Curriculum Vitae

Name Designation	:	Prof. Mrs. Seema Unnikrishnan Professor and Programme chair Of the MBA Programme in Sustainability Management
Date of Birth and Age		May 3 rd 1967.
Address:		Type V, N0.11, IIM Mumbai [Indian Institute of Management] Vihar Lake, Mumbai - 400 087 E-mail: <u>seemaunnikrishnan@iimmumbai.ac.in</u> , <u>seemaunnikrishnan@gmail.com</u>

Mobile no. 9029018953

Academic Qualifications :

- Graduation [BSc.], Meenakshi College, University of Madras –1987. Passed with First class
- Masters in Environmental Toxicology from PG Institute of Basic Medical Sciences, University of Madras, 1989 – University First rank Holder
- Post graduate Diploma in Environmental law from Madurai kamaraj University – 1993
- Doctorate Fellowship of NITIE, "A comparative study of Hazardous waste legislation and Management" in Feb.1997.

Areas of expertise

- Climate change and carbon Management
- Air quality Management and CDM
- Process Safety Management
- Environmental Toxicology
- Energy Efficiency and Carbon Management
- Climate Change and CDM
- Environmentally Conscious Manufacturing and LCA
- Safety and Environmental legislation
- Solid and Hazardous Waste management
- Disaster Management

- Environmental Management System and ISO Standards
- Sustainable Development
- Life cycle assessment

Experience:

Total Number of years of Experience is 33 years -30 years as a faculty and Professor in NITIE and IIM Mumbai and 3 years as a scientist in the Central Pollution Control Board. Was the Dean Academics at NITIE from sep.2013 to Sep.2015 and she was the Dean Administration in 2017. She has also been on advisory committees of the Government of India and National Safety Council.

1. Central Pollution Control Board, Sectional Office, Pondicherry [Nov.1989 – March 1992]

Nature of Job; Worked as an Apprentice Scientist. Job involved Monitoring of air, water, soil, air and noise. Checking for Pollution compliance, water consent, air consent, Water cess etc.. Worked on Research Projects like" Vehicular pollution monitoring project" sponsored by the Ministry of Environment and Forests and the Biological Monitoring of Off shore Marine Outfalls: evaluation of coastal pollution at Pondicherry

2. Pondicherry State pollution control Board, [May 1992 – Nov.1992] Nature of Job: worked as a trainee scientist. Job involved monitoring of water, air and noise pollution,. Processing of NOC and consent for industries and evaluating environmental impact analysis report.

3. National Institute of Industrial Engineering [NITIE] – [Jan 1994 till date] Joined as lecturer in Jan.1994, promoted as an Assistant professor in Nov.1997 and promoted as an Associate Professor in April 2006 and as full Professor in 2013

Nature of Job at NITIE : Teaching, Training, Consultancy and Research

Research and MODROB Projects handled at NITIE :

Modernization and Up gradation of the Environmental Engineering Lab", sponsored by MHRD which was completed in the year 2000. Co coordinator of the project.

- "Expansion and Modernization of the Environmental Engineering lab" Extension project sanctioned in year 2002 under the MODROB scheme of MHRD and completed in Year 2003 - Chief Coordinator of this Project
- Safety bench marking project sponsored by AICTE one of the Investigators in this Project
- " Cost Benefit Analysis of Cleaner Production Technologies in Indian Industries ", Sponsored by the World Bank, through IGDIR completed in 2001. Co investigator of the project
- "The impact of ISO 14001 implementation in Indian Industries "Sponsored by AICTE through IIP cell completed in 2000. Chief Coordinator of the project
- Environmental Strategies for Taloja Region completed in Dec. 2003 under the industry institute partnership cell of NITIE and sponsored by AICTE. Principal Investigator of this Project

Research projects under the Centre of Environmental Studies:

- Conservation of mangroves and their role in carbon sequestration and in preventing disasters, Sampling and analysis of leaves, soil and water at Bandra, Colaba, Sewri, Vikhroli, Nhava etc. Temporal analysis of mangroves for Mumbai
- Life Cycle Assessment Studies Doing LCA studies in the power sector and oil and gas Sector [2021]
- Climate change and its impact on India- Solid waste management and Clean development mechanism [CDM],CDM implementation in various sectors. Study of Role of India's Forests in Climate change Mitigation through CDM and REDD
- Innovations in sustainable business development Questionnaire on innovation with environmental, social, economic and safety parameters designed. It was administered to 127 senior location heads from the Oil and Gas sector.
- Environmental Law _ Comparative assessment of environmental policies in India and other countries. Comparative assessment of implementation mechanism/instruments in India and other countries.
- Water Footprinting : The Water footprint of selected industries was carried out with funding from the Bombay Chamber of Commerce and Industry

<u>Training</u>

Have conducted more than 200 MDP and UBP programmes as the course leader in the following areas.

