

# EMBEDDED CONFERENCE SCANDINAVIA 2019

EUROPE'S LARGEST  
EMBEDDED CONFERENCE

November 5-6. Kistamässan. Stockholm

## KEYNOTE SPEAKERS:



Ted Schönbeck,  
Google:  
**AI – from hype to reality**



Colin Williams,  
IBM Watson IoT:  
**Unlocking Industry value  
out of IoT and AI**



Sven Erik Jeroschewski,  
Bosch Software  
Innovations:  
**Open Source in the  
manufacturing industry**



Richard Elberger,  
Amazon Web Services:  
**Securing IoT everywhere**

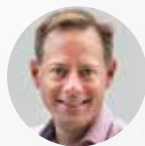


Christian Heinel,  
Cisco: **How to create  
an effective security  
architecture**

## SPECIALY INVITED SPEAKERS:



Jana Tumová,  
KTH, Division  
of Robotics,  
Perception, and  
Learning (RPL):  
**Provably safe  
robotics**



Fredrik Heintz,  
Linköping  
University:  
**The Future of  
Cyber-Physical  
AI Systems**



Yu Liu,  
Linköping  
University:  
**Data-centric  
IoT based on  
Azure Cloud**



Richard Barry,  
Amazon Web  
Services:  
**Driving Device  
Connectivity  
at the  
IoT Edge**

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scandinavia

# Join the success!

## WELCOME TO THE 14<sup>TH</sup> EDITION OF ECS

**OVER THE LAST** few years Embedded Conference Scandinavia, the internationally renowned meeting place for professionals in the field of embedded technology, has been growing and is now considered the largest embedded conference in Europe. ECS has maintained its successful concept of a compact exhibition, a world-class conference and popular social activities and now draws some 2,000 participants. With visitors and exhibitors from more than 25 countries around the world, Embedded Conference Scandinavia is now also more international than ever.

**AT THE ECS** exhibition around 80 companies and organizations will be presenting all the new products, services and trends covering all the needs of the industry. We will as always offer an internationally top ranked conference with seminars, presentations and workshops as well as reputable keynote speakers and of course the presentation of this year's winners of the Swedish Embedded Award.

**NEW FOR THIS YEAR** is that ECS will focus on a number of specially invited reputed speakers who are active within selected areas. This is part of the ambition to create an even more edgy and exciting conference program for our delegates. As in previous years a large part of the program consists of presentation proposals submitted by the most important companies in the industry, both Swedish and international. This year a record breaking number of abstracts have been received, which guarantees a very high quality of the program. New for this year is also that ECS offers a deep diving special track within Next generation wireless IoT infrastructure.

**If you are an embedded professional you do not want to miss attending ECS!**  
**See you in November!**



Björn Delin  
CEO  
BraMässor



Mikael Joki  
Chairman  
Svensk Elektronik/ The  
Swedish Electronics Trade  
Association



Mats Andersson  
Chairman, Embedded  
Section  
Svensk Elektronik/ The  
Swedish Electronics Trade  
Association

### EXCERPTS FROM THE PROGRAM:

**INTERNET OF THINGS:** Two full days' program covering the whole scenario of IoT, including state-of-art offerings, trends on embedded development and use as well as key knowledge deep dives. The program covers a wide range of topics from embedded hardware and energy harvesting to essential functions and critical aspects of embedded such as AI, machine learning and security.

In addition, the program features a special track on next generation wireless IoT infrastructures addressing data collection and security, wireless technology pros and cons as well as how to deploy an IoT network. We will also look at IoT from a broader application perspective; such as the use of IoT for safe robots and the use of AI for flying objects.

**SOFTWARE DEVELOPMENT:** Agile methods. Software quality, testing and maintenance. Operating systems. Open source for embedded applications. Embedded security. Wireless communications.

**IN-DEPTH TUTORIALS:** IIC's Industrial Internet Connectivity Framework (IICF), security, code coverage and testing methods, design of resilient, robust, reliable and secure IoT systems, and more.

