



Bhawana Tiwari
Roll No.: 23CEM6R05
M.Tech
Environmental Engineering
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EDUCATION

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|-----------------------------------------------------------------------------|------------------|
| • National Institute of Technology, Warangal | 2025 |
| <i>M.Tech in Environmental Engineering</i> | CGPA: 7.3 |
| • Dr. A.P.J. Abdul Kalam Technical University Lucknow, Uttar Pradesh | 2018 |
| <i>B.Tech in Civil Engineering</i> | Percentage: 77.4 |
| • St. Xavier Dharahra Ballia Uttar Pradesh | 2014 |
| <i>CBSE</i> | Percentage: 70.0 |
| • ST. XAVIER'S SCHOOL | 2012 |
| <i>CBSE</i> | CGPA: 8.4 |

EXPERIENCE

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| • Green Tree Global. Ltd | 10 SEPT - Till Now |
| <i>Energy Analyst</i> | Noida U.P |
| <ul style="list-style-type: none">– Conducted energy data analysis and benchmarking to identify efficiency gaps and recommend energy optimization measures for commercial and industrial projects.– Assisted in energy audits, carbon footprint assessment, and sustainability reporting, supporting compliance with national and international energy standards.– Evaluated renewable energy and energy conservation opportunities, preparing technical reports and cost-benefit analyses to support data-driven decision-making. | |
| • Emerging Enviro- Tech solution and services Pvt. Ltd | 03 June 2024 - 24 July 2025 |
| <i>Intern</i> | Lucknow U.P |
| <ul style="list-style-type: none">– Designed and Optimized SBR Process – Developed Sequencing Batch Reactor (SBR) treatment configurations to enhance organic load reduction, nutrient removal, and effluent quality.– Engineered Automation and Process Control – Integrated automated cycle operations, aeration control, and sludge management strategies to improve system efficiency and energy savings.– Developed Performance Monitoring Framework – Established key performance indicators and conducted regular assessments to ensure regulatory compliance and operational excellence. | |
| • Lucknow Metro Rail Corporation (LMRC) | 01 June - 30 June 2017 |
| <i>Intern</i> | Lucknow U.P |
| <ul style="list-style-type: none">– Gained hands-on experience in environmental management and sustainable infrastructure development within metro rail systems.– Assisted in analyzing wastewater treatment, energy efficiency measures, and environmental impact assessments for urban transportation projects.– Conducted research on waste minimization strategies and green practices in metro rail operations. | |

PERSONAL PROJECTS

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| – Vermifiltration as Treatment for Dairy Effluent: Process Optimization And Nutrient Recovery | Ongoing |
| <i>M.Tech Dissertation</i> | |
| <ul style="list-style-type: none">* Software Used: -Utilized advanced techniques such as Response Surface Methodology (RSM) to optimize vermi-filtration parameters, enhancing treatment efficiency.* Designed and Optimized Filtration System – Developed a vermifiltration setup tailored for dairy effluent treat-ment, optimizing key parameters to enhance pollutant removal efficiency.* Engineered Sustainable Nutrient Recovery Process – Designed a nutrient recovery strategy within the vermifil-tration system to improve resource utilization and promote circular wastewater management.* Developed Analytical Framework for Performance Evaluation – Established a systematic approach for monitoring and assessing treatment efficiency through comprehensive physicochemical and biological analysis. | |
| – Environmental Impact Assessment of Highway | June, 2024 |
| <i>Mini Project - I</i> | |

- * Conducted a comprehensive Environmental Impact Assessment (EIA), evaluating potential environmental impacts and ensuring compliance with regulatory standards.
- * Regulatory Compliance Risk Mitigation – Assessed compliance with environmental laws and implemented mitigation strategies to minimize ecological disruption and project risks.
- * Impact Prediction Sustainable Planning – Utilized advanced assessment tools to forecast environmental impacts and proposed sustainable design modifications to reduce environmental footprint.
- * Technical Reporting Stakeholder Engagement – Prepared detailed EIA reports aligning with regulatory standards and collaborated with stakeholders to facilitate informed decision-making.

–Self-Reliant City Development and Sustainable Urban Planning

April, 2018

B.Tech Project

- * Integrated Sustainable Infrastructure – Contributed to the planning and design of self-reliant urban systems, incorporating renewable energy, efficient water management, and waste recycling.
- * Resilient and Smart City Solutions – Developed strategies to enhance urban resilience through decentralized wastewater treatment, rainwater harvesting, and sustainable mobility.
- * Resource Optimization and Circular Economy – Focused on maximizing resource efficiency by promoting energy self-sufficiency, green spaces, and low-carbon urban development.
- * Policy and Community Engagement – Assisted in formulating policies for self-sustaining cities while engaging stakeholders to foster sustainable living practices.

TECHNICAL SKILLS AND INTERESTS

Software Used: QGIS, EPANET, OPENLCA, HEC-RAS, One Click LCA, Design Builder, Civil3D, MATLAB, Berley Madonna, RSM, AutoCAD, MS Excel

Soft Skills: Quick Learner, Critical thinking, Adaptability, Project Management, Leadership, Team Building, Communication

Coursework: Water Supply systems, Solid Waste Management, Environmental Health and safety, Life Cycle Analysis, Biotechnology for waste management, Wastewater Treatment Systems, Environmental Impact Assessment and Management, Air Pollution and Control, Water Resource Engineering, Geotechnical Engineering, Hydrology, Resilient Infrastructure, Climate Adaptation.

POSITIONS OF RESPONSIBILITY

- **Teaching Assistant,** Advanced Environmental Engineering Lab *From July 2024*
- **Class Representative,** B.Tech.Civil Engineering *2014-2018*

TRAININGS/WORKSHOPS

Fundamentals of ESG and Sustainability

26th July, 2024 – 25th September, 2024

Ramanujan College, University of Delhi

Advances in Biological Wastewater Treatment and Integrated Waste Management

23 Sep, 2024 - 28 Sep, 2024

National Institute of Technology, Warangal

ACHIEVEMENTS

- **AICTE PG Scholarship** *August, 2023*
- **Won multiple school essay writing competitions, demonstrating strong writing skills.**