

TestForum 2023

Tuesday November 28th and Wednesday November 29th, 2023

Best Western, Vilnius, Lithuania

*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.*



TestForum 2023 November 28th and 29th Vilnius, Lithuania

Dear Invitee,

On behalf of the Nordic Test Forum committee, it is my pleasure to invite you to Best Western, Vilnius, Lithuania to the annual NTF conference, TestForum 2023.

Again, this year, we have managed to put together an excellent technical program for TestForum, focusing on test automation, test strategies, test quality, structural test, functional test and JTAG based test. The Keynote focusses on quality assurance in automotive industry and connecting bridges with non-automotive electronics manufacturing. The day 1 technical program ends with a panel session about artificial intelligence impact for electronics test engineer future. No question that the topic is one of the hot issues for many of us in test engineering in present years.

Among the presenters, we find experts from Austria, Great Britain, Italy, Lithuania, Spain, France, Germany, The Netherlands, Norway, Sweden, and Hungary.

This year's Keynote speaker is Shayan Ali, managing director at Continental Automotive Lithuania. The title of the keynote is "Intertwined Future: Connecting Bridges Between Automotive and Non-Automotive Electronics Manufacturing Sectors in Lithuania"

The conference, the conference dinner and the mini exhibition offer great opportunities for technical and business discussions and networking.

On behalf of the program committee, I am looking forward to seeing you at TestForum 2023 in Vilnius on November 28th and 29th, 2023

Yours sincerely



Knut Båtsstøløkken
Chairman of *Nordic Test Forum*

Keynote Speaker



Shayan Ali,
Managing director Continental Automotive Lithuania

Meet Shayan Ali, the dedicated Managing Director of Continental in Lithuania, with an impressive 25-year tenure at the company. Shayan's unwavering commitment to Lithuania's growth and success has earned him recognition, including the Global Lithuanian Leader award for his contributions to investments in the country. Shayan hails from the Continental Chicagoland area and moved to Lithuania with his Lithuanian wife in 2017 to establish the green-field plant for Continental. He strongly promotes innovation and collaboration, empowering his team to drive advancements in Lithuania's automotive sector.

Nordic Test Forum in Brief

TestForum is an annual event that *Nordic Test Forum (NTF)* runs every fall/early winter. *TestForum* typically has 3-thematic areas and cover a broad balance of test and inspection.

TestForum 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 Norway, Sweden and Denmark established the network, *Nordic Test Forum*. Later, this activity (including the *TestForum* event) was extended to include all the Nordic countries. The language of the official presentations is English. Content and focus of the *TestForum* varies over time, but always within topic areas in focus at a given point in time.

TestForum 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 *TestForum* 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 *TestForum*, and this balance and interaction is pursued in presentations, panel discussions, and in the planning of the events.

TestForum 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 TestForum

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

Executive Committee of TestForum event and NTF organization

| | |
|----------------------|---|
| Knut Båtstøløkken | Kitron AS, Norway (Chairman) |
| Birger Schneider | CHAMAJ, Denmark (Treasurer) |
| Bjørn B Larsen | NTNU, Norway (Secretary) |
| Artur Jutman | Testonica Lab, Estonia |
| Erik Larsson | Lund University, Sweden |
| Lars Kongsted-Jensen | EP-TeQ A/S, Denmark |
| Mats Klarholm | Columbia Elektronik, Sweden |
| Mattias Ericsson | AddQ, Sweden |
| Mick Austin | JTAG Technologies, Finland |
| Mika Pussinen | Nokia, Finland |
| Paulius Musteikis | UAB Kitron, Lithuania |
| Raimedas Sodaitis | EP-TeQ UAB, Lithuania |
| Stig-Gunnar Jensen | Delta Electronics, Norway |
| Thomas Goetz | Keysight Technologies (associate member), Germany |

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) 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 TestForum events
- Membership list

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

TestForum 2023 Local Organizer

The local organizer is:

Raimedas Sodaitis
EP-TeQ UAB
Jurbarko g. 2A
LT-47138 KAUNAS
Lithuania

Phone: +370 620 40226
E-mail: rs@ep-teq.com

Technical Program of TestForum 2023

Nordic Test Forum (NTF) Annual Assembly, November 27th 2023

The NTF organization holds an annual general assembly a day before the TestForum conference. This year it will be held on **November 27th at 20:00**. The agenda and motions will be dispatched to the members in a separate mailing.

