

# Big Blue World

The Global Newsletter of the Society for Underwater Technology  
Issue 2, December 2021



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## Editor

### Emily Boddy

[emily.boddy@sut.org](mailto:emily.boddy@sut.org)

Contact Emily to submit an article, send in Corporate Member news, or member updates and photos, or to find out about advertising and sponsorship opportunities in *Big Blue World*.

## Introducing Jade Melville

Jade joined the SUT Perth team in Dec 2021, with over six years Events and Marketing experience within corporate organisations.

Her role will focus on the administration, coordination and marketing of Perth events as well as updating the Perth Branch area of the website.

Glad to have you on the team, Jade!



# Welcome from the SUT CEO

## Cheryl Burgess, SUT CEO

As 2021 draws to a close and many of us are able to take a break and enjoy the holiday season, it is a time to look back over the year as well as ahead to 2022.

Despite of restrictions on travel, business and social gatherings it has been a busy year for the SUT: online training being delivered to a global audience, webinars, a face-to-face seminar in Newcastle, Energy In Transition and the Impacts for Site Investigation and Characterisation. Ocean Business in Southampton provided an opportunity for SUT speakers to participate in key note sessions, panel sessions, students on careers as well as network with members and non-members with new technology on show in the marquees and outside along the quay. Internationally, the Perth, Houston and Middle East Branches have all had active programmes. Singapore has held webinars as has the Brazil Branch. If you have not already had a chance to read the [SUT Annual Report](#) I encourage you to read the review of the year and see what you missed.



**Cheryl Burgess**

Planning is underway for SUT presence at Oceanology International in London in March. But before this, SPE's Offshore Europe Exhibition is due to take place in Aberdeen in February. We look forward to seeing you there.

In the newsletter and on the SUT web pages for Events you will see that training courses are on the calendar for subsea awareness, and offshore wind in March 2022. The OSIG committee have started planning for their next seminar and another training course in the second-half of 2022, as well as new and additional training courses in development.

I would like to thank our out-going Executive Committee: **David Saul**, Chair; **Judith Patten**, President; **Mick Cook**, Honorary Treasurer; **Dave Brookes**, Honorary Secretary; and **Ralph Rayner**, Past President, for all of their hard work over the year. Following the AGM we welcome the newly elected **Moya Crawford**, President; **Sue John**, Chair; **Iain Knight**, Honorary Secretary and **Nigel Carey**, Honorary Treasurer as the new Executive Committee and members of Council. Their work in the Exec and the work of the Council has and will continue to provide the support and strategic delivery of the SUT's objectives and keeping membership in the Society meaningful and beneficial. To say thank you for your service to these individuals and all the volunteers who participate in committees feels inadequate. Nonetheless, it is our volunteers who keep the SUT up-to-date, relevant to our membership and are the foundations of the Society's activities today. And thank you to my colleagues: Jane, Jacqui and Emily for all of your hard work, your knowledge, and helping me learn how the SUT functions.

Despite the uncertainties of Covid, we plan for the future. We aim to grow our membership, increase our training and events offering. Sustainability of the SUT requires growth. Growth of membership, growth of income from events. As these initiatives and more come to fruition I hope the membership will consider how they can make full-use of their membership and benefits of becoming active participating members.

Please remember that the SUT office will be closed between Christmas and the New Year Bank Holiday and staff will not be available to answer phone calls or email.

*Season's Greetings, Peace on Earth and Goodwill to All.*

## A Message from our new SUT President



**Moya Crawford, SUT President**

‘Society’, ‘Underwater’, ‘Technology’

These three words directly mirror onto what the global marine salvage industry seeks to save in ‘Life’, ‘Environment’, and ‘Property’ of the global marine salvage industry and worldwide, classification ‘societies’ – that word, again – seek to protect. Giving me the confidence as the new President of the SUT, who has actively worked for many years across these two inter-linked communities, that principles-based thinking as a means of rapidly assuring sustainable innovation is where

**Moya Crawford**

I should like to exercise my influence.

Few would argue that these are challenging times, but they could be, and according to many projections, will be worse, if millions of us in the human race do not alter our behaviour. My experience of innovation over the decades has had highs and lows. Undertaking deep water cargo recovery on ‘No Cure/No Pay’ was a very good preparation for the level of risk, but nothing prepared me for the level of bureaucracy that stood in the way, or the outright resistance to change that one met. So, as a first step, and relying on my experience in underwater demolition and remote cargo recovery, in which the goal is obvious to all, I would like to action two initiatives.

The first is to ask members to get in touch with respect to what they mean by ‘sustainability’, and the second is to suggest how they would describe the industry and discipline in which they operate, respectively using just a verb and a noun. This latter technique called Functional Analysis Systems Thinking, or ‘FAST’, for short was used successfully in WWII to come up with different means of achieving the same end, when materials and labour were both short.

[President@sut.org](mailto:President@sut.org)

My use has a different purpose. In the complicated and dynamic four-dimensional mosaic that represents our use of the seas and oceans, we will only come to solutions that take into account the ‘economics of biodiversity’, to borrow from the Dasgupta Review, if we treat Anthropogenic Matter, Material, Objects, Structures and Substances (AMMOSS) and their +/- Impact on the Marine Ecosystem, openly, transparently and consistently, using common units, values and metrics – which necessitates, both using our heads and offering a non-partisan platform in which sensitive discussions can be had, based on trust, respect, practical understanding and reflective knowledge – a role that the SUT, as a learned society, needs to occupy once more.

I am therefore delighted that one of our new CEO’s early ambitions is to revitalise the Parliamentary Advisory Committee. When I first knew this group it was limited to the UK. I sincerely hope that there will be keenness in spreading the net further. As an international, multi-disciplinary body that has been linked by the seas and oceans for over five decades, we know that individual interests and mutual fates are often shared.

## A Message from our new Chair of Council



**Sue John, Chair of Council**

I feel very privileged to be the first female elected Chair of the Society. I first became involved informally by arranging a Christmas Lecture whilst working in the School for Earth and Ocean Sciences at Cardiff University, since then I have been hooked! I am a science communicator, who grew up literally across the road from the sea, with a father who was an engineer. What else would I be interested in?

**Sue John**

It is said these days that no one has a job for life, and I think I’m a classic example of that. I started off in banking transferring over to the Inland Revenue, advanced into the volunteering sector, became a mature student and never looked back since.

That is a very pared down version of my career path, which has always involved education in one form or another. I have worked in every stage of the education sector from nursery to post graduate studies. Twenty or so years ago I was delivering LEGO robotic sessions in schools around Wales and the Southwest, training teachers to deliver this topic in the classroom, while at the same time encouraging and supporting young women into the science and engineering sectors. I was one of the very first Science and Engineering Ambassadors.

I am very involved with volunteers, after all, I am a volunteer Chair of the Society. I was a volunteer committee member and Chair of the Education and Training Committee and Council Member. I am a volunteer Apprentice Master, with the Worshipful Company of Scientific Instrument Makers, supporting an Arkwright Scholar and an A level student.

Our Society is based on volunteers who do the most amazing things, developing and delivering training courses; organising conferences, award dinners, social events, quiz nights and goodness knows what else all in the name of the Society for Underwater Technology. Long may that continue - each idea from a volunteer is a way of constantly refreshing our activities. If you have good ideas, please do let me know about them, and together we can see our members and the Society benefit.

I am very much looking forward to working with members and external organisations to ensure that the SUT flourishes and contributes to the sectors we serve in so many ways.

## Welcome to our new Corporate Members

Welcome to our newest Corporate Members!

[Click to find out how your organisation can join the SUT as a Corporate Member.](#)



The Defence Science and Technology Laboratory



Hugh Fraser International



Offshore Energy UK Limited

## All-change for SUT Elected Officers + News of SUT Award Winners

This month's AGM of the Society for Underwater Technology marked the official hand over to new elected officers in all senior posts – President, Chair, Hon Secretary and Hon Treasurer; the announcement of three new Fellows of the Learned Society; and of winners of three Awards, The President's Award, the Lennard-Senior Award; and the Gwyn Griffiths Award for Underwater Robotics. Once all the formalities were concluded SUT members were treated to a fascinating talk on 'eDNA: The future of ocean biodiversity monitoring' by **Dr Katie Cruickshanks** of NatureMetrics.

### The new officers

SUT's Cheryl Burgess explained:

“By coincidence our Chair, **David Saul**; our Hon Secretary, **Dave Brookes**; and our Hon Treasurer, **Mick Cook** had all reached the end of their permitted terms of office at the same time; and our President **Judith Patten MBE** has also stepped down after her year in office. We thank them all for their sterling service during unprecedented times. Both David Saul and Judith Patten will remain on SUT's Council.

“**Moya Crawford** is our new President; **Sue John** our first female Chair; **Iain Knight** takes on the role of Hon Secretary and **Nigel Carey** becomes Hon Treasurer – what a team!”

### New Fellows of the SUT

Three new SUT Fellows have been elected:

- **Simon Hems** for services to the London and South of England Branch
- **Steve Duffield** for services to the Perth (Australia) Branch and SUT's International Committee
- **Rex Hubbard** for services to the Perth Branch



(L-R) Iain Knight, Sue John, Moya Crawford, Nigel Carey



Judith Patten MBE presents the SUT 2021 President's Award to John Howes

### Awards

The President's Award 2021 was presented to **John Howes**, publisher and editor of *UT2*, and *UV2* at an auspicious time. *UT2* has recently reached a major milestone – 75 issues have been published since 2006. As the citation states:

“The President's Award is made to John Howes, a great friend of the Society, the respected journalist, publisher and expert in the field of underwater technology in recognition of the years of service he has performed with, and for the SUT, its members and the wider industry.”

