

iSCSS

INTERNATIONAL SHIP CONTROL SYSTEMS SYMPOSIUM 2022



Symposium
Call for Papers



Image: ©MARIN

Human-machine teaming in ship control

8-10 November 2022 / AULA Conference Centre TU Delft, Netherlands

SUMMARY

After difficult times for research and industry and a period of online conferences, we are very excited to launch the call for papers for iSCSS 2022, which we aim to organize at Delft University of Technology in the Netherlands. Our aim for 2022 is 'human-machine teaming in ship control', which strives to get the best out of collaboration between the human and control systems.

While the complexity of operations at sea continues to increase, society demands maritime operations to be intelligent, sustainable, and safe, both for naval and commercial operations. To achieve these goals, we need to grasp the opportunity

novel technologies like autonomous systems and artificial intelligence provide, while ensuring we involve the human when needed, in design and in operation of control systems.

We are very excited to go to Delft University of Technology to inspire and be inspired by the young generation. During iSCSS 2022, we also expect to finally sail multiple autonomous vessels in the Collaborative Autonomous Shipping Experience (CASE). Thus, we are truly looking forward to excellent contributions from naval and commercial industry, academia, research industry and of course young professionals competing for the Sir Donald Gosling Award.

An inspiring event during which decision makers, industry and researchers team up to solve societal challenges with ship control



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Visit INEC's website for full details including iSCSS: www.imarest.org/inec

KEY DATES

Deadline for technical paper synopses
Tuesday 8 February 2022

Notification to successful authors
no later than **Friday 1 April 2022**

Deadline for full paper submission
Friday 1 July 2022

iSCSS²⁰²² THEMES



INTELLIGENT

- Autonomous sailing
- Autonomous systems
- Predictive maintenance
- Crew optimization
- Big data analysis
- Remote operations
- Data driven modelling and optimization
- Connectivity



SUSTAINABLE

- Energy management
- Energy storage
- Control of DC power systems
- Control of hybrid power systems
- Alternative power sources
- Marine electrification
- Pulsed power weapons
- Alternative fuels



SAFE

- Explainable Artificial Intelligence
- Extended reality
- Human Factors
- Cyber Security
- Path planning
- Electronic system safety
- Predictable human-machine interaction
- Safety criticality

SUBMISSION PROCESS

The Technical Advisory Committee encourages synopses from all areas of industry, academia and government. Prospective authors are invited to submit titles, keywords and synopses of between 250 and 500 words, with text only to the INEC & iSCSS 2020 Technical Advisory Committee online [here](#). The synopsis should introduce the topic and its relevance, the proposed method or approach to be discussed in the paper and the expected results and (direction of the) conclusions. Successful authors will be asked to develop their abstract and submit a full technical paper of up to 4000 words. All papers will be reviewed based on technical quality, relevance and their potential for generating interest and discussion. Some papers may be included in IMarEST publications after the conference, subject to the author(s)' permission. All presentations will be in the English language.

SPONSORSHIP AND EXHIBITION

With typically 300 international attendees from a broad sweep of the naval enterprise and over 1000 delegates virtually in 2020, INEC and iSCSS provide a compelling platform to promote your company and products. The exhibition is at the heart of the conference throughout the 3 days and there is plenty of opportunity to network with potential business contacts. The conference also attracts a wider audience through the website, promotional material and on-line content posted during the event. Further information on packages is available [here](#).

AWARDS

By kind permission of the Sir Donald Gosling Foundation, the INEC22 Technical Advisory Committee is delighted to announce the continuation of the Sir Donald Gosling Award for authors under the age of 35 at the time of the conference. All named authors on the paper, must be under 35 to qualify. To enter, authors must submit proof of date of birth, such as a passport copy, at the time of synopses submission. First prize is worth £5,000, second prize, £2,500, third prize £1,500. Awards will be shared between named joint authors and all will receive a certificate. There is also a special Patron's Award for merit from the broader conference papers and presentations.

Submit your synopsis now:
www.imarest.org/iscss