EDITH COWAN UNIVERSITY

PROJECT DETAILS

Project Title:

Reliable and Secure Underwater Positioning System

Project Summary:

The rising use of Autonomous Underwater Vehicles (AUVs) and Remotely Operated Vehicles (ROVs) in complex marine tasks underscores the need for advanced underwater positioning technology. Crucial for effective and extended operations, these technologies, however, grapple with security vulnerabilities and susceptibility to attacks. Many current localization methods, lacking in-built security measures, risk exposing sensitive location data or succumbing to malicious tampering, resulting in erroneous data that can undermine critical missions in areas like underwater surveillance or maritime control. This project seeks to fortify the positioning mechanisms for AUVs and ROVs in environments devoid of GPS, ensuring their operational integrity and reliability.

Preferred Applicant Skillset:

We are looking for an outstanding PhD applicant with a strong drive and extensive research background in the fields of electronics and communication engineering, especially in underwater communications. The i deal candidate should demonstrate a robust academic and research profile, showcased by high-quality publications in reputable IEEE/Elsevier journals. Preference will be given to applicants holding a M aster by Research degree or a Master's degree with a considerable thesis component.

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