



invites to

TestForum 2011

A Nordic event for exchange of experience and know-how within the field of production test of electronics.

Meet colleagues and experts, gain knowledge about trends and best practices in the area of test of electronics.

Tuesday and Wednesday, November 22nd and 23rd, 2011

Gustavelund Conference Hotel, Tuusula, Finland





TestForum 2011 November 22nd & 23rd Tuusula, Finland

The keynote speaker this year is Timo Luukkala from Nokia Siemens Networks. He will speak about how to manage a global manufacturing network. Luukkala is leading factories globally in Nokia Siemens Networks and I am sure his presentation will be most interesting.

The first day will lead up to the panel debate; "Is Boundary Scan starting to loose steam to alternatives in structural testing?" and will be focusing on boundary scan test. We will get presentations from suppliers represented by JTAG Technologies and Göpel, academia represented by Tallinn Technical University and Technical University Ilmenau and end users represented by Nokia Siemens Networks and Ericsson.

The second day will be focusing on test requirements, test strategies and functional test. We will get presentations on DfT, instrumentation, testing novel technologies such as printed electronics among other interesting topics.

On behalf of the committee I wish you welcome to TestForum 2011.

Yours sincerely

Knut Båtstoløkken

Chairman of Nordic Test Forum

Knut Batstolekken



Key Note Speaker

*Timo Luukkala*Head of Manufacturing Operations,
Nokia Siemens Networks

Timo Luukkala has over 25 years experience of Telecommunications Industry including Customer Services, Logistics and Manufacturing.

In his current position he is leading factories globally in Nokia Siemens Networks.



Invited Speaker

Jyrki Sippola (M.Sc)

Nokia Oyj, Salo, Finland

Jyrki Sippola has an Msc in Electrocnics and Electrical Engineering from Aalto University.

He has been working 18 years in mobile phone industry, most of the time in various test technology management positions in Nokia.

Currently he is responsible for manufacturing test and programming related research activities at Nokia.





Nordic Test Forum in Brief

Test Forum is an annual event that Nordic Test Forum (NTF) runs every fall/early winter. NTF may also run thematic events during a year, but these are focused events addressing basically only one topic area, each in the area of test and inspection of electronics, whereas TestForum typically has 3-thematic areas and cover the broader balance of test and inspection as well.

Test Forum has its roots back the late eighties, where it originated as an event for the Norwegian electronics industry. However, from the late part of 2001 a group of people from Sweden, Norway and Denmark established the network, Nordic Test Forum. Later on, this activity (including the Test Forum event was extended to include all the Nordic countries. The language of the official presentations is English. Content and focus of the Test Forum varies over time, but always within topic areas in focus at a given point in time.

Test Forum has its main emphasis on issues relevant to production managers, engineers and technicians working in the fields of production, test, inspection and validation of electronics. At Test Forum events we offer technically relevant presentations on methodology, tools, modules/instruments and available technology. The interaction between users and suppliers within the focus areas is an important asset of Test-Forum, and this balance and interaction is pursued in presentations, panel discussions, and in the planning of the events.

Test Forum Aims at:

- Creating and sustaining a relevant, balanced and coherent interaction between users as well as between users and suppliers of solutions for test, inspection, validation and production of electronics.
- Providing an up-to-date view on new methodologies and tools for relevant test, inspection, validation and production of electronics.
- Establishing a relevant and balanced view on equipment, systems, tools and software from tool vendors in the domain.

Target Audience of Test Forum

Engineers and technicians, managers and planners within the fields of electronics production and test, inspection and validation. Includes also decision makers in organizations that procure equipment, tools and systems for production and test, inspection and validation of electronics.

Executive Committee of TestForum and NTF

Knut Båtstoløkken Kitron AS (Chairman)

Birger Schneider National Instruments Engineering ApS (Treasurer)

Bjørn B Larsen NTNU Department of Electronics and Telecommunications (On sabbatical)

Stig-Gunnar Jensen Eltek Valere

Bengt Magnhagen Svensk Elektronik (Secretary) Mick Austin JTAG Technologies Finland

Jürgen Sedlacek Alvetec KonTest AB

Matti Kemppainen Nokia Siemens Networks Oy Artur Jutman Tallinn University of Technology



Become a Member of Nordic Test Forum

If you are involved in production test, validation test, and inspection of electronics and your professional work is related to activities in the Nordic countries as a test professional, design engineer, manufacturer, supplier of solutions, consultant, etc., you may register as member of Nordic Test Forum (NTF) in order to benefit from:

- Exchange of know-how in testing
- Increased contact network in the Nordic countries
- Surveillance and information of International activities in the area of test and inspection
- Discounts at NTF seminars and Test Forum events
- Membership list

Please register on the WEB page: http://NordicTestForum.org

Test Forum 2011 Local Organizer

The local organizer is:

Mick Austin JTAG Technologies Business Centre Sinihelmi (Sinimäentie 8B) 02630 Espoo Finland

tel: +358 (0)9-4730 2670 mobile +358 (0)50 5976549 email: mick@jtag.com

In Association with

The Test Forum 2011 event is in association with the following Nordic organizations:







Technical Program of Test Forum 2011

Nordic Test Forum (NTF) Annual Assembly, November 21st 2011

The NTF organization was established in 2001. Since then, it holds an annual general assembly a day before the Test Forum conference. This year it will be held on **November 21**st at 19:00. The agenda and motions will be dispatched to the members in a separate mailing.

