waste, hydrothermal pretreatment of wet waste and sewage sludge
- Wastewater treatment – Wet oxidation, advanced oxidation processes (Fenton and photo-Fenton), adsorption and aerobic biological processes for grey water and industrial wastewater (oil & gas industry, pulp & paper mill, distilleries, textile and dairy industry)
- Synthesis of adsorbents/ catalysts from sewage sludge and industrial sludge
- Sanitary waste management
- Recycling and resource recovery from E-waste and Construction & demolition Waste

Sponsored Research Projects: Completed – 13 (As PI) & 6 (As Co-PI); Ongoing – 2 (As PI) & 1 (As Co-PI)

Sponsoring Agency	Title of project	Period	PI/Co-PI
Department of Science and Technology (DST), New Delhi	Development of two-step treatment strategy for effluent generated from agro based pulp and paper mills	February 2009 – February 2012 (3 Years)	PI
MAGEEP Programme (MoU between IIT Bombay – University of Washington at St. Louis)	Oxidative treatment of industrial wastewater: Development of novel catalysts and technology evaluation	September 2009 – September 2010 (1 Year)	PI
DST, New Delhi (under “Indo-South African Science & Technology Cooperation” Scheme)	Wastewater minimization in batch plants through on-site treatment, reuse and recycle processes	August 2009 – August 2012 (3 Years)	PI
DST, New Delhi (under “Indo-South African Science & Technology Cooperation” Scheme)	Energy recovery options from municipal solid waste and control/treatment measures of carbon emissions from landfills	September 2009 – September 2012 (3 Years)	Co-PI
Department of Biotechnology (DBT), New Delhi	Simultaneous nitrification/ denitrification of fertilizer wastewater using sequencing batch bioreactor with mixed biomass containing <i>Thiosphaera pantotropha</i>	August 2008 – December 2012 (4 Years)	Co- PI
IRCC, IIT Bombay (seed grant)	Removal of toxic organic pollutants from wastewater using catalytic wet oxidation process	October 2007 – February 2015	PI
Council of Scientific and Industrial Research (CSIR), New Delhi	Improvement in biodegradability of cresylic spent caustic waste stream (Generated from petroleum refinery) using catalytic wet oxidation in combination with adsorption process	3 years (August 2012 – August 2015)	PI
Tata Centre for	Municipal Solid Waste Characterization	July 2015-July 2018	Co-PI

Technology & Design, IIT Bombay	and Monitoring of Existing Solid Waste Management Systems in IIT Bombay Campus	(3 years)	
Tata Centre for Technology & Design (TCTD), IIT Bombay	Development of Household or Community Composting System for Food Waste (MSW) Recycling	August 2015 – August 2018 (3 years)	PI
Department of Science and Technology (Under India-Austria 2017 call for proposals)	Optimized Thermal Utilization of Municipal Solid Waste-derived Fuel in India	August 2018 – May 2021 (3 years)	PI
Centre for Excellence in Oil, Gas, and Energy, IIT Bombay	Recovery and Recycling Options for Produced Water	July 2020-May 2021	PI
Tata Centre for Technology & Design (TCTD), IIT Bombay	Characterization of Grey Water and Development of Cost Effective Systems for Grey Water Recycling	September 2016 – March 2022	Co-PI
Department of Biotechnology (Under Newton Bhabha scheme)	Valorising Waste from Sugar Cane Industries via Innovations in Pretreatment, Bioproduction and Process Intensification	August 2018 – March 2022	Co-PI
Centre for Excellence in Oil, Gas, and Energy, IIT Bombay	Simultaneous Nitrification and Denitrification for Nitrogen Removal from Refinery Wastewater	Jan 2021 – December 2022	Co-PI
DST-UKIERI scheme	Conversion of Wet Waste to Fuel and Value-Added Products using Hydrothermal Carbonization	June 2019 – December 2021	PI
Department of Science and Technology, New Delhi	Appraisal of Options for Resource Recovery and Recycling from Sewage Sludge	June 2020 – May 2023	PI
PI Industries Limited	Technical and commercially viable solution for the removal of ammonical nitrogen in Wastewater	February 2024-August 2024	PI
IRCC, IIT Bombay (Research award funding)	Evaluation of Sewage Sludge Pretreatment Methods to Improve Resource Recovery Options	January 2022-January 2024	PI
IRCC, IIT Bombay (IOE funding)	Resource recovery options after hydrothermal pretreatment of sugarcane Bagasse	December 2023-December 2024	PI
Ministry of Housing and Urban Affairs (MoHUA), Government of India	Development of Efficient Hybrid Treatment System for the Improvement of Resource Recovery from Sewage Sludge and Septage	January 2024-June 2025	PI
GESH, IIT Bombay	Development of Compact and Efficient Decentralized Sewage Treatment	August 2025-August 2026	PI

	System		
Centre for Excellence in Oil, Gas, and Energy, IIT Bombay	Produced water treatment coupled with resource recovery and zero liquid discharge (ZLD) strategies	May 2024-April 2026	Co-PI

Major Research Contributions, Technologies developed and Recent Initiatives

- 1) Developed a treatment scheme for recovery of sulfate from high strength spent caustic waste stream using hybrid advanced oxidation processes, 2025.
- 2) Modification and operation of the existing grey water treatment plants, 2025.
- 3) Recovery of precious metals from electronic waste components, 2024.
- 4) Developed decentralised municipal solid waste composting systems based on passive and intermittent forced aeration systems, 2023.
- 5) Improved resource recovery from sewage sludge, cooked food waste (from a hostel mess) and press mud (from sugar industry) using hydrothermal pretreatment. After the pretreatment, the solid fraction, i.e., hydrochar can be used as soil conditioner whereas liquid stream can be subjected to anaerobic treatment and recovery of struvite, 2023.
- 6) Improved biogas recovery from biomethanated spent wash generated from alcohol distilleries after catalytic wet oxidation treatment, 2023.
- 7) Developing a decentralized diaper waste incinerator (3-4 diapers per batch), 2023.
- 8) Conversion of waste sludge (from sewage treatment plants, steel industry sludge, press mud and black liquor) into adsorbent or catalyst support to use this in wastewater treatment operations, 2018 & 2021.
- 9) On-site pretreatment strategy for bleaching effluent from a pulp and paper mill, 2015.

Teaching and Short courses for Working Professionals:

- Taught 6 UG core courses, 2 UG minor, 5 PG core courses, 4 Elective courses, 2 UG lab courses and 1 PG lab course
- Developed 5 courses for Postgraduate and undergraduate courses
- Organized 15 short courses on wastewater treatment, solid waste management and allied themes for working professionals from government departments, industries and academia.

Students Supervision

(A) **Post-Doctoral Fellows:** 3 (completed) and 1 (ongoing)

(B) **Thesis supervision:**

- Ph. D.: Awarded – 15 (including 2 as co-guide); and In progress – 4 (including 2 as co-guide)
- M. Tech.: Completed – 36 (including 2 converted into Ph.D. and 5 as co-guide); In progress – 1
- B.Tech.-M.Tech. dual degree projects: Completed – 5; In progress – 2
- PG diploma: Completed – 1

- MSc project (duration = 3 semesters): Completed – 11 (1 as co-guide); In progress – 1
- MSc – M. Phil: Completed – 1
- External students (M. Tech. Project): Completed – 1
- Supervised Learning Project (B.Tech.): Completed – 1
- R & D Project (one semester duration) for B.Tech.-M. Tech. students in ESED: Completed – 2
- Supervision of IIT B research interns: Completed – 5

(C) **Ph. D. seminar supervision:** Completed – 17; Ongoing – 1

(D) **M. Tech. seminar supervision:** Completed – 33; Ongoing – 2

(E) **B.Tech.-M. Tech. Seminar Supervision:** Completed – 7

(F) **MSc Seminar Supervision:** Completed – 5

Publications

(A) **Patents: Awarded – 3; Submitted – 2**

- 1) **A. Garg**, B. Kanoo. “Intermittent Forced Aeration Decentralized Composting System with a provision for odour control for household biodegradable solid waste”. (Indian Patent no.: 569933; Date of grant: 21/08/2025)
- 2) M. K. Manu, **A. Garg**, R. Kumar. “Composting System and Method of Operation Thereof”. (Indian Patent No.: 433209; Date of Grant: 30/05/2023).
- 3) S. Singh, **A. Garg**. “Development of Efficient Waste-Derived Catalysts for the Degradation of Chlorinated Organics”. (Indian Patent No.: 392817; Date of Grant: 24/03/2022)
- 4) **A. Garg**, M. S. James. “Sequential Electro-Persulphate and Ozonation Treatment Process for Spent Caustic Wastewater Treatment”. (Application no.: 202521079893; Date of filing: 22/08/2025)
- 5) S. Mukherji, H. Sati, **A. Garg**. “Development of Bioaugmented Activated Sludge for the Removal of Carbon and Nitrogen from Refinery Wastewater”. (Application No.: 202521083634; Date of filing: 03/09/2025)

(B) **Journal publications = 91; Submitted after revision = 1; Under review = 3**

Total citations = 3178; h-index = 31 and i-index = 62 (As per Google citations)

Published:

- 1) M. S. James, **A. Garg**. Performance of electro-persulfate treatment for high strength synthetic sulfidic wastewater stream: Effect of operating parameters & radical scavengers, reaction kinetics and mass balance. Journal of Environmental Chemical Engineering, 13(2025)115706 (pp. 9). <https://doi.org/10.1016/j.jece.2025.115706> (Available online)
- 2) B. Kanoo, **A. Garg**. Characterization of the hydrochar and process wastewater recovered after hydrothermal pre-treatment of diaper waste. Waste and Biomass Valorisation, 16(1)(2025)141-151. <https://doi.org/10.1007/s12649-024-02579-0>