## Annual Report 2020-2021



[Click to see the latest Annual Report](#) of the Society for Underwater Technology (2020-2021) including reports from SUT Branches, Special Interest Groups and an update on the Educational Support Fund, and [click here to see the Society's audited accounts](#) for the year ending June 2021.



Dr Katie Cruickshanks talks 'eDNA: The future of ocean biodiversity monitoring'.

UT2 was one of the first magazines in the world to be produced for online publication and: "is not only a 'go-to' publication for its content, but visually is in a class of its own". UT2 focuses on underwater vehicles and increasingly has video embedded which can also be found on the Subsea Video YouTube channel. John Howes also publishes old underwater-related photos on LinkedIn, a service that has attracted over 17,000 followers and a host of comments which may in time lead to history qualification looking at 'Subsea 1960 to the present'.

The Lennard-Senior Memorial Prize is awarded annually in memory of two of the original members of SUT's Marine Renewable Energies Committee (MREC) – Don Lennard and Gordon Senior. This year's winner (nominated by and voted for by members of

MREC) is Neil Kermod, Managing Director of the European Marine Energy Centre (EMEC) in Orkney.

Neil won the inaugural award ten years ago in 2011 and "still – perhaps more than ever- deserves this accolade today... EMEC has marine renewables at its core and has extended its reach, to great effect, to encompass hydrogen and energy systems... Neil is a true champion of enabling the marine energy sector". His Award will be officially presented at All-Energy 2022 in Glasgow in May 2022.

Attendees at the AGM were also made aware of the winner of the inaugural Gwyn Griffiths Award for Underwater Robotics – Aleksandra Tomaszek, co-founder of 1CSI Ltd (see press release issued 8 November <https://tinyurl.com/42y5t8wb>)



(L-R) Renae Drew, Steve Duffield, Fiona Allan



Rex Hubbard (L) receives his Fellowship from Mark Casey

## Dates Announced for SUT Virtual Courses for Q1 2022

Feedback on the SUT's Virtual Subsea Awareness Course and their Virtual Offshore Wind Renewable Energy Course proved so positive that the iterations of both are to be held in March 2022.

As SUT's Chief Executive, Cheryl Burgess explained:

"Delegates attending from around the world, combined with very positive feedback from them, has led to us planning our third version of both of these online courses

"VSAC is the virtual version of SUT's highly successful in-person course which has been running for over 20 years and attracted in excess of a thousand delegates. The offshore wind course, developed in association with Cranfield University, was developed specifically for the virtual world and really hit the proverbial spot.

"Both are introductory courses taking delegates back to basics, something that has been greatly appreciated by all who have joined us.

"Presenter names will be announced early in 2022."

### Virtual Offshore Wind Renewable Energy Course

The Virtual Offshore Wind Renewable Energy Course will take place on 2nd and 3rd March over two online interactive 4-hour morning sessions from 09:00-13:00GMT. It will be delivered by Industry and academic experts, with an emphasis on the practical applications and cover:

- Wind and the Net Zero Challenge inc Deepwater Floating Potential
- Planning, Environmental Studies, and Approvals
- MetOcean/Weather: UK and NW Europe Focus including Deepwater for Floating Technology
- Fixed Bottom Offshore Structure Design and Integrity
- Offshore Site Investigation and Seabed Site Foundations
- Construction
- Cables
- Floating Wind Structures
- Completion, Post Installation, and Ongoing Operation
- As well as an Introduction to SUT.

The course is designed for professional non-engineers who would benefit from understanding the offshore wind energy industry; and engineers and technical staff who are new to this sector or making the transition from another industry as part of the energy transition.

[Click here for more information and to register.](#)



## Virtual Subsea Awareness Course (VSAC)

VSAC, being held over five mornings (15 hours in total) from 28th March to 1st April from 10:00-13:00GMT, is similarly aimed for specific individuals such as new entrants who are already technically qualified but just entering the offshore energy industry and/or the subsea sector; technically qualified experienced personnel undergoing a technology transfer and conversion process into the subsea sector; and non-technical personnel from legal or finance sectors who regularly deal with the subsea sector.

Sessions delivered by industry experts will cover:

- Subsea Production Equipment & Systems
- Flow Assurance
- Pipeline & Risers
- Constructions & Installation
- Metocean
- Renewables and Future Technology Trends
- Operation, Maintenance & Decommissioning

[Click here for more information and to register.](#)

## Course fees – excluding VAT where applicable

The fee for the Virtual Offshore Wind Renewable Energy Course is £325 for SUT members; and £415 for non-members. The fee for the Virtual Subsea awareness course is £715 for members and £845 for non-members. *Members of EEEGR, OES, IMCA and EIC can enrol for either course at the SUT membership fee.*

## Further information

Further information on both courses will be posted in the New Year on the training pages of the SUT website at [www.sut.org](http://www.sut.org). Both courses are CPD approved.

## SUT-US Marine Renewable Energy Committee

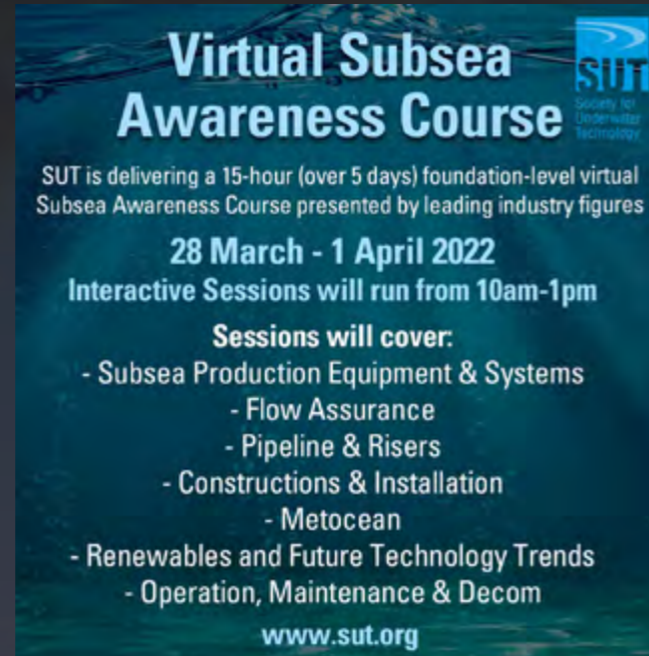
This committee has been moving forward positively over the last few months. We held our quarterly committee meeting, with representatives from both Academia and Industry, not forgetting participants from both the US and UK. This diversity helped provide a very interesting discussion.

In the last quarter, we have had presentations from; Carlos Aviva on the subject of analyzing the flow of air around turbines with CFD, Zack Skelton of Subsea 7 talked about the supply chain issues of offshore wind on the east coast of the US and Michael Hughes from Siemens Gamesa discussed a US NE offshore wind subsea inspection program undertaken this summer.

Presentations on both Marine Renewables and the Energy Transition as it relates to offshore have been given to; the Society of Professional Women in Petroleum (SPWP), Society of Petroleum Engineers, Texas A&M University and to a BOEM training course.

The group is also broadening out to support a Gulf of Mexico Networking group, Network to Network, Gulf of Mexico, see Network-to-Network for the Gulf of Mexico – [N2N-GoM](#).

We also welcome new members of the Committee, and those interested should contact Steven Johnson at [renewables@sut-us.org](mailto:renewables@sut-us.org).



**Virtual Subsea Awareness Course**

SUT is delivering a 15-hour (over 5 days) foundation-level virtual Subsea Awareness Course presented by leading industry figures

**28 March - 1 April 2022**

Interactive Sessions will run from 10am-1pm

Sessions will cover:

- Subsea Production Equipment & Systems
- Flow Assurance
- Pipeline & Risers
- Constructions & Installation
- Metocean
- Renewables and Future Technology Trends
- Operation, Maintenance & Decom

[www.sut.org](http://www.sut.org)

## Perth Scholarship winners

### SUT Chris Lawlor Scholarship Winner! - Congratulations Tahlia Bassett

Tahlia is the recipient of the SUT Chis Lawlor Scholarship. Tahlia graduated from Curtin University in 2019 with a Bachelor of Science (Coastal and Marine Science) and First Class Honours. She is currently undertaking post graduate studies.

[Learn more about her studies and how this scholarship will assist with her future career in the video here.](#)



Tahlia Bassett receiving her award at the SUT Perth Annual Dinner in November 2021

### Insights from Paula Cartwright Digital Automation in Engineering Scholarship Winner

Congratulations to Paula Cartwright who was awarded the Digital Automation in Engineering Scholarship, proudly Sponsored by Subsea Engineering Associates.

Paula is a PhD Scholar at The University of Western Australia's Oceans Institute.

She has a passion for applying new technologies to enhance the understanding of underwater environments. Paula's post-graduate research is based in the Exmouth Gulf region where she is combining multiple technologies including satellite imagery, remotely operated video (ROV) and machine learning techniques to quantify the contribution of large-scale oceanic processes, such as ENSO, to marine habitat functioning in this ecologically significant region.

Paula aspires to bring together multiple scientific disciplines and technological advancements to achieve research outcomes beyond what would otherwise be possible. Her 'big picture' is communicating these outcomes to managers and decision makers for the benefit of our marine resources.

[Learn more about her studies and how this scholarship will assist with her future career in the video here.](#)



Paula Cartwright receiving her award at the SUT Perth Annual Dinner in November 2021

### Insights from Marine Renewable Energy Scholarship Winner Jack Crawford

Congratulations to Marine Renewable Energy Scholarship Winner Jack Crawford, proudly sponsored by Aurora Offshore Engineering.

