

# mecss

2019

MARINE ELECTRICAL AND CONTROL SYSTEMS SAFETY CONFERENCE

## Conference Call for Papers



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## Inspiring safer systems at sea

**Tuesday 2 and Wednesday 3 July 2019**

America Square Conference Centre, London, UK

### MECSS 2019 at a glance

- Over 100 expert participants
- Over 18 peer reviewed technical papers
- International attendance
- Continuing Professional Development (CPD) approved by IMarEST
- Speakers' Corner for further debate and discussion
- Excellent networking opportunities including organised reception
- NEW for 2019 – MECSS 2019 will be held in parallel to IMarEST's EAAW VIII and will hold joint sessions on Day One



**IMarEST LEARNED  
SOCIETY EVENTS**

### The Aim

At the heart of the MECSS' technical debate is how safety is instilled in the interaction between people, processes, commercial standard equipment and plant – all of which are becoming more sophisticated.

The industry is changing with more electronics and software that is enabling the Internet of Things to be introduced into ships. Availability based services; shore to ship remote intervention and even autonomy are all on the verge of becoming normal in our marine industry. These opportunities mean that the pursuit of safer systems at sea must dominate the agenda, alongside the commercial drivers. MECSS 2019 entitled *Inspiring safer systems at sea* aims to further explore the challenges with papers that will focus on human centred design and safer energy management.

The Conference will also join forces on Day One with EAAW VIII with the aim to discuss the shared challenges for both the commercial and naval arenas.

**“... Be ready to acquire new knowledge, appreciate alternative approaches and standby to debate!”**

**Kevin Daffey**  
Chairman,  
MECSS 2019



Visit MECSS' website for full details including the joint sessions with EAAW VIII:  
[www.mecss.org.uk](http://www.mecss.org.uk)

## MECSS 2019 themes

### Human Centred Design

- Competences of ship and shore-based staff
- Human machine system interface
- Maintainability
- Safety critical software systems – regulations/standards
- Alert management
- Operability
- Levels of autonomy and software standards
- Regulation of AI / ML algorithms
- Hazards and safety cases
- Legal implications for remote control

### Safer Energy Management

- Battery technology
- Management of HV and LV systems
- Electrical safety (arc flash, electric shock)
- Electrical reliability/availability (partial discharge)
- Control and integration of energy sources
- Cyber-security of data sources
- Hazards and safety cases
- Energy sources (H2, methane, LNG, wind, nuclear)
- Energy efficiency – higher efficiency

## EAAW VIII themes *Evolving intelligent platforms for the future battlespace*



- Digital systems design
- Integration issues particularly with upgrading older platforms
- Sea Ceptor
- Railguns
- Laser directed energy
- Cyber
- Future power requirements
- Total ship integration
- Equipment specification
- Simulation and modelling
- Weapon control support systems
- Unmanned systems
- Artificial intelligence/ 3D modelling
- Virtual reality
- UXV
- Partial discharge

Submit your synopsis  
via email:  
[mecss@figsevents.co.uk](mailto:mecss@figsevents.co.uk)

## Key Dates

Close of Call for Papers

**Monday 4 March 2019\***

Notification to successful authors  
**March 2019**

Receipt of full technical papers  
**Monday 13 May 2019**

\*Synopses will be accepted after this date subject to availability within the conference programme.

## A shared vision

New platforms in both the commercial and naval arenas need sensors, internal systems and personnel to work in unison to deliver the capability expected. We can no longer look at boundaries between allies, platforms and departments as an excuse for not maximising the delivery of maritime capability. The ship systems need to be safe, efficient, reliable, protected from cyber-attack and work as a single overall system. The blurring of system boundaries will require revised departmental boundaries, new manning and training philosophies and new operating procedures.

The clear synergies between MECSS 2019 and the Engine As A Weapon International Symposia, two of IMarEST's seminal Learned Society events, will be explored during Day One, with Day Two splitting into two parallel sessions focussing on topics specific to each event. At the end of Day One, a Plenary Debate involving all participants will discuss today's challenges. In addition, the timings for the refreshments and the networking programme will be synchronised for both events throughout the two days ensuring maximum interaction between all participants.

Visit [www.eaaw.org.uk](http://www.eaaw.org.uk) for full details of EAAW VIII.

## Submission process

The Technical Advisory Committee welcomes synopses from all areas of the industry. Papers will be reviewed and selected on the basis of technical quality, relevance and their potential for generating discussion. Papers will be presented in English. Prospective authors are invited to submit titles of papers, keywords and synopses of between 250 and 500 words (text only – please do not submit pictures, figures, graphs, equations etc) to the MECSS 2019 Technical Advisory Committee via email [mecss@figsevents.co.uk](mailto:mecss@figsevents.co.uk).

Selected authors will be invited to submit final papers of up to 4000 words by Monday 13 May 2019. Please note that all papers are peer reviewed and certain papers may be included in other IMarEST publications after the event subject to Author(s) permission.

## Who will attend?

Senior international electrical power and technical engineers from the marine electrical control supply chain, design and technical authorities, merchant, commercial and navy industry personnel, ship owners and operators, class societies, safety assurance providers, automation systems manufacturers plus consultants and academia.

## Sponsorship and Exhibition

MECSS 2019 and EAAW VIII provides the ideal platform to reach potential customers directly – both face to face with attendees and to the wider audience who visit the website and see the promotional material. Visit [www.mecss.org.uk/sponsors](http://www.mecss.org.uk/sponsors) to find full details of both the exhibition and sponsorship opportunities.

Images and videos from past MECSS conferences can also be viewed via the website at [www.mecss.org.uk/gallery](http://www.mecss.org.uk/gallery)



MECSS 2019/EAAW VIII is organised by FIGS Events Limited on behalf of IMarEST

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For further information visit [www.mecss.org.uk](http://www.mecss.org.uk)