- Air pollution Control
- Environmental Legislation
- Industrial Waste Minimization and Recycling
- Environmental Management
- Safety Legislation
- o ISO 14000 and Environmental Management
- Safety Health and Environmental Management Systems
- Industrial Disaster Management
- Risk Analysis, HAZOP and disaster Management [more than 150 programmes especially designed for the oil and Gas Industry, IOC, BPCL and HPCL]
- Sustainability Management in chemical Sector for Accenture in 2020
- Several ESG certification Programmes in 2022 -23 for All cargo logistics six Programmes, Tata Steel, Accenture etc.

Publications:

Publications In the last Five years

 Purva Mhatre, Vidyadhar V. Gedam, Seema Unnikrishnan, Rakesh Raut (2023). Circular Economy Adoption Barriers in Construction Industry- A case of Emerging Economy. Journal of Cleaner production (IF-11.1, ABDC-A Category, Scopus and SCIE indexed, Publisher-Elsevier).

https://doi.org/10.1016/j.jclepro.2023.136201

- Purva Mhatre, Vidyadhar V. Gedam, Seema Unnikrishnan (2023). Management Insights for an Efficient Circular Built-Environment: Determining Factors and Framework Development. Waste Management & Research: The Journal for a Sustainable Circular Economy (IF-4.2, SCIE, Scopus index, Publisher-Sage). Link: https://doi.org/10.1177/0734242X231187
- Purva Mhatre, Vidyadhar V. Gedam, Seema Unnikrishnan (2023). Assessing the Social impacts of transitioning to circular economy across multiple Stakeholders – A case of Indian transportation infrastructure. International Journal of Life Cycle Assessment. (IF-

5.4, SCIE, Scopus index, Publisher-Springer). DOI: https://doi.org/10.1007/s11367-023-02215-4

- Purva Mhatre; Vidyadhar Gedam; Seema Unnikrishnan (2021). Material Circularity Potential for Construction Materials-the case of Transportation Infrastructure in India. Resources Policy; 74; 102446. https://doi.org/10.1016/j.resourpol.2021.102446.(SSCI, IF-5.63, ABDC-B Category, Publisher-Elsevier).
- Purva Mhatre, Vidyadhar V Gedam, Seema Unnikrishnan, Sanjeev Verma (2020). Circular Economy in Built Environment-Literature Review and Theory Development. International Journal of Building Engineering (SCIE, IF-3.37, Scopus indexed, Publisher-Elsevier). Link: <u>https://doi.org/10.1016/j.jobe.2020.101995</u>.
- Shrivastava, S., & Unnikrishnan, S. (2021). Life Cycle Sustainability Assessment of crude oil in India. *Journal Of Cleaner Production*, Vol.no. 283 124654.
- Shrivastava S, Unnikrishnan S., (2019) Review of Life Cycle Assessment and Environmental Impacts from The Oil & Gas Sector. Oil Gas Res 5: 164. Doi:10.4172/2472-0518.1000164
- Shrivastava S, Unnikrishnan S., (2020) Life cycle assessment of oil storage unit in India. Int. J. Oil, Gas and Coal Technology, Vol. 27, N 1, Year 2020. DOI: 10.4172/2472-0518.1000164
- T V Sivanandhini, Seema Unnikrishnan, Vidyadhar V. Gedam.
 [2021] Planning and optimization framework for lubricant supply chain with a focus on spent oil-A circular economy approach. International journal of sustainable engineering. (IF-1.3, ESCI, Scopus indexed, Publisher- Taylor and Francis). Link: http://dx.doi.org/10.1080/19397038.2021.1886373.