Jack is a third-year student at the Australian Maritime College. Studying OceanEngineering combines his love for the ocean and enthusiasm for problem solving. Through his studies he has developed a passion for marine renewable energy and the hydrodynamics of offshore structures.

Jack's final year thesis will focus on the performance of a hybrid wind and wave energy converter array. The project will be in relation to an Australia-China Joint Research Centre of Offshore Wind and Wave Energy grant that seeks to minimise the LCOE of wave energy converters.

[Learn more about his studies and how this scholarship will assist with his future career in the video here.](#)



Jack Crawford receiving his award from SUT Council Member Terry Griffiths



# OCEANS 2022

IITM Research Park, Chennai, India

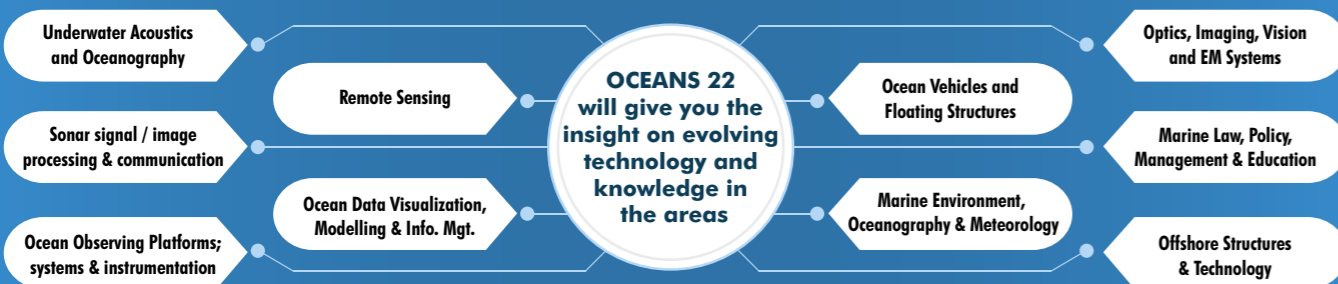
February 21 – 24, 2022

## Inspire - Innovate - Sustain



### Sustaining our Oceans . . . Sustaining our Future

Oceans 2022, organized jointly by National Institute of Ocean Technology & Indian Institute of Technology Madras. Venue - IITM Research Park, the gem of its facilities under the green cover of IIT Madras and warmth of Chennai.



Apart from above, focus will be given on emerging technologies. We expect about 500 international participants in the event. We intend to have about 10 parallel sessions at the venue. We shall have a large exhibition space to showcase high-tech products and services from the ocean engineering and marine technology industry.

**Come, participate in Oceans2022 - feel Chennai, India – and its flavor.**

**Special session on UN Decade of Ocean Science for Sustainable Development (2021-2030)**

For more details, visit [chennai22.oceansconference.org](http://chennai22.oceansconference.org)



## Neil Kermode awarded Lennard-Senior Prize



Neil Kermode, Managing Director at the European Marine Energy Centre (EMEC) has won the Lennard-Senior Memorial Prize for the second time.



Neil Kermode

The Lennard-Senior Memorial Prize has been awarded annually since 2011 in memory of two of the original members of The Society for Underwater Technology (SUT)'s Marine Renewable Energies Committee (MREC) – Don Lennard and Gordon Senior.

The Prize is nominated and voted for by the members of the MREC and recognises outstanding individual achievement in the field of marine renewable energy.

Neil was the inaugural winner of the prize in 2011, and ten years on has won it again for his continued and unrelenting work and being a “true champion of enabling the marine energy sector”.

The award was announced at the SUT annual general meeting earlier this month and will be formally presented at the All-Energy conference in May 2022.

Judith Patten, Immediate Past President, The Society for Underwater Technology, said:

“Neil trained as a civil engineer and has had a long-standing interest in energy. This interest led him to Italy, where he worked with the developer of a tidal turbine that generated electricity while anchored in the Straits of Messina off Sicily. The same path brought him to Orkney, which has placed itself front and centre in the drive to make marine renewables work; and with Neil's hand on the tiller EMEC still has marine renewables at its core and has extended its reach, to great effect, to encompass hydrogen and energy systems.

“Only days ago, EMEC won the Scottish Green Energy ‘Champion of Renewables Award’ thanks to Neil's strong leadership and the great team that he has built up to support his vision.

“It's been 10 years since Neil won in 2011; and still – perhaps more than ever – he deserves this accolade today.

“If New York was, as the song says, so good they named it twice, SUT's MREC (of which I am a proud member) is confident that those for whom this award is named would agree that Neil Kermode, just like New York, is so good we will indeed name him twice as winner of the Lennard-Senior Award.

“He is a true champion of enabling the marine energy sector!”

On accepting the award, Neil Kermode said:

“Thank you very much for this kind and generous award. I am genuinely honoured and surprised. But this is a team effort and without the full EMEC team it would not be possible to keep my foot so hard on the throttle!

“I have been given the licence to roam by having a great group supporting me, as well as friends and colleagues across the industry providing platform and credibility. All this together makes us what we are. I am so fortunate to hold the wheel.”

# Gwyn Griffiths Underwater Robotics Award

## Deadline approaching for the 2nd Gwyn Griffiths Underwater Robotics Award (GGURA)

SUT's International Panel on Underwater Robotics was honoured to announce the creation of the Gwyn Griffiths Underwater Robotics Award (GGURA) in 2020. The award recognises people in the early to mid-stages of their career (and under 40 years old) who have made outstanding contributions to their field in underwater robotics. The award may be for industry/commercial, research and/or creative activity in underwater robotics.

The winner will receive £500, a certificate and an engraved award.

Neil Bose, Chair of the Panel on Underwater Robotics stated:

“Members of the Panel on Underwater Robotics were excited by Professor Gwyn Griffiths’ generosity in supporting this award and were especially enthusiastic that it should be an early to mid-career award to encourage the up-and-coming generation of underwater robotics workers in their careers.”

Gwyn Griffiths MBE, a Past President of the SUT added:

“As a vibrant, forward-looking learned Society the SUT is at the forefront of encouraging and facilitating international cooperation in Underwater Robotics. From my own career I know that peer-recognition of achievements through an international Award can make a substantial and lasting difference. These have been times for reflection, and by enabling this new Underwater Robotics Award I am delighted to support the innovators of today and tomorrow.”

**Nominations or applications for a GGURA must consist of the following documents.**

- A letter of nomination or application that describes how the candidate meets the criteria.
- The letter should be no more than two pages in length. Supporter(s) of the nomination/application may add their signature to this letter or supply an email that indicates their support for the candidate
- A 100-word citation or appraisal of the candidate's research describing their contributions in a way easily understandable to those outside the discipline
- A curriculum vitae

[Click here to read about our inaugural winner, Aleksandra Tomaszek](#)

Nominations for the 2022 award are **now open** and will close in February 2022 - [www.sut.org/gwyn-griffiths-underwater-robotics-award-ggura/](http://www.sut.org/gwyn-griffiths-underwater-robotics-award-ggura/)



### GGURA Winner on the Underwater Technology Podcast!

In a recent Underwater Technology Podcast episode we spoke to the 2021 winner of the GGURA award, Aleksandra Tomaszek. Click below to listen now!

**Pod 70 - We are pleased to announce the winner of the inaugural SUT Gwyn Griffiths Award for Underwater Robotics.** Alex Tomaszek, COO and co-founder of ICSI speaks about the recognition of the Gwyn Griffiths award, how she arrived at a career in underwater robotics and gives an insight into the work of ICSI. Alex also speaks about women in engineering and how we can all be inspired to work towards an all-inclusive industry.

# Upcoming Events and Training

## FEBRUARY 2022

**SPE Offshore Europe**  
1-4 February 2022  
P&J Live, Aberdeen, UK

### SUT Middle East - Emergency Pipeline Repair Systems (EPRS)

2 February 2022  
ADNOC Business Center, Abu Dhabi

**SUT Middle East**  
**2 February 2022**  
**Emergency Pipeline Repair Systems (EPRS)**  
An overview of the tools and methods available for the on-bottom repair of rigid pipelines  
Hosted by ADNOC Offshore & Dolphin Energy  
[www.sut.org](http://www.sut.org)

### SUT Perth - February Evening Technical Meeting

16 February 2022  
Parmelia Hilton Perth, WA

**OCEANS 2022 Chennai**  
21-24 February 2022  
Chennai, India

### SUT US - 2nd Annual Online Engineering Competition

21 February - 8 April 2022  
Houston, TX, US

**2nd Annual Online Engineering Competition**  
“Volunteering to Advance Education in Underwater Technology”

For more information on SUT events go to [www.sut.org/events](http://www.sut.org/events)

## MARCH 2022

### Offshore Wind Renewable Energy - Virtual Course

2-3 March 2022  
Online

**2-3 March 2022**  
**Offshore Wind Renewable Energy**  
in conjunction with Cranfield University  
The course will be delivered over two online interactive 4-hour sessions by industry and academic experts.  
[www.sut.org](http://www.sut.org)  
EEGR, OES and EIC members will also benefit from the discounted member price!

### Oceanology International 2022

15-17 March 2022  
ExCeL, London, UK

### Women in Industry Panel at OI 2022

15 March 2022  
ExCeL, London, UK

### Virtual Subsea Awareness Course

28 March - 1 April 2022  
Online

**Virtual Subsea Awareness Course**  
SUT is delivering a 15-hour (over 5 days) foundation-level virtual Subsea Awareness Course presented by leading industry figures  
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Interactive Sessions will run from 10am-1pm  
Sessions will cover:  
- Subsea Production Equipment & Systems  
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- Pipeline & Risers  
- Constructions & Installation  
- Metocean  
- Renewables and Future Technology Trends  
- Operation, Maintenance & Decom  
[www.sut.org](http://www.sut.org)



# The Nautical Archaeology Society



**Geoff Downer, NAS Trustee**

Whether of general maritime interest, detailed historical and archaeological context or a testing ground to develop and demonstrate the latest ideas in underwater technology, the seabed is surely an area of interest to most if not all underwater technologists.

