

Kartik Tiwary

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Education

Queens University Belfast

2023 - 2024

Master of Science: Environmental Engineering
Belfast, Northern Ireland
Result: 2:1 Upper Second-Class Honors

KIIT School of Biotechnology, KIIT University

2018 - 2023

Integrated Dual Degree: Biotechnology
Odisha, India
CGPA: 8.2

Work Experience

Espina Technologies Pvt. Ltd

May 2024 to November 2024

ESG Research Associate

- Investigated the integration of sustainability, data privacy, and regulatory compliance in cybersecurity.
- Created a structured methodology to study the intersection of ESG and cybersecurity, identifying benefits, challenges, and best practices.
- Evaluated and proposed innovative models for effective ESG-cybersecurity integration, enhancing sustainable IT practices and risk management.
- Analyzed real-world case studies and explored future trends in ESG-driven cybersecurity strategies.
- Developed ESG-integrated services for Espina, enhancing environmental responsibility, social impact, and governance standards.

Expresion Academy

July 2022 to December 2022

Student Intern

- Performed comparative genomic studies between different organisms
- Learnt RAAS, MEGA and EZ BioCloud software.

ITC Limited

June 2021 to July 2021

Industrial Training

- Gained in-depth knowledge of the manufacturing process in the trademark processed food division, focusing on production efficiency and quality control.
- Worked closely with the quality assurance team to certify batches for safety and sale, ensuring compliance with food safety standards and regulatory requirements.

BioLim Centre for Science and Technology

October 2020 to November 2020

Student Intern

- Developed and implemented research methodologies, modified existing procedures, and executed various research tasks to achieve project objectives.

- Performed extensive research on multiple topics to enhance knowledge and expertise, enabling valuable contributions to the project.
- Acquired skills in scientific writing under the guidance of an esteemed research panel, improving the ability to communicate research findings effectively.

Projects:

Queens University Belfast

May 2024 to September 2024

Thesis Dissertation

- Partnered with Mannok, Breedon, and Irish Cement to develop low-carbon cement, addressing environmental issues in Lough Neagh, Northern Ireland.
- Investigated biochar as a cement replacement to capture carbon and divert excess nutrients from farmland.
- Tested biochar reactivity using heat release, bound water, calcium hydroxide consumption, strength, and bulk resistivity.
- Prepared MICP stock solution, soaked biochar, performed TGA analysis, and measured bicarbonate content, successfully creating self-healing biochar blocks for further experiments.

KIIT School Of Biotechnology

January 2023 to July 2023

Thesis Dissertation

- Successfully extracted biosurfactants from diverse bacteria for optimized use in biodiesel production.
- Demonstrated that the extracted biosurfactant enhances various parameters determining biodiesel quality through comprehensive testing.

Skills

- Environmental Engineering: Coring Techniques, Carbon content estimation, Borehole Logging, Land Surveying, Google Earth Engine, GMS Software, ArcGIS Pro, EIA Reporting, TGA Analysis, XRD Analysis, MODFLOW, AutoCAD 2D, Nature Based Solutions, Urban Heat Modelling, ESG Research Techniques
- Biotechnology: Bacterial Culture Techniques, Lab Scale Biodiesel Production, Spectrophotometry, ELISA, HPLC, PCR
- Computing Skills: Microsoft Word, Microsoft Excel, Microsoft PowerPoint, Microsoft Outlook, Windows, MacOS, Linux, Ubuntu.
- Soft Skills: Ability to work in a team, Leadership, Communication Skills, Adaptability, Fast Learner, Report Writing, Desk study, Quantitative and Qualitative Research Methods.

Achievements

- Secured a CGPA of 10 in Final Semester of College, KIIT School of Biotechnology, 2023
- Rank 1, Inter College Swimming Competition, conducted by KIIT School of Biotechnology, KIIT University, 2022
- Zonal rank 15 in National Science Olympiad, 2017
- Certificate of Excellence for doing Social Work and helping spread education in a village, 2016