

EMBEDDED CONFERENCE SCANDINAVIA **SYD**

MARCH 10-11, 2015
MALMÖMÄSSAN, MALMÖ

EXCERPTS FROM THE PROGRAM:

- **INTERNET OF THINGS:** Two full days program covering the whole scenario of IoT. From low power sensors and sensor networks to infrastructure and security aspects. We will also look at IoT in practice; Experience from real life projects.
- **SOFTWARE DEVELOPMENT:** Agile methods, Modelling and compiler technology. Software security, test and verification. Open source development with Linux and Android for embedded applications.
- **HARDWARE TECHNOLOGY:** EMC, Low Power design, Multicore and Low cost flexible COTS solutions.
- **DEVELOPMENT FUNDING:** Cooperation between industry and academia. Strategic funding for research and development is available on national and EU level.

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KEYNOTE PRESENTATION:

The Evolution of IoT and Big Data

Presenter: Stephen Bryant, CTO Telenor Connexion AB



KEYNOTE PRESENTATION:

"The Giraffe and the Whale"

– Two major industries that haven't yet met, and how that can be possible

Presenter: Dr. Alex Jonsson, Evothings AB

MARCH 10

09:30-10:30

Track 1 – Room E	Track 2 – Room C2	Track 3 – Room C1	Demo Square – Exhibition Hall
<p>Internet of Things in Practice 09:30 Why is Internet of Things important for the Nordic Industry? Presenter: Björn Andersson; Prevas</p> <hr/> <p>10:00 How to build an open platform for smart buildings Presenter: Ulrik Eklund; Malmö University</p>	<p>Compiler Technology 09:30 The inefficiency of C++, fact or fiction? Presenter: Andreas Wallberg; IAR Systems</p> <hr/> <p>10:00 Dynamic Memory Allocation & Fragmentation in C & C++ Presenter: Colin Walls; Mentor Graphics</p>	<p>Debug 09:30 Find your bugs before they become critical Presenter: Martin Gisbert; IAR Systems</p> <hr/> <p>10:00 Real Time Testing Presenter: Hans Nyström; Prevas</p>	<p>SVEP Design Center 10:00 Bringing an advanced SMS reader to life</p>

10:30-11:00 COFFEE

11:00-12:00

Track 1 – Room E	Track 2 – Room C2	Track 3 – Room C1	Demo Square – Exhibition Hall
<p>Internet of Things in Practice <i>Continued</i> 11:00 Internet of YOUR Thing Presenter: Tim Jensen; Avnet Embedded</p>	<p>Software Development Methods 11:00 Research Directions in Stream Computing Presenter: Jörn W. Janneck; Lund University</p> <hr/> <p>11:30 Continuous Innovation: Closing the Gap between System-level Modeling and Physical Simulation Presenter: Eran Gery; IBM</p>	<p>Debug <i>Continued</i> 11:00 Self-testing in Embedded Systems Presenter: Colin Walls; Mentor Graphics</p> <hr/> <p>11:30 Trace - What is it good for? Presenter: Andreas Wallberg; IAR Systems</p>	<p>ACAL BFi 11:00 Cellular and Low power - Device to Cloud for M2M and IoT</p> <hr/> <p>EMENDA 11:30 The Modern Approach to Software Testing & Certification</p>

12:00-13:20 LUNCH AND EXHIBITION

13:20-13:50 KEYNOTE PRESENTATION



The Evolution of IoT and Big Data
Presenter: Stephen Bryant; CTO Telenor Connexion AB

14:00-15:00

Track 1 – Room E	Track 2 – Room C2	Track 3 – Room C1	Demo Square – Exhibition Hall
<p>IoT Sensors/Sensor Networks 14:00 Bluetooth smart and true IoT, the next steps Presenter: David Edwin; Nordic Semiconductor</p> <hr/> <p>14:30 Low Power and RF technologies paving the way for the growth of Internet of things applications Presenter: Scott Cooper; Silicon Labs</p>	<p>Software Architecture 14:00 What is the Next Programming Paradigm? Presenter: Johan Glimming; Functor AB</p> <hr/> <p>14:30 Does the architecture matter when the ways-of-working change? Presenter: Ulrik Eklund; Malmö University</p>	<p>Find the Money for Electronics Innovation 14:00 VINNOVA's approach to innovation in international ICT Presenters: Lars Gustafsson, Johan Lindberg; VINNOVA</p> <hr/> <p>14:30 "Smartare Elektronik-system" Multimillion program for electronics Presenters: Lena Norder, Maria Månsson; Smartare Elektroniksystem</p>	<p>IAR Systems 14:00 Code Analysis Simplified Presenter: Martin Gisbert; IAR Systems</p> <hr/> <p>Linear Technology 14:30 Doing mixed signal or power designs? Presenter: Thomas Ginell; Linear Technology Corporation</p>