- Purva Mhatre, Vidyadhar V Gedam, Seema Unnikrishnan, Sanjeev Verma.[2021] Circular Economy in Built Environment-Literature Review and Theory Development. International Journal of Building Engineering (SCIE, IF-3.37, Scopus indexed, Publisher-Elsevier). Link: https://doi.org/10.1016/j.jobe.2020.101995
- Anju Singh,Seema Unnikrishnan,Mayuri Naik,Sayee Sayanekar,20
 19 "CDM implementation towards reduction of fugitive greenhouse gas emissions <u>Environment</u>, <u>Development and Sustainability</u>
 April 2019, Volume 21, <u>Issue 2</u>, pp 569–586. DOI :10.1007/s10668-017-0058-y
- Potdar A., Unnikrishnan S. and Singh A., 2019. A Framework for Climate Change Management in Organizations: A case for India. World Review of Entrepreneurship, Management and Sustainable Development. 15(3):303, DOI: 10.1504/WREMSD.2019.10020434
- Shah, Binita Unnikrishnan, S. (2018). Sustainability assessment of gas based power generation using a life cycle assessment approach: A case study from India. Management of Environmental Quality: An International Journal, Emerald Publication. DOI <u>https://doi.org/10.1108/MEQ-02-2018-0034</u>.
- Santanu Satapathy, Shirish Sangle D Seema Unnikrishnan eterminants of technology-based product adoption by consumers World Review of Science, Technology and Sustainable Development, Volume 14, Issue https://doi.org/10.1504/WRSTSD.2018.092828.Published online 3 July 2018.
- Jinu Kurien, Seema UnnikrishnanA study on green supply chain management practices in the Indian petroleum industries. International Journal of Services and Operations Management. <u>Volume 31, Issue 2</u>, September 2018.
- Sharang Karurkar, Seema Unnikrishnan, Swapna Sonali panda, Study of Environmental Sustainability and Green Manufacturing

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Practices in the Indian Automobile Industry, <u>OIDA International</u> Journal of Sustainable Development, Vol. 11, No. 06, pp. 49-62, 2018.

Earlier Journal Publications:

- Thomas Mathew, Seema Unnikrishnan, "A Comparative Study of Hazardous Waste Legislation and Management". Journal-Ecology, Vol.11, no.9 -. Pp-13-21 February 1997
- Thomas Mathew Seema Unnikrishnan Strategic Management of Hazardous Wastes in India ". Journal -Productivity ", Special Issue -Green Productivity, vol.37 no.4.pp-603-610 January - March 1997
- Thomas Mathew Seema Unnikrishnan "Legislative Framework for hazardous waste management in India". - International Journal -" Technology and Environment" G.I.T. Verlag, UTA International, Germany. Vol.6 pp-73-77. Jan 1998
- Seema Unnikrishnan,"Environmental Performance Evaluation ", Journal Udyog Pragati, Apr. 1999.
- Thomas Mathew, Seema Unnikrishnan "Role of ISO 14000 in Cleaner Production "Journal of " Plant Engineering.pp - Vol. 1, no.1 pp.5-9 April 2001
- D S Hegde, Seema Unnikrishnan "Positive impact of Cleaner Production Technologies. Journal- "Technology Trends Vol.3, no.3, pp.54-60. Mar.2002.
- D S Hegde, Seema Unnikrishnan " Driving Forces and barriers in cleaner production Two Case Studies' International Journal of Environment and Development, Serial Publications Vol.1, no.1, June 2004
- Seema Unnikrishnan, Neelima Naik, Gouri Deshmukh" Eco-Industrial Estate Management - A case study" Journal of Resources, Energy and Development, TERI Publication September 2004, vol. 1 pp 75-90
- Seema Unnikrishnan, D S Hegde, "An analysis of cleaner production and its impact on health hazards in the work place", Journal – Environment International, Elsevier Science Publication, 2005. Jan 2006, vol-32, issue-1, pp.87-94. Available online on science direct from July 2005
- SeemaUnnikrishnan, D.S. Hegde, "Environmental training and cleaner production in Indian Industry., International journal "Resources, Conservation and recycling", June 2007, Vol.50, issue

