4th Annual INCOSE Conference

Systems Engineering in Healthcare

**Minneapolis/Saint Paul, April 19-20, 2018**

# Call for Presentations, Panels & Tutorials

The INCOSE Conference on Systems Engineering in Healthcare enables participants to share the best practices in the latest Systems Engineering topics as applied to the Biomedical, Healthcare and Medical Technology sectors. Previous conferences focused on applying Agile methods to systems with hardware and software. The 2018 conference will broaden the topics to other state-of-the-art Systems Engineering methodologies.

The theme for the conference is

## “How SE Can Reduce Cost & Improve Quality”

INCOSE appreciates all submissions on Systems Engineering in Healthcare; however, there are areas of emphasis for this conference:

* SE in Regulated Environment
* Design Input & Stakeholder Analysis
* Usability and User Experience
* Systems Architecture and SoS
* Product Line Engineering
* Agile & Lean Methods
* Modelling & Simulation
* Digital & Systems Security
* Risk Management
* Systems Tools Best Practices
* Emerging Topics in Systems Engineering for Medical Technology

For this small and interactive conference, we seek practitioners to share their knowledge and experience through presentations and collaborative sessions. We encourage sessions focused on experience reports and case studies, since these were highly valued in previous conferences. Instructional tutorials are also welcome, which are better when they include examples that help the audience apply the learning to their context. Interactive panel sessions to explore a topic are also encouraged.

Submissions are open now, due Feb 15, 2018. Follow this link to EasyChair:

<https://easychair.org/conferences/?conf=2018healthcaresystems>

In your submission, emphasize:

* A compelling description – Why would someone want to attend your session?
* Your target audience – Who should (or should not) attend?
* Key takeaway – What knowledge and wisdom will your audience gain?

Conference Website Link: <http://bit.ly/2AWzsdO>

*Key Dates:* ***Submissions Due – Feb 15, 2018*** *Acceptance Notification – Feb 21*

# User Advisory Board Sponsored Content

The Healthcare WG User Advisory Board (UAB) is a board composed representatives of 14 companies (and one professional society, ASME). They have identified topics which would be particularly valuable to their practice of systems engineering. Two of the top ranked topics are currently being worked and the UAB is sponsoring tracks at the HWG Systems Engineering Conference. Content presented in those tracks would be considered for inclusion in INCOSE HWG products which will help the practice of Systems Engineering across the Healthcare industry.

The two topics are:

* CyberSecurity/HIPAA/Privacy, and
* Design Decision Theory

Presentations, Panels, and Tutorials in these two areas will be prioritized for content in the conference.

## CyberSecurity/HIPAA/Privacy

As devices become more connected and composed of SW cybersecurity is becoming a more critical topic. Also, in the era of personalized medicine information is more broadly shared but may have longer term and broader implications of information ‘leakage.’ The UAB has identified the following topics as especially interesting for case studies and presentations at the conference.

* Security, Privacy, Confidentiality Management
* Security Assessment Tools
* Security Architecture
* Lifecycle Security Management

## Design Decision Theory and Tradeoff Analysis

Decision theory and design tradeoffs are a key component of what systems engineering delivers. This topic got the most votes from the UAB. Systems engineering tradeoffs live in the ambiguous middle ground between the program/business and the detailed engineering functions. Therefore the boundary of what SE is responsible for can make taking ownership and executing a set of design decisions challenging for the individual systems engineer. The UAB has identified the following topics as especially interesting for case studies and presentations at the conference.

* Design decision tools and techniques
* Managing a portfolio/collection of design decisions
* Integrating design decisions into other business process
* Training on design decision theory and techniques