#### HANDS-ON WORKSHOPS:

- Debugging and tracing with Nohau Solutions
- The attack kill chain with Cisco

**NEW! LAB:** Does your product withstand a cyber attack? Get it tested in the Nohau Solutions lab



# KEYNOTE SPEAKERS

**SVEN ERIK JEROSCHEWSKI, KEYNOTE 1, ROOM M1, NOV 5 09.40-10.20**

## Open Source in the manufacturing industry

In the past 20 years, software has become increasingly important for industrial manufacturers. This trend is expected to continue in the future. At the same time, the share of open source technologies in the software business has increased rapidly. While closed software development can be considered "daily business", the active participation in open source communities is still a fairly new approach for industrial manufacturers. Bosch has recognized the relevance of Open Source for its future business. The company has increased its open source activities in relevant technology areas such as Internet of Things, development tools, automotive or embedded devices. This talk gives an overview of some major activities like in the Eclipse IoT working group and reveals insights into Bosch's motivation.



**PRESENTER:** Sven Erik Jeroschewski, Open Source Services, Bosch Software Innovations

Sven Erik Jeroschewski is software engineer with Bosch Software Innovations. As member of the Open Source Services team he applies Open Source cloud technologies, especially from the Eclipse IoT working group, in a technically sound and compliant manner to the connected driving and industrial automation domains. Sven studied Computer Engineering at the TU Berlin and the University of Oklahoma with a strong focus on networking and embedded systems.

**COLIN WILLIAMS, KEYNOTE 2, ROOM M1, NOV 5 11.00-11.40**

## Unlocking Industry value out of IoT and AI

As the Internet of Things is on the brink of changing how we work, live and play, there are some fundamental questions organizations need to ask. Listen to Colin present some of his thoughts on what technology is going to be needed within a strategy to drive digitization and digital transformation within the construction industry. He will touch on topics of digitalization that will support increased efficiencies in Construction Management, Worker Safety, and Infrastructure Maintenance.



**PRESENTER:** Colin Williams, Business Development Executive for IBM, Internet of Things Solutions, IBM Watson IoT

Colin is one of IBM's experts within the focus area of Internet of Things. He is advising world wide organisations & industry forums on how to leverage IoT strategies, by developing new inter connected business models & innovative offerings by infusing instrumentation, interconnection and intelligence into systems that drive human progress and economic growth. From an industry point of view Colin is active in the Industrial sector supporting organisations designing, developing and maintaining their Operational Technology Digital transformation strategies.

**TED SCHÖNBECK, KEYNOTE 3, ROOM M1, NOV 5 13.30-14.10**

## AI – from hype to reality

Everyone is talking about AI and in this presentation I will discuss what it is really all about - beyond the hype. I will share how Google is doing research around AI, how we use it in our own solutions but most importantly - how you can get started with AI in your own organisation. A slightly scary mix of presentation, video and live demo.



**PRESENTER:** Ted Schönbeck, Head of Cloud Technology, Google Cloud

Ted Schönbeck has 20 years experience working for IBM, Dell, VMware, EMC, Red Hat and Google. He is a passionate cloud, digital transformation and AI evangelist and a frequent speaker at industry events.

**CHRISTIAN HEINEL, KEYNOTE 4, ROOM M1, NOV 6 09.40-10.20**

## How to create an effective security architecture

In this presentation Cisco cybersecurity expert, Christian Heinel, will discuss the components of a best-practice security architecture and how to effectively control and measure them. Using the world's biggest threat intelligence data set, he'll show how cloud technology has helped detect and respond faster to new and emerging cyber threats. He'll also explain how Artificial Intelligence and Machine Learning enables organizations to automate threat detection and response processes, in a world where the network detection capabilities are changing rapidly. In addition Christian Heinel will touch on how IT/OT emerges and creates Security challenges, which can be difficult to combat without new innovations, which are non-intrusive to critical IOT environments.