If you do not intend to participate in the Annual Assembly, the Test Forum 2011 starts with registration on November 22^{nd} from 8:30 to 9:00.

Tuesday, November 22nd, 2011

Time	Titles	Speakers or additional info	
8:30-9:00	Registration		
9:00-9:10	Welcome/Introduction	Knut Båtstoløkken	
9:10-10:10	Key Note Session	Chairman: Knut Båtstoløkken	
9:10-10:10	How to manage a global manufacturing network	Timo Luukkala NSN	
10:10-10:40	A Modular and Cost Effective Approach for Testing 3GPPP LTE	Andreas Gustavesson NI	
10:40-11:20	Exhibitor presentation		
11:20-11:50	Coffee Break / Exhibition		
11:50-12:50	Session1: Boundary Scan	Chairman:Jürgen Sedlacek	
11:50-12:20	JTAG Not just a manufacturing tool	Peter v/d Eijnden JTAG Technologies	
12:20-12:50	Advanced Boundary Scan Test Method	Mika Pussinen NSN	
12:50-13:50	Lunch		
13:50-15:20	Session 2: Embedded Instruments and Emulation.	Chairman: Bengt Magnhagen	
13:50-14:20	Protocol driven interface validation based on processor emulation	Jan Heiber Göpel Electronic.	
14:20-14:50	FPGA-Enabled Embedded Instrumentation Platform for JTAG Test	Sergei Devadze TTU	
14:50-15:20	Adaptive test system to speed up PCB Testing	Jörg Sachße TUI	
15:20-15:50	Coffee Break / Exhibition		
15:50-16:50	Session 3: Boundary Scan 2	Chairman:Artur Jutman	
15:50-16:20	Deployment of JTAG based HW self-test in RBS 6000	Gunnar Carlsson Ericsson	
16:20-16:50	News from Conferences		
16:50-17:15	Fruit & Refreshments / Exhibition		
17:15-19:00	Panel debate: Is Boundary Scan Testing starting to lose steam to alternatives in Structural Testing?	Panel moderator: Birger Schneider	
20:00	Dinner		
22:30	Social get-together in the Bar		



Wednesday, November 23rd, 2011

Time	Titles	Speakers or additional info	
9:00-9:30	Invited Speaker	Chairman: Knut Båtstoløkken	
9:00-9:30	Operator or Machine driven Test	Jyrki Sippola	
9:30-10:30	Session 4: Test Strategies	Chairman: Matti Kemppainen	
9:30-10:00	The printed electronics reliability testing results	Juha-Veikko Voutilainen UoO	
10:00-10:30	A modular and cost effective approach to module chip testing.	Birger Schneider NI	
10:30-11:00	Coffee Break / Exhibition		
11:00-12:30	Session 5: Functional Test	Chairman: Mick Austin	
11:00-11:30	Combining High performance ICT with PXI Functional	Michael J Smith Teradyne	
11:30-12:00	Modern test solutions based on several form factors	Gabor Mezöfi Testhouse Nordic AB	
12:00-12:30	Using Labview for the development of a modular and flexible PC-board test platform.	Peter van Oostrom, 6TL Engineering	
12:30-13:30	Lunch		
13:30-15:00	Session 6: Test requirements	Chairman:Stig Gunnar Jensen	
13:30-14:00	Optimizing functional test.	Lars Kongsted-Jensen, EP-Teq	
14:00-14:30	From Customer requirements to test architecture	Vesa Hekkala NSN	
14:30-15:00	Seamless test transfer from R&D to Production	Juha Ojaniemi Espotel	
15:00-15:10	Closing Session: concluding remarks	Knut Båtstoløkken	

Dinner and Social Get-Together

At 20:00, November 22nd we will enjoy a dinner in the Winter Garden this will be followed by drinks in the Gustava club or Lounge bar.

Exhibition

As usually, a mini exhibition will take place in frames of Test Forum event where vendors are welcome to present their tools and methodologies related to production test. Exhibitors can make arrangements with NTF about exhibition space. If nothing special has been agreed, a table of about $60x120 \text{ cm}^2$, as well as space for posters or similar material will be provided. Every exhibitor will be given 7-8-minute slot in the program for a brief introduction.

Registration and hotel booking

The **Conference Fee** is EUR 390 for NTF members, EUR 195 for students and EUR 425 for others. The fee includes participation, food and refreshments from Tuesday morning to Wednesday afternoon as well as forum proceedings on the USB memory. Exhibitors pay EUR 750, which also includes the participation of a single person.