In the UK and, increasingly, the international maritime world, Britain's Nautical Archaeology Society (NAS) leads the way in education, research, project management and publication in this fascinating field. And the role of underwater technology is of equal interest to all of us involved in the work.

The Nautical Archaeology Society (NAS) can trace its

origins back to 1964 as the Council for Nautical Archaeology (CNA). The CNA established the International Journal of Nautical Archaeology (IJNA) and played a key part in what became the Protection of Wrecks Act 1973.

Registered as a charity in 1972 the Nautical Archaeology Trust's objectives were "the furtherance of research into nautical archaeology and the publication of the results of such research together with the advancement of training and education in the techniques pertaining to the study of nautical archaeology for the benefit of the public." In July 1986 it changed its name to the Nautical Archaeology Society along with its constitution to reflect the change to a membership organisation. NAS continued to have responsibility for producing the IJNA and adopted the NAT's other objectives which remain the aims to this day.

The NAS academic journal The IJNA has deservedly achieved recognition as one of the key peer-reviewed journals in the field worldwide. In 2021 It published its 50th volume featuring key investigations and developments in the field of nautical archaeology from the last five decades.

Today, the NAS is represented on the Archaeology Training Forum, the Joint Nautical Archaeology Policy Committee (JNAPC), the International Congress on Underwater Archaeology (IKUWA) and the Scientific and Technical Advisory Committee for UNESCO. It enjoys active support from a wide range of partners and volunteers, including charity trustees, training partners and members, with strong links around the world.

The NAS' mission is to research, record and



protect our threatened underwater and coastal heritage for the benefit of everyone. At all times we strive to maintain the highest ethical standards.

Since 1986, we have delivered our mission through three core areas of activity: Education, Research and Publication.

## Education

It is our belief that everyone can benefit from the unique and fascinating resource that is the world's maritime heritage. Our education offering includes Introduction and Foundation Courses: introducing underwater and foreshore archaeology in classroom and eLearning formats, plus a wide range of Maritime Archaeology Courses on specialist skills for professional and avocational interest underwater.

Archaeological training and experience is provided at practical Skills Days that take place on land or underwater, covering surveying and recording, specialist skills such as photogrammetry and training in the use of specialist tools and equipment.

In addition to the core educational programme, Heritage Events such as behind-the-scenes tours of museums and historic vessels are offered, while qualified divers can take part in visits to some of the UK's amazing protected wrecks on our Protected Wreck days. Licensed International Partners also teach our courses around the world.

## Research

The NAS is committed to sound, equitable, evidence-based research for the advancement of the discipline.

A Members' Research Group works in researching projects for NAS members and Partners. We are lucky in the UK in having a treasure of archives, in particular the National Archives at Kew (London) where documents are

available from many sources.

The NAS is often commissioned by national bodies such as Historic England to undertake or consult on projects of national significance. In 2012 for example the NAS was commissioned by English Heritage to undertake a study looking at the value of a protected wreck to a local economy. More recently a study has been completed into the feasibility of reburial of archaeological finds when conservation is unavailable.

## Projects

Projects serve as the focal point for many NAS activities and bring together interested parties, volunteers and professional archaeologists. Some projects are directly led by NAS staff; others are designed and run by our members who have access to guidance, support and equipment from central NAS resources. Examples include:

- **Holland No.5 Submarine:** The first submarine to be commissioned in to the Royal Navy, Holland No.5 The NAS has been involved in recording and researching the wreck since 2008.
- **Minesweeper MMS113:** Since 2016 the NAS has been working alongside other interested parties on the remains of what is believed to be a World

War II Motor Minesweeper 113. The remains of the vessel lie on the Gosport foreshore on the western side of Portsmouth Harbour.

- **The London:** NAS strives to support its members through training and supporting them to run their own archaeological projects on the foreshore and underwater. The wreck of the London is an outstanding example of this kind of work. NAS member Steven Ellis is the licensee of the protected wreck of the London, lying in the Thames Estuary. A 'second-rate' war ship from Cromwell's era, the London is identified in Samuel Pepy's Diary as part of the fleet that brought Charles II back to England in the 17th Century. Steve and his small team of volunteer divers are working to save as much as possible of this important wreck, supported by Mark Beattie Edwards, CEO of the NAS as Historic England's appointed archaeological consultant to the team. Both on-site work and remote sensing surveys tell us that it could be the most significant wreck to be identified as suitable for excavation since the Mary Rose was raised in 1982.

[www.nauticalarchaeologysociety.org](http://www.nauticalarchaeologysociety.org)



image by NAS



# 2nd Annual Online Engineering Competition

“Volunteering to Advance Education in Underwater Technology”

The Society for Underwater Technology in the U.S. (SUT-US) is hosting a global online engineering competition where the participants will propose a solution to the predefined problem statements in the following categories:

- Subsea O&G Wells
- Submarine Underwater Rescue in Shallow Water
- Underwater Thermal Garments
- Bring your Own Problem - “BYOP Shark Tank”

The competition is aimed for:

- 1) college students competing with other college student, graduate and undergraduate students, and
- 2) young professionals with 0 to 3 years of professional experience.

### Important Deadlines:

Registration: January 17- February 10, 2022

Sponsorships: February 1, 2022

Competition begins: February 21, 2022

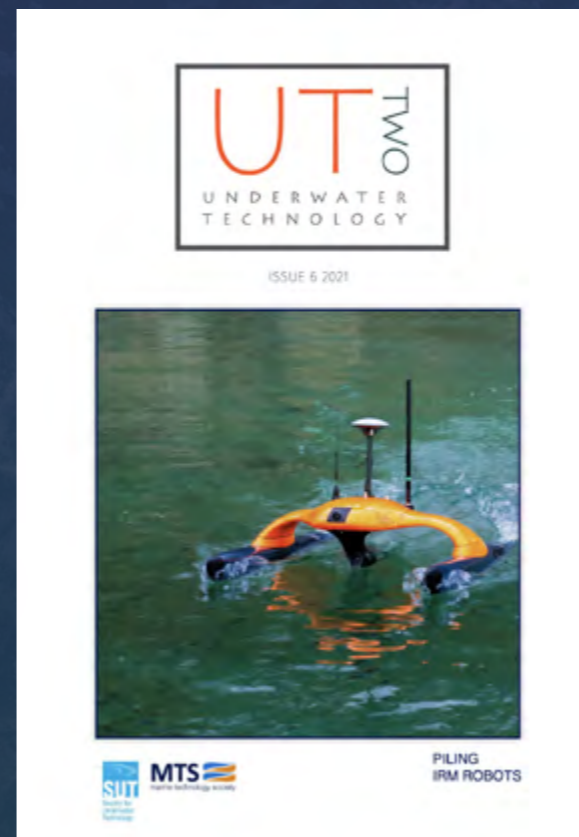
Judging begins: April 4, 2022

Awards: April 8, 2022

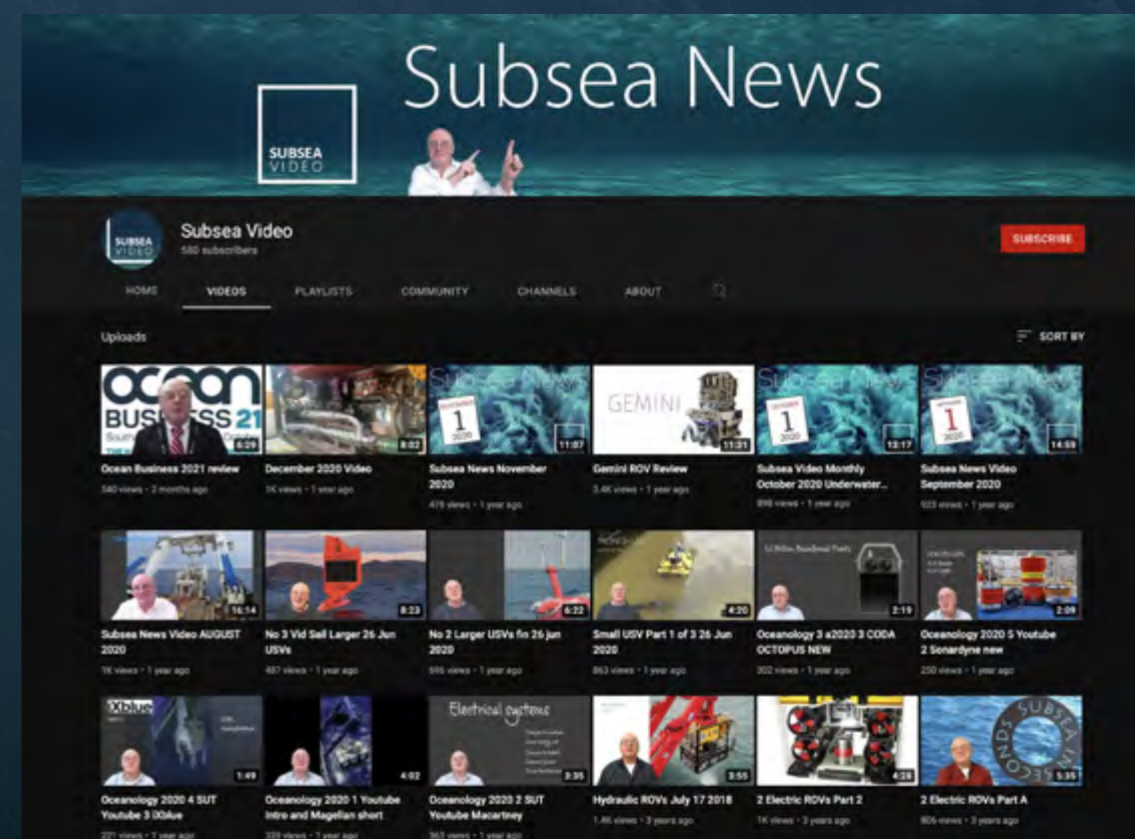
Visit [www.sut-us.org](http://www.sut-us.org)

# UT2/UV2 - The magazines of the SUT

The latest issues of *UT2* and *UV2*...



