

RESUME

Dr. Athar Hussain

Presently working as an Associate Professor, Civil Engineering Department, Ch. Brahm Prakash Government Engineering College, Jaffarpur (Govt. of NCT of Delhi), New Delhi.

Professional Qualification:

- Ph.D. (Environmental Engineering) From IIT Roorkee (2007)
- M-Tech (Environmental Engineering) From AMU Aligarh (2001)
- B.Tech. (Civil Engineering) From J.M.I. New Delhi (1998)

Major Areas of Interests:

- Design and Development in the area of Water and Wastewater Treatment Systems
- Air Quality Monitoring and analysis
- Solid Waste Management, Waste Minimization, Biomass Energy, Food Waste Management

Ph.D. Thesis: N and P in Anaerobic Biotransformation: Treatment of Phenolic Wastewater

M-Tech Dissertation: Ambient Air Quality Monitoring of Aligarh City and its Health Effect.

B-Tech. Project: Optimal Proportioning of Concrete Mixes

List of International Publications:

1. "Treatment of phenolic wastewater in UASB reactor: Effect of Nitrogen and Phosphorous", Athar Hussain, Pradeep Kumar and Indu Mehrotra, Bioresource Technology, Elsevier Science, **Vol. 99, 2008, (I.F. 5.744).**
2. "Nitrogen biotransformation in anaerobic treatment of phenolic wastewater" Athar Hussain, Pradeep Kumar and Indu Mehrotra, Desalination, Elsevier Science, **Vol. 250, (2010) 35-41, (I.F. 4.412).**
3. "Phenolic Wastewater: Effect of F/M on Anaerobic Degradation" Athar Hussain, Tabassum Parveen., Pradeep Kumar, and Indu Mehrotra, Desalination and Water Treatment, Deswater, Taylor and Francis, **Vol. 2 (2009) 254–259 (I.F. 1.272).**
4. "Anaerobic treatment of phenolic wastewater: Effect of phosphorous limitation", Athar Hussain, Pradeep Kumar, Indu Mehrotra, Desalination and Water Treatment, Deswater, Taylor and Francis, **20 (2010) 189-196, (I.F. 1.272).** .
5. "Specific Methanogenic Activity Test for Anaerobic Degradation of Phenolic Wastewater" Athar Hussain, and Shashi Kant Dubey, Desalination and Water Treatment, Deswater, Taylor & Francis **1-11 (2013), (I.F. 1.272).**
6. "Growth And Accumulation Of Heavy Metals In Turnip (Brassica Rapa) Irrigated With Different Concentration Of Treated Municipal Wastewater" Tabassum Parveen, Athar Hussain, M. Someshwar Rao, International Journal of Hydrology Research, IWA Publishing, **46 (1) 60–71, (I.F. 1.779)**