**PRESENTER:** Christian Heinel, Technical Manager Cisco Cyber Security, Northern Europe, Cisco

Christian Heinel is 41 years old and has been in the Cyber Security for more than 20 years. Christian is specialized in network security, firewalls, network intrusion prevention and network access control technologies. Working both with security consultancy and security management he started in the Service Provider industry and has since moved into Cisco – the worlds biggest network and security vendor. Today Christian Heinel holds a position as the technical manager for Cisco Cyber Security in Northern Europe.

**RICHARD ELBERGER, KEYNOTE 5, ROOM M1, NOV 6 13.30-14.10**

## Securing IoT Everywhere

When delivering products and solutions for the Internet of Things, you must consider a wide spectrum of security vectors. Many public breaches have made headlines and reputations have been irreversibly ruined when not carefully applying security measures across the solution: the considerations range from the device to the cloud, for data both in transit and at rest. In this session, you will learn the principles for securing your IoT solution end to end, from device to cloud, in transit and in the cloud.



**PRESENTER:** Richard Elberger, Global Partner Solutions Architect – IoT, Amazon Web Services

Richard Elberger is a Global Partner Solutions Architect in IoT at Amazon Web Services. In his role, he works with hardware partners worldwide to ensure customers can build amazing and innovative IoT solutions on AWS. Richard has worked in the software and services industry for over 20 years and holds an MBA from the University of Massachusetts Amherst.

# SPECIALLY INVITED SPEAKERS

**RICHARD BARRY, ROOM M1, NOV 5 14.10-14.50**

## Driving Device Connectivity at the IoT Edge

The data that we need to build a smarter world will come from the billions of devices in homes, factories, oil wells, hospitals, cars, and thousands of other places. Most of this data will be collected from small nodes, like microcontroller (MCU) based devices, that can be connected directly to the cloud or indirectly via larger processing units that can filter data or perform machine learning at the edge. Companies and organizations connecting these devices to the Internet of Things face challenges created by the diversity of IoT use cases and their unique hardware, connectivity, and security requirements. FreeRTOS, an open source operating system for MCUs, is democratizing how these devices are connected and operated. Most recently, the FreeRTOS kernel was updated to use an MIT License, extended with MIT-licensed security and connectivity libraries, and contributed support for the open RISC-V instruction set architecture (ISA). In this talk, FreeRTOS creator Richard Barry examines how the open FreeRTOS ecosystem is helping microcontroller device developers overcome the new security and connectivity challenges presented when connecting small microcontrollers to the Internet of Things (IoT).



**PRESENTER:** Richard Barry, Principal Engineer, Amazon Web Services

Richard Barry founded the FreeRTOS project in 2003, spent more than a decade developing and promoting FreeRTOS through his company Real Time Engineers Ltd, and now continues his work with FreeRTOS as a principal engineer at Amazon Web Services. FreeRTOS is a cross-platform standard RTOS kernel for microcontrollers that is ported to more than 30 microcontroller cores and 18 toolchains. FreeRTOS was downloaded once every three minutes during 2017 - making FreeRTOS one of the leading RTOSes in its class. Richard graduated with 1st Class Honors in Computing for Real Time Systems, and was awarded an Honorary Doctorate for his contributions to the development of embedded technology. Richard has also been directly involved in the startup of several companies, and authored several books.

**FREDRIK HEINTZ, OPEN STAGE, NOV 6, 11.00-11.40**

## The Future of Cyber-Physical AI Systems

Artificial intelligence, AI, has made tremendous progress the last 10 years especially in the area of machine learning. Today many people use AI technology on a daily basis. However, these applications are still mainly digital. At the same time we have seen impressive improvements in robot technology and in cyber-physical systems with distributed sensors, actuators, and computation connected in networks. The talk will give an overview of the state of the art in AI and why integrating AI and cyber-physical systems is so exciting and important. It will also cover some concrete examples of existing and potential future cyber-physical AI systems.



**PRESENTER:** Dr. Fredrik Heintz, Associate Professor of Computer Science, Linköping University

Fredrik Heintz leads the Stream Reasoning group within the Division of Artificial Intelligence and Integrated Systems (AIICS) in the Department of Computer Science. His research focus is artificial intelligence especially autonomous systems, stream reasoning and the intersection between knowledge representation and machine learning. He is the Director of the Graduate School for the Wallenberg AI, Autonomous Systems and Software Program (WASP), the President of the Swedish AI Society and a member of the European Commission High-Level Expert Group on AI. He is also very active in education activities both at the university level and in promoting AI, computer science and computational thinking in primary, secondary and professional education.