*Click above to read the current and past issues of UT2 and new Underwater Vehicles magazine UV2, and click below to view the Subsea Video YouTube channel*



# Sonomatic Subsea Innovation

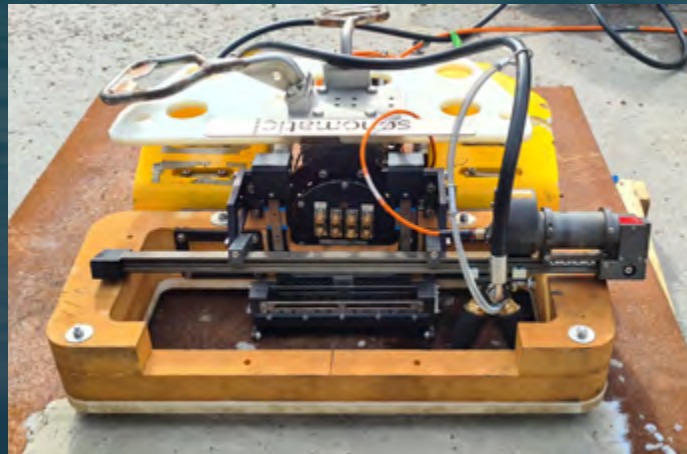


**Graham Marshall,**  
**Sonomatic**

## Sonomatic innovation helps achieve simultaneous cleaning & accurate corrosion mapping of large subsea oil storage tank.

Recently, when a corrosion risk assessment was conducted on a client's large subsea oil storage tank located on the seabed, in water depths in excess of 130m, we demonstrated our

innovative capabilities. As experts in subsea remote inspection, we have combined our ability to build bespoke tools and adapt current ones to fit unique situations for years.



The tank structure had a total surface area of 8550m<sup>2</sup>. Each face of the tank required inspection for potential corrosion threats, including the bottom of the tank which is 1m above the seabed on a support frame. Due to the limited access to the tank bottom, it was inaccessible for most ROV systems to conduct/deploy an inspection system capable of collecting accurate corrosion mapping information. The tank had been in service for some time and had a build-up of marine growth and seabed silt on all surfaces. Any inspection solution had to be capable of conducting cleaning operations to obtain an acceptable scan surface condition and provide accurate thickness measurements required to satisfy the CRA requirements.

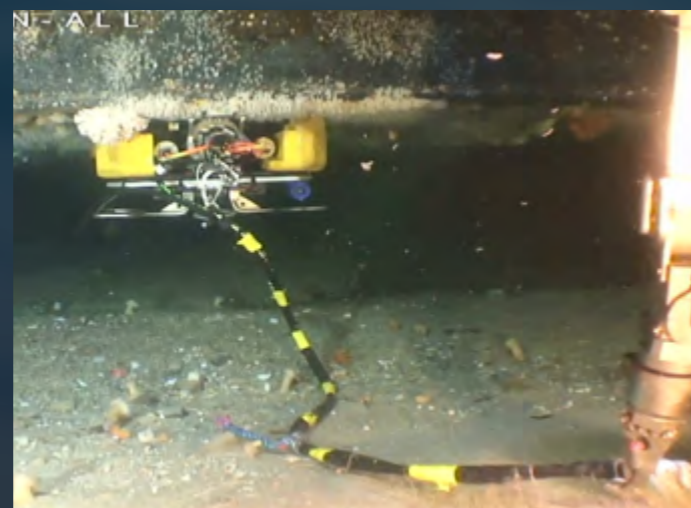
Although the MAG-Rover is a tried and tested system for automated ultrasonic subsea inspection, the capacity to conduct simultaneous

cleaning and phased array inspection operations on the structure was a new challenge for us. An intense development process for a water jetting cleaning head was completed before the MAG-Rover was put into action on the top face of the tank and commenced cleaning and phased array corrosion mapping data collection on selected runs covering 109.5m.

The MAG-Rover continued an intense cleaning and inspection campaign on all four sides, and the top and bottom faces of the tank. Due to the high risk associated with the inspection on the bottom of the tank, runs were conducted in a safe and tightly controlled evolution, managed by all parties. In total, over 700m of data was collected on all faces of the tank. The accurate phased array corrosion mapping data sets will provide sufficient information to satisfy the CRA requirements to show that the tank will be fit for purpose for several years to come.

Using the right technique in the right situation is critical when it comes to advanced NDT. Our proven experience in specialised inspections allows our company to analyse each situation individually and offer the best inspection method for the job. This was far from standard operations for us as inspection specialists, however we have been considering cleaning applications for some time and this was an ideal project to support our development.

A push from our client to reduce offshore inspection times required us to consider

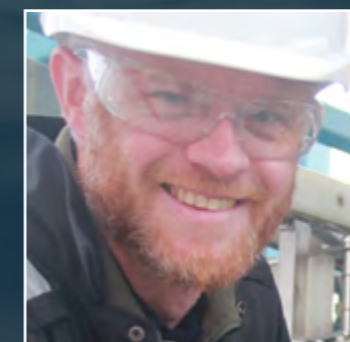


simultaneously cleaning and gathering ultrasonic inspection data at the same time in one pass. This was challenging due to the debris from the marine growth removal, blocking scanner workings, and possibly getting stuck in the ultrasonic probe travelling behind the cleaning nozzles.

The application was a success, and the client

was very satisfied with the productivity of the scanner and the ability to reduce offshore time by simultaneously cleaning and inspecting. By managing the cleaning and inspection ourselves, we reduced the need for additional personnel and equipment offshore, thereby reducing our clients' overall costs, and carbon footprint for this campaign.

## Cable touch down monitoring with a difference



**Liam Warren,**  
**Skua Marine Ltd.**

### North Sea Systems has a new answer to cable lay monitoring in challenging conditions

Monitoring the Touch Down Point during cable lay onto the seabed is essential for safe and successful operations, but this isn't always straight forward when conditions get tough. For an operator, without knowledge of Touch Down Point position and surrounding seabed, risk can very quickly become a reality. Many wind farms are located in shallow water, with high currents and low visibility making conventional ROV touch down monitoring challenging. In some cases, environmental conditions are beyond the capability of ROVs and down-time whilst waiting for slack water needs to be factored into schedules and budgets. North Sea System's CableFish has a novel approach to Touch Down Monitoring which combats these issues, making a difficult task look easy.

### The technology

CableFish consists of a carriage with cameras and sensors which is secured around the cable and allowed to ride along the cable at a set altitude during cable lay. A topside tether winch and

control system ensures that the carriage always stays ahead of the Touch Down Point, with live visuals of both the upcoming lay route and the actual cable once laid on the seabed. It's an ROV without thrusters and buoyancy but with all other monitoring functionality.

## Cable touch down monitoring with a difference *contd.*



### Benefits to operations

There are multiple benefits to CableFish being attached directly to the cable. It is not influenced by tidal current meaning that, as long as the vessel can continue lay in the environmental conditions present, CableFish will always be at the Touch Down Point. ROVs can get pushed off track or be unable to hold station beyond certain limits and need to be recovered.

Similarly, in low visibility conditions the ROV may have difficulty keeping the cable in view, but with CableFish being attached to the cable there is no doubt that the lay supervisor knows where the cable is at all times.

The cable lay speed is not influenced by the use of CableFish as the carriage automatically moves at the same speed as the lay.

CableFish can be used to keep an eye on the cable at all times whilst the vessel maintains station during pauses in the lay or if weather and tidal condition become too onerous for the vessel to continue laying, as the launch and recovery weather limits are less restrictive for CableFish compared to ROVs. Avoiding down time whilst waiting for slack water reduces the exposure of the cable and vessel to operational risks.

The lightweight design of CableFish means it can be easily carried by two people making launch and recovery easy. Manning requirements are less than for ROVs as a single person can operate CableFish. ROV pilots can easily be trained to operate CableFish meaning that additional crew may not be needed if an ROV is already on board.

CableFish is not designed to replace ROVs for cable lay activities entirely as intervention with ROV manipulators may still be required, but for touch down monitoring specifically this offers a significantly cheaper, more reliable and safer subsea monitoring solution, considerably de-risking operations in challenging conditions.

CableFish's position monitoring is arguably more accurate than an ROV as the USBL transponder is always directly on the cable, avoiding the risk of the ROV wavering off track.

### New design in operation

A new model is ready to be put into action after much discussion with key players in the cable market, numerous design iterations and prototype testing, and many kilometres of cable successfully laid using CableFish Touch Down Point monitoring.

Ultimately, from an operator's perspective, safety, risk and cost are king. The introduction of this proven technology to the market gives operators an opportunity to have a safer, quicker cable lay, reducing vessel days and associated cost as well as reducing the exposure of the cable and vessel to operational risks and ensuring successful cable lay.