7. "Phenol Biodegradation: A review" by Shashi Kant Dubey and Athar Hussain, International Journal of Environmental Engineering –IJEE, **Vol. 1(2)**, SEEK digital Libray, Institute of Research Engineers and Doctors, London Research Press, 2014, 151 - 157.
8. Kinetic study for aerobic treatment of phenolic wastewater by Athar Hussain, Shashi Kant Dubey and Vinay Kumar, Water Resources and Industry, Elsevier Science, Vol. 11, 81–90, **(I.F. 2.12)**.
9. "Biodiesel Production from Algal Blooms: A Step towards Renewable Energy Generation & Measurement" Shabana Urooj, Athar Hussain, Narayani Srivastava, International Journal of Measurement Technologies and Instrumentation Engineering (IJMTIE), **2(3)**, **60-71, July-September 2012, (I.F. 0.78)**.
10. "Ambient Air Quality Monitoring of Aligarh City: A Case Study", Athar Hussain, Mahmood M. Ashaar and Amiya Akram. International Journal of Environmental, Cultural, Economic and Social Sustainability, **Vol. 1(3)**, 2007, (I.F. ISSN: 1832-2077), DOI: 10.18848/1832-2077/CGP/v03i03/54374.
11. "Phenol Degradation under Methanogenic Conditions in Batch Reactors: Impact of Nitrogen and Phosphorous" Athar Hussain, S.K. Dubey, Environmental Research Journal, **Vol. 7 1(2013), 57-71**.
12. "Distortional Buckling of Stainless Steel Section" Nasim Ahmed and Athar Hussain, International Journal of Research in Engineering and Applied Sciences, ISSN: 2249-3905, **Vol. 2 (9)**, 2012, 24-43.
13. "Sustainable Structural Design" Nasim Ahmed and Athar Hussain, International Journal of Research in Engineering and Applied Sciences, ISSN: 2249-3905, **Vol. 2 (10)**, 2012, 19-30.
14. "Implementation and Comparison of Watermarking Algorithms using DWT" Bushra Jamal and Athar Hussain, International Journal of Computer Applications (IJCA), **Vol. 62 (9)**, January 2013, 0975 – 8887, **(I.F. 0.835)**.
15. "Nitrogen and Phosphorus Requirement in Upflow Anaerobic Sludge Blanket Reactor: A Review" Athar Hussain, Pradeep Kumar and Indu Mehrotra, Environmental Engineering and Management Journal, Romania "Gheorghe Asachi" Technical University of Iasi, Romania, **Vol. 14 (4)**, 769-780, **(I.F. 1.4)**.
16. "Groundwater contamination due to fly ash disposal: A Review" by Chanchal, Sangeeta Madan and Athar Hussain, Int. J. Adv. Res. Biol. Sci. 2014, **1(6)**, ISSN : 2348-8069.
17. Physico Chemical Properties of Groundwater around Ash Pond of Parichha Thermal Power Plant, Jhansi, U.P., India by Chanchal, Sangeeta Madan and Athar Hussain ,International Journal of Research Studies in Biosciences, (IJRSB), 3(4), 23-27, **(I.F. 2.991)**
18. "Groundwater quality assessment around ash pond of Parichha thermal power plant, Jhansi, India" by Chanchal and Athar Hussain, Asian Journal of Water, Environment and Pollution, **Vol. 12(3)**, 83–88, ISSN 0972-9860 (P).
19. "Specific Methanogenic Activity Test For Anaerobic Degradation of Influent: A Review" by Athar Hussain and Shashi Kant Dubey, Applied Water Science, Springer DOI 10.1007/s13201-015-0305-z.
20. "Methane Formation from Food Waste by Anaerobic Digestion" , Parvendra Kumar, Athar Hussain and Shashi Kant Dubey, Biomass Conv. Bioref., **Vol. 6 (3)**, pp 271–280, 2016, doi:10.1007/s13399-015-0186-2.

21. "Feasibility study on treatment of phenolic wastewater using Membrane Bioreactor" by Shashi Kant Dubey and Athar Hussain, 50th Golden jubilee annual convention on "Digital Life" 02-05 December, 2015, New Delhi, Springer-Verlag Berlin Heidelberg 2015
22. "Biomass to biofuel: A Review" by Shabana Urooj, Athar Hussain, O. Khawaga and N. Srivastava, 50th Golden jubilee annual convention on "Digital Life" 02-05 December, 2015, New Delhi, Springer-Verlag Berlin Heidelberg 2015
23. "Heavy metal accumulation and translocation in edible crops grown on fly ash contaminated soil" by Muzaffar Meer, Athar Hussain and Chanchal Verma, 50th Golden jubilee annual convention on "Digital Life" 02-05 December, 2015, New Delhi, Springer-Verlag Berlin Heidelberg 2015
24. "Heavy Metal Contamination of Groundwater due to Fly Ash Disposal of Coal Fired Thermal Power Plant, Parichha, Jhansi, India " by Athar Hussain, Sangeeta Madaan and Chanchal Verma, Cogent Engineering, Taylor & Francis Volume 3 (1), 2016.
25. "E-Waste Management And its Concerns: A Thematic Approach" by Swati Verma, Athar Hussain, V K Gupta, Shyam Lal, International Journal Of Current Engineering And Scientific Research (IJCESR), ISSN (Print): 2393-8374, 2394-0697, Volume-3, Issue-1, 2016
26. "Analysis of Isotope Element by Electrolytic Enrichment Method for Ground Water and Surface Water in Saurashtra Region, Gujarat, India" by Athar Hussain and Sajal Singh, Cogent Engineering, Taylor & Francis Volume 3 (1), 2016.
27. Modeling of Strengthened Concrete Beam by Sanjeev Kumar, Rehan Khan and Athar Hussain Recent Developments in Structural Engineering Convention 2014, Vasant Matsagar, Bloomsbury Publishing India Pvt Ltd, ISBN 978-93-84898-71-7
28. "Design of Water quality Index for Ground Water Quality Assessment: Greater Noida sub basin, Uttar Pradesh, India" by Athar Hussain and Sajal Singh, Cogent Engineering, Taylor & Francis Volume 3 (1), 2016.
29. Experimental Investigation on the Effects of Dust Fouling on PV Module" by Athar Hussain and Ankit Batra, Proceeding of International Conference on Intelligent Communication, Control and Devices, Springer, pp.855-861
30. "Biodiesel production from Biomass and Testing of IC Engine" Shabana Urooj, Athar Hussain, R.K. Mishra, Narayani Srivastava, Desalination and Water Treatment, Deswater (**In Communication**).
31. Design Consideration and Operational Performance of Anaerobic Digester: A Review by Athar Hussain, Muzaffer Mir and Chanchal Verma, Cogent Engineering, Taylor & Francis, Volume 3 (1), 2016.
32. Analysis of groundwater quality using water quality index: A case study of Greater Noida (region), Uttar Pradesh (U.P), India by Mohd. Saleem, Athar Hussain, Gauhar Mahmood, Cogent Engineering, Taylor & Francis, Volume 3 (4), 2016.