**YU LIU, OPEN STAGE, NOV 6, 14.10-14.50**

## Data-centric IoT based on Azure Cloud

The pervasive application of Internet of Things (IoT) has been seen in many aspects in human daily life and industrial production. Today, the popularity of cloud computing technology has enhanced this IoT transform, benefiting from the superior computing capability, security, reliability and scalability. However, owing to the heterogeneity of hardware and communication protocols in the IoT world, interoperability is still a challenge not addressed by public cloud suppliers since their efforts are mainly put into software and platform services but can hardly be extended to end devices. To tackle the challenge, a data-centric IoT framework based on Azure public cloud is present which targets at providing a universal architecture to facilitate the deployment of IoT devices. A remote monitoring and management system for green plant wall industry is exemplified to validate the feasibility, and neuron network-based anomaly detection for indoor climate is explored as a showcase to bring intelligence into the digitalization of conventional industries.



**PRESENTER:** Yu Liu, Department of Science and Technology, Linköping University

Yu Liu received B.Eng. degree in electronics science and technology from Harbin Institute of Technology (HIT), China, in 2014, M.Sc. degree in computer science from University of Trento, Italy, in 2016, M.Sc. degree in innovation in information and communication technology from Technical University of Berlin, Germany, in 2017. He is currently working toward the Ph.D. degree with the department of science and technology in Linköping University, Sweden. His research interests include cloud-based Internet of Things (IoT) solution, embedded systems, wireless sensor networks, and artificial intelligence. He is one of the winners of the Swedish Embedded Award in 2018.

**JANA TUMOVA, ROOM M1, NOV 5 15.50-16.30**

## Provably safe robotics

Autonomous robots are becoming ever more capable and present in our everyday lives. From driverless vehicles to search-and-rescue drones to service humanoids in social environments, robots are safety-critical systems. How do we design safe robots and verify robot safety? In this talk, we will introduce approaches that allow us to draw provable guarantees on performance of a robotic system, or its components, such as perception, planning, or control. We will discuss the most recent trends in provably safe robotics: as much of the tremendous progress in robotics over the last years has been enabled by advances in data-driven artificial intelligence, we will take a peak into the state-of-the-art safe reinforcement learning and verification of deep learning systems.



**PRESENTER:** Jana Tumova, PhD, Assistant Professor, Division of Robotics, Perception, and Learning (RPL), KTH Royal Institute of Technology

Jana Tumova is an assistant professor in Robotics, Perception and Learning division at KTH Royal Institute of Technology. She received PhD in computer science in 2013 from Masaryk University, she was a postdoctoral researcher at KTH, and a visiting researcher at MIT, Boston University, and Singapore-MIT Alliance for Research and Technology. Among others, she has worked on projects bringing benefits of formal methods to robot planning, or to autonomous driving with road rules. She was awarded the Swedish Research Council Starting Grant in 2018 and she is a co-PI of several research grants including EU H2020 projects.

