

Ongoing Research Project

SPRING (“Strategic Planning for Water Resources and Implementation of Novel Biotechnical Treatment Solutions and Good Practices”)

The Water and Environmental Technology (WET) Research Centre is actively engaged in a groundbreaking research project titled SPRING, funded by the Department of Biotechnology (DBT) India and the European Council under HORIZON 2020. This collaborative initiative brings together esteemed institutions from both India and Europe, fostering a dynamic exchange of knowledge and expertise.

Collaborating Partners:

Indian Partners:

- SRKREC (Sagi Ramakrishnam Raju Engineering College)
- IITG (Indian Institute of Technology, Guwahati)
- IIT-BHU (Indian Institute of Technology, Banaras Hindu University)
- IITKGP (Indian Institute of Technology, Kharagpur)
- DY Patil Engineering College
- Elixer Eco Biotech Pvt. Ltd.
- Pallavi Trust

European Partners:

- UiT-Norway (UiT The Arctic University of Norway)
- University of Pecs-Hungary
- Finnish Water Forum-Finland
- INESC TEC-Portugal
- SINTEF-Norway
- Enviroinvest-Hungary

Research Focus (SRKREC):

The project's primary focus at SRKREC involves a comprehensive water quality assessment of all canal commands and drain catchments in the West Godavari study area. Leveraging high-resolution satellite data of Land Use and Land Cover (LULC), the team strategically selects sample locations based on geospatial maps. The generated maps, enriched with information on canal and drainage networks, settlements, industrial coverage, and agricultural practices, play a pivotal role in pinpointing both point and non-point sources of pollution within the canals and drains of the study area. The pollution data libraries amassed are subjected to rigorous analysis using advanced multivariate statistical methods. This meticulous approach helps in identifying pollution patterns within the study area, providing invaluable insights into the complex dynamics of water quality. The integration of pollutant patterns and databases with geospatial findings has

facilitated the development of vulnerable zones within the study area. These zones are categorized based on their suitability for various purposes, including drinking water, aquaculture, irrigation, livestock usage, and marine disposal. This interdisciplinary research not only advances our understanding of water quality dynamics but also lays the groundwork for informed decision-making regarding the sustainable use of water resources. The ongoing SPRING project exemplifies the WET Research Centre's commitment to cutting-edge research with far-reaching implications for environmental management and water resource sustainability. Stay tuned for updates as we continue to unravel the complexities of water quality in West Godavari.