Automated System for Marine Environmental and Technical Monitoring

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Efficient Network International (Singapore) Pte Ltd, together with its partners, OceanPixel Pte Ltd (Singapore) and Aquatera Ltd (United Kingdom), is working on a project, "Automated System for Marine Environmental and Technical Monitoring", with initial application around tidal turbine monitoring. The solution comprises of an automated remote data collection and transmission system with cloud-based data storage and processing and with archival system of reports for future reference.

Various sensors (flow sensors, proximity sensors) will be integrated into a camera system (with custom image processing applied) giving the system situational awareness (e.g., collision detection and prediction, etc.) With the advent of the new automated system, sensor data can be remotely transmitted from the project site into a cloud-based server for storage and processing. With this development, there will be significant improvements in how data is gathered, analyzed (either automatically or semi-automatically), transmitted and stored.

Ultimately, this Project will result in significant cost savings for marine energy industry whilst helping reduce scientific uncertainty regarding the greatest environmental challenges facing the emerging global ocean energy sector.