## DAY 1 • NOVEMBER 5, 2019

Nov 5	Track 1 Room M1	Track 2 Room M6	Track 3 Open stage	Track 4 Room M5	Track 5 Room M3	Track 6 Room M4
08.55	Grand Release of the new updated and reworked Smartare Elektronikhandboken 2.0 (Open Stage)					
09:10-09:40	<b>Edge Computing</b>  <b>9:10 Implementing Cloud at the Intelligent Edge</b> Presenter: Iisko Lappalainen, MontaVista Software	<b>Embedded security</b>  <b>9:10 Towards Secure Embedded Hardware Platforms: Attacks and Countermeasures</b> Presenter: Youssa Alkabani, Halmstad University	<b>Hardware solutions</b>  <b>9:10 Solving electro-mechanical integration challenges during an IoT product development process</b> Presenter: Arjun Bingipur, Dassault	<b>Next gen wireless IoT infrastructure</b>  <b>9:10 From Data Collection to Critical Machine-Type Communications: Challenges and Trends</b> Presenter: James Gross, KTH Royal Institute of Technology	<b>Workshop</b>  <b>9:10 Best practice on debugging and tracing your embedded system using Lauterbach!</b> Presenter: Nohau Solutions	<b>Embedded software development and use</b>  <b>9:10 Indiana Jones and the Secret of Fast Vision Development</b> Presenter: Andrea Leopardi, BitSim
09:40-10:20	<b>KEYNOTE 1, ROOM M1</b>  <b>Open Source in the manufacturing industry</b> , Presenter: Sven Erik Jeroschewski, Bosch Software Innovations					
10:20-11:00	COFFEE & EXHIBITION					
11:00-12:00	<b>IoT in the cloud</b>  <b>11:00 KEYNOTE 2: Unlocking Industry value out of IoT and AI</b> Presenter: Colin Williams, IBM Watson IoT <i>40 mins</i>	<b>Bluetooth communications and features</b>  <b>11:00 Experience from two years with Bluetooth mesh sensor network</b> Presenter: Pelle Svensson, u-blox  <b>11:30 Location Services and Direction Finding with Bluetooth</b> Presenter: Martin Woolley, Bluetooth SIG	<b>Software quality, testing and maintenance</b>  <b>11:00 Open Source Software and Mission-Critical Embedded Systems – like oil and water?</b> Presenter: Mark Richardson, LDRA  <b>11:30 Code reuse, myth or reality?</b> Presenter: Rafael Taubinger, IAR Systems	<b>Next gen wireless IoT infrastructure</b>  <b>11:00 Security in development/ deployment/ service/firmware update over the air</b> Presenters: Per Nørgaard Christensen and Jens Barkvall, Prevas <i>60 mins</i>	<b>Workshop</b>  <b>11:00 Best practice on debugging and tracing your embedded system using Lauterbach!</b> <i>Contd.</i>	<b>Embedded software development and use</b>  <b>11:00 IoT Design: An Approach to Design Resilient, Robust, Reliable Secure Systems</b> Presenter: Niklas Larsson, Microchip Technology <i>60 mins</i> Sponsored by: Mouser Electronics
12:05-12:20	<b>OPENING SPEECH (Open Stage)</b>  Ted Schönbeck, Google Cloud					
12:20-13:30	LUNCH & EXHIBITION					
13:30-14:10	<b>KEYNOTE 3, ROOM M1</b>  <b>AI – from hype to reality</b> , Presenter: Ted Schönbeck, Google Cloud					
14:10-15:10	<b>Open source</b>  <b>14:10 INVITED SPEAKER: Driving Device Connectivity at the IoT Edge</b> Presenter: Richard Barry, Amazon Web Services <i>40 mins</i>	<b>Embedded security</b>  <b>14:10 What's your state of security?</b> Presenter: David Källberg, IAR Systems  <b>14:50 Lessons learned after years of real-world Consumer IoT Products security evaluations (and what to do next)</b> Presenter: Dr Johannes Bauer, UL	<b>AI and machine learning</b>  <b>14:10 Deep Learning: Going from unlabeled data to a trained network on a target</b> Presenter: Emelie Andersson, MathWorks  <b>14:50 Workload consolidation all the way down to the machines on the factory floor</b> Presenter: Christian Eder, congatec	<b>Next gen wireless IoT infrastructure</b>  <b>14:10 Technology pros and cons (NB IoT/Sigfox/ LoRa)</b> Presenter: Jens Barkvall, Prevas <i>60 mins</i>	<b>Industrial solutions</b>  <b>14:10 Low-cost FPGA-based Light Neural Networks for Industrial Defect Detection</b> Presenter: Sujeeth Joseph, Ignitarium  <b>14:50 From lab to field – How to approach the challenges in adopting Time Sensitive Networking (TSN), the enabler technology for cost efficiency in Industry 4.0</b> Presenter: Norbert Hauser, Kontron Europe	<b>Embedded software development and use</b>  <b>14:10 Understanding and Applying the IIC's Industrial Internet Connectivity Framework (IICF) Guidance</b> Presenter: Reiner Duwe, Real-Time Innovations (RTI) <i>60 mins</i>
15:10-15:50	COFFEE & EXHIBITION – Presentation of Smartare Elektronikhandboken 2.0					