15:00-15:30 COFFEE

15:30-17:00

Track 1 – Room E	Track 2 – Room C2	Track 3 – Room C1	Demo Square – Exhibition Hall
<p>IoT Sensors/Sensor Networks <i>Continued</i> 15:30 Ultra low power CMOS Radio for Internet of Things Presenter: Emil Nilsson; Halmstad University</p> <hr/> <p>16:00 Ultra Low Power Wireless Networks for the Industrial Internet of Things Presenter: Joy Weiss; Linear Technology</p>	<p>Model Driven Engineering 15:30 Model Driven Engineering Methods and Tools Presenter: Kary Ware; IBM</p>	<p>Small Formfactor Boards 15:30 Design considerations for COM Express and Qseven carrier boards Presenter: Christian Eder; congatec</p> <hr/> <p>16:00 The COTS evolution – small formfactor COMs and SBCs Presenter: Patrik Björklund; Trittech Solutions AB</p> <hr/> <p>16:30 Pico-ITX Vs COM form factor Presenter: Giuseppe Amato; VIA Embedded</p>	<p>Freescale 15:30 Smart Plug Demo using Freescale Cortex M Microcontrollers and Powering a load using Analog E-Switch by simple MCU interface Presenter: Jakob Riis, Field Applications Engineer</p>

17:00

MARCH 11

09:30-10:30

Track 1 – Room E	Track 2 – Room C2	Track 3 – Room C1	Workshop – Room Ofelia
Internet of Things Infrastructure 09:30 On Distributed Cloud-Based Knowledge Bases for Small-Batch Assembly <i>Presenter:</i> Anders Robertsson; Lund University 10:00 Edge to Enterprise – without the wires <i>Presenter:</i> Alastair Worth; Avnet Embedded	Open Source 09:30 Realising Efficient Industrial Linux Development <i>Presenter:</i> Kim Højgaard-Hansen; Prevas 10:00 Realtime Linux The PREEMPT_RT patch and the new deadline scheduler <i>Presenter:</i> Ola Redell; Retotech AB	EMC 09:30 Why does your embedded radio perform poorly? <i>Presenter:</i> Thomas Bergkvist; Prevas AB 10:00 Pre-Compliance EMI tools for Embedded Design <i>Presenter:</i> Martin Trossing; MTT Design and Verification AB	IAR 09:30 Debug like a pro – a hands-on training with IAR Systems <i>Hands-on session Limited seating</i>

10:30-11:00 COFFEE

11:00-12:00

Track 1 – Room E	Track 2 – Room C2	Track 3 – Room C1	Workshop – Room Ofelia
Internet of Things Infrastructure <i>Continued</i> 11:00 Legato™ open source embedded platform for M2M built on Linux <i>Presenters:</i> Kristoffer Martinsson and Hans Andersson; Acal BFi Nordic AB 11:30 The Building Blocks of IoT <i>Presenter:</i> Adam Kalinsky; Freescale	Open Source <i>Continued</i> 11:00 Minimize the HW through efficient use of SW <i>Presenter:</i> Giuseppe Amato; VIA Embedded 11:30 Running embedded applications on Android <i>Presenter:</i> Robert Niemi; Qodes AB	Hardware Design 11:00 Power Management in Embedded Systems <i>Presenter:</i> Colin Walls; Mentor Graphics 11:30 Digital Power System Management <i>Presenter:</i> Thomas Ginell; Linear Technology Corporation	IAR <i>Continued</i> 11:00 Debug like a pro – a hands-on training with IAR Systems

12:00 – 13:20 LUNCH AND EXHIBITION

13:20-13:50 KEYNOTE PRESENTATION



"The Giraffe and the Whale"

– Two major industries that haven't yet met, and how that can be possible

Presenter: Dr Alex Jonsson; Evothings AB

14:00-15:00

Track 1 – Room E	Track 2 – Room C2	Track 3 – Room C1
Internet of Things Security 14:00 Security at the Edge - Considerations for IoT Nodes at the Edge of the Network <i>Presenter:</i> Joakim Hedenstedt; Movial 14:30 Securing the Internet of Things <i>Presenter:</i> Marcus Nissemark; Green Hills Software	Software Quality 14:00 Test-Focused Development for High Quality Software <i>Presenter:</i> Niroshan Rajadurai; Vector Software 14:30 Model-based Unit Testing of Safety-Critical Automotive Software <i>Presenter:</i> Christian Wachtendorf; BTC Embedded Systems AG	Multicore 14:00 Managing the complexities of software development for multi-core processors <i>Presenter:</i> Mark Pitchford; Lynx Software Technologies 14:30 Embedded multicore systems for mixed criticality applications <i>Presenter:</i> Per Lindgren; Luleå University