Brian Irons, Client Representative commented: *"Once subsea I was very impressed at the accuracy and visibility the Cable Fish give us when laying 15km of power cable in Orkney. At over 2 knots of current the Cable Fish continued to provide accurate touchdown positioning. Now being easier to recover will make this a great bit of kit to have onboard. I look forward to working alongside these guys again"*.



## 9th International Offshore Site Investigation and Geotechnics Conference

### Innovative Geotechnologies for Energy Transition

12-14 September 2023

Imperial College, London

ISSMGE 6th McClelland Lecture | Conference Dinner at the Natural History Museum

### Call For Abstracts

The SUT's Offshore Site Investigation and Geotechnics (OSIG) committee is pleased to announce that its 9th international conference, 'Innovative Geotechnologies for Energy Transition', will take place from 12-14 September 2023 at Imperial College in South Kensington, London.

Call for abstracts to be opened in January 2022 - watch this space!

### Conference Themes

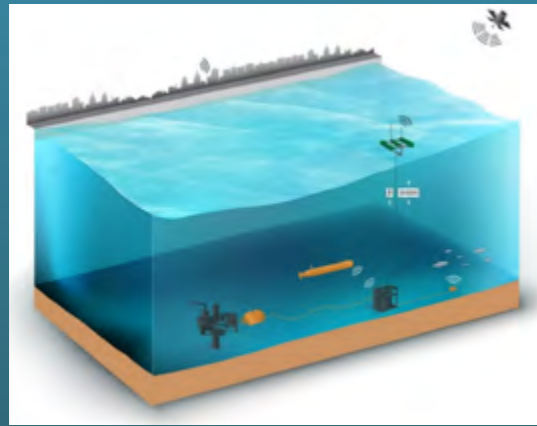
To aid administration, authors are requested to select up to three primary categories / keywords for their abstract from the following list. It should be noted that these categories are indicative and the committee will consider all abstracts relevant to offshore site investigation, geophysics & geotechnics, including relevant case studies.

1. New regions, geology and geotechnics
2. Advances in geoscientific data acquisition
3. Advances in geoscientific processing
4. Advances in geotechnical investigation
5. Advances in AI for offshore geotechnology
6. Underground carbon capture and storage
7. Seabed slopes and slides
8. Hydrates, shallow gas and seepage
9. Seismic hazards and tsunamis
10. Data integration and ground modelling
11. Learning from offshore incidents
12. Foundation research and design
13. Optimisation and performance-based design
14. Monopile design, installation and performance
15. Jacket pile design, installation and performance
16. Suction installed foundations
17. Gravity based foundations
18. Jack up foundations
19. Floating system anchoring and foundations
20. Cyclic and seismic loading of foundations
21. Scour assessment and monitoring
22. Pipeline and cable engineering
23. Seabed interaction of dynamic cables and risers
24. Environmental and anthropogenic impacts of engineering
25. Decommissioning and clean-up
26. Engineering for climate change
27. Near coastal geotechnical engineering
28. Seabed mineral extraction

For any queries, and for details of sponsorship opportunities, please contact SUT Events  
[osig2023@sut.org](mailto:osig2023@sut.org) | [www.sut.org/event/osig2023](http://www.sut.org/event/osig2023)

The information in this document is subject to change without notice.

## Bringing the Cloud to the Ocean



A graphic rendering of the SeaRAY as it will be deployed in Hawaii, in its moored configuration supporting static and mobile assets

### C-Power Unveils Subsea Assets SeaRAY Autonomous Offshore Power System Will Support in Hawaii Demonstration

After spending much of the summer and fall at the National Renewable Energy Laboratory (NREL) facility near Boulder, Colorado, for testing, C-Power's SeaRAY ocean energy and data system will be shipping soon to Hawaii — along with components located around the world that combine to form the SeaRAY k2 autonomous offshore power system (AOPS) — for the start of an application demonstration in partnership with the U.S. Department of Energy, Navy and a host of commercial partners.

C-Power is excited to announce the full list of mobile and static assets the SeaRAY will support during its application demonstration at the Navy's Wave Energy Test Site in Hawaii.

The SeaRAY will serve as an on-site power station, data server and internet connection supporting four assets — 3 static and 1 mobile — in total, demonstrating the use cases of resident subsea vehicles and data gathering systems receiving power and data services autonomously and remotely.

1. A SAAB Sabertooth autonomous underwater vehicle (AUV) will operate in untethered mode, without a top side vessel, for three weeks. The Sabertooth docking cassette connects to the AOPS' seafloor energy storage and gravity anchor base unit via an umbilical. Missions will be downloaded from the cloud through the AOPS to the AUV, which will perform its mission, return to the dock, download its data for upload to the cloud, recharge and then repeat the cycle until the demonstration is complete.
2. A seafloor data-gathering system from Fugro will deploy for four months, transmitting data real-time to the cloud.
3. A Franatech methane emissions sensor that is integrated into the Fugro system.
4. A BioSonics long-range subsea environmental monitoring system will be deployed for the entire six months, sending data real time to the cloud. The BioSonics echosounder will also serve as an intrusion detection system during the trial. Multiple assets will be supported with energy and data simultaneously.

With a 2 kW generating capacity and 55 kWh energy storage system, the SeaRAY delivers ample power for many of the types of activities that take place in the ocean economy. The AOPS application demonstration represents several industry firsts:

1. The first time a resident marine energy system providing power, data and wireless communication capabilities has ever supported such a wide range of payloads
2. The first time an AUV has been supported by a renewable energy system without a topside vessel
3. The first time that both mobile and static assets have been supported simultaneously by a renewable energy system

The supply chain disruptions and shipping backlogs that have roiled global markets delayed the start of the demonstration, but it is now scheduled to start in January 2022. The SeaRAY AOPS designed for the Hawaii demonstration is a moored configuration consisting of a surface ocean energy and data system; a single, combined mooring, data, communications and power cable from EOM Offshore; and a seafloor base unit that provides energy storage and communications management for seafloor asset operation.

C-Power has already begun commercial launch of the SeaRAY.



### EMEC - Large-scale green hydrogen facility being considered for Orkney

Offshore Wind Power Limited (OWPL), the consortium formed by Macquarie's Green Investment Group, TotalEnergies and Scottish developer Renewable Infrastructure Development Group (RIDG), has announced it is studying the use of offshore wind to power the production of green hydrogen on an industrial scale on the island of Flotta in Orkney, Scotland.



Flotta Hydrogen Hub artist's impression

The OWPL consortium has submitted a proposal to the Crown Estate Scotland's offshore wind leasing round (ScotWind) to develop the N1 plan option area west of Orkney. If successful, its proposal, called the West of Orkney Windfarm, could deliver renewable power to a green hydrogen production facility at the Flotta Terminal.

Plans to power the proposed Flotta Hydrogen Hub are being developed by OWPL in partnership with Flotta Terminal's owner Repsol Sinopec, and Uniper, a leading international energy company and pioneer in the field of hydrogen. The proposal is also supported locally by EMEC Hydrogen who have spearheaded Orkney's leading position in green hydrogen production.

[...Click here to continue reading.](#)

### European Commission backs Orbital €26.7m floating tidal energy FORWARD-2030 project



Forward 2030 – Orbital O2 tidal turbine demonstrating at EMEC tidal test site in Orkney

The innovative Scottish technology developer, Orbital Marine Power (Orbital) will lead a pan-European consortium to deliver the €26.7m FORWARD-2030 project, set up to accelerate the commercial deployment of floating tidal energy.

The FORWARD-2030 project consortium will receive €20.5m of grant support from the European Union's Horizon 2020 research and innovation programme to develop a multi-vector energy system for the future. This system will combine predictable floating tidal energy, wind generation, grid export, battery storage and green hydrogen production.

The project will see the installation of the next iteration of the Orbital turbine, integrated with a hydrogen production facility and battery storage at EMEC in Orkney. Project partners will design options for integrating large scale tidal power into future net zero energy systems, whilst developing environmental monitoring and marine spatial planning tools for large floating tidal arrays.

[...Click here to continue reading.](#)

# Forthcoming Events

## SPE Offshore Europe 2022 - putting the action into interaction

Hot on the heels of a virtual curtain-opener to COP26, SPE Offshore Europe 2022 will welcome the energy world to the P&J Live, Aberdeen from 1-4 February. The 'live' exhibition and conference is gearing up to put the action into interaction following the Glasgow Climate Pact.

To spur and support the energy transition, SPE Offshore Europe 2022 - Europe's first major face-to-face energy event since 2019 - will host a hydrogen hub, energy transition theatre and zone, future opportunities theatre and future talent hub. Registration is now open for the event which includes three halls of exhibition space, conference and specialist theatre zones as well as a host of new features.

Jonathan Heastie, Portfolio Director - Energy & Marine at RX (Reed Exhibitions), co-organiser with the Society of Petroleum Engineers (SPE), said: "The biggest difference that visitors will see at the February event is a lot more space dedicated to all aspects of the energy transition. This not only reflects the evolving nature of the industry but also feedback from visitors who wanted to learn and be part of the wider energy ecosystem. It's why we've introduced a Towards Net Zero Trail to showcase and support organisations that are working towards a net zero future. An energy transition theatre, supported by the energy majors and with around 150 seats, will be located in the main arena providing four days of free knowledge and insight from industry experts who are leading the way.

"As always, the keynote conference content will be curated by SPE, and it will be presented over two days. The programme will build on the themes discussed at the virtual event in September but will also reflect the most critical issues from COP26. Again, we'll welcome senior personnel from across the offshore energy industries, as well as sharing insight and learnings from academia, government and industry influencers for our plenary sessions."

