

International Seminar on Safety and Security of Autonomous Vessels (ISSAV) & European STAMP Workshop and Conference (ESWC)

2019

17-20 September 2019, Helsinki/ Espoo, Finland

Aalto University is proud to host the 2nd edition of the International Seminar on Safety and Security of Autonomous Vessels (ISSAV) together with the 7th edition of the European STAMP Workshop and Conference (ESWC). The ISSAV promotes all aspects of maritime safety and security in the context of autonomous vessels and maritime ecosystem. The ESWC focuses on applications and studies related to the Systems-Theoretic Accident Model and Processes (STAMP) which is a new systems-thinking approach to engineer safer systems.



SCOPE

ISSAV

Autonomous vessels have become a topic of high interest for the maritime transport industry. Recent progress in the development of technologies enabling autonomous systems has fostered the idea that autonomous vessels will soon be a reality. However, before the first autonomous vessel can be released into her actual context of operation, it is necessary to ensure that it is safe and secure. The aim of ISSAV is to promote all aspects of maritime safety and security in the context of autonomous vessels. The seminar focuses on exchanging knowledge about key safety and security challenges and opportunities in the context of autonomous vessels and the autonomous maritime ecosystem. The seminar has a special emphasis on:

- The challenges in managing safety and security in the operation of autonomous vessels and the entire ecosystem of an autonomous maritime system
- Innovative approaches for managing the safety of autonomous vessels, supporting the design, operations and managerial strategies for ensuring the safety in the functioning of the autonomous maritime system
- Digitalization as technological enabler for efficient safety and security assurance in the context of autonomous shipping
- The standardization of safety and security for autonomous vessels
- The development of intelligent security strategies for establishing resilient and robust systems for autonomous vessels
- Safety and security integration in the operative context of autonomous maritime systems
- Autonomous vessels operating in extreme environments (ice and arctic conditions)

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ESWC

Traditional system safety approaches are being challenged by the introduction of new technology and the increasing complexity of the systems we design, manufacture and operate. STAMP and its associated tools deal with the complexity of systems and provide systematic ways to analyze and assess existing and conceptual systems proactively or detect and illustrate deficiencies revealed through investigations. The ESWC brings together researchers and practitioners who apply, or want to get familiar with, STAMP that is widely used in different sectors such as space, aviation, healthcare, defense, nuclear, railways, infrastructure, maritime and automotive. The conference covers the following topics for presentations:

- Experiences using STPA, STPA-Sec, and CAST
- Introducing STAMP, STPA, and CAST into large organizations
- Safety-guided and Security-guided design using STPA and STPA-Sec
- Using STPA to make decisions
- Accident/loss analyses
- Certification and regulatory issues
- Evaluations and comparisons with traditional techniques
- Risk management and identifying leading indicators
- Applications to security and other areas such as workplace safety
- Safety Management System development and evaluation
- Tools, processes, and other support for analysis and design using STPA and CAST
- Management and adoption experiences or challenges
- Applications to other emergent properties (beyond safety and security)



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PROGRAM COMMITTEES

ISSAV & ESWC CHAIR

Prof. Pentti Kujala
Dr. Osiris A. Valdez Banda (Co-chair)

ISSAV

Prof. Pentti Kujala, Aalto University, FI
Dr. Osiris A. Valdez Banda, Aalto University, FI
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Dr. Pierre C Sames, DNV GL, NO
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ESWC

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Osiris A. Valdez Banda, Aalto University, FI
Jakub Montewka, Gdynia Maritime University, PL
Børge Rokseth, Norwegian University of Science and Technology (NTNU), NO
Asim Abdulkhaleq, Robert Bosch, DE

Local Organizing Committee

Dr. Osiris A. Valdez Banda; Prof. Pentti Kujala; Prof. Spyros E. Hirdaris; M.Sc. Sunil Basnet, M.Sc. Meriam Chaal; D.Sc. Ketki Kulkarni and B.Sc. Sophie Cook.

Contact Information:

For more information about the ISSAV & ESWC 2019 please visit the website

<https://www.aalto.fi/events/issaveswc-2019> or contact D.Sc. Osiris A. Valdez Banda osiris.valdez.banda@aalto.fi

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Venue:

Hanasaari Culture Center and Conference Hotel, Espoo, Finland. <https://www.hanaholmen.fi/en/>

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CALL FOR ABSTRACTS (Extended)

We welcome abstracts of proposals for technical presentations, demonstrations and conference manuscripts. The manuscripts will be published in (electronic) conference proceedings and in a Special Issue in Safety Science (see information below).

[Deadline 15 May 2019](#)

Abstract templates and submission: [Link](#)

*The International Seminar on Safety and Security of Autonomous Vessels 2019 is linked to the **Virtual Special Issue “Autonomous Vessels Safety” in Safety Science**. The most outstanding papers of the conference will be invited to submit the papers to this special issue.*

Authors submitting abstracts to the ISSAV 2019 will receive an invitation letter with instructions for the submission of manuscripts to the **VSI: Autonomous Vessels Safety**.

PROGRAM (TBU)

ISSAV

Keynote Speakers

Pierre C Sames

Senior Vice President, DNV GL - Group Technology and Research Director

TOPIC: “Assurance of complex cyber-physical systems – a class perspective”

Vesa Marttinen

Director of Cruise, Ferry and Superyachts, Wärtsilä

TOPIC: “Data & analytics to drive the safety - as rest of marine operations”

ESWC

Keynote Speakers

John Thomas

Executive Director of MIT's Partnership for Systems Approaches to Safety and Security (PSASS)

TOPIC: “Recent STAMP/STPA developments and new applications to autonomy”

The entire program will be informed in the following months in the conferences website:

<https://www.aalto.fi/events/issaveswc-2019>