A Novel Approach in Oil Spill Detection, Identification, and Classification via Multisource Technologies and Artificial Intelligence

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The conventional methods for early oil spill detection have encountered numerous challenges, primarily due to the complex and variable nature of spill events. Our pilot promotes an anomaly-based approach, treating oil spills as environmental outliers, and utilizes baseline water parameter comparisons to d detect and monitor sea oil spills effectively. Our approach leverages satellite data, employing a combination of remote sensing techniques and advanced machine learning technologies. Additionally, we provide an application designed for monitoring and detecting oil spills to empower users worldwide to conduct regular assessments, contributing to the proactive prevention of future environmental damage.