4,pp.427-441. Elsevier Science Publication Available online on science direct

- Seema Unnikrishnan, Sanjeev Varma, "Indian Aviation Industry-Consumer Concerns or Environmental Disconcerns" National Journal – Economic Challenges, No.10, Issue 37, Oct – Dec. 2007.PP.6-8.
- Seema Unnikrishnan, Anju Singh, "Energy Recovery in Solid waste management through CDM in India and other Countries International journal, "Resources, Conservation and recycling".Vol. 54 (2010) 630–640 Elsevier Science Publication .Available online on science Direct.
- Abba Elizabeth Joseph, Seema Unnikrishnan, Rakesh Kumar, Balkrishna Yeole & Zohir Chowdhury "Fine Aerosol and PAH Carcinogenicity Estimation in Outdoor Environment of Mumba". International Journal of Environmental Health Research. DOI:10.1080/09603123.2011.613112. Taylor and Francis publication. Vol.22,no.2,pp.136-149.2012.
- Abba Elizabeth Joseph, Seema Unnikrishnan Rakesh Kumar Chemical Characterization and Mass Closure of Fine Aerosol for Different Land Use Patterns in Mumbai City. Journal of Aerosol and Air quality Research..Available online from Nov.2011. doi.10.4209/aaqr2011.04.0049.Vol.12,pp61-72.2012
- Anju Singh and Seema Unnikrishnan, Waste Handling and Disposal through CDM" Published in International Journal of Advances in Management, Technology & Engineering Sciences. Vol.1, issue 2. pp.19-22.
- Anju Singh, Seema Unnikrishnan, Neelima Naik and Kavita Duvvuri [2012] "Role of India's Forests in Climate Change Mitigation through CDM and REDD+.Journal of environmental planning and management - Routledge Taylor and Francis group.pp.1-27 .doi/abs/10.1080/09640568.2011.651110.
- Seema Unnikrishnan, Anju Singh Manoj Kharat, "Role of Mangroves in Disaster Mitigation: A Review".international Journal of Environment and Sustainable development. June 2012. Inderscience Publication. Vol. 11, No.2 pp. 164 – 179, 2012.
- Seema Unnikrishnan, Anju Singh, Neelima Naik and Bhagyashree Sawant, "Study of environmental management practices in Indian oil and gas sector" Journal of Environmental Research and Development Vol.7, 1A, Sep.2012.
- Vikrant Vijay Patil, Anju Singh, Neelima Naik, Seema Unnikrishnan and Bhagyashree Sawant. "Carbon sequestration in Mangrove

Ecosystems: A Review". Journal of Environmental Research and Development .Vol. 7 No. 1A, pp. 576-583, July-September 2012.

- Aditee Potdar, Seema Unnikrishnan, Anju Singh and Neelima Naik."A Comparative Assessment of environmental legislation and climate change policy of BASIC countries." International Journal Sustainable Innovation.Vol. 2 No. 1, pp. 57-67, 2012.
- Mayuri Naik, Sareeka Tambe, Anju Singh, Seema Unnikrishnan, Neelima Naik and Aditee Potdar. Role of Clean Development Mechanism in energy demand projects. International Journal for Sustainable Innovation. . Vol 2 No. 1, pp. 35-44, 2012.
- Aditee Potdar, Seema Unnikrishnan, Anju Singh and Neelima Naik, A Comparative Assessment of Environmental laws and policies of India and China" Journal of Environmental Research and Development. Vol. 7 No. 1, pp. 204-214, July-September 2012.
- Mayuri R. Naik, Anju Singh, Seema Unnikrishnan and Neelima Naik, Role of CDM in Energy Industries, Journal of Energy and Environment..Paper accepted for publication on Feb.11th 2013 .Multiscience Publications .UK.
- Vikrant Patil, Anju Singh, Neelima Naik and Seema Unnikrishnan, 2014, Estimation of carbon stocks in <u>Avicenna marina</u> stand using allomerty, CHN analysis and GIS methods, Wetlands, 34, 379-391.
- Mayuri R. Naik, Anju Singh, Seema Unnikrishnan and Neelima Naik, 2014, The Role of the Clean Development Mechanism (CDM) in the Development of National Energy Industries, Energy and Environment, 25(2), 325-342.
- Seema Unnikrishnan, Neelima S. Naik, Anju Singh, Bhagyashree Sawant and Aditee Potdar, 2014, Study of Safety and Environmental Management Practices in the Indian Petrochemical Industry. Current Advances in Environmental Science, 2 (2), 59-72.
- Vikrant Patil, Anju Singh, Neelima Naik and Seema Unnikrishnan, 2014, Estimation of carbon stocks in <u>Avicenna marina</u> stand using allomerty, CHN analysis and GIS methods, Wetlands, Springer, 34, 379-391.
- Mayuri R. Naik, Anju Singh, Seema Unnikrishnan and Neelima Naik, 2014, The Role of the Clean Development Mechanism (CDM)

in the Development of National Energy Industries, Energy and Environment, 25(2), 325-342.

