



NIWeek

2015 CONFERENCE PROGRAM



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\* To enjoy the full functionality of this interactive PDF, download and make sure the latest version of [Acrobat Reader](#) is installed.



Dear Colleague,

Welcome to Austin and the 21st annual NIWeek—the global NI event that showcases best practices and tools for the world’s top engineers and scientists.

For the next few days, you’ll join a community of more than 3,800 fellow researchers, engineers, and educators who are using LabVIEW system design software and NI modular hardware to redefine innovation, create the Internet of Things, and positively impact society.

This year’s event provides the perfect platform for learning about new technologies, increasing your professional skills, and networking with graphical system design colleagues.

Choose from more than 200 technical presentations, interact with technology from NI and nearly 200 leading companies, participate in advanced training sessions, and take certification exams all while enjoying the sights and sounds of Austin, Texas.

Follow [@NIGlobal](#) on Twitter to stay updated during the conference and visit [ni.com/niweekcommunity](http://ni.com/niweekcommunity) after the event for images, presentation slides, and other resources.

Thank you to the sponsors, exhibitors, and attendees from around the world for being part of this one-of-a-kind event.

Together, you and NI will make NIWeek 2015 the ultimate learning environment for the development of software-defined measurement and control systems.

Best regards,



James Truchard  
President, CEO, and Co-founder  
National Instruments



**NIWeek keynote presentations** give attendees a first look at the latest, cutting-edge innovations for engineers and scientists using NI tools and technologies to accelerate productivity and drive rapid innovation across a wide variety of industries. Start off each morning of the conference by exploring new products through demonstrations and customer presentations from NI leadership and engineers, and learn how LabVIEW can help you launch your applications and your career. See it all for yourself at the keynote presentations listed below.

### Tuesday, August 4

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Together, you and NI are using a platform-based approach to overcome the complexity of sensing, processing, wireless connectivity, and Big Analog Data to create the Internet of Things. Join Dr. James Truchard, NI president, CEO, and cofounder, and Eric Starkloff, executive vice president of Sales and Marketing, as they explore the latest additions to NI hardware and software platforms and impressive customer applications in data acquisition, automated test, and embedded control and monitoring, all key areas of the Internet of Things.

### Wednesday, August 5

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The Internet of Things is already revolutionizing the world around us today, and the future holds even more opportunity. Join Jeff Kodosky, NI cofounder and business and technology fellow; John Graff, vice president of NI Marketing; and industry pundits as they examine how the continued evolution of applications such as 5G wireless communication, smart grid, predictive maintenance, and the rapid commercialization of emerging technologies will continue to impact the business demands that you face every day.

### Thursday, August 6

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Join Dave Wilson, director of NI Academic Programs; Mickey McManus, chairman and principal of MAYA Design; and engineering thought leaders representing academia, SME start-ups, and big business as they discuss how to create a future climate of global engineering innovation where engineers with ideas will realize the Internet of Things.



View general hours and event information in the [online catalog](#) or via the [mobile app](#).

### Internet Services

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Free wireless internet access is available throughout the entire facility.

### Business Center

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The Austin Convention Center is equipped with a full-service Business Center. Services include scanning, copying, printing, and shipping assistance. It is on the first floor opposite the Trinity Street entrances and near the Exhibition Hall entrance.

### Flight Arrival/Departure Board

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The Austin Convention Center has a digital flight arrival/departure board on display next to the Business Center on the first level and near the Exhibition Hall entrance. It features up-to-the-second flight information streaming directly from Austin-Bergstrom International Airport.

### Medical/First Aid

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The First Aid Room is on the first level north of the Trinity North elevator and near the Exhibition Hall entrance.

### Lost and Found

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Lost and found stations are at the main floor registration desk and the fourth floor information desk.



### NI Learning Lab

Learning LabVIEW has never looked so good. Visit the NI Learning Lab to see the latest on NI Training. View the LabVIEW Getting Started content, experience a blended approach to NI Customer Education, and experiment with interactive simulations and labs. Find us in the Atrium near registration.

### NIWeek Game

Download and use the [NIWeek mobile application](#) to score points in our game. Awards will be given for the following categories:

- Overall Point Winner
- Networking Ninja
- Social Superstar
- Productive Person
- Feedback Friend

*Follow along on the scoreboard in the registration area!*

### NIWeek Online and Mobile Application

Experience NIWeek in a whole new way. The app is designed to enhance your experience before, during, and after NIWeek by putting the following features and information at your fingertips: full NIWeek schedule, personalized agenda, exhibitor listings, floorplan maps, social networking updates, speaker listings, one-on-one networking options, and lots more.