List of Papers in International and National Conferences/Workshops:

- “Optimization of Nitrogen and Phosphorus in Anaerobic Degradation of Phenolic Wastewater” Athar Hussain, News Letter, Waste Minimisation Circle, **WMC News**, 4(5), July 2009, published by National Productivity Council, New Delhi-110003.
- “Adsorption of Sulphur Dioxide in Aqueous Sodium Carbonate Solution” Athar Hussain, Arvind Kumar and Tabassum Parveen, International Conference On “Mesoscale Process In Atmosphere, Ocean And Environmental Systems. Feb 14-17, 2006 organized by Centre for Atmospheric Sciences, Indian Institute of Technology, Delhi, INDIA
- “Degradation of phenolic Compounds in Upflow Anaerobic Sludge Blanket Reactor: Reduction in Nitrogen Requirement”, Athar Hussain, Indu Mehrotra and Pradeep Kumar. International Conference “Jordan International Chemical Engineering Conference –V, JICEC-V 2005. September 11- 17, 2005, AMMAN, JORDAN.
- “Treatment of Detergents and Phosphorous in UASB based STPs” Athar Hussain, Arvind Kumar Mungray, Tabassum Parveen and Pradeep Kumar (ICSTEP-137), International Interdisciplinary Conference on Sustainable Technologies for Environmental Protection, ICSTEP-2006, January 7-9, 2006. Collaboration of University of Toledo organized by Coimbatore Institute of Technology, Coimbatore, INDIA
- “Anaerobic Biotransformation of Phenol: Microbial Population and Nitrogen.” Athar Hussain, Arvind Kumar, Indu Mehrotra and Pradeep Kumar. (ICSTEP-21), International Interdisciplinary Conference on Sustainable Technologies for Environmental Protection, ICSTEP-2006, January 7-9, 2006. Collaboration of University of Toledo organized by Coimbatore Institute of Technology, Coimbatore, INDIA
- “Water Quality of River Hindon with and without STPs: A Case Study” Tabassum Parveen, Athar Hussain, Arvind Kr. Srivastva, Anand Bharti, Pradeep Kumar, Indu Mehrotra. International conference (EWRI) organized by IIT Kanpur in collaboration with ASCE December 18-20, 2006.
- “Ambient Air Quality Monitoring of Aligarh City and its Health Effect”, Athar Hussain, Arvind Kumar Mungray and Praveen Kumar, International Conference on “Mesoscale Process In Atmosphere, Ocean And Environmental Systems. Feb 14-17, 2006 organized by Centre for Atmospheric Sciences, Indian Institute of Technology, Delhi, INDIA.
- “Groundwater Quality Assessment Around Ash Disposal Site of Parichha Thermal Power Plant, Jhansi, U.P., India” Chanchal Verma, Muzaffar Ahmad Mir, Sandeep Arya, Vineet Kumar, Athar Hussain, 04 November 2012, Indo French International Conference on Water, organized by I.I.T. Delhi, India.
- “Management of Municipal Solid Waste in India: A Review” Harshada Sharma and Athar Hussain, 3rd International Conference on Future Environment and Energy-ICFEE 2013, February 24-25, 2013, Rome, Italy