- Mayuri Naik, Bhagyashree Sawant, Anju Singh, Seema Unnikrishnan, Neelima Naik and Indrayani Nimkar, 2014, Role of Clean Development Mechanism and cleaner technologies in achieving energy efficiency in chemical and manufacturing sectors in India. Journal of Environmental Research and Development 9 (2), 481-493.
- Seema Unnikrishnan, Anju Singh, Bhagyashree Sawant and Neelima Naik, 2014, Environmental Education and Practices in Schools, Journal of Environmental Research and Development 9 (1), 271-283.
- Balaji G., Aditee Potdar and Seema Unnikrishnan, 2014, Environmental Legislation for Chemical Management in India: An Agenda for Reforms. Journal of Environmental Research and Development 9 (2), 494-506.
- Seema Unnikrishnan, Rauf Iqbal, Anju Singh, and Indrayani Nimkar, 2014, Safety Management Practices in SMEs in India. Safety and Health at Work 6, 46-55. Online available from December 2014, at <u>http://www.e-shaw.net/article/S2093-7911(14)00081-X/pdf</u>
- Indrayani Nimkar, Anju Singh, Seema Unnikrishnan and Neelima Naik, 2015, Potential of GHG Emission Reduction from Agriculture Sector; International Journal of Global Warming 2015, 8 (1), 31-45.
- Aditee Potdar, Anju Singh, Seema Unnikrishnan, Neelima Naik, Mayuri Naik and Indrayani Nimkar, Innovation in Solid Waste Management Through Clean Development Mechanism in India and other countries: Process Safety and Environmental Protection, Available online 26 July 2015 In Press, Accepted Manuscript.
- Vikrant Patil, Anju Singh, Neelima Naik, Seema Unnikrishnan and Prasad Khale: Change detection analysis of mangrove for effective implementation of coastal zone management plans: Journal of Environmental Research and Development, Vol. 9 No. 04, April-June 2015.
- Vikrant Patil, Anju Singh, Neelima Naik, and Seema Unnikrishnan: Estimation of Mangrove Carbon Stocks by Applying Remote Sensing and GIS Techniques; Wetlands, Springer, August 2015, Volume 35, Issue 4, pp. 695-707.

- Binita Shah, Seema Unnikrishnan "Environmental impacts of electricity generation case study from India using Life Cycle Assessment approach" Journal of Environmental Research and Development Vol.10 No. 02, December 2015
- Aditee Potdar, Richa Gautam, Anju Singh, Seema Unnikrishnan, Neelima Naik, Business reporting on biodiversity and enhancement of conservation initiatives, International Journal of Biodiversity Science, Ecosystem Services & Management, Taylor and Francis publication, DOI:10.1080/21513732.2016.1145144, 2016
- Aditee Potdar, Seema Unnikrishnan, Anju Singh, Study of Energy Regulations in India, International Journal of Environmental Science and Development. Vol.7, No. 11, pp 835-842, **Nov.** 2016
- Neelima Naik, Seema Unnikrishnan, Anju Singh and Indrayani Nimkar: Role of Emission Trading and Clean Development Mechanism in Achieving Cleaner Production; International Journal of Environmental Science and Development. Vol.7, No. 11, pp 843-848, Nov. 2016.
- Y Chakravarthy, A Potdar, A Singh and Seema Unnikrishnan and Neelima Naik, <u>Role of ecolabeling in reducing ecotoxicology</u>, Journal of Ecotoxicology and Environmental Safety Elsevier publication. Volume 134, Part 2, December 2016, Pages 383– 389). Available online from October 2015 doi:10.1016/j.ecoenv.2015.09.017.
- <u>Santanu Kumar Satapathy</u>, <u>Shirish Sangle</u>, <u>Seema Unnikrishnan</u>, (2017) "Role of government towards adoption of cleaner technologies for climate proactivity: A survey-based empirical study of Indian firms", *World Journal of Science, Technology and Sustainable Development*, Vol. 14 Issue: 1, pp.29-49.
- Santanu Sathpathy, Shirish Sangle & Seema Unnikrishnan, Adoption of Technology-Based Products by Consumers: A Review Environmental Management and Sustainable Development, 2016, 5(2): 1-17.
- Santanu Kumar Satapathy, Shirish Sangle, Seema Unnikrishnan, (2017), Role of government towards adoption of cleaner technologies for climate proactivity: A survey-based empirical study of Indian firms, World Journal of Science, Technology and Sustainable Development, 14 (1), 29-49.
 - Anju Singh,Seema Unnikrishnan,Mayuri Naik,Sayee Sayanekar,20 17CDM implementation towards reduction of fugitive greenhouse gas emissions Environment, Development and Sustainability **pp.1-18. Springer publication.**

Book Chapters:

- Shrivastava, S., Unnikrishnan, S. (2021). Evolution of Life Cycle Sustainability Assessment. In: Muthu, S.S. (eds) Life Cycle Sustainability Assessment (LCSA). Environmental Footprints and Eco-design of Products and Processes. Springer, Singapore. https://doi.org/10.1007/978-981-16-4562-4_1
- Seema Unnikrishnan, Anju Singh Manoj Kharat, "Role of Mangroves in Disaster Mitigation: A Review". Chapter in Springer publication, Title of the Book : climate change and disaster Management, chapter no.16, 2013, pp 257-272.
- Abba Elizabeth Joseph, Seema Unnikrishnan, Rakesh Kumar, Vivek "Assessment of Organic Markers in Fine Aerosol of Mumbai City", Book on Urban Air Quality Monitoring, Modelling and Human Exposure Assessment Springer Publication. 2020
- Shrivastava, S. and Unnikrishnan, S., 2021. Life Cycle Sustainability Assessment: Methodology and Framework. In: D. Senthilkannan Muthu, ed., *Life Cycle Sustainability Assessment*, 1st ed. Springers Nature. DOI: 10.1007/978-981-16-4562-4_3
- Shrivastava, S. and Unnikrishnan, S., 2021. Evolution of Life Cycle Sustainability Assessment. In: D. Senthilkannan Muthu, ed., *Life Cycle Sustainability Assessment*, 1st ed. Springers Nature.