- 3) D. Singh, **A. Garg**. Application of Sewage Sludge Derived Hydrochar as an Adsorbent for Removal of Methylene Blue. *Sustainable Chemistry for the Environment*, 8(2024)100158 (pp. 9). <https://doi.org/10.1016/j.scenv.2024.100158> (Available online)
- 4) S. Bhowmick, Y. Shastri, **A. Garg**. Hydrothermal pretreatment of press mud: Characterization and potential application of hydrochar and process water. *Waste Management* 183(2024)143-152.
- 5) M. S. James, **A. Garg**. Performance of electro-Fenton process for the treatment of synthetic sulphidic spent caustic waste stream generated from petroleum refineries. *Chemosphere*, 2024, 346, 140572, pp. 10. <https://doi.org/10.1016/j.chemosphere.2023.140572> (Available online)
- 6) B. Kanoo, **A. Garg**. Thermal Behaviour of the Oversize Fraction Produced After Decentralized Co-composting of Used Diapers and Household Wet Biodegradable Waste. *Biomass Conversion and Biorefinery*, 2024, pp. 10. <https://doi.org/10.1007/s13399-024-05578-2> (Available online)
- 7) D. K. Singh, **A. Garg**. Thermal Hydrolysis of Sewage Sludge: Improvement in Biogas Generation and Prediction of Global Warming Potential. *Waste Management & Research*, 2024, 42(1), 51-58.
- 8) B. Kanoo, **A. Garg**. Effect of diaper waste on composting of household wet biodegradable waste in decentralized system. *Environmental Science and Pollution Research*, 2023, 30(44), 98966–98976.
- 9) M. Malhotra, **A. Garg**. Hydrothermal Carbonization of Sewage Sludge: Optimization of Operating Conditions Using Design of Experiment Approach and Evaluation of Resource Recovery Potential. *Journal of Environment Chemical Engineering*, 2023, 11(2), 109507, pp. 9. <https://doi.org/10.1016/j.jece.2023.109507> (Available online)
- 10) N. Garg, **A. Garg**, S. Mukherji. Sequential treatment of simulated textile wastewater using zero-valent aluminum under alkaline conditions and biodegradation. *Journal of Cleaner Production*, 2022, 379(2), pp. 11. <https://doi.org/10.1016/j.jclepro.2022.134733> (Available online)
- 11) I. Khatri, **A. Garg**. Potash recovery from synthetic potassium rich wastewater and biomethanated distillery effluent using tartaric acid as a recyclable precipitant. *Journal of Environmental Technology & Innovation*, 2022, 28, pp. 9. <https://doi.org/10.1016/j.eti.2022.102841> (Available online)
- 12) N. Davison, J. E. Borbolla-Gaxiola D. Gupta, **A. Garg**, T. Cockerill, Y. Tang, Xueliang Yuan, A. B. Ross. Potential Greenhouse Gas Mitigation for Converting High Moisture Food Waste into Bio-Coal from Hydrothermal Carbonisation in India, Europe and China. *Energies* 2022, 15(4), pp. 37. <https://doi.org/10.3390/en15041372> (Available online)
- 13) P. Mondal, S. Mukherji, **A. Garg**. Performance of Treatment Schemes Comprising Chromium-Hydrogen Peroxide Based Advanced Oxidation Process for Textile Wastewater. *Environmental Science and Pollution Research* 29 (2022) 88089-88100.
- 14) S. Singh, **A. Garg**. Performance Evaluation of Black Liquor Derived Photocatalysts for the Oxidation of Synthetic and Simulated Pulp Bleaching Wastewaters. *Industrial & Engineering Chemistry Research* 61(10) (2022) 3516-3529.
- 15) I. Khatri, **A. Garg**. Use of Heterogeneous Activated Carbon Supported Copper Catalyst for Catalytic Wet Oxidation of Biomethanated Spent Wash: Reaction Kinetics, Catalyst Stability, Catalyst Deactivation Kinetics and Biochemical Methane Potential. *Journal of Water Processing Engineering*, 2021, 44, pp. 12. <https://doi.org/10.1016/j.jwpe.2021.102387> (Available online)

- 16) D. Gupta, S. M. Mahajani, **A. Garg**. Hydrothermal Carbonization of Household Wet Waste – Characterization of Hydrochar and Process Wastewater Stream. *Bioresource Technology*, 2021, 342, pp. 7. <https://doi.org/10.1016/j.biortech.2021.125972> (Available online)
- 17) A. Yadav, S. Singh, **A. Garg**. Optimisation Studies for Preparation of Sewage Sludge Derived Adsorbent and Ciprofloxacin Adsorption using the Synthesized Adsorbent. *Water Environment Research* 93(11) (2021) 2754-2768.
- 18) M. K. Manu, R. Kumar, **A. Garg**. Effect of Microbial Inoculum and Leachate Circulation on the Performance of Rotary Drum Composter Used for Household Wet Biodegradable Waste. *Waste & Biomass Valorization* 12 (2021) 6119-6137.
- 19) S. Singh, **A. Garg**. Conversion of Waste Materials into Heterogeneous Oxidation Catalysts for the Treatment of Chlorinated Organics. *Journal of Environmental Engineering, ASCE*, 2020, 147(2), pp. 7. [https://doi.org/10.1061/\(ASCE\)EE.1943-7870.0001837](https://doi.org/10.1061/(ASCE)EE.1943-7870.0001837) (Available online)
- 20) M. Malhotra, **A. Garg**. Characterization of value-added chemicals derived from the thermal hydrolysis and wet oxidation of sewage sludge. *Frontiers in Environmental Science and Engineering* 15(1) (2021) 1-14.
- 21) M. K. Manu, R. Kumar, **A. Garg**. Decentralized Composting of Garden Waste in Modified Plastic Drums – Waste and Product Characterization. *International Journal of Environment and Waste Management*, 28(2) (2021) 165-179.
- 22) I. Khatri, **A. Garg**. Color Removal and Biodegradability Enhancement of Biomethanated Spent Wash from Distillery Using Wet Oxidation Treatment. *Indian Journal of Chemical Technology* 27 (2020) 503-508.
- 23) D. Gupta, S. M. Mahajani, **A. Garg**. Investigation on Hydrochar and Macromolecules Recovery Opportunities from Food Waste after Hydrothermal Carbonization. *Science of The Total Environment*, 2020, 749, pp.11. <https://doi.org/10.1016/j.scitotenv.2020.142294> (Available online)
- 24) M. Malhotra, **A. Garg**. Hydrothermal Carbonization of Centrifuged Sewage Sludge: Determination of Resource Recovery from Process Wastewater and Thermal Behaviour of Hydrochar. *Waste Management*, 117 (2020) 114-123.
- 25) R. Mohite, **A. Garg**. Performance of Supported Copper Catalysts for Oxidative Degradation of Phenolics in Aqueous Medium: Optimization of Reaction Conditions, Kinetics, Catalyst Stability, Characterization, and Reusability. *Industrial & Engineering Chemistry Research* 59 (2020) 12986-12998.
- 26) M. Malhotra, **A. Garg**. Proteins Recovery from Hydrothermally treated Diluted and Centrifuged Sewage Sludge Samples. *Journal of Hazardous, Toxic and Radioactive Waste*, 2020, 24(4), pp. 8. [https://doi.org/10.1061/\(ASCE\)HZ.2153-5515.0000542](https://doi.org/10.1061/(ASCE)HZ.2153-5515.0000542) (Available online)
- 27) N. Garg, **A. Garg**, S. Mukherji. Eco-friendly decolorization and degradation of reactive yellow 145 textile dye by *Pseudomonas aeruginosa* and *Thiosphaera pantotropha*. *Journal of Environmental Management*, 2020, 263, pp.11. <https://doi.org/10.1016/j.jenvman.2020.110383> (Available online)
- 28) I. Khatri, **A. Garg**. Challenges in the treatment of biomethanated spent wash by electro-Fenton process. *Journal of Indian Chemical Society* 97 (2020), 521-525.
- 29) S. Singh, **A. Garg**. Characterisation and Utilization of Steel Industry Waste Sludge as Heterogeneous Catalyst for the Abatement of Chlorinated Organics by Advanced Oxidation Processes. *Chemosphere*, 2020, 242, pp. 9. <https://doi.org/10.1016/j.chemosphere.2019.125158> (Available online)