- Phenol Biodegradation: A review by Shashi Kant Dubey and Athar Hussain, Proc. of the Intl. Conf. on Advances in Civil, Structural and Environmental Engineering-- ACSEE 2013, Institute of Research Engineers and Doctors, ISBN: 978-981-07-7965-8, doi:10.3850/ 978-981-07-7965-8, Zurich, Switzerland on 12-13 October, 2013.
- Determination of Water Age Using Tritium Technique, by Athar Hussain, Sajal Singh , International Workshop on Green Initiatives in Energy, Environmental and Health organized by Delhi University, Gautam Buddha University and TERI, held in New Delhi on 2-3 December, 2013.
- Biochemical Methane Potential (BMP) Test for Food Waste Biodegradation by Athar Hussain, and Parvinder Kumar, International Workshop on Green Initiatives in Energy, Environmental and Health organized by Delhi University, Gautam Buddha University and TERI, held in New Delhi on 2-3 December, 2013
- Chemical Oxidative Degradation of Acid Orange II Dye in Aqueous Solution by Fenton's Reagent by Athar Hussain and Vivek Rana, International Workshop on Green Initiatives in Energy, Environmental and Health organized by Delhi University, Gautam Buddha University and TERI, held in New Delhi on 2-3 December, 2013
- Climate Change analysis of Uttarakhand regions using Remote Sensing and GIS techniques by Athar Hussain and Regina Thomas, International Workshop on Green Initiatives in Energy, Environmental and Health organized by Delhi University, Gautam Buddha University and TERI, held in New Delhi on 2-3 December, 2013
- Biodegradation of Phenolic Wastewater using Hybrid Reactor by Athar Hussain, Shashi Kant Dubey and Vinay Kumar, International Workshop on Green Initiatives in Energy, Environmental and Health organized by Delhi University, Gautam Buddha University and TERI, held in New Delhi on 2-3 December, 2013
- Biogas Production of Food Waste from Anaerobic Digestion " by Athar Hussain, Shobha Ram and Parvinder Kumar, National Conference on "Water Resources Management– Achievements & Challenges" (WRM-AC 2014), Jamia Millia Islamia University, New Delhi, 22 March, 2014.
- Influence of Fenton's Reagent on Degradation of Acid Orange II Dye in a Batch Reactor by Athar Hussain and Vivek Rana, National Conference on "Water Resources Management– Achievements & Challenges" (WRM-AC 2014), Jamia Millia Islamia University, New Delhi, 22 March, 2014.
- Determination of Tritium Concentration in Ground water, Surface water and Rain water Using the Liquid Scintillation Spectrometer Technique by Athar Hussain, Sajal Singh and S. D. Khobragade, National Conference on "Water Resources Management– Achievements & Challenges" (WRM-AC 2014), Jamia Millia Islamia University, New Delhi, 22 March, 2014.
- Biodegradation Of Phenolic Waste Water: Acclimatization Of Microbial Population by Athar Hussain, Vinay Kumar Singh Shashi Kant Dubey, National Conference on "Water Resources Management– Achievements & Challenges" (WRM-AC 2014), Jamia Millia Islamia University, New Delhi, 22 March, 2014.

- Challenges In Management Of E-Waste Using Game Theory: A Strategic Approach by Swati Verma, Athar Hussain, V K Gupta, Shyam Lal, International Conference On Recent Advances in “Civil Engineering, Architecture and Environmental Engineering for Sustainable Development” (CEAESD-2016) Organized by “Krishi Sanskriti” On 6th February, 2016
- Tensile Test Simulation of Carbon Fiber Reinforced Plastic by Sanjeev Agrawal, Rehan Khan, Athar Hussain, International Conference on “Sustainable Innovative Techniques in Architecture, Civil and Environmental Engineering” (SITACEE - 2014) held at Jawaharlal Nehru University, New Delhi, on 26th and 27th April, 2014, organized by Krishi Sanskriti Published by Excellent Publishing House, ISBN: 978-93-83083-78-7.
- Conversion of algal biomass to bio-fuels and comparative performance with diesel engine by N. Srivastava, Athar Hussain, S. Urooj, 6th International Conference on Algal Biomass, Biofuels & Bioproducts , 26-29 June, 2016 SanDiego, USA, organized by Elsevier Science, USA.
- “Solution to Energy Crisis & Waste Management: Pond Algae Bio-fuel Narayani, Athar Hussain, Shabana Urooj, Sagarkumar M. Agravat”, 7th World Renewable Energy & Technologies Congress, New Delhi held on 21st to 23rd August 2016.