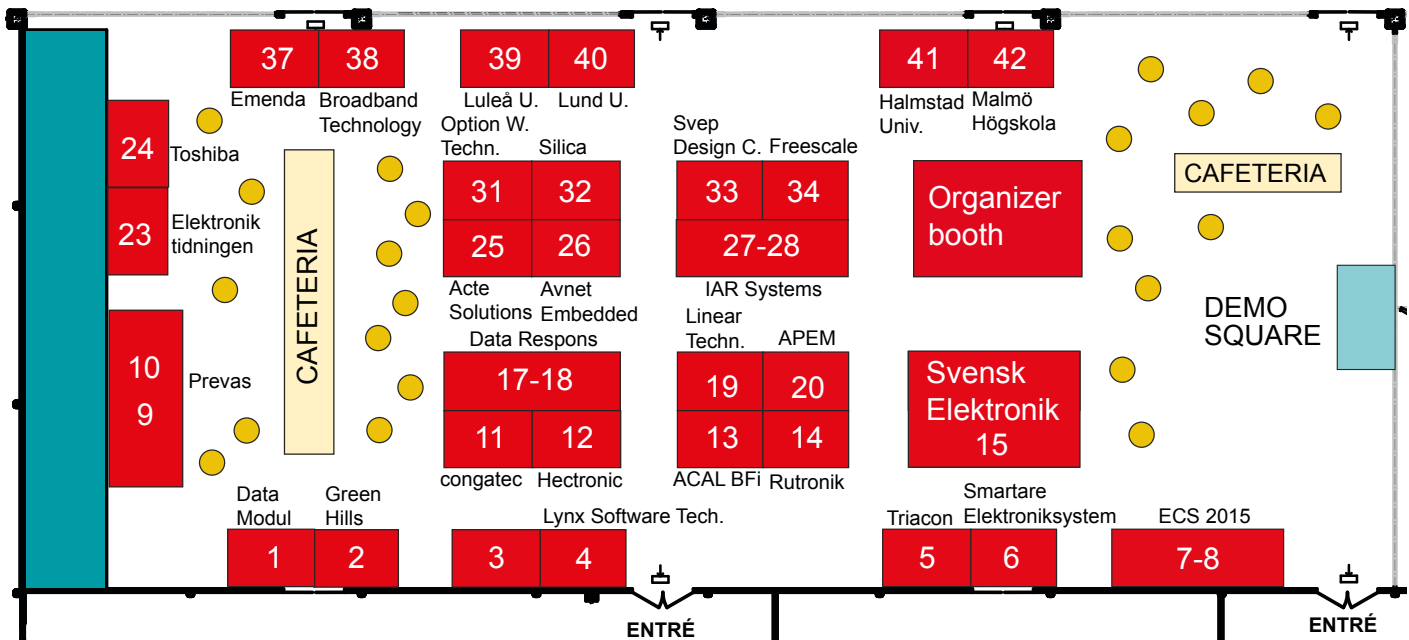
15:00-15:30 COFFEE

15:30-17:00

Track 1 – Room E	Track 2 – Room C2	Track 3 – Room C1
Internet of Things Security <i>Continued</i> 15:30 Using Separation Kernel technology to architect and develop a safe and secure industrial IoT gateway <i>Presenter:</i> Mark Pitchford; Lynx Software Technologies 16:00 How to come around the IoT data security challenges <i>Presenter:</i> Christian Eder; congatec	Software Quality <i>Continued</i> 15:30 Automatic Test Case Generation for Embedded Software <i>Presenter:</i> John Hughes; Quviq 16:00 Controlling deviations in a MISRA compliance environment <i>Presenter:</i> Fergus Bolger; PRQA 16:30 Model-Based Testing of Embedded System Product Lines <i>Presenter:</i> Mohammad Mousavi; Halmstad University	Svensk Elektronik 15:30 Svensk Elektronik Nyfiken på Branschorganisationen Svensk Elektronik? <i>Presenters:</i> Maria Månsson, ordförande, Lena Norder, vd; Branschorganisationen Svensk Elektronik

17:00

FLOOR PLAN



EXHIBITORS LIST ECS SYD 2015

Exhibitor	Booth
ACAL BFi Nordic	13
ACTE Solutions	25
APEM AB	20
Avnet Embedded	26
BraMässor	Organizer booth
Broadband Technology	38
congatec	11
Data Modul	1
Data Respons	17-18
Elektronik i Norden	Organizer booth
Emenda Nordic	37
Elektroniktidningen	23
Freescale	34
Green Hills Software	2
Halmstad Högskola	41
Hectronic	12