- 30) A. Gupta, **A. Garg**. Adsorption and Oxidation of Ciprofloxacin in a Fixed Bed Column Using Activated Sludge Derived Activated Carbon. Journal of Environmental Management 2019, 250, pp. 9. <https://doi.org/10.1016/j.jenvman.2019.109474> (Available online)
- 31) K. Lal, **A. Garg**. Effectiveness of Synthesized Aluminum and Iron based Inorganic Polymeric Coagulants for Pulping Wastewater Treatment. Journal of Environmental Chemical Engineering, 2019, 7(5), pp.11. <https://doi.org/10.1016/j.jece.2019.103204> (Available online)
- 32) M. K. Manu, R. Kumar, **A. Garg**. Decentralized composting of household wet biodegradable waste in plastic drums: Effect of waste turning, microbial inoculum and bulking agent on product quality. Journal of Cleaner Production 226 (2019) 233-241.
- 33) D. Gupta, S. M. Mahajani, **A. Garg**. Effect of hydrothermal carbonization as pretreatment on energy recovery from food and paper wastes. Bioresource Technology, 2019, 285, pp. 9. <https://doi.org/10.1016/j.biortech.2019.121329> (Available online)
- 34) M. Malhotra, **A. Garg**. Performance of non-catalytic thermal hydrolysis and wet oxidation for sewage sludge degradation under moderate operating conditions. Journal of Environmental Management 238 (2019) 72-83.
- 35) S. Singh, **A. Garg**. Performance of Photo-catalytic oxidation for degradation of chlorophenols: Optimization of reaction parameters and quantification of transformed oxidized products. Journal of Hazardous Materials 361 (2019) 73-84.
- 36) I. Khatri, S. Singh, **A. Garg**. Performance of electro-Fenton process for phenol removal using iron electrodes and activated carbon. Journal of Environmental Chemical Engineering 6(6) (2018) 7368-7376.
- 37) M. Malhotra, S. Suresh, **A. Garg**. Tea Waste Derived Activated Carbon for the Adsorption of Sodium Diclofenac from Wastewater: Adsorbent Characteristics, Adsorption Isotherms, Kinetics and Thermodynamics, Environmental Science and Pollution Research 25(32) (2018) 32210-32220.
- 38) D. Gupta, **A. Garg**. Effect of the preparation method on the catalytic activity of the heterogeneous catalyst CuO/CeO₂ for the oxidative degradation of sulfide and phenolic compounds. Reaction Kinetics, Mechanisms and Catalysis 124(1) (2018) 101-121.
- 39) A. Gupta, **A. Garg**. Degradation of ciprofloxacin using Fenton's oxidation: effect of operating parameters, identification of oxidized by-products and toxicity assessment. Chemosphere 193 (2018) 1181-1188.
- 40) B. R. Yadav, **A. Garg**. Hetero-catalytic Hydrothermal Oxidation of Simulated Pulping Effluent: Effect of Operating Parameters and Catalyst Deactivation. Chemosphere 191 (2018) 128-135.
- 41) S. Kamat, S. Bandyopadhyay, **A. Garg**, D.C.Y. Foo, G.C. Sahu. Heat integrated water regeneration networks with variable regeneration temperature. Chemical Engineering Transactions 70 (2018) 307-312.
- 42) K. Lal, **A. Garg**. Utilization of Dissolve Iron Present in Ferric Chloride Coagulated Pulping Effluent for Fenton/Fenton-like process. Process Safety and Environmental Protection 111 (2017) 766-774.
- 43) S. Singh, **A. Garg**. Catalytic Oxidative Degradation of 4-Chlorophenol: Effect of Operating Parameters and Prediction of Intermediates/ By-products. Environmental Progress & Sustainable Energy 36(6) (2017) 1734-1742.
- 44) N. Oke, S. Singh, **A. Garg**. A Comparative Treatment of Bleaching Wastewater by Physicochemical Processes. Water Science and Technology 76(9-10) (2017) 2367-2379.

- 45) M. K. Manu, R. Kumar, **A. Garg**. Performance assessment of improved composting system for food waste with varying aeration and use of microbial inoculum. *Bioresource Technology* 234 (2017) 167-177.
- 46) B. R. Yadav, **A. Garg**. Performance assessment of activated carbon supported catalyst during catalytic wet oxidation of simulated pulping effluents generated from wood and bagasse based pulp and paper mills. *RSC Advances* 7(16) (2017) 9754-9763.
- 47) K. Lal, **A. Garg**. Physico-chemical treatment of pulping effluent: Characterization of flocs and sludge generated after treatment. *Separation Science and Technology* 52 (9) (2017) 1583-1593.
- 48) R. G. Mohite, **A. Garg**. Performance of heterogeneous catalytic wet oxidation for the removal of phenolic compounds: Catalyst characterization and effect of pH, temperature, metal leaching and non-oxidative hydrothermal reaction. *Journal of Environmental Chemical Engineering* 5(1) (2017) 468-478.
- 49) J. V. Puthussery, R. Kumar, **A. Garg**. Evaluation of recycled concrete aggregates for their suitability in construction activities: An experimental study. *Waste Management* 60 (2017) 270-276.
- 50) N. Prakash, **A. Garg**. Comparative Performance Evaluation of Physicochemical Treatment Processes for Simulated Dairy Wastewater. *International Journal of Environmental Science and Technology* 13(11) (2016) 2675-2688.
- 51) M. K. Manu, R. Kumar, **A. Garg**. Drum Composting of Food Waste: A Kinetic Study. *Procedia Environmental Sciences* 35 (2016) 456-463.
- 52) B. R. Yadav, **A. Garg**. Catalytic hydrothermal treatment of pulping effluent using a mixture of Cu and Mn metals supported on activated carbon as catalyst. *Environmental Science and Pollution Research* 23(20) (2016) 20081-20086.
- 53) P. S. Phatak, S. Trivedi, **A. Garg**, S. K. Gupta, S. Mukherji. Start-up of sequencing batch reactor with *Thiosphaera pantotropha* for treatment of high-strength nitrogenous wastewater and sludge characterization. *Environmental Science and Pollution Research* 23(20) (2016) 20065-20080.
- 54) B. R. Yadav, **A. Garg**. Catalytic oxidation of pulping effluent by activated carbon supported heterogeneous catalysts. *Environmental Technology* 37(8) (2016) 1018-1025.
- 55) A. Gupta, **A. Garg**. Utilisation of sewage sludge derived adsorbents for the removal of recalcitrant compounds from wastewater: Mechanistic aspects, isotherms, kinetics and thermodynamics. *Bioresource Technology* 194 (2015) 214-224.
- 56) A. Gupta, **A. Garg**. Primary sewage sludge-derived activated carbon: Characterisation and application in wastewater treatment. *Clean Technologies and Environmental Policy* 17(6) (2015) 1619-1631.
- 57) D. K. Singhal, **A. Garg**. Environmental appraisal for refuse derived fuel (from MSW generated in Mumbai) utilisation as co-fuel in energy recovery processes: a preliminary assessment. *International Journal of Environment and Waste Management* 15(2) (2015) 186-200.
- 58) **A. Garg**. Municipal Solid Waste (MSW) management in metro-cities in India: Current scenario and future prospects. *Waste Management: A Glance at the World* 34(11) (2014) II-III.
- 59) K. Lal, **A. Garg**. Catalytic Wet Oxidation of Phenol under Mild Operating Conditions: Development of Reaction Pathway and Sludge Characterization. *Clean Technologies and Environmental Policy* 17(1) (2014) 199-210.
- 60) B. R. Yadav, **A. Garg**. Catalytic Wet Oxidation of Ferulic Acid (a Lignin Model Compound) in the

Presence of Non-noble Metal Based Catalysts at Mild Conditions. Chemical Engineering Journal 252 (2014) 185-193.

- 61) P. S. Dudala, S. Dhakhwa, **A. Garg**. Biodegradability enhancement of synthetic pulping liquor (generated from sugarcane bagasse digestion) by non-catalytic wet oxidation process, Journal of Environmental Chemical Engineering 2 (2014) 1182-1185.
- 62) **A. Garg**. Mechanical biological treatment for municipal solid waste (MSW). International Journal of Environmental Technology and Management 17(2/4) (2014) 215-236.
- 63) A. Gupta, **A. Garg**. Removal of ciprofloxacin by sewage sludge based activated carbon. International Journal of Applied Engineering Research 16 (2013) 1879-1884. (Presented in conference)
- 64) Manu, M. K., R. Kumar, **A. Garg**. Physical and chemical characterization of yard waste. International Journal of Applied Engineering Research 16 (2013) 1891-1896. (Presented in conference)
- 65) A. Yadav, S. Mukherji, **A. Garg**. Removal of COD and color from simulated textile wastewater using a combination of chemical/ physicochemical processes. Industrial and Engineering Chemistry Research 52 (2013) 10063-10071.
- 66) B. R. Yadav, **A. Garg**. Ferulic acid degradation by wet oxidation process. International Journal of ChemTech Research 5(2) (2013) 654-658.
- 67) O. Adekola, J. D. Stamp, T. Majozi, **A. Garg**, S. Bandyopadhyay. Unified approach for the optimization of energy and water in multipurpose batch plants using a flexible scheduling framework. Industrial and Engineering Chemistry Research 52 (2013) 8488-8506.
- 68) G. C. Sahu, **A. Garg**, T. Majozi, S. Bandyopadhyay. Optimum design of waste water treatment network. Industrial and Engineering Chemistry Research 52(14) (2013) 5161-5171.
- 69) B. R. Yadav, **A. Garg**. Efficacy of fresh and used supported copper based catalysts for ferulic acid degradation by wet air oxidation process. Industrial and Engineering Chemistry Research 51(48) (2012) 15778-15785.
- 70) **A. Garg**. Wet oxidation: A promising option for the treatment of pulp and paper mill wastewater. Journal of The Institution of Engineers (India): Series A 93(2) (2012) 137-141. (**Awarded Nawab Zain Yar Jung Bahadur Memorial Prize**)
- 71) **A. Garg**, A. Mishra. Degradation of organic pollutants by wet air oxidation using non-noble metal based catalysts. Journal of Hazardous, Toxic, and Radioactive Waste 17 (2013) 89-96.
- 72) S. Dhakhwa, S. Bandyopadhyay, T. Majozi, **A. Garg**. Efficacy of chemical oxidation and coagulation for COD and color reduction from pulp mill effluent. Journal of Environmental Engineering ASCE 138(12) (2012) 1194-1199.
- 73) B. R. Yadav, **A. Garg**. Treatment of pulp and paper mill effluent using physico-chemical processes. IPPTA 23(2) (2011) 155-160.
- 74) S. Dhakhwa, S. Bandyopadhyay, **A. Garg**. Removal of color and COD from synthetic paper mill effluent using coagulation/acid precipitation process. IPPTA 23(2) (2011) 187-191.
- 75) S. T. Wagland, P. Kilgallon, R. Coveney, **A. Garg**, R. Smith, P. J. Longhurst, S. J. T. Pollard, N. Simms. Comparison of coal/ solid recovered fuel (SRF) with coal/ refuse derived fuel (RDF) in a fluidized bed reactor. Waste Management 31(6) (2011) 1176-1183.