Conference and Seminar Presentations and Publications:

Earlier Conference presentations

1. Paper presented and published in the proceedings of the 38th National Convention of the Indian Institution of Industrial Engineering. The paper is titled "Hazardous waste Management and Life Cycle Analysis". [Dec.6-7th 1996]

- 2. Paper presented in the International Conference for a cleaner and safer environment at Mumbai The Paper is Titled " ISO 14000 and Life Cycle Assessment ".[Nov. 26, 1997]
- 3. Paper accepted for the Costa Rica conference on "Health and safety in pesticide use "The paper is titled "Pesticide management policies in India". 1997
- Paper accepted for the International Conference at Singapore Conducted by WEFTEC, Asia, The Paper is Titled " ISO 14000 and Pollution Prevention " [March1998].
- 5. Paper presented and published in the proceedings of the "9th World Congress on quality Organized by IOD -Institute of Directors, at Oberoi Hotel, Mumbai. The paper is titled " ISO 14000 and Environmentally Conscious Manufacturing" [8-10th,Jan,1999]
- Paper presented in the Seminar on Foundation for ISO 14001 Certification conducted by the Bombay chamber of commerce and Industry at Mumbai. Presentation was on ISO 14001 Implementation – Case Studies [1-10-1999]
- Paper presented and published in the proceedings of the "10th World Congress on quality", Organized by IOD at Oberoi Hotel, Mumbai. The paper is titled " Impact of ISO 14001 implementation in Indian Industries ".[15th to 17th,Jan, 2000]
- 8. Paper Presented in the International Conference on Sustainable Energy and Environment. The Paper is Titled "ISO 14000 and Cleaner Production. Coauthor of another paper presented at the same conference titled, " Preemptive Technologies "[17th to 19th August, 2000]
- 9. Co-author of the Paper presented in the International Conference of the pharmaceutical Industry. The paper is titled Cleaner production in Pharmaceutical Industry. [18th sep, 2000][With Dr. Thomas Mathew]
- 10. Paper presented in the National conference titled " Technology Solutions for Pollution Control. at Thane Mumbai. The Paper is titled " Positive impact of cleaner production technologies" "[October - 2001]
- 11. Paper presented in the 2 days National seminar on "Cost Benefit issues in Cleaner Technologies" at NITIE The Title of the paper is "Cost Benefit Analysis of Cleaner Production Technologies Case Studies". [5-6th April, 2002].
- 12. Seema Unnikrishnan, Paper presented and Published in the Proceedings of the National Conference on "Humanizing Work and Work Environment", conducted by TIFAC Center of Relevance and Excellence in Ergonomics at NITIE on 22nd to24th April 2004. The paper is Titled "Impact of Air Pollution Prevention on Health Hazards
- 13. Abba Elizabeth, Seema Unnikrishnan, Rakesh Kumar [BAQ-2006], Indonesia, Dec.17th 2006.The title of the paper is "Policy issues of PM2.5 levels in Indian Cities Vis-à-vis other cities Worldwide and its relevance to India

