



Systems, Software and Safety 2023

System and software safety in electronic systems is becoming increasingly central in many industries and indeed as part of often critical societal infrastructure. The systems become ever more complex, connected and autonomous — and the software continues to grow. This poses many challenges even for mature organizations, requiring approaches that go beyond established best practices.

The Scandinavian conference on safety critical systems and software has become a central meeting place for Scandinavian safety experts from industry, public and academic organizations. It is an opportunity to share experiences and make new contacts. The conference features a one and a half day with distinguished keynotes, industrial and research presentations, followed by seminar/tutorial by Nancy Leveson the second day. In the evening of the first day there is a conference dinner to meet old friends and establish new contacts.

Warm welcome to the conference, this year in Stockholm.

Nicolas Martin-Vivaldi,
Addalot
nicolas.martin-vivaldi
@addalot.se
070-6800521
www.addalot.se

Fredrik Asplund,
KTH/ICES
fasplund@kth.se
073-4607405
www.ices.kth.se

Malin Levin,
SAFER/Chalmers
malin.levin@
chalmers.se
0733-330783
www.saferresearch.com

Time: 21-22 November 2023

Place: KTH, Teknikringen 1 (Tuesday)
and Lustikulla, Liljeholmsvägen 8
(Wednesday) Stockholm

Organizers: Addalot Consulting AB,
SAFER/Chalmers, KTH and ICES

Cost (excl. VAT): Early bird* Late
Standard 1995:- 2995:-

Social dinner 21/11: 550 :-

*Early bird price before October 6

Final registration: 15 November

Full program and registration:

<http://safety.addalot.se/>

addalot
QUALITY IMPROVEMENT

ICES
Innovative Centre for Embedded Systems
KTH
VETENSKAP OCH KONST

SAFER
VEHICLE AND TRAFFIC SAFETY CENTRE AT CHALMERS

Tuesday 21 November

Time	Content	Presenter
09:30-10:15	Registration and coffee	
10:15-10:30	Welcome and introduction	Organizers
10:30-11:30	Keynote: Assuring the ethics of AI and autonomous systems	Ibrahim Habli, York University
11:30-12:05	How to use out-of-distribution detection method to argue AI/ML-based components into a safety lifecycle and related safety argument	Murat Erdogan, Magna
12:05-13:00	Lunch	
13:00-14:15	Keynote: The Need for a new Paradigm in System Safety Engineering	Nancy Leveson, MIT
14:15-14:50	Holistic approach for streamlined vehicle FuSa and CS engineering	William Zeng, Roben Automotive
14:50	Tutorial part 1	Nancy Leveson, MIT
15:45-16:00	Coffee	
17:20	Dinner	



Ibrahim Habli



Murat Erdogan



Nancy Leveson



William Zeng

Wednesday 22 November

Time	Content	Presenter
08:30-09:30	Keynote: The future of System Safety – how to apply HTO (Human-Technology- Organization)	Lena Kecklund, MTO
09:30-10:05	Assurance of Software-Intensive Medical Devices: What About Mental Harm?	Barbara Gallina, Mälardalen University
10:05-10:25	Coffee	
10:25-11:00	Collective Perception- Wild Animal Info Sharing	Zehra Adil, Magna
11:00-11:35	Analyses of the interplay between safety and security attributes in connected computer systems	Behrooz Sangchoolie, RISE
11:35-12:35	Lunch	
12:35-16:00	Tutorial part 2	Nancy Leveson, MIT
14:20-14:35	Coffee	



Lena Kecklund



Barbara Gallina



Zehra Adil



Behrooz Sangchoolie

Tutorial: An Introduction to STPA and CAST, Nancy Leveson, MIT
 CAST is a new accident analysis method that helps to better understand why an accident occurred and how to prevent future accidents related to the same systemic factors. In contrast, STPA is a proactive tool that identifies scenarios leading to accidents before they occur. Information obtained to assist in preventing or mitigating losses. While there is not enough time to teach how to perform STPA and CAST in this tutorial, I will provide an introduction to them and enough information that you should be able to get started in applying these new safety engineering tools. There will be provided a little "homework" question Tuesday to go over on Wednesday.