- 76) **A. Garg**, A. Mishra. Wet oxidation – An option for enhancing biodegradability of leachate derived from municipal solid waste (MSW) landfill. *Industrial and Engineering Chemistry Research* 49 (2010) 5575-5582.
- 77) **A. Garg**, I. M. Mishra, S. Chand. Effectiveness of coagulation and acid precipitation processes for the pre-treatment of diluted black liquor. *Journal of Hazardous Materials* 180 (2010) 158-164.
- 78) **A. Garg**, I. M. Mishra, S. Chand. Oxidative phenol degradation using non-noble metal based catalysts. *Clean – Soil Air Water* 38(1) (2010) 27-34.
- 79) **A. Garg**, I. E. Tothill. A review of solid waste composting process – the UK perspective. In: Martín-Gil J (Ed) *Compost II. Dynamic Soil, Dynamic Plant* 3 (Special Issue 1) (2009) 57-63.
- 80) **A. Garg**, R. Smith, D. Hill, P. J. Longhurst, S. J. T. Pollard, N. J. Simms. An integrated appraisal of energy recovery options in the United Kingdom using solid recovered fuel derived from municipal solid waste. *Waste Management* 29 (2009) 2289-2297.
- 81) V. McMahon, **A. Garg**, D. Aldred, G. Hobbs, R. Smith, I. E. Tothill. Evaluation of the potential of applying composting/ bioremediation techniques to waste materials generated within the construction industry. *Waste Management* 29(1) (2009) 186-196.
- 82) **A. Garg**, I. M. Mishra, S. Chand. Catalytic oxidative treatment of diluted black liquor at mild conditions using CuO/ CeO₂ catalyst. *Water Environment Research* 80(2) (2008) 136-141.
- 83) V. McMahon, **A. Garg**, D. Aldred, G. Hobbs, R. Smith, I. E. Tothill. Composting and bioremediation process evaluation of wood waste materials generated from the construction and demolition industry. *Chemosphere* 71(9) (2008) 1609-1628.
- 84) **A. Garg**, R. Smith, D. Hill, N. Simms, S. Pollard. Wastes as co-fuels – the policy framework for solid recovered fuel (SRF) in Europe, with UK implications. *Environmental Science & Technology* 41 (2007) 4868 – 4874.
- 85) **A. Garg**, I. M. Mishra, S. Chand. Catalytic wet oxidation of the pretreated synthetic pulp and paper mill effluent under moderate conditions. *Chemosphere* 66 (2007) 1799-1805.
- 86) G. Husaini, **A. Garg**, K. H. Kim, J. Marchant, S. J. T. Pollard, R. Smith. European household waste management schemes: their effectiveness and applicability in England. *Resources Conservation and Recycling* 51 (2007) 248-263.
- 87) **A. Garg**, I. M. Mishra, S. Chand. Thermo – chemical precipitation as a pretreatment step for the COD and colour removal from pulp and paper mill effluent. *Industrial and Engineering Chemistry Research* 44(7) (2005) 2016-2026.
- 88) **A. Garg**, VVVSS Narayana, P. Chaudhary, S. Chand. Treatment of pulp and paper mill effluent. *Journal of Scientific & Industrial Research India* 63 (2004) 667-671.
- 89) **A. Garg**, S. Saha, V. Rastogi, S. Chand. Catalytic wet air oxidation of pulp and paper mill effluent. *Indian Journal of Chemical Technology* 10 (2003) 305-310.
- 90) **A. Garg**, S. Chand. Vehicular pollution control-removal of carbon-monoxide through catalytic converters. *Indian Journal of Chemical Technology* 8 (2001) 219-222.
- 91) S. Chand, A. K. Sharma, **A. Garg**, I. M. Mishra. Supported perovskite as catalysts for CO oxidation. *Journal of Scientific & Industrial Research India* 59 (2000) 944-948.

Submitted after Revision

- 1) D. K. Singh, **A. Garg**. Microplastics Degradation through Thermal Hydrolysis in Sewage Sludge and Its impact on Anaerobic Process. ACS ES&T Water, 2025.

Under Review:

- 1) D. K. Singh, **A. Garg**. Hydrothermal Carbonization of Centrifuged Sewage Sludge: Assessment of Nutrient Recycling of Solid and Liquid Fractions for Agricultural Applications. Waste Management, 2025.
- 2) M. Bajpai, T. Nawaz, **A. Garg**. Ammonia-nitrogen removal from high-strength synthetic wastewater with struvite recovery. Journal of Environmental Engineering – ASCE, 2025.
- 3) S. Agrawal, S. Yadav, A. Singh, N. Kola, A. Baldelli, U. R. Prajapati, S. Balasubramanian, A. Shriwastav, M. K. Chandel, **A. Garg**, A. P. Singh, S. Sengupta, T. Nawaz. Environmental pollution and energy issues in food production: Exploring a sustainable approach. Journal of Environmental Engineering, 2025.

(C) Papers/ abstracts/ presentations in symposium/ conference – Accepted = 109; Submitted = 1

- 1) H. Tiwari, **A. Garg**. Valorisation of anaerobic digestate: Opportunities and constraints. In the 15th International Conference on “Sustainable Waste Management & Circular Economy (IconSWM-CE) and IPLA Global Forum 2025” to be held in Graphic Era (Deemed to be University), Dehradun, India during 29 October – 1 November 2025. (*Abstract accepted*)
- 2) S. Rani, D. K. Singh, **A. Garg**. Silicate Removal from Textile Wastewater Using Chemical Precipitation Process. In the X International Conference on “Sustainable Energy and Environmental Challenges (X SEEC)” to be held in IIT Jodhpur during 15-18 December 2025. (*Abstract submitted*)
- 3) M. S. Ghadage, **A. Garg**. Evaluation of Decentralized Composting Systems for Household Wet Waste and Impact on Greenhouse Gas Emissions from Waste Management by its Partial Adoption. In the 4th International Conference on Sustainable Chemical and Environmental Engineering to be held during 1-4 September 2025 in Thessaloniki, Greece. (*Abstract accepted for oral presentation*)
- 4) S. Bhowmick, Y. Shastri, **A. Garg**. Application of hydrochar derived through hydrothermal pretreatment from sugar mill press mud as economical adsorbents for methylene blue. In International Conference on Solid Wastes 2025 – Waste Management for Carbon Neutrality and Circular Economy (ICSWDG2025) held in Dongguan, China during 9-12 June 2025. (*Oral presentation*)
- 5) M. S. James, **A. Garg**. Treatment of Spent Caustic Stream from Petroleum Refineries by Sequential Electro-persulphate and Ozonation followed by Sulphate recovery from the Treated Wastewater. In 7th IWA International Conference on ‘Eco-Technologies for Wastewater Treatment’ to be held in Stockholm, Sweden during from 23-26 of June 2025. (*Abstract accepted for poster presentation*)
- 6) D. Singh, **A. Garg**. Life cycle assessment and economic analysis of sewage sludge management scenarios. In International Conference on Solid Wastes 2025 – Waste Management for Carbon Neutrality and Circular Economy (ICSWDG2025) to be held in Dongguan, China during 9-12 June 2025. (*Abstract accepted for oral presentation*)
- 7) K. Prasad, **A. Garg**, B. Kanoo. Performance of household level decentralized composting system for the stabilization of biodegradable fraction of municipal solid waste. In Sardinia 2025 - 20th International

Symposium on “Waste Management, Resource Recovery and Sustainable Landfilling” to be held during 13-17 October 2025 in Santa Margherita di Pula, Italy. *(Abstract accepted for oral presentation)*

- 8) H. Sati, P. Sinha, H Kaur, A. Vijay, **A. Garg**, S. Mukherji. Strategy to achieve Nitrification and Carbon Removal from Synthetic Refinery Wastewater in a Sequencing Batch Reactor. In 7th IWA International Conference on ‘Eco-Technologies for Wastewater Treatment’ to be held in Stockholm, Sweden during from 23-26 of June 2025. *(Abstract accepted)*
- 9) M. Bajpai, T. Nawaz, **A. Garg**. Ammonia-nitrogen removal from high strength synthetic wastewater with struvite recovery. In International Perspectives in Water and Environment (IPWE) Conference on “Building Sustainable and Resilient Water Infrastructure and Adapting to Climate Change” organized by EWRI, ASCE at Bhopal, India during 8-10 January 2025. *(Abstract accepted for oral presentation)*
- 10) M. S. James, **A. Garg**. Effect of Operating Parameters on the Treatment of Spent Caustic Streams from Petroleum Refineries by Sequential EPS and Ozonation. In the IX International Conference on "Sustainable Energy and Environmental Challenges" (IX SEEC) organized at the Indian Institute of Technology Mandi, Himachal Pradesh, India, under the auspices of the International Society for Energy, Environment and Sustainability (ISEES) during December 13-15, 2024. *(Best paper award and oral presentation)*
- 11) S. Bhowmick, Y. Shastri, **A. Garg**. Hydrothermal Pretreatment of Press mud and Biomethanated Spentwash: Characteristics and Application of Hydrochar and Process Water. In 3rd International Conference and Exhibition on “Sustainability: Challenges & Opportunities in Global Sugar Industry” organized by Vasantdada Sugar Institute, Pune during January 12-14, 2024. *(Poster presentation)*
- 12) Merin Susanna James, **A. Garg**. Treatment of Synthetic Spent Caustic Stream Using Electrochemical Persulphate Oxidation followed by Ozonation. In 1st International Conference on “Sustainable Advanced Technologies for Environmental Management (SATEM-2023)” Organized by Indian Institute of Engineering Science and Technology Shibpur during December 20-22, 2023. *(Oral presentation; Received best paper award)*
- 13) D. K. Singh, **A. Garg**. Fate of Heavy Metals During Hydrothermal Carbonisation of Centrifuge Sewage Sludge and Mitigation of Associated Ecological Risk. In 1st International Conference on “Sustainable Advanced Technologies for Environmental Management (SATEM-2023)” Organized by Indian Institute of Engineering Science and Technology Shibpur during December 20-22, 2023. *(Oral presentation)*
- 14) R. Gajera, T. Nawaz, A. Garg. Catalytic Photo-persulphate Oxidation of Sulphide. In 1st International Conference on “Sustainable Advanced Technologies for Environmental Management (SATEM-2023)” Organized by Indian Institute of Engineering Science and Technology Shibpur during December 20-22, 2023. *(Accepted for Oral presentation)*
- 15) R. Gajera, T. Nawaz, A. Garg. Treatment of Spent Caustic using advanced oxidation process. In VIII International Conference on "Sustainable Energy and Environmental Challenges (VIII SEEC)" organized by ISEES at MNIT Jaipur during December 4-6, 2023. *(Oral presentation; Received best paper award)*
- 16) D. K. Singh, **A. Garg**. Fate of Microplastics During Hydrothermal Pretreatment and Its Impact on Anaerobic Process. In VIII International Conference on "Sustainable Energy and Environmental Challenges (VIII SEEC)" organized by ISEES at MNIT Jaipur during December 4-6, 2023. *(Oral presentation)*