The official program of TestForum 2023 starts on Tuesday, November 28th, 2023, see below.

Tuesday, November 28th, 2023

| Time | Titles | Speakers or additional info |
|--------------------|---|--|
| 08:15-08:30 | Registration | |
| 08:30-08:40 | Welcome / Introduction | Knut Båtstøløkken |
| 08:40-09:40 | Key Note Session | <i>Chairman: Knut Båtstøløkken</i> |
| 08:40-09:40 | Intertwined Future: Connecting Bridges Between Automotive and Non-Automotive Electronics Manufacturing Sectors in Lithuania | Shayan Ali, Continental Autonomous Mobility Lithuania & Continental Automotive Lithuania |
| 09:40-10:20 | Exhibitor Forum: short presentations | <i>Chairman: Mick Austin</i> |
| 10:20-11:00 | Coffee Break / Exhibition (short) | |
| 11:00-12:30 | Session 1: Structural test I | <i>Chairman: Stig-Gunnar Jensen</i> |
| 11:00-11:30 | 1.1 Parallel High Speed Flashing in ICT | Bernard Fleck, Teradyne |
| 11:30-12:00 | 1.2 IST Interconnect Stress Test – an accelerated test method for bare board reliability verification | Hermann Reischer, Polar Instruments |
| 12:00-12:30 | 1.3 How to test Backplanes on the Flying Probe? | Lothar Diez, SPEA |
| 12:30-13:30 | Lunch | |
| 13:30-15:00 | Session 2: Functional test | <i>Chairman: Paulius Musteikis</i> |
| 13:30-14:00 | 2.1 Testing modern RAM architectures using Boundary Scan and other embedded technologies | Jan Heiber, GÖPEL electronic GmbH |
| 14:00-14:30 | 2.2 How ICT testers and Flashing stations can be integrated into a fully automated Working cell | Aristotele Pangan, Continental Lithuania UAB |
| 14:30-15:00 | 2.3 Cost-effective manufacturing test of IEEE802.3bt Powered Devices | Daniel Rhodin, E-Sharp AB |
| 15:00-15:40 | Coffee Break / Exhibition | |
| 15:40-17:10 | Session 3: Various | <i>Chairman: Raimedas Sodaitis</i> |
| 15:40-16:10 | 3.1 AI driven data recognition, unification and smart correlation automation | Frits Wibbelink, QualityLine |
| 16:10-16:40 | 3.2 Secure reuse of DfT during operation | Erik Larsson, Lund University |
| 16:40-17:10 | 3.3 AOI – Depth from focus and AOM solution for pin test on THT. AXI – AI and ICT inline solutions | Anthony Wang, TRI Test Research Europe GmbH |
| 17:10-17:40 | Fruit & Refreshments / Exhibition | |
| 17:40-19:00 | Panel debate: How will artificial intelligence change the work of test engineers? | <i>Panel moderator: Birger Schneider</i> |
| 19:30 | Gala Dinner at restaurant „Meat Steak House“ | Address: A. Juozapaviciaus street 13, Vilnius |