### NEW! Lab: Does your product withstand a cyber attack?

Get it tested in the Nohau Solutions lab on November 5 – Room E2 – 09:10-16:00. Book a slot when you register for ECS on [www.embeddedconference.se](http://www.embeddedconference.se)



## DAY 1 • NOVEMBER 5, 2019

Nov 5	Track 1 Room M1	Track 2 Room M6	Track 3 Open stage	Track 4 Room M5	Track 5 Room M3	Track 6 Room M4
15:50-16:50	Safety & AI	Embedded software development and use	Open source	Next gen wireless IoT infrastructure	Embedded software development and use	Software testing, development and maintenance
	<b>15:50 INVITED SPEAKER:</b> <b>Provably safe robotics</b> Presenter: Jana Tumova, KTH 40 mins	<b>15:50 Shifting-Left Together – Enabling the Ecosystem with Virtual Platforms</b> Presenter: Jakob Engblom, Intel	<b>15:50 To boldly go where Linux cannot with Zephyr and Eclipse IoT</b> Presenter: Frédéric Desbiens, Eclipse Foundation	<b>15:50 When and How to deploy your own IoT network</b> Presenter: Rune Domsten, Indesmatech 60 mins	<b>15:50 Building Scalable Security for Distributed Systems</b> Presenter: Sara Granados, Real-Time Innovations (RTI) 60 mins	<b>15:50 Automating Test Maintenance as Code and Requirements Change</b> Presenter: Matt Davis, QA Systems
		<b>16:20 Simplify your design with new-school C18 and C++17 language extensions!</b> Presenter: Bertil Spolander, IAR Systems	<b>16:20 Combining Open Source with modern software engineering methodologies and system simulation: a glimpse in the future of Linux-based embedded development</b> Presenter: Matias Sundman, Wind River			<b>16:20 Introduction to Docker</b> Presenter: Niall Cooling, Feabhas
17:00-18:00	Industry Reception and presentation of the winners of the Swedish Embedded Award 2019					