- 17) Merin Susanna James, **A. Garg**. Treatment of Spent Caustic Stream from Petroleum Refineries Using Sequential Advanced Oxidation Processes. In 16th annual International Conference on “Challenges in Environmental Science and Engineering (CESE 2023)” organized by LJS Environment in Perth, Australia during November 5-9, 2023. *(Oral presentation)*
- 18) B. Kanoo, M.D. Casa, G. H. Drew, **A. Garg**. Preliminary Risk Assessment of Decentralized Composting Systems for Source Separated Biodegradable Wet Waste from Households. In International Conference on “Solid Waste 2023: Waste Management in Circular Economy and Climate Resilience” organized by Hong Kong Baptist University, Hong Kong during 31 May – 3 June, 2023. *(Accepted for Oral presentation)*
- 19) D. K. Singh, **A. Garg**. Application of Sewage Sludge Derived Hydrochar as a Soil Conditioner. In International Conference on “Solid Waste 2023: Waste Management in Circular Economy and Climate Resilience” organized by Hong Kong Baptist University, Hong Kong during 31 May – 3 June, 2023. *(Accepted for Poster presentation)*
- 20) S. Bhowmick, Y. Shastri, **A. Garg**. Effect of Hydrothermal Pretreatment on Mixture of Press Mud and Biomethanated Spent Wash: Characteristics of Hydrochar and Process Water Fourth International Conference on “Bioresource Technology for Bioenergy, Bioproducts & Environmental Sustainability” to be organized by Elsevier during 14-17 May 2023 in Lake Garda, Italy. *(Accepted for Oral presentation)*
- 21) B. Kanoo, **A. Garg**. Characterization of the Hydrochar and Process Wastewater Recovered After Hydrothermal Pre-treatment of Diaper Waste. In Tenth International Conference on “Sustainable Solid Waste Management” to be organized by National Technical University of Athens, Greece during 21 - 24 June, 2023. *(Accepted for Oral presentation)*
- 22) D. K. Singh, **A. Garg**. Application of sewage sludge derived hydrochar as an adsorbent for removal of methylene blue dye from wastewater. In Tenth International Conference on “Sustainable Solid Waste Management” to be organized by National Technical University of Athens, Greece during 21 - 24 June, 2023. *(Accepted for Oral presentation)*
- 23) D. K. Singh, **A. Garg**. Nutrient recovery from municipal Sewage Sludge through hydrothermal pretreatment. In the two-day SPARC funded Indo-US workshop on "Circular solutions to sanitation – Making profits from toilets" held at Indian Institute of Technology Madras on March 29-30, 2023. *(Poster presentation)*
- 24) H. Sati, P. Sinha, S. Gupta, **A. Garg**, S. Mukherji. Performance Assessment of a Bioreactor in an Indian Refinery: COD and Nitrogen Removal Effectiveness. In the two-day SPARC funded Indo-US workshop on "Circular solutions to sanitation – Making profits from toilets" held at Indian Institute of Technology Madras on March 29-30, 2023. *(Poster presentation)*
- 25) D. K. Singh, **A. Garg**. Mitigation of ecological risk due to presence of heavy metals in sewage sludge through thermal hydrolysis. In Seventh International Conference on “Sustainable Energy and Environmental Challenges (VII SEEC)” organized by Indian Institute of Technology (BHU) Varanasi, India during 16-18 December 2022.
- 26) Himanshu Sati, Prashant Sinha, Suvidha Gupta, **Anurag Garg**, Suparna Mukherji, “Performance Assessment of a Bioreactor in an Indian Refinery: COD and Nitrogen Removal Effectiveness”, in Water for Life: An IIT Madras Conference organized by IIT Madras during 15-17 December 2022. *(Poster presentation)*

- 27) I. Khatri, **A. Garg**. Catalytic Wet Oxidation of Recalcitrant Organics and Real Biomethanated Spent Wash with Supported Non-Noble Metal Catalysts. In “Chemical Engineering: Enabling Transition Towards Sustainable Future” organized by Department of Chemical Engineering, IIT Roorkee during 8-10 September 2022. *(Oral presentation)*
- 28) Merin S. James, **A. Garg**. Performance of Electro-Fenton Process for the Treatment of Synthetic Sulphidic Spent Caustic Waste Stream Generated from Petroleum Refineries. In “Chemical Engineering: Enabling Transition Towards Sustainable Future” organized by Department of Chemical Engineering, IIT Roorkee during 8-10 September 2022. *(Oral presentation)*
- 29) B. Kanoo, **A. Garg**. Thermal Behaviour of Oversized Fraction Produced After Decentralized Composting of Used Diapers and Household Wet Biodegradable Waste. In “Chemical Engineering: Enabling Transition Towards Sustainable Future” organized by Department of Chemical Engineering, IIT Roorkee during 8-10 September 2022. *(Oral presentation)*
- 30) I. Khatri, **A. Garg**. Performance of the Heterogeneous Copper Catalysts During Wet Oxidation of Biomethanated Spent Wash. In *6th International Congress on Water, Waste and Energy Management (WWEM-22)* organized by University of Extremadura, Spain during 20-22 July 2022 at Università degli Studi Niccolò Cusano Via Don Carlo Gnocchi, 3, 00166 Rome RM, Italy. *(Oral presentation)*
- 31) Suvidha Gupta, Prashant Sinha, **Anurag Garg**, Suparna Mukherji, “Evaluation of Simultaneous Nitrification Denitrification Potential of *Thiosphaera pantotropha* MTCC 7169 for Nitrogen Removal from Refinery Wastewater” in the International Conference on Environmental Science and Engineering ICESE-2022 organized by IIT Bombay, Mumbai during 20-22 January 2022. *(Oral presentation)*
- 32) B. Kanoo, **A. Garg**. Effect of diaper waste on composting of household wet biodegradable waste in decentralized system. In 14th International Conference on “Challenges in Environmental Science and Engineering” (CESE-2021) held during 6-7 November, 2021 in online mode. *(Abstract accepted for oral presentation and the full paper is submitted for publication in Environmental Science and Pollution Research)*
- 33) I. Khatri, **A. Garg**. Potash Recovery from Synthetic Solution and Biomethanated Distillery Effluent Using Selective Extraction Method. In 14th International Conference on “Challenges in Environmental Science and Engineering” (CESE-2021) held during 6-7 November, 2021 in online mode. *(Abstract accepted for oral presentation and the full paper is submitted for publication in Environmental Technology & Innovation Journal)*
- 34) S. Bhowmick, Y. Shastri, **A. Garg**. Hydrothermal pretreatment of press mud and characterization of hydrochar and process wastewater. In 2nd International Conference on Chemical, Bio & Environmental Engineering (CHEMBIOEN-2021) organized by Dr. B. R. Ambedkar National Institute of Technology, Jalandhar during August 20-22, 2021 in online mode. *(Oral presentation)*
- 35) Merin S. James, **A. Garg**. Electrochemical Treatment of Sulphidic Spent Caustic Waste Stream Generated from Petroleum Refineries. In 2nd International Conference on Chemical, Bio & Environmental Engineering (CHEMBIOEN-2021) organized by Dr. B. R. Ambedkar National Institute of Technology, Jalandhar during August 20-22, 2021 in online mode. *(Oral presentation; Paper published as Book Chapter in the book to be edited by the Conference organizers)*
- 36) D. Gupta, S. M. Mahajani, **A. Garg**. Hydrothermal Carbonization of Household Wet Waste – Characterization of Hydrochar and Process Wastewater Stream. In 8th International Conference on “Sustainable Solid Waste Management” organized by National Technical University of Athens,

Thessaloniki, Greece during 23-26 June 2021 *in online mode*. (Oral presentation; The paper published in special issue in *Bioresource Technology Journal*)