Visit SUT on stand 1H53 and click to register [www.offshore-europe.co.uk](http://www.offshore-europe.co.uk)



## Oceanology International set to be a defining event

The SUT is the Learned Society Patron of Oceanology International - we are there to support our members, network with the community, meet with members and of course, acquire new members. Working with the team at Oceanology International we help with the provision of speakers in the technical conferences and provide marketing support. We spoke to the organisers of the event, they predict that Oi 2022 will be a defining event for the industry as the previous 18 month hiatus of B2B comes to an



end. Oceanology International is expected to re-connect the ocean tech and science community at ExCel in London. The event has an enviable history and its reputation, influence, importance and portfolio have increased to the point where regional Oi events are now held in San Diego and the Middle East. This means that an Oceanology International now takes place every six months, providing an unparalleled global marketplace, forum and networking opportunity for academics, government representatives and marine science, technology and industry professionals from over 90 countries.

This international profile is underscored at Oi 2022 with the welcome return of the French, and Canadian Pavilions, in addition to strong representation from group delegations from, Germany, Ireland, the Netherlands, Norway, UK and new for 2022, Rhode Island.

### Register here

An overall expansion of key resources at this year's event will encompass a greater emphasis on technologies driving Ocean ICT, focusing on the most up-to-date communications, connectivity and data solutions driving across ocean industries. A new highlight for 2022, is the Future Tech hub, bringing together a selection of new-to-market technologists and start-up companies to the exhibition floor, highlighting innovative products and new ways of working.

The exhibition will also witness an upscaling of Oi London's popular live, on-water product demonstrations in the adjacent Royal Victoria Dock, while an exhaustive range of product launches and refinements - taking in imaging and survey equipment, sensors, AUVs, ROVs, robotics and satcom solutions - will come under the show spotlight.

The broad-based, content-rich nature of Oi 2022's packed exhibition floor will be reflected by a similarly all-embracing technical conference program, which as ever will provide delegates with new knowledge and insight on important industry trends and forecasts. With balanced sustainability and growth in the Blue Economy as an overall priority. The conference program will also feature the latest technical information related to Un-crewed Vehicles, Survey, Low Carbon Initiatives and Ocean Observation with a focus on cross-sector expertise, future development and innovation.

### Be part of it

"The excitement of a physical Oceanology being able to take place is apparent around the team, our



# Forthcoming Events

loyal exhibitors and visitors, all of which have all been hugely supportive over the past 18 months. We are looking forward to showcasing the best the industry has to offer, in terms of innovation, collaboration, research, operations, health and safety and environmental sustainability.” said David Ince, Event Director – Oceanology International, RX.

“The goal for Oi2022 is to have the best the industry has represented on the Exhibition floor, new features, free interactive seminars and brokered one-to-one meetings via the Enterprise Europe Network and lots more, as well as a conference agenda with professional speakers from all over the world.”

## Dive in

SUT Chief Executive Cheryl Burgess said “Oceanology International is a hugely important event for us and our members, it offers an opportunity for members to access global brands, engage in thought provoking conference sessions, get hands on with the dockside demos and grow and strengthen our networks across the globe. You’ll find the SUT on stand R550 (near the bar) where we will be available for members to meet with, catch up and provide insights and updates.”

Visitor registration is open and can be accessed [here](#).

## MCE Deepwater Development (MCEDD) 2022 - Decarbonizing Deepwater Production

MCE Deepwater Development (MCEDD) is returning to London in April 2022!

With a focus on Decarbonizing Deepwater Production, MCEDD will bring experts from across the global industry together. For your chance to take part in the conference agenda, please [submit your abstract today](#). The MCEDD board is currently accepting nominations in 15 categories, including:

- Renewable Energy and Innovation to Decarbonize
- Electrification of Subsea Developments and Brownfield Infrastructure
- Clean Technology Development
- Subsea Infrastructure Assets – Changes & Challenges
- Handling Strategies for Gas, CO2 and Hydrogen
- Repurposing Existing Subsea Infrastructure for Carbon Capture Storage and Hydrogen
- New opportunities for Pipelines and Risers in Decarbonization (CCS, Hydrogen, etc.)
- Composites
- Challenge of Large Brownfield Developments Related to Maturing Greenfield Projects
- Macro-Industry Topics & Trends
- Redefined Regulatory Standards & Policies in a New Era
- Technologies: Digitalization, Unmanned & Autonomous
- HSE: Health, Safety & Environment
- Floating Facilities, FPSOs and Mooring Systems
- Life of Field/O&M

The SUT is proud to be the Learned Society Partner for MCEDD 2022 [mcedd.com](#)



## SUBSEA CONTROLS DOWN UNDER 2022



The Perth Branch of the Society for Underwater Technology  
Host their 6th Subsea Controls technical conference and exhibition

25-27 OCTOBER 2022

## CALL FOR ABSTRACTS



This international conference in the field of “Subsea Controls & Data Acquisition” is aimed at the diverse disciplines engaged in subsea controls technology. The goal is to share experiences by networking, discussing global and regional challenges, showcasing ways of bringing new ideas and technology to the market, sharing learnings and providing an understanding from an operator’s viewpoint on how the industry can benefit from operational and project experiences.

Abstracts are now being sought for this conference that describe recent technology advances and challenges in the field of subsea controls & data acquisition. Only those abstracts judged to be relevant and of sufficient technical quality will be considered for inclusion in the conference programme.

Please note - we are looking for technical presentations only and ‘sales biased’ presentations will not be accepted.

## SUT WELCOMES PAPERS ON:

Regional & International Lessons Learned

Advanced Components

Historic Developments

Disruptive Technologies

Standardisation

Advances in Technology

Through Life Support

Smart Field Applications

Integrity, Availability & Reliability

Industry Best Practices

Sustainability Challenges

Renewables

Energy Efficiency

Remote Technologies

Cyber Security

## SUBMISSION DEADLINE: 31 MARCH 2022

### KEY DATES

Deadline for Abstract Submissions: 31 March 2022

Selected Authors notified by: 29 April 2022

Final PPT due: 28 September 2022

For sponsorship opportunities or to submit a relevant abstract for consideration please email: [perthevents@sut.org](mailto:perthevents@sut.org)

### Abstracts should include the following:

1. Title of abstract.
2. List of authors (with presenting author noted), stating title, first name, last name, job title and organisation represented.
3. The abstract should be 300 words or less conveying the work presented and the results obtained. (Microsoft Word format)
4. Full postal address and telephone number (for admin use only).

### Author's Expenses

Authors are responsible for all costs incurred in the preparation of their presentations, including travel, accommodation and associated expenses.

### Concessions

First named authors/presenters will enjoy free admittance to the conference & online access to conference proceedings. Co-authors should register at the delegate rate.

### Remote Presentations

Remote Presentations are invited to be submitted and will be considered should travel not be permitted at the time due to COVID-19.



[Click here for information about sponsorship opportunities.](#)

# Recent SUT Event Reports

## SUT Middle East

Finally, ADIPEC, the much-anticipated Energy event hosted by the Abu Dhabi National Oil Company (ADNOC), took place in November 2021 after a year's delay. There is no question, ADIPEC is the world's most influential meeting place where oil, gas and energy companies and professionals convened in-person, safely and securely, to engage and identify the opportunities that unlock new value in an evolving energy landscape. This year over 2,000 exhibiting companies were present, which included over 51 NOCs, IOCs and IECs as well as 26 exhibiting international country pavilions, providing a world-class environment for trade across the industry's full value chain.



SUT Middle East Branch Chair Adrian Phillips

Based in the Offshore Marine zone, the exhibition provided a great opportunity for the Middle East (ME) chapter of the SUT to promote regional activity to visitors, the multitude of buyers and sellers in a great environment to learn, network, discover new products, solutions and technologies. ME Chairman Adrian Phillips co-chaired the SPE OFFSHORE AND MARINE: Subsea Engineering and Underwater Technology session with fellow committee member Ibrahim Fahmy which included papers on Underwater Inspection Using ROV by ADNOC, Investigation Of Zohr Hydraulic Flying Lead Reaction Drive Shafts by ENPPI in Egypt, Development of a Micro-Habitat Hyperbaric Welding System by DCN BV, A Risk-Based Integrity Management Strategy for Mooring System of Floating Offshore Wind by Worley.



## Perth Branch

The 2021 Perth Branch Annual Dinner took place on Friday 26 November 2021. Held at the prestigious Ritz-Carlton, the guests enjoyed a three-course meal, entertainment and a fantastic opportunity to network with colleagues and friends. During the evening, two Fellowships and three scholarships were awarded. Congratulations to our new fellows **Rex Hubbard** and **Steve Duffield** and our scholarship winners **Tahlia Bassett** (Chris Lawlor Scholarship), **Jack Crawford** (Marine Renewable Energy Scholarship sponsored by Aurora Offshore Engineering) and **Paula Cartwright** (Digital Automation in Engineering Scholarship sponsored by SEA).

This wonderful evening would not have been possible without the support of our Platinum Sponsor Wood and Gold sponsor SEA. We sincerely thank them for their contributions, not only at this wonderful event but throughout all of 2021.



Annual Dinner Nov - 21



Annual Dinner Nov - 21



Annual Dinner Nov - 21





# Recent SUT Event Reports *contd.*

## SUT UK

### Virtual Offshore Wind Course

After the success of May 2021, we reran the Offshore Wind Renewable Energy Virtual Course in October 2021.

Over 20 international delegates benefitted from industry and academic experts giving presentations on Wind and the Net Zero Challenge; Planning, Environmental Studies and Approvals; MetOcean; Fixed Bottom Offshore Structure Design and Integrity; Offshore Site Investigation and Seabed Site Foundations; Construction and Cables; Floating Wind Structures, and Completion, Post Installation, and On-Going Operation.