Wednesday, November 29th, 2023

| Time | Titles | Speakers or additional info |
|--------------------|---|-------------------------------------|
| 08:30-10:00 | Session 4: Structural test II | <i>Chairman: Erik Larsson</i> |
| 08:30-09:00 | 4.1 Tracking down the error devil! Inline X-Ray inspection of solder joints. | Andreas Türk, GÖPEL electronic GmbH |
| 09:00-09:30 | 4.2 The Fast Electrical Fusion Testing with EFX Technology | Frank Grossmann, ATEip GmbH |
| 09:30-10:00 | 4.3 Flying Probe solutions | Walter Gueli, Seica |
| 10:00-10:45 | Coffee Break / Exhibition | |
| 10:45-12:15 | Session 5: Industrialization and handling | <i>Chairman: Mattias Ericsson</i> |
| 10:45-11:15 | 5.1 Industrialization - key to success | Mads Dahl, Virinco Technology |
| 11:15-11:45 | 5.2 SPRINT--Affordable in-circuit function test platform | Fredrik McKibben, Elprint |
| 11:45-12:15 | 5.3 Building on top of the OpenTAP open-source test automation framework | Göran Johnsson, GJC Test & Software |
| 12:15-13:30 | Lunch | |
| 13:30-15:00 | Session 6: Fixturing and test interfaces | <i>Chairman: Mads Klarholm</i> |
| 13:30-14:00 | 6.1. Signal fidelity starts with probes. Welcome to innovative probing technology. | William Baars, CN Rood |
| 14:00-14:30 | 6.2 The superprobe technology patented by Equip-Test | Szabó Dóra, Equip-Test |
| 14:30-15:00 | 6.3 How the Right Interconnection Method is Critical in Helping Achieve Common Core ATE Goals | Gary Clayton, MacPanel |
| 15:00-15:10 | Closing Session: TestForum concluding remarks | <i>Knut Båtstøløkken Kitron</i> |

Exhibition

As part of TestForum 2023, a mini exhibition takes place in frames of the TestForum event. Here, test equipment and solution vendors as well as other essential suppliers to the test community present their tools and methodologies related to production test.

Exhibitors can make arrangements with NTF about exhibition space. If no special requirements have been requested, a table of about 60x120 cm, as well as space for posters or similar material will be provided.

Every exhibitor will be given approximately 3-minute slot, depending on the number of exhibitors, in the beginning of the official program for a brief introduction with maximum 3 slides. We call it the “elevator speech”, where the presenter in the time of a normal elevator ride has to get the essentials of a company’s offerings across to the attendee community.

Registration and hotel booking

The **Conference Fee** is **EUR 625 for NTF members**, **EUR 345 for students** and **EUR 720 for others**. The fee includes participation, food and refreshments from Tuesday morning to Wednesday afternoon as well as forum proceedings on a USB memory stick. **Exhibitors pay EUR 1125**, which also includes the participation of a single person.

Credit card is the preferred payment method. Alternatively, the seminar fee may 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.

Registration deadline:

We accept registrations up to Thursday November 23th, 17:00 CET.

Registration for TestForum 2023 can be done through the NTF website by using the following link.

- <https://testforum.nemtilmeld.dk/4/>

Alternatively, you can contact the TestForum secretariat at

Att.: Jytte Schneider
Tel.: +45- 2579 1120
E-Mail: jytte.schneider@nordicestforum.org

Please indicate, whether you register as:

- | | |
|---|----------|
| • NTF member | EUR 625 |
| • A non-member | EUR 720 |
| • A student (with valid student ID) | EUR 345 |
| • An exhibitor, i.e., want to exhibit in the small exhibition | EUR 1125 |

All fees are inc. VAT

Booking of hotel rooms

The hotel rooms are booked through the conference hotel. Best Western Hotel, Vilnius, directly on their website: The room rate is paid directly by each participant to the hotel (i.e., not included in the seminar fee). Room rates are:

- **65 EUR/night Standard room** including breakfast.
- **75 EUR/night Upgraded room** including breakfast.

When making the booking on the Best Western Hotel for granted participation price reservations should be send to the email: hotel@vilniushotel.eu and make the reservation before November 14th to receive the preferred rate at the hotel.

Booking of rooms at the conference hotel is **not** mandatory for participation at the seminar. If you are unable to get a room at the conference hotel, there are several other hotels in the vicinity of the venue.

Best Western, Vilnius, Lithuania

TestForum 2023 will take place at Best Western, which is centrally located in Vilnius center.