Workshops and Training Programmes Organized:

- Coordinator of training programme on “ Waste Minimization: Tools & Techniques” held on 24 – 26th September 2011, organized by School of Engineering, Gautam Buddha University, Greater Noida.
- Coordinator of training programme on “ Sewage Treatment” for Srilankan Engineers held on 23 – 28th May 2011, organized by School of Engineering, Gautam Buddha University, Greater Noida, sponsored by UVA Provincial Council, Provincial Department of Buildings, Pingarawa, BADULLA, SRI LANKA
- Co-Coordinator, International Workshop on Green Initiatives in Energy, Environmental and Health organized by Delhi University, Gautam Buddha University and TERI, held in New Delhi on 2-3 December, 2013
- Co-Coordinator in Short Term Training Programme on Watershed Planning Using Spatial Analysis Techniques (12-14th March, 2012), organized by School of Engineering, Gautam Buddha University, Greater Noida sponsored by Department of Watershed Development & Soil Conservation, Govt. of Rajasthan, Jaipur
- Coordinator of **All India Seminar on Integrated Water Resources Management** held on 2nd December, 2009 Organized by National Productivity Council, New Delhi at Scope Complex, New Delhi
- Coordinator of workshop on “Concrete Mix Design” sponsored by Ambuja Foundations, Ambuja Knowledge Centre and School Of Engineering, Gautam Buddha University on 28th and 29th October 2014.

Training Programmes Attended

- Successfully completed **Certified Lead Auditors Training Course on EMS (ISO 14001)** sponsored by the **Asian Productivity Organization, Tokyo, Japan** and implemented by the **National Productivity Secretariat (NPS), Sri Lanka** from 2-6 November 2009 in Colombo, Sri Lanka.
- Successfully completed **E-Learning course on Green Productivity (GP) & The Environmental Management System (ISO 14001)** Implemented by **National Productivity Council, New Delhi and Sponsored by Asian Productivity Organization Tokyo, Japan**, held on September 14-17, 2009 at India Habitat Centre in New Delhi.
- Successfully completed **E-Learning course on Six Sigma Green Belt (Via Global Development Learning Network of the World Bank Platform)** organized by **National Productivity Council, New Delhi and Asian Productivity Organization Japan**, held on April 06-08, 2009 at India Habitat Centre in New Delhi (**Green Belt Holder**).
- Participated in Seminar on **Integrated Resources Management: Demand Assessment and Management** organized by **Water Resource Department, BIS, New Delhi** held on March 20, 2009 at Manak Bhawan in BIS, New Delhi.
- Successfully completed the training on **“Management of Hazardous Waste, Used Batteries and Electronic Waste”** , **Sponsored by Ministry of Environment and Forests, Govt. of India**, organized by **National Productivity Council, New Delhi**, held on February 10-11, 2009 at NPC headquarters in New Delhi.
- Successfully completed the training on **“Waste Minimization and Waste Minimization Circles for WMC Facilitators”** , **Sponsored by Ministry of Environment and Forests, Govt. of India**, organized by **National Productivity Council, New Delhi**, held on October 1-5, 2007 at NPC headquarters in New Delhi.
- Co-Chaired Session namely **‘New Perspectives in Water and Wastewater Treatment’** in Jordan International Conference of Chemical Engineering, September 11- 17, 2005 held in AMMAN, JORDAN.
- Participated in **“All India Seminar on Air Pollution and Health Impacts”** Organized by The Institution of Engineers (India), Roorkee Local Centre, held on February 23-24, 2006.
- Participated in special training course on **“Analytical Procedures for Water and Wastewater Quality”** sponsored by CPCB and organized by IIT Roorkee, 15-20 December, 2006.
- Assisted in the short term course on **“Physical, Chemical and Biological Phenomena for Wastewater Treatment”** Sponsored by CPCB and organized by IIT Roorkee, 16-20 December, 2005.
- Assisted in short term course on **“Basics of Sewage Treatment”** Sponsored by JICA and organized by IIT Roorkee, 27th January-1st February, 2006.
- Attended a one day workshop on **Special Assistance for Project Sustainability (SAPS) study on Yamuna Action Plan Phase-I**, organized by NRCDD, held on 15th December 2005 at Lodhi estate, New Delhi.