As this two-day course continues to prove to be successful, we are pleased to announce that it will be back a third time on 2nd-3rd March 2022. [Register your place now!](#)

Thank you again to our fantastic speakers for sharing their invaluable knowledge and experience, and expertise.

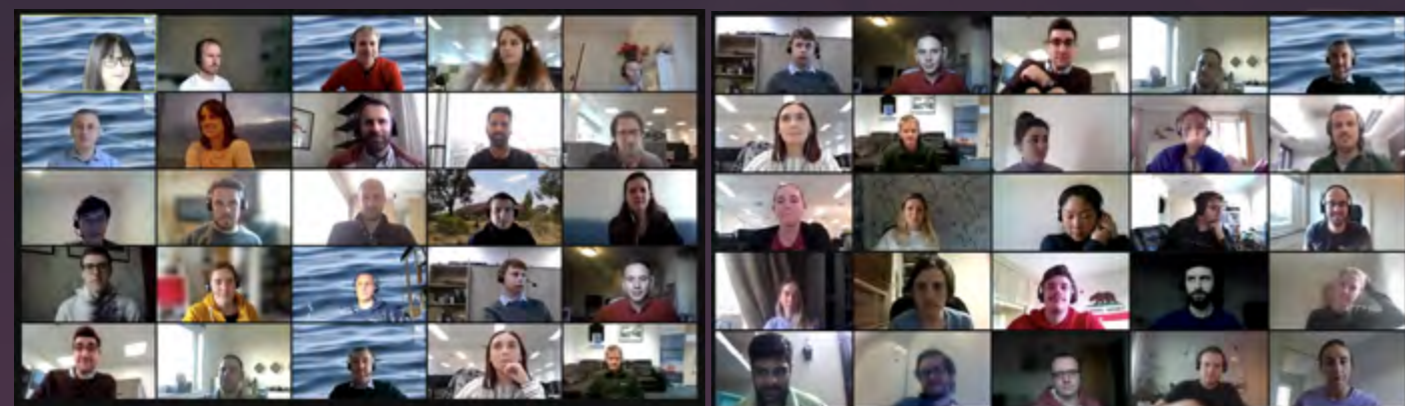


### Virtual OSIG Course

In November 2021, the SUT's Offshore Site Investigation & Geotechnics (OSIG) Committee ran their first virtual course with over 50 international delegates. The course took place over four half-days and provided a comprehensive introduction to site investigation and ground engineering in the offshore environment. It was the online equivalent of the face-to-face version successfully run by OSIG for many years, and included presentations given by industry and academic experts followed by small-group interactive practical sessions. Topics covered were Site Investigation Planning, Seismic Principles, Geophysical Systems, Geohazards, Pipeline Design, In Situ Tests, Foundation Design, Ground Modelling, and more.

We are pleased to announce that, given the huge success of this course, we will be rerunning it in 2022. Details will be found on the SUT website - watch this space!

Thank you again to the organisers and to all our speakers for making this course such a success.



## SUT AGM - London

A detailed report of the 6th December SUT AGM can be found on [page 7](#) with news of the new officers, award winners and the presentation. Below are some more photos from the event. We are still in the early days of reintroducing face-to-face events in the UK, and we are thrilled that the 2021 AGM could be one of them, having spent the last year's proposing and seconding motions, giving out awards, and watching our presentation via Zoom. Thank you to all those who attended, it was great to be back!



# The Underwater Technology Podcast



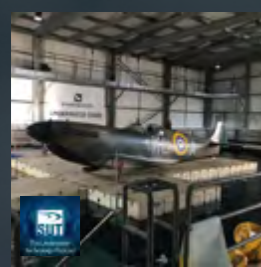
Andrew Connelly, Host



Emily Boddy, Editor

Since April 2020, the SUT has been producing weekly short podcasts featuring news and an interview with an expert on underwater technology, engineering, science, history & policy from across the international subsea world.

Click the images below to catch up on episodes you might have missed...



## Coming 23rd December! Pod 74 - Dave Shaw, Owner of the Underwater Stage at Pinewood Studios - Making Underwater Movies

We talk with Dave Shaw, owner of Diving Services UK, and designer of the Underwater Stage, now managed by Dave on behalf of Pinewood Studios, London. Dave speaks about some of the complexities and technologies involved in setting up and capturing underwater scenes for TV, film, and more, giving us a fascinating insight into what goes on behind the scenes. He also speaks about his own background in diving and how this led to the Underwater Stage being built.



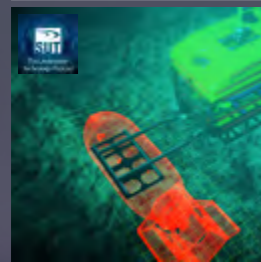
## Pod 69 - Martin Sayer from Tritonia Scientific on Scientific Diving

We talk with Martin Sayer, Managing Director of Tritonia Scientific and interim chair of the SUT's Diving and Manned Submersibles Special Interest Group about the work of Tritonia Scientific in development of diving survey techniques and his extensive background in diving and marine science.



## Pod 73 - Michele Stanley from SAMS talks Seaweed Farming

We talk with Michele Stanley, Associate Director for Science, Enterprise and Innovation at SAMS - the Scottish Association for Marine Science about the work of SAMS in the field of seaweed farming and research, how seaweed can be cultivated as a sustainable energy and food source and its benefits for absorbing Carbon Dioxide.



## Pod 46 - Unexploded Ordnance Risk Mitigation with Marco Gilissen, Fugro

We talk with Marco Gilissen - Global UXO Marine Risk Mitigation Director and Offshore Wind Site Appraisal and Design Array Solution Owner at Fugro about UXO risk mitigation and the processes involved to deal with UXO issues that are experienced by different markets around the globe.



A visualisation of where the Underwater Technology Podcast listeners are around the globe.

The podcast can be found online at <https://sut.buzzsprout.com/> or via your favorite podcast provider.

Contact **Emily Boddy** if you would like to appear on a future episode of the Underwater Technology Podcast, or for details on how to sponsor an upcoming podcast.



## Society for Underwater Technology Podcast Sponsorship

- Weekly marine-themed podcast
- Distributed directly to over 2000 marine professionals, available on the SUT website, and all major podcast providers
- Listenership is global



**Special sponsorship offer: £250** for both a 20-second pre-roll and 20-second post-roll ad.

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[www.sut.org](http://www.sut.org)  
<https://sut.buzzsprout.com/>  
 contact [emily.boddy@sut.org](mailto:emily.boddy@sut.org)



## Season's Greetings!

Thank you to our members for continuing to support the Society throughout 2021, another year full of challenges and finding creative ways to stay engaged with our industry and with one another.
















We wish our members a safe and peaceful end to 2021, and a successful and happy 2022.

SUT HQ will be closed from 25th December 2021 until 4th January 2022. We look forward to bringing you more knowledge sharing events, offering top-class training courses, keeping you in the loop with subsea news, and hopefully even seeing some of you in person next year.

If you or your company has news or an update they'd like to share with SUT Members in *Big Blue World* contact

[emily.boddy@sut.org](mailto:emily.boddy@sut.org)



 <b>13 Branches</b> across 12 countries	 <b>YouTube</b> 65 Videos 368 Subscribers 37,407 Video Views
 <b>Members from</b> 39 different countries	 <b>Twitter</b> 1,909 Followers
<b>Corporate Members</b>  <b>153</b>	 <b>Instagram</b> 534 Followers
<b>Individuals</b>  <b>1617</b>	 <b>LinkedIn</b> 1,618 Followers
 <b>14 Hon. Fellows</b>	 <b>Facebook</b> 1,373 Followers
 <b>107 Fellows</b>	 <b>Podcast</b> 75 Episodes 18,379 Downloads
 <b>677 Full members</b>	
 <b>128 Students</b>	
 <b>691 Corporate Individuals</b>	

## Follow SUT on social media

Click the icons above to follow SUT HQ on social media. Join us on LinkedIn! [www.linkedin.com/company/sutuk/](https://www.linkedin.com/company/sutuk/)

Many of our branches and special interest groups also have social media accounts of their own. Make sure you search for 'Society for Underwater Technology' across LinkedIn to follow accounts dedicated to these groups too.

If you'd like to participate in an episode of the Underwater Technology Podcast, email [podcast@sut.org](mailto:podcast@sut.org) to speak to our editor, Emily Boddy.



# We Want to Hear From YOU!

**Big Blue World is for you, our members, and we want your input!**

We're looking for SUT member-written articles focussing on **INNOVATION** and on the **BLUE ECONOMY**.

Additionally, if you are a corporate member and have a short update you'd like to include please contact **Emily Boddy** for details on how to get your company news included in the SUT newsletter.

Issues will be quarterly and will include:

- **Welcome from the CEO**
- **Welcome to new Corporate Members**
- **Global Branch updates**
- **Special Interest Groups**
- **Spotlight article(s) on innovation**
- **Spotlight article(s) on the blue economy**
- **SUT News**
- **SUT Member news**
- **Young Professionals International**

- **Corporate Member updates**
- **Photo Galleries**
- **Members' Only advertising**
- **Events/Training/Podcast**
- **SUT Member Benefits**
- **Seasonal Features**
- **...and much more!**

We value our members and your contribution is very important to us at the SUT!

If you would like to contribute to any of the above features, as an individual member or corporate member please contact **Emily Boddy**, SUT Communications & Publications Officer - [emily.boddy@sut.org](mailto:emily.boddy@sut.org)

**NEXT issue out March 2022 -  
deadline for submissions will be  
Friday 11th February 2022.**

