Evening Technical Meeting:
Shark Fest

Wednesday, 8th February 2017
Parmelia Hilton Hotel (Swan Room), Mill St. Perth

Society for Underwater Technology

Onsite Registration 5.30 pm: Presentations 6.00 pm – 7.30 pm Networking over drinks and finger food 7.30 pm – 8.30 pm

To register for the event visit www.trybooking.com/NSMF

Chaired by: Terry Griffiths, Director, Aurora Offshore Engineering

Sound and Sharks, Investigating Detection from Different Directions

Miles Parsons, Research Fellow, Centre for Marine Science and Technology, Department of Astronomy, Imaging and Applied Physics, Curtin University

Over the last three years Curtin University has received funding from the WA Department of Premier and Cabinet to investigate potential acoustic methods for shark hazard mitigation. Sound propagates efficiently through water and is used extensively for census of marine fauna and communication, by both animal and humans. The Centre for Marine Science and Technology has been using sonar to detect sharks in shallow water, producing some promising results and raising a number of issues for its long-term use as a beach management alert for shark presence. CMST has also characterised sounds produced by humans in the beach environment, together with their likely propagation in the water to investigate whether they are a cue that nearby sharks may investigate and if there are potential mechanisms to mitigate this.

Shark Attack Training: Can sharks be taught not to attack humans?

Lindsay Lyon, CEO & Managing Director, Shark Shield Pty Ltd

In psychology classical conditioning is best known from the experiments by Ivan Pavlov where a stimulus was presented and then the dog was given food, after a few repetitions when the stimulus was presented the dog would salivate. CSRIO scientists have noted that tracked sharks often follow the same route annually stopping at the same beaches along the way, literally to the day. Could the use of new electrical deterrents on surfboards over time generate a conditional response in sharks. If every time a shark swims by a surf break it gets a massive headache from the electrical deterrent, will it stop swimming by that particular area. Can electrical deterrents be used to teach sharks to avoid humans?

Shark Mitigation – Practical scientific technology applications

Richard Talmage, General Manager CleverBuoy™ Division, Shark Mitigation Systems Ltd

SMS was founded to focus on "developing scientific, non-invasive technologies to mitigate shark attacks". We'll discuss our patent protected technologies including SAMS™, a visual design technology and CleverBuoy™, a sonar detection and alert system for beach safety. SAMS™ was developed utilising specialised molecular biology techniques to isolate and sequence the gene(s) that code the retinal visual pigments found in the eye in selected species of large sharks. CleverBuoy™ uses the latest generation of multibeam imaging sonars which provide a real-time, high frequency imaging solution which when combined with SharkTec, state-of-the-art shark detection software and processing electronics, interrogates sonar images to match the swim pattern and shape of objects in order to differentiate between marine animals.

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(correct at time of creating flyer)

ETM programme is subject to change

REGISTRATION FEES: Student/Individual/Corp Members $25*: Non-Members $45: (additional $5 if paying on night)

Event Sponsors

THE UNIVERSITY OF WESTERN AUSTRALIA

SMS SHARK MITIGATION SYSTEMS

CPD = 1.5 hrs

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Further sponsorship opportunities available. Please contact Jennifer at j.maninin@sut.org for further details.

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