More details about the hotel at:

https://www.bestwestern.com/en_US/book/hotels-in-vilnius/best-western-vilnius/propertyCode.91401.html?gclid=Cj0KCQjwgNanBhDUARIsAAelcAspjHP-mopG26_r5QCov1V6hH5DnRdH1Amth2J1zI92UeGVcmzSHAg0aAlFSEALw_wcB

How to get to the Best Western Hotel

Hotel is located in Vilnius center about 10 km from Vilnius airport:

By bus: Take 3G bus from Airport

16:13 → 16:39
26min · Direct ^

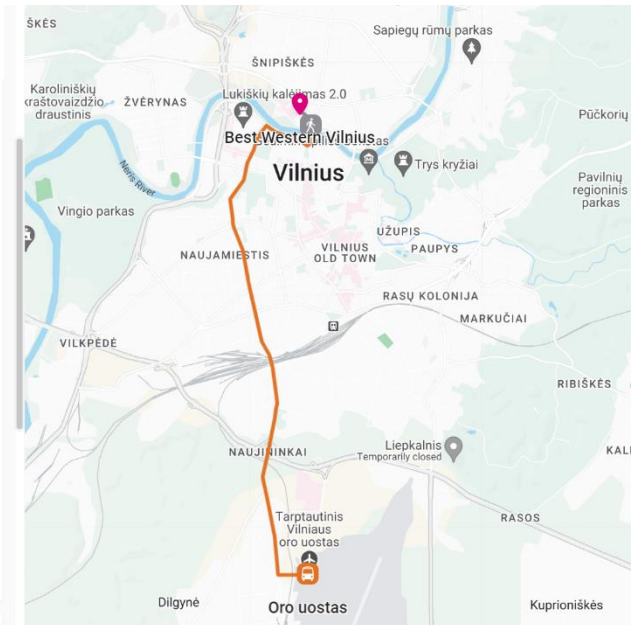
16:13 Oro Uostas
Vilnius Airport (VNO), Lithuania
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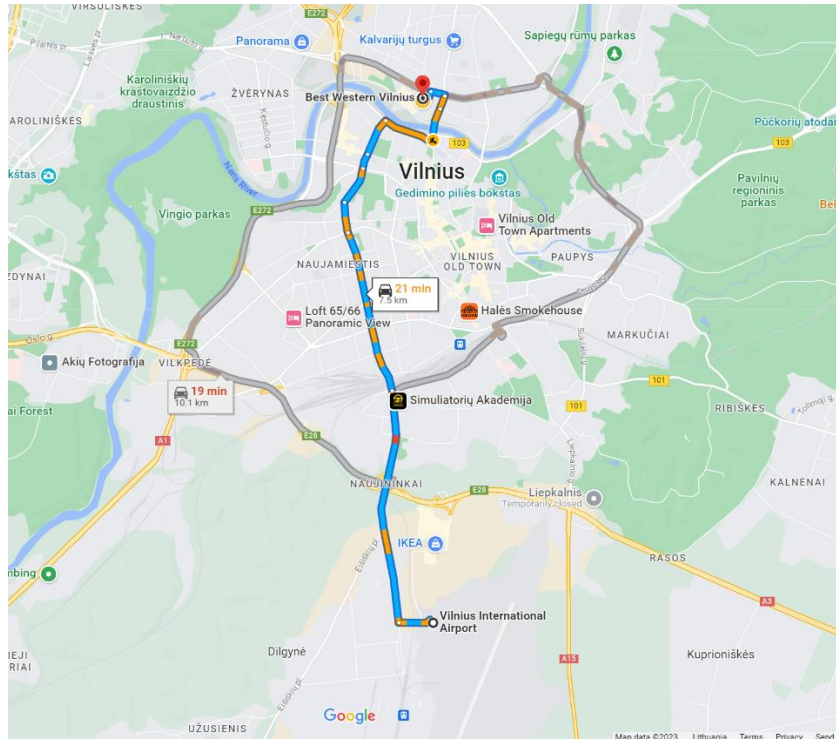
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By car or taxi: Takes from 10 to 30 minutes depends on traffic.



Welcome to Nordic Test Forum in Vilnius 2023