- 37) Merin S. James, **A. Garg**. Oxidative Treatment of Sulphidic Spent Caustic Waste Stream. In International Conference on Reaction Engineering (ICRE-2021) organized by National Institute of Technology (NIT) Raipur during 7-8 May 2021 *in online mode*. (Oral presentation)
- 38) A. Jain, M. Malhotra, **A. Garg**. Pretreatment of Sewage Sludge by Wet Oxidation and Surfactant Addition. International Conference on Green Energy for Environmental Sustainability (ICGEES -2020) organized by National Institute of Technology Calicut during 5-6 August 2020 in *Online mode*.
- 39) S. Singh, **A. Garg**. Degradation of Chlorophenols: A Comparison of Fenton's and Photo-Fenton Oxidation. International Conference on Green Energy for Environmental Sustainability (ICGEES -2020) organized by National Institute of Technology Calicut during 5-6 August 2020 in *Online mode*. (Oral presentation)
- 40) D. Gupta, S. M. Mahajani, **A. Garg**. Energy Densification of Juice Waste Using Hydrothermal Carbonization. Recycle 2020 – 3rd International Conference on Waste Management organized by IIT Guwahati during 13-14 February 2020. (Oral presentation)
- 41) I. Khatri, **A. Garg**. Challenges in the Treatment of Spent Wash by Electro-Fenton Process. 2nd National Conference on “Sustainable Advanced Technologies for Environmental Management (SATEM 2019)” organized by Civil Engineering Department, IEST, Shibpur during December 18-20, 2019. (Paper was published in a journal which is listed above)
- 42) M. Malhotra, **A. Garg**. Hydrothermal Carbonization of Sewage Sludge: A Short Review. In 7th International Conference on Advances in Energy Research (ICAER 2019) organized by Department of Energy Science and Engineering (DESE), IIT Bombay during 10-12 December 2019. (Extended Abstract accepted for poster presentation)
- 43) S. Singh, **A. Garg**. Application of Waste Derived Catalyst for Chlorinated Wastewater Treatment. In Amsterdam International Water Week (AIWW) 2019 held during 4-5 November 2019. (Abstract accepted for oral presentation but no one could attend)
- 44) I. Khatri, **A. Garg**. Catalytic Wet Oxidation Treatment of Centrifuged Biomethanated Spent Wash Produced from Distillery. National Environmental Conference: IIT Bombay Diamond Jubilee Year Conference (NEC-2019) organized by Centre for Environmental Science and Engineering (CESE), IIT Bombay during 31 January – 2 February, 2019 in Mumbai, India. (Oral presentation)
- 45) S. Singh, **A. Garg**. Efficacy of Non-noble Bimetallic Catalysts for Wastewater Treatment. National Environmental Conference: IIT Bombay Diamond Jubilee Year Conference (NEC-2019) organized by Centre for Environmental Science and Engineering (CESE), IIT Bombay during 31 January – 2 February, 2019 in Mumbai, India. (Poster presentation)
- 46) R. Dhage, **A. Garg**, H.P. Reddy. E-Waste: Indian Scenario at a Glance. National Environmental Conference: IIT Bombay Diamond Jubilee Year Conference (NEC-2019) organized by Centre for Environmental Science and Engineering (CESE), IIT Bombay during 31 January – 2 February, 2019 in Mumbai, India. (Poster presentation)
- 47) D. Gupta, S. M. Mahajani, **A. Garg**. “Opportunities for Resource Recovery after Hydrothermal Pretreatment of Biodegradable Municipal Solid Waste: A Mini-Review”. *Proceedings of the 8th*

International Conference on Sustainable Waste Management, Guntur, Vijaywada. November 2018, pp. 336-342. (Best paper award and published as a book chapter)

- 48) S. Modi, S. M. Mahajani, V. Honkalaskar, A. **Garg**. Co-composting of Cattle Dung and Pigeon Pea Stalk in Large Scale Pit System using Passive Aeration”. *Proceedings of the 8th International Conference on Sustainable Waste Management*, Guntur, Vijaywada. November 2018. (Publication as a book chapter)
- 49) **A. Garg**. Wet Oxidation Process – An Effective Hydrothermal Process for degradation of Recalcitrant Organic Pollutants. XXIX Interamerican Congress of Chemical Engineering Incorporating the 68th Canadian Chemical Engineering Conference to be organized by Canadian Society of Chemical Engineering in Toronto, Canada during 28-31st October 2018. (Invited speaker; Abstract accepted but couldn't attend)
- 50) M. Malhotra, **A. Garg**. Effect of wet oxidation pretreatment on the characteristics of waste activated sludge. In IWA Conference on “Sludge Management in Circular Economy (SMICE 2018)” to be held on 23 – 25th May in Rome, Italy.
- 51) S. Singh, **A. Garg**. Degradation of Chlorophenols by Photo-Fenton Oxidation Process. IWWA Annual Convention on “Water.....The Elixir of Life” in Kala Academy, Panaji, Goa during 19-21 February 2018. (Paper was submitted for publication in proceedings)
- 52) M. Malhotra, **A. Garg**. Sewage sludge solubilization and its volume reduction by hydrothermal pretreatment. IWWA National Seminar on “Innovative Water and Sewerage Management Practices in Urban Environment” organized during 20-21 January, 2018 at IIT Mumbai. (Paper publish in IWWA Conference Proceedings; page no.: 111-115)
- 53) M. Malhotra, **A. Garg**. Hydrothermal Pretreatment of Waste Activated Sludge (WAS). Proceedings of National Conference on Sustainable Advanced Technologies for Environmental Management* (SATEM-2017) organized during 28th - 30th June, 2017 by IEST Shibpur, India.
- 54) L. Joshi, **A. Garg**. Characterisation of refuse derived fuel and its constituents to predict their energy recovery potential. To be presented in the 9th Asia-Pacific Landfill Symposium (APLAS) would be organized by The University of Hong Kong during 9 – 11 November 2016.
- 55) A. Gupta, **A. Garg**. Recycling of Sewage Sludge as Adsorbents in Wastewater Treatment. 5th Annual International Conference on Sustainable Energy and Environmental Sciences (SEES 2016) held during 22-23 February 2016 in Singapore. (Full Paper accepted)
- 56) M.K. Manu, R. Kumar, **A. Garg**. “Food waste drum composting: Effect of addition of inoculum.” *Proceedings of 10th International Conference on Circular Economy and Organic Waste*. May 25-28, 2016, Greece.
- 57) M. K. Manu, R. Kumar, and **A. Garg**. Composting of organic fraction of municipal solid waste. The 31th International Conference on ‘Solid Waste Technology and Management’ sponsored by Widener University and The Journal of Solid Waste Technology and Management held during April 3-6, 2016 in Philadelphia, PA, U.S.A. (Abstract accepted)
- 58) K. Lal and **A. Garg**. Combustion Characteristics and Kinetics of the Pulping Effluent Sludge using Thermogravimetric Analysis. International Conference on Environmental Science and Technology 2016 sponsored by the American Academy of Sciences held on June 6-10, 2016 in Houston, Texas, USA. (Abstract accepted for oral presentation)

- 59) A. Gupta and **A. Garg**. Conversion of Black Liquor into Activated Carbon for Ciprofloxacin Removal from Wastewater. International Conference on Environmental Science and Technology 2016 sponsored by the American Academy of Sciences held on June 6-10, 2016 in Houston, Texas, USA. (Abstract accepted for oral presentation)
- 60) J. Puthussery, R. Kumar, and **A. Garg**. Heavy metal leaching potential from demolition waste. 4th International Conference on “Sustainable Municipal Solid Waste Processing Technology for Developing Nations” organized by Surat Municipal Corporation and Waste to Energy Research and Technology Council-India during 18-19 February, 2016. (Poster presentation)
- 61) M. K. Manu, R. Kumar, and **A. Garg**. Development of continuous composting system for community level. 4th International Conference on “Sustainable Municipal Solid Waste Processing Technology for Developing Nations” organized by Surat Municipal Corporation and Waste to Energy Research and Technology Council-India during 18-19 February, 2016. (Poster presentation)
- 62) M. K. Manu, R. Kumar, and **A. Garg**. Effect of Addition of Inoculum on Drum Composting of Food Waste: A Kinetic Study. 5th International Conference on Solid Waste Management and Exhibition on Municipal & Industrial Services, Clean technology, Machineries (IconSWM 2015) held at National Science Seminar Complex, Indian Institute of Science, Bengaluru, India November 24 - 27, 2015.
- 63) J. Puthussery, R. Kumar and **A. Garg**. Characterization and recycling opportunities for demolition waste” in “Waste – Uninterrupted Resource and Encouraging Opportunities” held at Institute of Chemical Technology (ICT), Matunga, Mumbai on 26-27th November 2015. (Abstract published)
- 64) J. Puthussery, R. Kumar and **A. Garg**. Control of dust emissions from construction site. In the conference on ‘Dynamics of PM/Dust Emissions and its Mitigation from Construction Activities’ in Mumbai on March 3, 2015.
- 65) J. Puthussery, R. Kumar and **A. Garg**. Environmental and Health Issues Related to Construction and Demolition Waste Management. In 3rd International Green Health Conference 2015 Conference held in Mumbai during 20-22 February 2015. (Poster presentation)
- 66) Y. Kumar, Mukherji, S. and **Garg, A.** Degradation of aniline by Fenton and Fenton-like processes. Published in proceedings of an International Conference on “New Frontiers in Chemical, Energy and Environmental Engineering” held at NIT Warangal during March 20-21, 2015.
- 67) K. Lal and **A. Garg**. Sequential treatment for pulping effluent: Coagulation followed by Fenton-like oxidation. Published in proceedings of 47th Annual Convention organized by Indian Water Works Association (IWWA) held in Kolkata on February 1, 2015.
- 68) B. R. Yadav and **A. Garg**. Performance of Activated Carbon Supported Catalyst during Wet Oxidation of Pulping Effluent. 2014 Annual AIChE Meeting, November 16 – 21, 2014, Atlanta, GA, USA.
- 69) R. Mohite and **A. Garg**. Catalytic Wet Oxidation of Phenolic Compounds at Moderate Temperature and Pressure Conditions. 2014 Annual AIChE Meeting, November 16 – 21, 2014, Atlanta, GA, USA.
- 70) B. R. Yadav and **A. Garg**. Catalytic Wet Oxidation: A Potential Pre-Treatment Method For The Degradation of Recalcitrant Organic Pollutants Present in Pulp Mill Wastewater. Advanced Oxidation Processes (AOP) 2014, Society of Environmental Chemistry and Allied Sciences (SECAS) c/o School of Environmental Sciences, M.G University, Kottayam in association with School of Environmental Science (SES) Mahatma Gandhi University Kottayam, Kerala in Munnar, Kerala, September 25-28, 2014.