- 14. Abba Elizabeth, Seema Unnikrishnan, Rakesh Kumar, "Paper Presented in the National conference on "Business Optimization Research Wave", February 15th -17th 2007 at NITIE, Mumbai. The paper is titled "Review of fine particulate source apportionment studies in different continents".
- **15.** Jinu Kurien, Seema Unnikrishnan, D S Hegde, "Paper Presented in the National conference on "Business Optimization Research Wave", February 15th -17th 2007 at NITIE, Mumbai. The paper is titled "Factors influencing the implementation of environmental Management practices in the chemical industries of Ankleshwar, Gujarat".
- 16.Neelima Naik, Seema Unnikrishnan, Anju Singh and S Murthy, "Paper Presented in the National conference on "Business Optimization Research Wave", February 15th -17th 2007. The paper is titled "Integrated waste Management at NITIE – A Case Study.
- 17. Jinu Kurien, Seema Unnikrishnan, D.S Hegde paper presented in the Annual Conference of the society of operations management [SOM], IIT Kanpur, 19th to 21st Dec.2008 The paper is titled" some experiences in selected chemical units in Gujarat "
- **18.**Seema Unnikrishnan, " Air Pollution control through CDM and its impact on Industry" presented in the International Symposium on Environmental science and Technology held in Donghua University, Shangai, China from June 2nd to 5th June 2009.
- 19. Jinu Kurien, Seema Unnikrishnan, D.S Hegde, "Eco Innovation in Corporate Environmental Management Some experiences in selected Chemical Industry in Ankleshwar", Gujarat" paper presented in the Ninth Global Conference on Flexible Systems Management GLOGIFT 2009 at NITIE. Nov. 12-14th 2009
- 20. Anju Singh, Seema Unnikrishnan "Role of CDM in Climate Change and its Impact on India" presented in The International Conference on Climate Change and Developing Countries(CCDC-2010 - February 19-22, 2010 at Kottayam, Kerala.
- 21. Seema Unnikrishnan, Anju Singh Paper Presented on "Case study of NTPC in reporting 'during Seminar on "Unleashing Triple Bottom-line: Introduction to GRI based Sustainable Reporting" under the Centre for Environmental Studies (CES) in collaboration with Bombay Chambers of Commerce and Industry (BCCI] on 10-3-2011 at NITIE.
- 22. Abba Elizabeth Joseph, Seema Unnikrishnan and Rakesh Kumar, Association Between Indoor and Outdoor PM2.5 Aerosol Concentration In Mumbai City.Carbon Contents in Fine Aerosol and their Relationship in Outdoor-Indoor Levels in Mumbai City, India

- 23. Presented at 'Indo-French Seminar on Indoor Air Quality: Monitoring, Prediction Assessment and Cleaning', Jointly Organized by Indian Institute of Technology Delhi, India and Groupe des Ecoles des Moines, France from May 31st to June 3rd, 2010
- 24. Abba Elizabeth Joseph, Seema Unnikrishnan and Rakesh KumarEvaluation of Carcinogenic Potential of PAHs In Indoor and Outdoor Sites of Mumbai City.

Carbon Profile of PM2.5 aerosol in Mumbai city Presented at IASTA, 2010, Darjeeling, 24-26th March Vol. 19, No.1&2.

25. Seema Unnikrishnan, Anju Singh, Manoj Kharat, "Role of Mangroves in

Disaster Mitigation: A Review" online International conference on Climate

change and Disaster Risk management, KLIMA, 7-12, Nov.2011 Hosted by

Hamburg University of Applied Sciences, Germany.

- 26. Abba Elizabeth Joseph, Seema Unnikrishnan, Rakesh Kumar and Zohir Chowdhury "Source Apportionment of PM2.5. Aerosol in Mumbai City Using Local Source Profiles" Presented at Better Air Quality, 2010, Singapore, Nov. 9-11.
- 27. Vikrant Vijay Patil, Anju Singh, Neelima Naik, Seema Unnikrishnan, A review of GIS and Remote Sensing application in mangrove studies Conference on Climate Change, Oil Spill & Radiation Risk: New Environmental Challenges. November 15-16, 2011
- 28. Anju Singh, Seema Unnikrishnan, Neelima Naik, Kavita Duvvuri, Aditee Potdar, Bhagyashree Sawant "Potential for Climate Change Mitigation through CDM and REDD+ in India's forests". Conference on Climate Change, Oil Spill & Radiation Risk: New Environmental Challenges November 15-16, 2011
- 29. Seema Unnikrishnan, Anju Singh, Neelima Naik, Bhagyashree Sawant, Study of environmental management practices in Indian oil and gas sector. International Congress of Environmental Research 2011. December 15-17, 2011
- Aditee Potdar, Seema Unnikrishnan, Anju Singh, Neelima Naik. "A Comparative Assessment of Environmental laws and policies of India and China "International Congress of Environmental Research – 11.December 15-17, 2011
- 31. Vikrant Vijay Patil, Anju Singh, Neelima Naik, Seema Unnikrishnan, Bhagyashree Sawant, Carbon sequestration in Mangrove Ecosystems:

International Congress of Environmental Research – 11.December 15-17, 2011

- 32. Seema Unnikrishnan, "Impact of Air Pollutants on Human health", International Conference on Green Health, 6th Sep to 8th Sep. 2012. Nehru Centre, Worli, Mumbai.
- 33. Aditee Potdar, Seema Unnikrishnan, Anju Singh and Neelima Naik "A Comparative Assessment of environmental legislation and climate change policy of BASIC countries" International Symposium on a Sustainable Future – 2012, January 19-20, 2012, IGIDR Mumbai.
- 34. Mayuri Naik, Sareeka Tambe, Anju Singh, Seema Unnikrishnan, Neelima Naik and Aditee Potdar, Role of Clean Development Mechanism in energy demand projects. International Symposium on a Sustainable Future – 2012. January 19-20, 2012, IGIDR Mumbai.
- **35.** Mayuri Naik, Bhagyashree Sawant, Anju Singh, Seema Unnikrishnan and Neelima Naik, Waste Management of Airforce Maintenance Sites, Conference: Green Health 2012. 16-18 September 2012 NEERI.
- **36.** Pragati Chipte, Sapana Joshi, Snehal Lokhande, Mayuri Naik, Bhagyashree Sawant, Anju Singh, Seema Unnikrishnan and Neelima Naik, Role of CDM in Improving transport sector ,Conference: Green Health 2012, 16-18 September 2012 NEERI.
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- 42. Shrivastava S, Unnikrishnan S., (2020). "Sustainability in the Oil Sector." Virtual conference on oil and gas technology, Sciinov group (9th November, 2020)

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Administrative Responsibilities:

- Programme Coordinator of the PGDISM Programme [2018 till date]
- Member Of Board Of Governors of NITIE from Jan.2019 till April 2021
- Chairperson of the women development cell of NITIE [2019 2021]
- Dean Academics [Sep.2013 to Sep. 2015]
- Dean Administration [June 2017 to till Dec.2017]
- Warden of the Ladies Hostel, NITIE [1998-2002]
- In-charge of the Environmental Engineering lab [1998 till date]
- One of the Coordinators of the Centre for Environmental Studies at NITIE [2010 to 2015, 2019 -2020]
- Chair person of the post Graduate Programme Committee NITIE [Sep.2013 to Sep 2015] Member of the post Graduate Programme Committee, NITIE [1998 – 2002, 2005-2007, 2011 – 2013, 2015 till date]
- Member of the Library Committee, NITIE [1998 -2004, 2010- 2012]
- Member of Standing Committee, NITIE [1999 2002]
- President of the NITIE Women Employees Welfare Committee [NWEWC] for 3 years from 2001 till 2003.
- Member of Publications Committee, NITIE [2001-2013]

- Member of the Board of Research, NITIE [2004 2009]
- Chairperson of the NITIE Officers Club [2007-2008]
- Chairperson of Moderation Committee NITIE [Sep.2013 to Sep2015.] and Member of the Moderation Committee [2008 to 2012]
- Chairperson of Disciplinary Committee of NITIE [Sep.2013 till Sep 2015] and the Member of Disciplinary Committee of NITIE [2011 to 2013 Aug.]
- Group Coordinator of the PGDISEM group At NITIE [Oct.2011 to June 2013]

Professional Responsibilities and Professional affiliation

- Member of the advisory committee for the Government of Maharashtra for management of biomedical wastes .[2012 -2015]
- Member of the Expert Panel of IRQS Indian Register of Quality Systems for Environment Management System [EMS for ISO 14001] [1998 till 2012]
- Examiner for IIIE Indian Institute of Industrial Engineering [1994-96, 2005-2006]
- Nominated as one of the experts of the advisory committee for the Emission Inventory Project for Mumbai City by NEERI [National Environmental Engineering and Research Institute]-[Aug.2006]
- Member of the Expert Stakeholder committee of the Certification agency
 RINA for ISO 14001 [April 2008 till 2010]
- Member of the Jury of BCCI [Bombay chamber of commerce and Industry] for corporate citizen award -2014
- Member of the Technical committee for Prime Minister's Shram Awards under Ministry of labour and Employment. Government of India [2013-2014]
- Member of the Jury for Indian Institute of packaging for PACMACHINE AWARDS" in 2015 for recognizing excellence in innovative concepts in design & development in Packaging machinery,
- Nominated by the National Safety Council as Expert member on the NSAT Technical Committee [2020-2021].

Awards:

- Received Jawaharlal Nehru proficiency award from the Government of INDIA- 1989
- Gold Medallist [M Sc Environmental Toxicology.]- Madras University 1989
- Director's Citation for Exemplary performance from NITIE on August 15th 2004.

- Best Professor In Environmental Engineering Studies during the 11th DNA Innovative Education Leadership Awards held on 16th February2018.
- Recognised as one of the 100 Most Dedicated Professors at the World Education Congress. The theme of the Congress was "REORIENTING EDUCATION FOR A SUSTAINABLE FUTURE" on 4th July, 2019.
- Distinguished Alumni Award from NITIE Alumni Association on November 5th 2022