- Presented paper entitled “ **Air Pollution and its effect on Environment**” on “World Environment Day” organized by Aligarh Local Centre for the Institution of Engineers(India) on June 06,2001.
- Presented paper entitled “**Wastewater Recycle and Reuse**” on “**World Environment Day**” organized by Aligarh Local Centre for the Institution of Engineers (India) on June 06, 2001.
- Attended a one day national conference on Lean Management for Productivity Enhancement & Greening the Organization, organized by National Productivity Council in NPC’s Conference Hall at New Delhi on 18th February, 2014.
- Attended a one day national conference on Green Business Ventures – Towards innovative products, processes and development, organized by National Productivity Council in NPC’s Conference Hall at New Delhi on 13th February, 2015
- Attended a one day national conference on Make in India : Zero Defect, Zero organized by National Productivity Council in NPC’s Conference Hall at New Delhi under Ministry of Commerce and Industry on 16th February, 2015
- Attended a one day national conference on “Enhancing Business Sustainability of SMEs – Role of Common Effluent Treatment Plants” organized by National Productivity Council in NPC’s Conference Hall at New Delhi on 18th February, 2016

Work- Experience

- Worked as Assistant Professor and Head Civil Engineering Department, Guatam Buddha University, Greater Noida, U.P. India from November 2010 till December 2015.
- Worked as an Associate Professor, Civil Engineering Department, Galgotias College of Engineering & Technology, Greater Noida, U.P. from September 2010 to November 2010.
- Worked as an Assistant Director (Environment Group) at National Productivity Council, (Under Ministry of Commerce and Industry, Govt. of India), New Delhi from May 2007 -September, 2010.
- Worked as a Lecturer in Civil Engg. Deptt. at National Institute of Technology Jalandhar from January 2007 till May 2007.
- Worked as a Senior Research Fellow in the project entitled “Water Quality Monitoring of River Hindon” Sponsored by Ministry of environment and Forest (MOEF), New Delhi, INDIA from October 2005 to August 2006 at Civil Engg. Deptt. I.I.T. Roorkee.
- Worked as a Senior Research Fellow in CSIR sponsored project entitled “Degradation of Phenolic compounds in a UASB (Upflow Anaerobic Sludge Blanket) Reactor from October 2002 to September 2005 at Civil Engg. Deptt. I.I.T. Roorkee.

Achievements:

- Senior Research Fellow (SRF) Awardee, (CSIR), New Delhi, India.
- Senior Research Fellow (SRF) Awardee, (MoEF), New Delhi, India.

Membership of Professional Bodies

- Associate Member of “The Institution of Engineers” (IE). INDIA.
- Member of “Institution of valuers” (IV) N. Delhi, INDIA.
- Member of “Indian Society of Wind Engineering” , INDIA

Extra Curricular Activities

- Ex-Proctor, School of Engineering, Gautam Buddha University, Greater Noida
- Coordinator, Civil Engineering Department (UG &PG), SOE
- Executive Member of Senate (SAC- Students Affair Council) for the Year 2005-2006.
- Councillor, Azad Bhawan, I.I.T. Roorkee for the Year 2004-2005.
- Councillor, Azad Bhawan, I.I.T. Roorkee for the Year 2005-2006.

Reviewing/Editing

1. Reviewing papers for

- International Journal of Environmental & Pollution (Inderscience Publishers, USA)
- Elsevier Science Journals
- Environmental Progress, Inderscience

2. Co- Editor of Newsletter On **Waste Minimisation Circle , WMC News – Volume 4, No. 4, April & July 2009, Published by National Productivity Council , New Delhi-110003.**

3. Editor , *Proceedings of All India Seminar on Integrated Water Resources Management*, held on 22d December 2009 at Scope Complex , New Delhi

4. Co Editor and Member of IRED (Institute of Research Engineers and Doctors), New Castle County, DE, United States of America

Major Projects Carried Out:

- “Conduct study and prepare Comprehensive document on the damage caused to the Environmental and Health in Sanganaer” sponsored by Rajasthan State Pollution Control Board (RSPCB) Jaipur.
- Performance & evaluation of Different Effluent Treatment Plants of Delhi
- “Revision of Comprehensive Industry Document (COINDS) for Soft Drink Industries” prepared for Central Pollution Control Board New Delhi sponsored by MoEF, New Delhi.
- “Preparation of Detailed Project Report (DPR) on Municipal Solid Waste (MSW) Management for Majitha (Amritser)” Sponsored by Punjab Pollution Control Board, Patiala, and Punjab.
- ‘Performance & Evaluation of Air Pollution Control Device (A.P.C.D.)’ in Punjab, CPCB project over stack monitoring at brick kilns for PSD evaluation
- “Waste Minimisation in Small Scale Industries” [WMC Extension Phase III]” sponsored by the Ministry of Environment and Forests (MoEF). Under the project 20 Waste Minimisation Circles (WMCs) are being established through Trained WMC Facilitators.
- “Water Audit Study of Commonwealth Games Venues (CWGV)-2010” sponsored by Delhi Jal Borad, New Delhi.

- Worked in the project of organizing an International Fair entitled as “International Eco-Product Fair (EPIF)-2011” held on 3-6 March, 2011 at Pragati Maidan, New Delhi.
- “Review of Environmental Statements submitted by Aluminium Smelter Industries” prepared for Central Pollution Control Board New Delhi sponsored by MoEF, New Delhi.

Major Responsibilities while Working with NPC

- Carrying out preliminary surveys, discussion with clients and preparing proposal for undertaking various projects related to Environmental Pollution Prevention & Control.
- Executing various Environmental Pollution Prevention & Control Projects and prepare reports.
- Supervising implementation of various recommendations made at the end of the study.
- Carrying out various activities related to the Project Management.
- Undertaking training programs.
- Writing Training Lectures.
- Monitoring & Analysis of different air (Including Particle Size Distribution Analysis), water, soil, solid & hazardous waste parameters in the Laboratory and in the field.

Ph.D. Thesis Supervision (Ongoing)

- Treatment of Phenolic Wastewater using Aerobic Hybrid reactor
- Optimization in Storm Water Drainage System for urban catchment
- Bio-methanation of solid waste : A waste to Energy option
- Energy recovery from food waste using a anaerobic baffled reactor
- Impact Assessment due to Ash Disposal at national Thermal Power Plant, Jhansi

M. Tech. Dissertations supervised

- Development of Chitosan based network for separation of Copper and Nickel ions: Rehan Khan
- Adequacy and efficacy Sewage Treatment using full scale Sequencing Batch Reactor (SBR) System: Harinder Singh Bhati
- Bio-methanation of food waste produced from GBU Hostel: Pravinder Kumar
- Development of Regional Flood Frequency Relationship Using L-Moments: Digamber Singh
- Impact Assessment due to Ash Disposal at National Thermal Power Plant, Dadri: Muzaffer Mir
- Biodiesel production from Algae: A waste to Energy Option: Narayani
- Treatment of Phenolic Wastewater using Membrane Bioreactor: Vinay Kumar
- Assessment of groundwater quality using water quality index and GIS: Sajal Singh
- Effects of heavy metals on Ground water quality of villages of Greater Noida: Abhishek Arya
- Two step sequential treatment approach for removal of phenol: Ankit Malik
- Characterization and management of municipal solid waste of Greater Noida: Ankita Singh
- Effect of municipal solid waste Leachate on ground water quality: Mani Mishra