- 71) R. Mohite and **A. Garg**. Removal of phenolic compounds from wastewater by catalytic wet oxidation process. In 11th IWA (International Water Association) Leading Edge Conference on Water and Wastewater Technologies organized in Abu Dhabi, United Arab Emirates during 26 – 30 May 2014. (Abstract accepted for poster presentation)
- 72) K. Lal and **A. Garg**. Treatment of Pulp Mill Wastewater by Combined Coagulation-Fenton- like Oxidation Process. In “International Symposium on Halogenated Persistent Organic Pollutants (POPs)” organized by CSIR – National Environmental Engineering and Research Institute (NEERI) at NEERI, Nagpur during January 16-17, 2014. (Oral presentation)
- 73) A. Gupta and **A. Garg**. Removal of ciprofloxacin by sewage sludge based activated carbon. Presented in International Conference on “*Chemical, Environmental and Bioprocess Engineering*” (CEBE – 2013) organized by “Krishi Sanskriti” on 21st and 22nd December 2013 at Jawaharlal Nehru University, New Delhi. (paper published in International Journal)
- 74) Manu, M. K., R. Kumar and **A. Garg**. Physical and chemical characterization of yard waste. Presented in International Conference on “*Chemical, Environmental and Bioprocess Engineering*” (CEBE – 2013) organized by “Krishi Sanskriti” on 21st and 22nd December 2013 at Jawaharlal Nehru University, New Delhi. (paper published in International Journal)
- 75) D. Mandal, V. Dohare, V. H. Honkalaskar, **A. Garg**, U. V. Bhandarkar and V. Sethi. Evaluation of Micro Gasifier Cookstove Performance with Handmade Biomass Pellets using Region-Specific Fuels and Assessment of Deployment Potential. In National Conference on “Recent Advances in Bio-Energy Research” at Sardar Swaran Singh National Institute of Renewable Energy, Kapurthala, Punjab, India during 22-24 November 2013. (Oral presentation)
- 76) R. Mohite and **A. Garg**. Catalytic wet oxidation of *o*-cresol using copper impregnated activated carbon catalyst. International Conference on “Technologies for Sustainable Waste Management in Developing Countries” organized by Vignan University at Vadlamudi, Guntur, Andhra Pradesh, India during 21-23 August 2013. (Oral presentation; **Best paper award**)
- 77) R. Mohite and **A. Garg**. Catalytic wet air oxidation of *o*-cresol using copper impregnated activated carbon catalyst. International Conference on “Advances in Chemical Engineering (ICACE)” held on 5-6th April 2013, NIT Raipur, India. (Oral presentation)
- 78) K. Lal and **A. Garg**. Phenol degradation using homogeneous copper catalyzed wet oxidation at mild conditions. International Conference on “Advances in Chemical Engineering (ICACE)” held on 5-6th April 2013, NIT Raipur, India. (Oral presentation)
- 79) B. R. Yadav and **A. Garg**. Ferulic acid degradation by wet oxidation process. “International Conference on “Global scenario in environment and energy (ICGSEE 2013)” held on 14-16th March 2013, MANIT Bhopal, India. (Oral presentation)
- 80) D. Singhal and **A. Garg**. Prediction of environmental impacts from using municipal solid waste derived material as co-fuel in cement kiln. Proceedings of The “Twenty-Eighth International Conference on Solid Waste Technology and Management” held on 10-13th March 2013, Philadelphia, PA, USA. (Oral presentation)
- 81) A. Gupta and **A. Garg**. Utilization of sewage sludge derived adsorbent in wastewater treatment. International Conference on “Advances in Chemical Engineering (ACE 2013)” held on 22-24th February 2013, IIT Roorkee, India. (Poster presentation)

- 82) **A. Garg** and S. Singh. Formation of polymerized species during low temperature catalytic wet oxidation of synthetic phenolic wastewater. International Congress on “Chemical, Biological and Environmental Sciences (ICCBES 2013)” held on January 8-10, 2013, Taipei, Taiwan. (*Accepted for oral presentation*)
- 83) P. Phatak, S. K. Gupta, **A. Garg** and S. Mukherji. Impact of cycle time on nitrogen removal in SBR for simulated fertilizer industry wastewater. “Nutrient Removal and Recovery 2012: Trends in NRR” organized by IWA, UK during 23-25 September 2012 in Harbin, China. (*Poster presentation*)
- 84) O. Adekola, J. D. Stamp, T. Majozi, **A. Garg**, S. Bandyopadhyay. A unified approach for the optimization of energy and water in multipurpose batch plants. I. A. Karimi and Rajagopalan Srinivasan (Editors), Proceedings of the 11th International Symposium on Process Systems Engineering, 15-19 July 2012, Singapore. (*published as a book chapter*) (*Oral presentation*)
- 85) P. Phatak, S. K. Gupta, **A. Garg** and S. Mukherji. Impact of Media Composition on Abiotic Losses During Biological Nitrogen Removal from Nitrogen Rich Industrial Wastewater. 27th National Convention of Environmental Engineers on Green Technologies, Sponsored by the Institution of Engineers, held during January 24-25, 2012 in Mangalore, Karnataka, India. (*Oral presentation*)
- 86) B. R. Yadav and **A. Garg**. Removal of Lignin Model Compound (Ferulic Acid) by Catalytic Wet Oxidation Process. “Recent Advances in Chemical & Environmental Engineering” held during January 20-21, 2012 at National Institute of Rourkela, Odisha, India. (*Oral presentation*)
- 87) **A. Garg** and P. S. Dudala. Wet oxidation of pulping liquor: Effect on biodegradability and colour. 6th IWA Specialist Conference on “Oxidation Technologies on Water and Wastewater Treatment” to be held during 7 – 9 May 2012 at Goslar, Germany. (*Abstract accepted for poster presentation*)
- 88) D. P. Combest, B. Yadav, **A. Garg** and P. A. Ramachandran. Oxidative treatment of industrial wastewater: Development of novel catalysts and technology evaluation. 10th AIChE Annual meeting held on 7 – 12 November 2010 at Salt Lake City, UT, USA. (*Oral presentation*)
- 89) P. Phatak, S. Trivedi, **A. Garg**, S. K. Gupta and S. Mukherji. Nitrogen Removal from Wastewater – Simultaneous Nitrification Denitrification (SND) in Sequencing Batch Bioreactor. Annual National Conference “EnviroVision 2010” held on 26-27 November 2010 at IIT Bombay, Mumbai. (*Poster presentation*)
- 90) P. Phatak, S. Trivedi, **A. Garg**, S. K. Gupta and S. Mukherji. Acclimatization of *Thiosphaera pantotropha* and activated sludge for simultaneous nitrification and denitrification in sequencing batch reactor. National Conference on “Chemical and Biological Treatment Processes for Green Environment” will be jointly organized by Indian Institute of Chemical Engineers, Trivandrum Regional Centre and Kerala State Pollution Control Board on June 25-26, 2010 at Trivandrum, Kerala. (*Oral presentation*)
- 91) **A. Garg**. Energy recovery potential from municipal solid waste generated in India. India 2010, 3rd International Perspective on “Current & Future State of Water Resources & the Environment” sponsored by ASCE held during January 5-7, 2010 in IIT Madras, Chennai, India. (*Oral presentation and also Chaired a session*)
- 92) **A. Garg** and B. R. Yadav. Applications of wet air oxidation process in wastewater treatment. International Conference on “Advances in Energy Research” (ICAER) organized by Department of Energy Science and Engineering, IIT Bombay held during 9-11 December, 2009. (*Poster presentation*)

- 93) **A. Garg.** Characteristics and options for municipal solid waste derived combustible stream. International Conference on “Advances in Energy Research” (ICAER) organized by Department of Energy Science and Engineering, IIT Bombay held during 9-11 December, 2009. *(Poster presentation)*
- 94) **A. Garg, I. M. Mishra and S. Chand.** Study of thermal behaviour of pulp and paper mill sludge using thermo-gravimetric analysis. Sardinia 2009, Twelfth International Waste Management and Landfill Symposium, 5-9 October 2009, S. Margherita di Pula (Cagliari), Italy. *(Oral presentation)*
- 95) **A. Mishra, B. R. Yadav and A. Garg.** Treatment of leachate using wet oxidation process – an experimental study. Sardinia 2009, Twelfth International Waste Management and Landfill Symposium, 5-9 October 2009, S. Margherita di Pula (Cagliari), Italy. *(Oral presentation)*
- 96) **A. Garg.** Mechanical biological treatment of municipal solid waste – A potential option for enhancing the recycling of waste products. First International Conference on “Recycling and Reuse of Materials (Polymers, Wood, Leather, Glass, Metals, Ceramics, Semi Conductors etc) and their Products (ICRM – 2009)” organized by Institute of Macromolecular Science and Engineering, Kottayam, Kerala, India held on July 17-19, 2009. *(Accepted for oral presentation)*
- 97) **A. Mishra and A. Garg.** Catalytic oxidative treatment of synthetic phenolic wastewater. Conference on “Advances in Chemical Engineering (AChemE 2009)” organized by Department of Chemical Engineering, Thapar University, Patiala, Punjab, India held on February 27-28, 2009. *(Oral presentation)*
- 98) **A. Mishra and A. Garg.** Treatment of recalcitrant waste streams using wet air oxidation process. National Conference on “Environmental Management: Watch your carbon footprint” organized by K. J. Somaiya College of Science and Commerce, Vidyavihar, Mumbai, India held on 23-24 January, 2009. *(Poster presentation)*
- 99) **A. Garg and A. K. Dikshit.** Potential outlets for MSW derived products in India. 4th International Conference on “Environmental Science and Technology” sponsored by American Academy of Sciences, Houston, Texas, USA held on July 28-31, 2008. *(Accepted for Oral presentation)*
- 100) **A. Garg, I. M. Mishra and S. Chand.** Pretreatment of pulp mill effluent using different coagulants/chemicals. 4th International Conference on “Environmental Science and Technology” sponsored by American Academy of Sciences, Houston, Texas, USA held on July 28-31, 2008. *(Accepted for Oral presentation)*
- 101) **A. Garg, I. M. Mishra and S. Chand.** Treatment of synthetic pulp and paper mill effluent using thermo-chemical precipitation and wet oxidation processes. All India Seminar on "Advances in Effluent and Environmental Control Measures in Chemical and Allied Industries" during February 9-10, 2008 at New Delhi, India. *(Oral presentation)*
- 102) **A. Garg, R. Smith, P. J. Longhurst, S. J. T. Pollard, N. Simms and D. Hill.** Comparative evaluation of SRF and RDF co-combustion with coal in a fluidised bed combustor. 20th Anniversary Sardinia Symposium, Eleventh International Waste Management and Landfill Symposium, 1-5 October 2007, S. Margherita di Pula (Cagliari), Italy. *(Oral presentation)*
- 103) **A. Garg, D. Hill, R. Smith, S. J. T. Pollard and P. Longhurst.** Appraisal for options of solid recovered fuel (SRF) utilisation within the UK. Venice 2006, Biomass and Waste to Energy Symposium, November 29 – December 1, 2006, Cini Foundation, Venice, Italy. *(Oral presentation)*
- 104) **C. Velis, R. Smith, A. Garg, S. J. T. Pollard and D. Hill.** Mechanical biological treatment of wastes: Overcoming barriers and reducing risk in the UK. International Symposium MBT 2005, Mechanical –

biological treatment of municipal solid waste, 23-25 November, 2005, Hanover, Germany. (*Poster presentation*)

