



MESTECH Research Project



Project Title:

Assay Analysis of Biofouling

Project Researcher:

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Project Summary:

This project will involve the development of materials as coatings for sensors and other structures with an aim of reducing and preventing biofouling. The materials will be bio-inspired polymers typically, with surface features designed to reduce bacterial or diatom attachment. The materials may contain some effective chemistry also. This project involves quantifying the amount of biofouling that takes place on various materials and surfaces via a biochemical assays that determine protein, carbohydrate, and DNA concentrations. The goal is to use these biochemical assays to numerically determine the amount of biofouling on each surface so that the success of the different antifouling materials can be established. Learning the assessment techniques, the preparation of the coatings and finally deploying them material and assessing any fouling that takes place are the main tasks involved with this project.

Key Outputs:

- To develop a successful analysis method that delivers reliable results with regard to the level of antifouling on the materials present
- To reduce antifouling on marine sensors
- Publications and contribution to knowledge in the area of antifouling methods