The seminar fee will be invoiced directly to the organization, from which the participant comes. In the event of cancellation after the final registration date, or in the event of failure to appear, the entire fee is still due. On request, another person from the same organization can participate instead.



8



The hotel rooms are booked through the seminar registration, but the room rate is paid directly by each participant to the hotel (i.e. not included in the seminar fee). **The room rate** is EUR 75 single EUR 99 Twin and EUR 129 superior room per night, including breakfast.

Booking of rooms at the conference hotel is **not** mandatory for participation at the seminar.

The registration deadline is Monday 7th, November, 2011, in order to guarantee hotel room. Registration after this date is also possible. However, we cannot guarantee that hotel rooms are available at the conference hotel.

Hotel room guarantee deadline extended to Tuesday 15th November

Registration for TestForum 2011 can be done through the NTF website by using the following link.

http://NordicTestForum.org

Alternatively, one can contact the TestForum secretariat at

CHAMAJ Consult ApS Skovgraensen 3 DK-2960 Rungsted Kyst Denmark

Att.: Suzanne Holte Tel.: +45-45570705

Email: <u>suzanne@nordictestforum.org</u>

Please indicate, whether you register as:

•	NTF member	EUR 390
•	A non-member	EUR 425
•	A student (with valid student ID)	EUR 195
•	An exhibitor, i.e. want to exhibit in the small exhibition	EUR 750

Please indicate whether you need a room at the conference hotel:

- Dates of arrival and departure
- Single, double or superior room



TestForum 2011 Conference Venue

Gustavelund Conference Hotel information



Not many hotels have such an ideal location as Gustavelund. Only half an hour away from Helsinki - and yet with splendid natural surroundings, on the shores of sparkling Lake Tuusula.

Gustavelund itself has an illustrious

history. Originally known for its fine stables, it was transformed into a versatile conference hotel in 1990. Gustavelund offers professional conference services for both corporate and private customers. Gustavelund has also developed a wide range of entertainment services, with events taking place in the historic milieu of the Rantatie road and the pleasant facilities of Gustavelund - including its exotic indoor garden.

Conference Hotel Gustavelund Kirkkotie 36, 04310 Tuusula, tel. +358 9 273 751 http://www.gustavelund.fi/





Transport information

By car

Only 15 minutes from Helsinki-Vantaa International Airport, 30 minutes from Helsinki city centre, 10 minutes from Kerava train station, and 10 minutes from Järvenpää. Gustavelund can provide free parking for 350 cars.

By taxi

The fastest way to get to Gustavelund from the airport is by taxi. The ride costs approx. Eur 28.

By bus

Buses leave from Helsinki bus station approximately twice an hour. The bus trip to Gustavelund takes approx. 50 min.

By train

The nearest railway station is Kerava, located 4 kilometres from Gustavelund.

- Trains from Helsinki railway station

Approximately four trains every hour, the train ride takes 20 min.

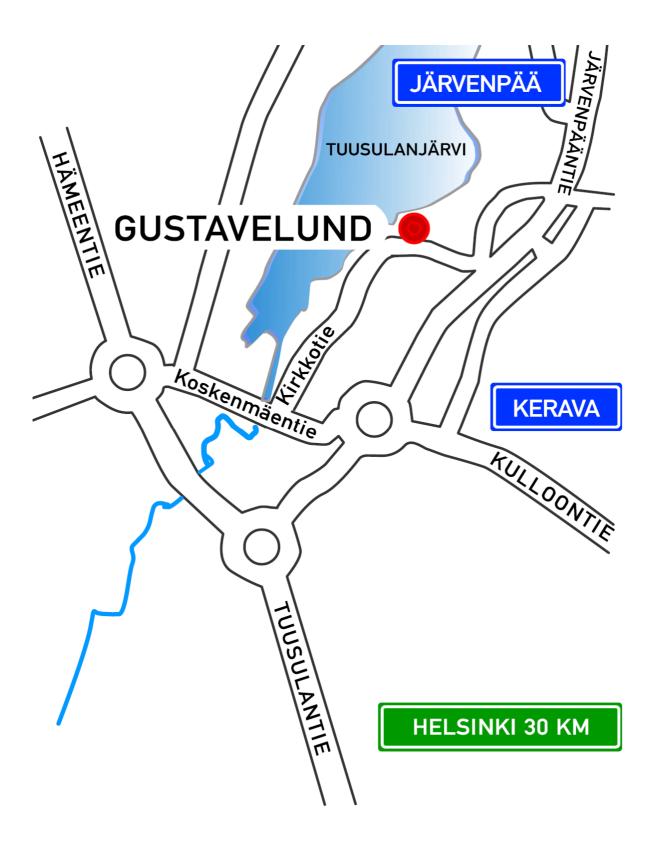
- Fast trains from the north

Change trains at Riihimäki station

Trains from Riihimäki to Kerava: approximately two trains every hour, the train ride takes 40 min. The fastest way to get from Kerava train station to Gustavelund is by taxi. There is a taxi stand at the train station. The taxi ride takes 10 minutes and costs approx. EUR 11.









Welcome to TestForum 2011