- Replacement of coarse aggregate by steel slag in normal strength concrete: Vaibhav Kumar
- Experimental investigation on concrete using scrap-tyre rubber dust as partial replacement of fine aggregate: Devesh Mawai
- Effect of steel fiber and polypropylene fiber on the strength properties of self compacting concrete: Kanishk Pratap Singh
- Study on micro-silica, fly-ash, metakaolin as partial replacement in ternary blended SSC: Harpreet Singh
- Torsion resistance of RCC beams using FRP: Raghav Raghuvanshi
- To study the performance of concrete under different intensities of fire for varying proportions of flyash: Vishwas Mishra
- Analysis of Buried pipeline by Finite Element Method: Sanjeev Singh
- Study of plastic waste and E-waste as coarse aggregates in concrete mix: Siddhant Nagar
- Comparative study on high performance concrete using different admixture: Sachin Kumar
- Replacement of fine aggregates and reinforcement by plastic acetal copolymer in self compacting concrete: Shubham Ganga
- Treatment of wastewater emanating from construction Industry: Abhishek Giri
- Removal of fluoride from water using chitosin and EDTA: Aslam Saifi
- Biological nutrient removal in SBR: Amit Prabhakar
- Analysis Leachate generation from Ghazipur Landfill site: Anandita Deshwal
- Determination of Heavy Metals concentration in medicinal Plants: Aniket Srivastava
- Environmental effect on solar PV panel: Ankit batra
- Ambient air quality monitoring of Ghaziabad City: Arun Kumar
- Assessment of pollution concentration in River Yamuna in Delhi stretch using GIS and Remote sensing: Garima Sharma
- Aerobic treatment of Leachate of Ghazipur Landfill site: Anuj Kulshrestha
- Rainfall runoff modeling and prediction: Jatin Kumar Singh
- Adequacy and efficacy of UASBR treating sewage: Jitendra Kumar Paswan
- Assessment of pollution in river Hindon along Muzaffarnagar to Ghaziabad: Kapil Kumar
- Feasibility study of MSW Technologies : Kartik Aggarwal
- Development of Blend of Biochar and Chitosan for the uptake of Heavy metals from Industrial Effluent: Kashif Ali Khan
- Anaerobic biodegradation of solid waste from food industry: Khyati Gaur
- Heavy metal uptake by plants from soil: Manjeeta Priyadarshi
- Water quality index of Sikandrabaad, Bulandshahar city: Dharamendra Kumar
- Industrial wastewater treatment using polymers: Mayank Tripathi
- Indoor air quality monitoring in hospitals and malls: Nikhil Rathore

- Solid waste management under energy sector: Raj Deep Tripathi
- Treatment of Industrial wastewater using hybrid reactor: Rishabh Chaudhary
- Analysis and Characterization of MSW: Rahul Garg
- Numerical simulation of Heavy Rainfall events over Indian Monsoon using WRF (ARW) model: Shilendra Kumar Shanti
- EIA on E-Waste Management: Swati Verma
- Time Series/Trend analysis on ambient air quality parameters: Udit Mamoriya
- Preparation and performance of cellulose acetate microfiltration membrane: Vikrant Singh Tomar
- Ambient air quality monitoring and its health effect, Greater: Noida Rajat Gautam
- Comparative study of heavy metals in sewage treatment plant: Pranjal Kumar
- Carcinogenic study of river Hindon water and its effect: Tanmay Tewari
- Water quality monitoring of river Ganga, Haridwar: Abhishek Khevriya
- Phytoremediation of contaminated site: Avneesh Kumar
- Arsenic contamination in ground water of district Ballia, U.P.: Sanjay Kumar
- Adequacy and Efficacy of Treatment plant treating electronics industry wastewater: Nitin Yadav
- Structural Analysis using Ansys: Harshit Sethi
- Damage assessment and redesign of multi storey RCC building: Mohammad Towqeer
- Design of shake table for earthquake resistant structure: Shirish Singh
- Seismic analysis of multistory RCC structure: Syed Zahid
- Development of light weight thermal insulated blocks using waste material: Vikas Prabhakar

Invited Talks

- Invited to deliver lecture on “Water Quality Issues and their Testing Procedures” in a short term training programme on Water Supply for Urban Areas, organized by Department of Civil Engineering at MNIT, Jaipur on 12-13th May, 2012.
- Invited to deliver lecture on “Waste Minimization: Tools & Techniques” by Department of Civil Engineering at NIU, Greater Noida on 13th February, 2013.
- Invited to deliver a lecture on “solid waste management” by Department of Rural Development, NITTTR (Under Ministry of Human Resource Development, Govt. of India), Chandigarh on 02nd October, 2015.
- Invited to deliver lecture on “Waste Minimization: Tools & Techniques” by Department of Civil Engineering at ITS College of Engineering and Technology, UPTU, Greater Noida on 23th August, 2016.

Laboratories Developed

- Basic and Advance Surveying Lab

- Environmental Engineering Lab
- Advanced Environmental Engineering Lab
- Environmental Monitoring Lab
- Transportation Engineering Lab
- GIS and Remote Sensing Lab
- STAAD Pro Lab

Courses and Syllabus Designed

- IT Applications in Civil Engineering
- Concept of Built Environment
- Water Supply Systems: Design, Operation & Maintenance
- Natural Resources & Management
- Sewage treatment and Disposal
- Ecology & Environment
- Energy & Environment
- Hydrology
- Solid and Hazardous Waste Management
- Soil and Groundwater Contamination
- Environmental Impact Assessment
- Management in WATSAN
- Industrial wastewater treatment
- Advance Environmental Engineering Lab-II

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