## DAY 2 • NOVEMBER 6, 2019

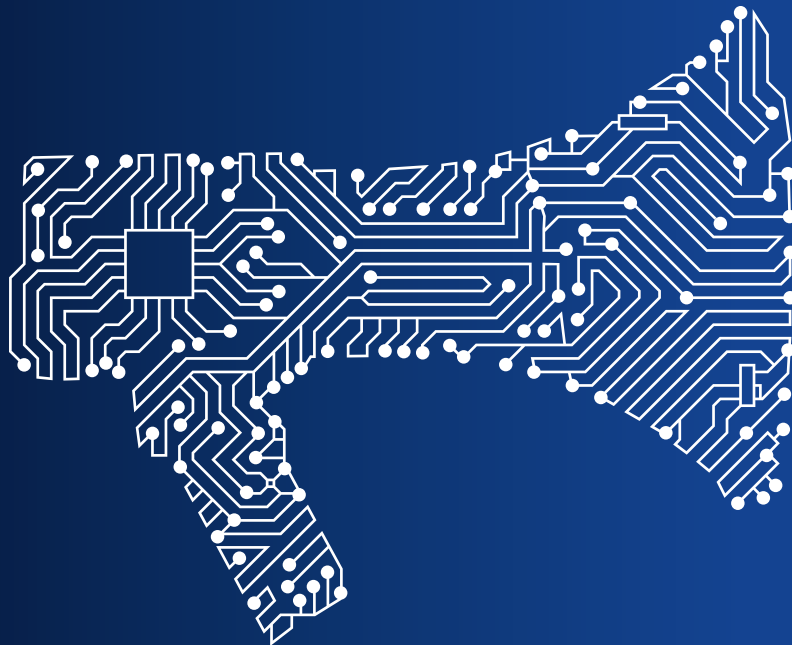
Nov 6	Track 1 Room M1	Track 2 Room M6	Track 3 Open stage	Track 4 Room M5	Track 5 Room M3	Track 6 Room M4
09:10-09:40	AI and machine learning	Operating Systems	Embedded security	Operating systems	Embedded software development and use	Open Source
	<b>9:10 IoT and AI solutions</b> Presenter: Alastair Worth, Avnet Integrated Solutions	<b>9:10 Selecting an Embedded Operating System</b> Presenter: Colin Walls, Mentor	<b>9:10 Best practices for IoT Device Security</b> Presenter: Alan Grau, Sectigo	<b>9:10 Virtualization impact on performance in embedded systems</b> Presenter: Marcus Nissemark, Green Hills Software	<b>9:10 Robust data propagation and control in a cloud infrastructure</b> Presenter: Karl-König Königsson, Mimer Information Technology	<b>9:10 Anatomy of a Cloud Native environment: Serving the Far Edge and the Edge</b> Presenter: Tomas Holmberg, Wind River
09:40-10:20	<b>KEYNOTE 4, ROOM M1</b> <b>How to create an effective security architecture</b> , Presenter: Christian Heinel, Cisco					
10:20-11:00	<b>COFFEE &amp; EXHIBITION – Presentation of Smartare Elektronikhandboken 2.0</b>					
11:00-12:00	Wireless communications	Embedded security	AI and machine learning	Embedded security	Security (workshop)	Embedded systems design
	<b>11:00 Think outside the box – and make a better antenna solution for you gadget or IoT device</b> Presenter: Henrik Landahl, Prevas	<b>11:00 Security from Inception</b> Presenter: Stephan Spitz, Secure Thingz / IAR Systems 60 mins	<b>11:00 INVITED SPEAKER: The future of Cyber-Physical AI Systems</b> Presenter: Fredrik Heintz, Linköping University 40 mins	<b>11:00 How to secure yourself against IoT supply-chain attacks</b> Presenter: Andrew Frame, Secure Thingz 60 mins	<b>11:00 The attack kill chain</b> Presenter: Håkan Nohre, Cisco	<b>11:00 Combining Dataflow Applications and Real-time Task Sets on Future real-time embedded systems</b> Presenter: Hazem Ismail, Halmstad University
	<b>11:30 5G: Challenges and considerations for designing user equipment</b> Presenter: Hans Andersson, ACAL BFI Nordic					<b>11:30 Assuring correct behavior of neural network trained model predictive controllers</b> Presenter: Yuri Durodie, Siemens



DAY 2 • NOVEMBER 6, 2019						
Nov 6	Track 1 Room M1	Track 2 Room M6	Track 3 Open stage	Track 4 Room M5	Track 5 Room M3	Track 6 Room M4
12:05-12:20	Svensk Elektronik & Smartare Elektroniksystem (Open Stage)					
12:20-13:30	LUNCH & EXHIBITION					
13:30-14:10	KEYNOTE 5, ROOM M1					
	Securing IoT Everywhere, Presenter: Richard Elberger, Amazon Web Services					
14:10-15:10	Embedded software development and use	Open Source	IoT systems	Hardware Solutions	Security (workshop)	Software quality, testing and maintenance
	14:10 Seven success factors in Agile product development that you should be highly aware of Presenter: Anders Gustafsson, Prevas	14:10 Eclipse IoT Developer Survey 2019: The Key Findings Presenter: Frédéric Desbiens, Eclipse Foundation 60 mins	14:10 INVITED SPEAKER: Data-centric IoT based on Azure Cloud Presenter: Yu Liu, Linköping University 40 mins	14:10 MeasureWare, Interpret your world – A new approach to precision measurement Presenter: Joern Oppenhaeuser, Analog Devices 60 mins	14.10 The attack kill chain Presenter: Håkan Nohre, Cisco Contd.	14.10 “Code Coverage for Embedded Targets” for Newcomers Presenter: Sabine Poehler, Verifysoft Technology 60 mins
	14:50 Embedded multicore: enablement of heterogeneous OSes and mixed criticality systems Presenter: Colin Walls, Mentor					
15:10-15:50	COFFEE & EXHIBITION					
15:50-16:20	Hardware solutions	Software quality, testing and maintenance	Embedded software development and use	Hardware solutions	Open Source	Hardware solutions
	15.50 Silicon on Thin Buried Oxide process technology enables smart communicating devices that harvest Energy on the edge Presenter: Graeme Clark, Renesas Electronics Europe	15.50 Highly critical systems: How far can you trust your compiler? Presenter: Mark Richardson, LDRA	15.50 Safety and Reliability through Smart High-Level Assertion Synthesis Presenter: Mohammad Riazati, Mälardalen University	15.50 Self-powered sensor systems for the Industrial IoT Presenter: Sebastian Bader, Mid Sweden University	15.50 Embedded development with modern, type-safe C++ Presenter: Jan Ypma, Tradeshift	15.50 Cohabitant automotive radar Presenter: Emil Nilsson, Halmstad University