Exhibitor	Booth
IAR Systems	27-28
Linear Technology	19
Lynx Software Technologies	4
Luleå University EISLAB	39
Lund University	40
Malmö Högskola	42
Option Wireless Technology	31
Prevas	9-10
Rutronik Nordic	14
Silica	32
Smartare Elektroniksystem	6
Svensk Elektronik	15
Svep Design Center	33
Toshiba Electronics	24
Triacon	5



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WELCOME TO THE WORLD PREMIÈRE OF ECS SYD!

After nearly 10 successful years the Embedded Conference Scandinavia is now expanding its success southwards! With the same blockbuster concept as ECS Stockholm, with a world class conference, an exhibition with the latest technology and social activities, we have now made a further investment and launched ECS Syd in the Malmö/Copenhagen region.

South Sweden and the Copenhagen region is a technically advanced market. Many companies are leaders in wireless technology and our ambition is that ECS Syd will also become an established and leading meeting place where you can create new contacts and meet companies from the key markets in southern Sweden and Denmark.

Just like the original Embedded Conference Scandinavia, the conference and exhibition is free of charge to visitors and we are also inviting everyone who comes to lunch and coffee. The conference program is packed with the latest news in Embedded, M2M and Internet of Things and in the exhibition around 25 companies, universities and organizations will showcase the best the industry has to offer. Invest in a visit to ECS Syd which will provide new knowledge, new contacts and inspiration. It will pay off!!

Welcome!



Lena Norder
CEO
The Swedish Electronics
Trade Association

World class seminars!

ECS Syd will be a two days event with three parallel tracks plus a hands-on workshop and a Demo Square where exhibitors can show and demo their products. The speakers are coming from research and industry and they are leading international experts in their respective fields.

M2M and IoT will be an integrated part of ECS Syd. A full track for two days will be dedicated to IoT. Being a part of ECS, the IoT sessions will focus on the technology that is close to the embedded systems. The fact is that Things in IoT is defined as "Things that are not computers". Most conferences in this field deal with Internet with apps, phones, tablets and now even glasses. Embedded is defined as computers in products that are not computers. In this way the conference will cover the whole scenario for IoT in its proper definition.

The program will start with looking at projects that are practically implemented, experience that can be drawn and what this means for future projects. Sensors and sensor networks will be an important part of the program and also infrastructure and security.

A keynote will come from Stephen Bryant, CTO Telenor Connexion AB. He will describe how the Evolution of IoT and Big Data will shape the future.

Software will also get two full days in the agenda. C++ continues to be the dominating language in embedded. One

of the reasons is that we all the time learn how to better utilize the language. At ECS Syd we will give in-depth presentations on how to generate effective code and how to implement secure memory handling. Open Source is an important part of the program. In embedded, the main interest is for the operating systems. There are many aspects on making Linux an effective industrial solution and to handle the real time issues in a safe way. Adopting Android for embedded applications is also a challenge.

Security and test of software is a field in embedded that is becoming more interesting continuously. The cost for system test is an increasing part of the development budget. Not to mention the bugs that follow the product into the field. The session on test and quality will talk about how to write testable code, model based and automated test.

Hardware also has a track in the program. Low power design, EMC, Multicore and new standards for small and cost-effective COTS modules are some of the items in the program.

Finally we will talk money. VINNOVA and the trade organization Svensk Elektronik will present strategic programs for economic support to development projects in the Swedish electronics industry. A major investment is done both on national and EU level.

SOME OF THE SPEAKERS:



Eran Gery
IBM



Fergus Bolger
PRQA



Dr. Alex Jonsson,
Evothings AB



Joy Weiss
Linear Technology



Stephen Bryant
Telenor Connexion AB

INFORMATION

DATE

March 10-11, 2015

VENUE

MalmöMässan, Congress Center, Sweden. MalmöMässan is easy to access, only a couple of minutes with train from Copenhagen airport or Malmö City. The station is called Malmö Hyllie. Address: Mässgatan 6

ABOUT THE CONFERENCE

All sessions are free of charge, but pre-registration on www.ecs-syd.com 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 on-site for the location of different sessions.

ABOUT THE EXHIBITION

The leading companies from the embedded industry will showcase the latest news and products. The exhibition is free of charge and no further registration than to the conference is needed (please see above).

EXHIBITION OPENING TIMES

Tuesday, March 10: 09:00 – 17:00

Wednesday, March 11: 09:00 – 17:00

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