MESTECH Research Project

Project Title:

Deployment of Continuous Environmental Monitoring Sensor

Project Researcher:

Dr. Timothy Sullivan

Funding Body:

Dublin Smart Bay Smart Ocean

Project Summary:

This project involves the deployment of a YSI multi-parameter sonde and the continuous monitoring of the physiochemical properties of marine waters. As well as providing continuous physicochemical data (temperature, conductivity, DO, pH and chlorophyll-a), the sonde serves as a benchmark for the MESTECH colorimetric sensor, the materials testing and supports satellite imaging data modelling and analysis, and thus, is closely aligned with the other current MESTECH projects. This work takes place using the estuary of the River Liffey in Dublin where the outputs and benefits resulting from fusion of multi-modal sensing technologies to predict and understand freshwater input into estuarine systems takes place.

Key Outputs:

- Baseline data set contributing to increased understanding coastal process including phytoplankton dynamics and geochemical cycle
- Data set contributing to enhanced management and decision making in regard to security and Water quality
- Deployment of environmental sensing network template pilot project that can be sent to other locations

- Public outreach with regard to water quality, recreation, and involvement of other stakeholders, example fishers, and marine port management, for a greater availability of information