NB. The program may be subject to change. An updated program will be printed and distributed at the conference. The latest version is always available on [www.embeddedconference.se](http://www.embeddedconference.se)





# Together, we are creating the industry's future



## **Increasing government investments**

We are actively working to increase the strategic investments that are made via the public financiers of research and innovation.



## **We act as a referral body**

We act as a referral body on issues related to the sector.



## **Strengthening the Swedish electronics industry**

We are making clear how important the Swedish electronics industry is for Sweden.



## **Improving regulations**

We are in continuous dialogue with legislators and authorities for less complicated and improved regulations.



## **Keeping politicians up-to-date**

We lobby politicians and authorities to highlight the industry's significance.



## **Improving business agreement**

We are creating tailor-made business agreements for the industry.



## **Grand Release of the new updated and reworked Smartare Elektronikhandboken 2.0**

Available on 5 November 2019 at 8:55 a.m.





## EXHIBITOR LIST

ACAL BFi  
Alvfors Photonics  
Analog Devices  
Arrow Components Sweden  
ARTEMIS Industry Association  
Avnet Integrated  
Avnet Silica  
BitSim  
Broadband - a Codico Company  
CodiAx  
C.N. Rood  
congatec  
Cypress Semiconductor  
DATA MODUL  
Data Respons  
EISLAB, Luleå University of Technology  
EK Power Solutions  
Elektronik i Norden  
Ellipse-Tronic  
Embedded Systems profile at Mälardalen University  
EMSPROTO  
Endian Technologies  
Eskilstuna ElektronikPartner

Feabhas  
Halmstad University - CERES  
Hectronic  
HMS Networks  
IAR Systems  
Ignitarium  
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KTH Formula Student  
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LDRA  
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Synective Labs  
Testhouse Nordic  
Toshiba Electronics  
Tritech Solutions  
Orcam Systems  
Verifysoft Technology  
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*Exhibitor list as per October 8. The list may be subject to change. We accept no responsibility for possible changes or printing errors. The organizers have reserved the right to abbreviate company names when deemed necessary.*

## ABOUT EMBEDDED CONFERENCE SCANDINAVIA 2019

### EXHIBITION OPENING TIMES

Tuesday, November 5: 08.45-17.00  
Industry Reception & Awards Ceremony,  
Swedish Embedded Award 17.00-18.00  
Wednesday, November 6: 08.45-16.30

### ABOUT THE CONFERENCE

All sessions are free of charge, but pre-registration for the event on [embeddedconference.se](http://embeddedconference.se) is mandatory. Please register and print out your badge in advance to save time onsite. Coffee and light lunch is free of charge to all visitors. The conference language is English. Please check signage onsite for the location of the different sessions.

### ABOUT THE EXHIBITION

Around 80 exhibitors will showcase the latest news and products. They include top international suppliers, universities and the nominated companies and students of the Swedish Embedded Award. The exhibition is free of charge and no further registration than to the conference is needed (please see above).

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