- 105) **A. Garg**, S. Chand and I. M. Mishra. Thermo – chemical precipitation of kraft pulping effluent. CHISA 2004, 16th International Congress of Chemical and Process Engineering, 22-26 August, 2004, Prague, Czech Republic. (*Accepted for oral presentation*)
- 106) S. Chand, **A. Garg** and I. M. Mishra. Wet air oxidation of paper mill effluent at atmospheric pressure using CuSO₄ as catalyst. Europa Cat-VI, August 31 – September 04, 2003, Innsbruck, Austria. (*Accepted for poster presentation*)
- 107) **A. Garg**, S. Chand and I. M. Mishra. Wet air oxidation of phenolic wastewater over promoted ceria catalyst. The 21th Taiwan Symposium on Catalysis and Reaction Engineering, 15-17 June, 2003 Taipei, Taiwan. (*Accepted for poster presentation*)
- 108) **A. Garg** and S. Chand. Catalytic wet oxidation of toxic and non-biodegradable phenolic wastewater. EuChem Conference on Environmental Catalysis, November 28 – December 1, 2002, Göteborg, Sweden. (*Accepted for poster presentation*)
- 109) S. Chand, **A. Garg** and I. M. Mishra. Treatment of phenolic waste water by catalytic wet air oxidation. 17th International Symposium on Chemical Reaction Engineering, Hong Kong Convention and Exhibition Centre, 25-28 August, 2002, Hong Kong, China. (*Accepted for oral presentation*)
- 110) **A. Garg**, S. Chand and I. M. Mishra. Catalytic wet air oxidation of phenolic waste water. National Symposium on New Horizons in Heterogeneous Catalysis, Feb. 22-24, 2002, Centre of Advanced Study, Department of Chemical Engineering & Technology, BHU, Varanasi, India. (*Oral presentation*)

(D) Book chapter: Published – 9

- 1) D. K. Singh, **A. Garg**. A Review on Hydrothermal Pretreatment of Sewage Sludge: Energy Recovery Options and Major Challenges. In “Advanced Organic Waste Management: Sustainable Practices and Approaches”, Editors: C. M. Hussain & S. Hait, Elsevier publication, 2022, pp. 297-314.
- 2) Merin S. James, **A. Garg**. Electrochemical Treatment of Sulphidic Spent Caustic Waste Stream Generated from Petroleum Refineries. In “Advances in Chemical, Bio and Environmental Engineering” Book Series “Environmental Science and Engineering” Scopus Indexed (Springer proceedings), Editors: Jatinder Kumar Ratan, Deepak Sahu, Nitin Naresh Pandhare, Anjireddy Bhavanam, 2022, pp. 1121-1130. (Work was presented in CHEMBIOEN-2021)
- 3) D. Gupta, S. M. Mahajani, **A. Garg**. Energy Densification of Juice Waste Using Hydrothermal Carbonization. In “Integrated Approaches Towards Solid Waste Management”, Editor: Ajay S. Kalamdhad, Springer publication, 2021, 165-176.
- 4) S. Singh, **A. Garg**. Advanced Oxidation Processes for Industrial Effluent Treatment. Published in an Edited book “Advanced Oxidation Processes for Effluent Treatment Plants” Editor: Maulin P. Shah, Elsevier publication, 2020, 255-272.
- 5) D. Gupta, S. M. Mahajani, **A. Garg**. Opportunities for Resource Recovery after Hydrothermal Pretreatment of Biodegradable Municipal Solid Waste: A Mini-Review. Published in the book ‘Waste Management as Economic Industry Towards Circular Economy’ Editor: Sadhan Kumar Ghosh, published by Springer, Nature, 2020, 149-158.

- 6) S. Modi, S. M. Mahajani, V. Honkalaskar, **A. Garg**. Co-composting of Cattle Dung and Pigeon Pea Stalk in Large Scale Pit System using Passive Aeration. Published in the book 'Bio-resource Utilization and Bioprocess' Editor: Sadhan Kumar Ghosh, published by Springer, Nature, 2020, 243-252.
 - 7) **A. Garg**, I. M. Mishra. Removal of persistent organic compounds by wet oxidation process. Published in "The Encyclopedia of Environmental Management", Publishers: Taylor and Francis: New York, 2013, 1904-1912.
 - 8) O. Adekola, J. D. Stamp, T. Majozi, **A. Garg**, S. Bandyopadhyay. A unified approach for the optimization of energy and water in multipurpose batch plants. Published in Computer Aided Chemical Engineering (Volume 31), Editors: I. A. Karimi and R. Srinivasan, 2012, 1382-1386. (presented in 11th International Symposium on Process Systems Engineering)
 - 9) **A. Garg**. Water pollution from pulp and paper mills. Published in Advances in Environmental Research (Volume 20), Editor: Justin A. Daniels, Nova Science Publishers, Inc., ISBN 978-1-61324-869-0, 2011, 245-252.
- (E) Article in trade magazine**
- 1) **A. Garg**, I. E. Tothill. Treating timber waste in a constructive way. Local Authority Waste & Recycling (LAWR), UK, April 2007, pp. 10.

Major Professional Activities

- Serving/served as an expert member on the Faculty Selection committees, committee for Board of studies and National Advisory Committee (NAC) in different Universities and Institutes.
- Serving/served as an expert member on the committees constituted by MoEFCC, Pollution Control Boards, Municipal Corporations, Confederation of Indian Industry, NEERI-CSIR, Bureau of Indian Standards (BIS), Defence Research & Development Organization (DRDO), Department of Biotechnology (DBT), Office of the Principal Scientific Adviser to the Government of India, New Delhi etc.
- Served as Honorary Visiting Professor in School of Water, Energy and Environment, Cranfield University, UK during September 2019 – September 2022.
- Have successfully completed various consultancy projects on solid waste management and wastewater treatment.
- Organized 9 workshops on various aspects of environmental engineering
- Have delivered more than 70 plenary or keynote or invited lectures in different forums.
- Serving as Editorial Board Member as Associate Editor, Journal of Frontiers in Sustainability, 2021 onwards.
- Served as Guest Co-Editor, Energies for special issue on "Sustainable Energy from Biomass and Waste" in 2021.
- Served/ serving as Member of International and National Advisory Boards for various conferences.

- Reviewed as well as acted as External examiner for several Ph.D., M.Tech. and M.Sc. Theses submitted in National and Foreign universities/ institutes.
- Have been a reviewer of Project Proposals submitted to National (DST, MoEFCC, BIRAC, BRNS and CII) and International agencies (NRF, South Africa and Knowledge Foundation/KK-stiftelsen, Sweden).
- Reviewed several manuscripts submitted for publication in National and International journals
- Have collaborative activities with several foreign universities
- Have been involved in various administrative activities at Institute as well as departmental level.

Major Awards

- Fellow, International Society for Energy Environment and Sustainability (ISEES), 2023.
- Best paper award in IX International Conference on "Sustainable Energy and Environmental Challenges (VIII SEEC)" organized by International Society for Energy Environment and Sustainability (ISEES) during December 13-15, 2024.
- Best paper award in 1st International Conference on "Sustainable Advanced Technologies for Environmental Management (SATEM-2023)" organized by Indian Institute of Engineering Science and Technology, Shibpur during December 20-22, 2023.
- Best paper award in VIII International Conference on "Sustainable Energy and Environmental Challenges (VIII SEEC)" organized by International Society for Energy Environment and Sustainability (ISEES) during December 4-6, 2023.
- IIT Bombay Research Publication Award – 2020 in year 2021.
- Prof. S.P. Sukhatme Award for Excellence in Teaching in year 2020.
- Best paper award in International Conference on "Sustainable Waste Management" organized by ANU, Guntur, Vijayawada, A. P., India during 22-24 November 2018.
- Nawab Zain Yar Jung Bahadur Memorial Prize for best paper award by Institution of Engineers (India) in year 2013.
- Best paper award in International Conference on "Technologies for Sustainable Waste Management in Developing Countries" organized by Vignan University, Guntur during 21-23 August 2013.
- Nominated as visiting scientist by INSA, New Delhi-RSE, Scotland, UK for Bilateral Exchange Programme for Scientists in year 2012.
- Received Senior Research Fellowship from CSIR, New Delhi and University of Roorkee for pursuing Ph.D. from 2000-2004.
- Received University medal for standing first in M.E. programme in University of Roorkee in year 1999.

- Received GATE fellowship for pursuing M.E. in University of Roorkee in year 1997.

Membership of Professional Bodies

- 1) Member, International Society for Energy Environment and Sustainability (Life member)
- 2) National Solid Waste Association of India (NSWAI), INDIA (Life Member)
- 3) Indian Water Works Association (IWWA), INDIA (Life Member)
- 4) International Water Association (IWA), UK (Annual membership till December 2026)
- 5) American Society of Civil Engineers (ASCE) (2020)
- 6) The Chartered Institution of Wastes Management (CIWM), UK – Annual Graduate Membership (2007 – 2010)
- 7) Air & Waste Management Association (A&WMA), USA (2008 – 2009)

(Anurag Garg)