

OSIGp

Movie Night

Thursday, August 5th, 2021

17:30 On-site registration

17:30 to 18:00 Networking

18:00 to 20:00 Presentations

State Library Theatre

25 Francis Street

Perth WA 6000

This event is a relaxing evening of short movies showcasing aspects of science, technology, project execution, engineering, and innovation as well as industry networking. Presenters narrate the silent movies live to provide commentary and unique insight.

Mattress Stability Physical Model Testing

Claye Jensen (Atteris)

While articulated concrete block mattresses are regularly used to enhance stability of flowlines and umbilicals, the commonly employed design approach is highly theoretical and not well supported by physical model testing, leading to potentially over-conservative designs. Atteris have recently completed a program of physical model testing for articulated concrete block mattresses in the Large O-Tube at the University of Western Australia's Coastal and Offshore Engineering Laboratory (COEL). The test results provided an improved understanding of mattress failure modes, and in particular the concrete block mattress' capacity to resist the loads applied by a flowline (or umbilical) when both are subjected to hydrodynamic loading, allowing the potential for significant cost reductions.

An Update from Star of the South Offshore Wind Farm, Australia Star of the South

The Star of the South is Australia's first offshore wind project, proposed to be located around 10km off the south coast of Gippsland. The project is in the feasibility and early planning phase, with site investigations and environmental studies underway. If developed to its full potential, the project could generate up to 2.2 GW of clean energy to complement other forms of generation for a more reliable system and create long-term local jobs. The project is being progressing by a Victorian based team, combining local knowledge with international experience and investment from Copenhagen Infrastructure Partners (CIP). CIP was awarded the Infrastructure Investor's Renewable Investor of the year for 2019 and recently closed the world's biggest renewable energy fund.

O-Tube laboratory at UWA: sediment transport around subsea structures

Hongwei An

Riding the Wave to a Sustainable Future:

Young Researchers in Ocean Energy Research

Professor Christophe Gaudin

The environmental, social, and economic consequences of climate change are becoming increasingly apparent. Human activity from pollution to overpopulation is driving up Earth atmosphere's temperature and fundamentally changing the world around us.

Transitioning to clean energy is one of the key ways of reducing greenhouse gas emissions, and it must include a diverse mix of renewable sources to guarantee reliable and affordable energy for all. The biggest opportunity and next engineering challenge in a decarbonised world is harnessing ocean renewable energy.

There is enormous potential for ocean renewable energy, such as tidal and wave resources. Wave energy could contribute 10% of Australia's energy needs - but this calls for innovative solutions to make wave energy technology cost-competitive at commercial scales.

This film showcases the work of five young postgraduate students who undertake cutting-edge research at The University of Western Australia's Wave Energy Research Centre. Their projects in a 'Surface to Seabed' approach to ocean engineering all help us progress innovation in a decarbonised world.



\$15 student (limited to 10)

\$30 SUT member

\$50 non-member

Please register at

<https://osigmovienightaug21.eventbrite.com.au/>

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2.0 CPD hours can be claimed for this event.

Please keep flyer and receipt for auditing purposes.

Contact

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The Offshore Site Investigation and Geotechnics Perth (OSIGp) Group is a special interest group of the Society for Underwater Technology (SUT). We promote technical advancement and knowledge sharing amongst academics and practitioners in the fields of geology, geophysics, geomatics, and geotechnical engineering.

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