[Download the free app today.](#)

#### 4 Ways to Access the NIWeek App

- Search the App Store for “NIWeek” or [click here](#) to download now (if viewing this page on your iPhone).
- Search the Android Market for “NIWeek” or [click here](#) to download now (if viewing this page on your Android phone).
- All Other Internet-Enabled Mobile Phones.  
Visit <http://customers.genie-connect.com/niweek/> on your mobile phone.  
The mobile website can be accessed on virtually all mobiles phones. Some features may be limited due to device browser limitations.
- Plan your conference schedule from the comfort of your computer and take it with you on your smartphone!  
Visit <http://visitors.genie-connect.com/niweek/>.





## Join the Community on [ni.com](https://ni.com)

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### [ni.com/niweekcommunity](https://ni.com/niweekcommunity)

Looking for NIWeek presentations, code and videos from key demos, or networking opportunities? The NIWeek online community has it all. Join today and start collaborating with your peers before the conference even begins.

The NI Community has perks beyond NIWeek, too. Visit [ni.com/community](https://ni.com/community) to connect with thousands of technical experts all over the world:

- Share and vote on LabVIEW feature ideas
- Download example code to jump-start your project
- Join a user group to collaborate with other engineers who share your interests
- Participate in existing technical discussions or start one of your own



## Join the Community on Social

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Follow [@NIGlobal](https://twitter.com/niglobal) (twitter.com/niglobal) and [#NIWeek](https://twitter.com/NIWeek) on Twitter for live updates from the event, including posts from your colleagues and NI's social media team. Plus, you can tweet [@NIGlobal](https://twitter.com/NIGlobal) if you have a question about the event!

Tag your posts to Twitter and Instagram from the event with [#NIWeek](https://twitter.com/NIWeek), and search the hashtag to interact with attendees.

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### Connect with us on LinkedIn and Facebook:

[linkedin.com/company/national-instruments](https://linkedin.com/company/national-instruments)

[facebook.com/nationalinstruments](https://facebook.com/nationalinstruments)



Use each channel to connect with fellow [#NIWeek](https://twitter.com/NIWeek) attendees and stay tuned to company announcements and industry thought leadership.

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### Subscribe on YouTube

[youtube.com/nationalinstruments](https://youtube.com/nationalinstruments)

Watch interviews with NI leaders and industry experts and view keynotes, demos, and more.

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## NIWeek Kickoff Happy Hour

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Monday, August 3 | 5:30–7:00 p.m. | Exhibition Hall

Kick off your NIWeek experience with an evening of drinks and music while networking with NI sales engineers, NI Alliance Partners, the NI R&D team, LabVIEW Champions, exhibitors, and other NIWeek attendees.

*Sponsored by **Intel***

## NI Community Block Diagram Party

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Tuesday, August 4 | 5:00–7:00 p.m. | Exhibition Hall

Enjoy food, drinks, and music as you meet fellow conference attendees from around the world. Watch the Challenge the Champions contest in the lounge area, or make history and join the world's largest user group gathering.

## NIWeek Night on Sixth Street

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Wednesday, August 5 | 7:30–9:30 p.m. | Austin's Famous Sixth Street

Maggie Mae's, Buffalo Billiards, Pete's Dueling Piano Bar, and Vulcan Gas Company

Everyone is invited! Join us in celebrating as NIWeek goes to Sixth Street, where you can enjoy unique venues featuring special offers on food, cold drinks, and live music. Dance the night away or kick back, take in the night air, and network with your peers at one or all of these Austin venues.

To view venue descriptions and specials, visit "[Night on Sixth Street](#)."







# NI Engineering Impact Awards

The **NI Engineering Impact Awards** recognize the most innovative user applications based on NI software and hardware. This year, nearly 250 authors from more than 20 countries submitted technical papers that depict their greatest achievements using the NI platform. Visit the contest poster display, located on the first level, to learn about the finalists' applications for each of the seven application categories. Winners of each category, as well as the recipients of several featured awards including the NI Community's Choice, Engineering Grand Challenges, Humanitarian, Intel Internet of Things, and the Application of the Year, will be announced at the invitation-only awards dinner on Tuesday, August 4.

## Advanced Manufacturing and Control

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High-Speed Vision Inspection for Micro Precision Gauging

**Sasikumar B, Krishnan R, Udayakumar KA, Anup SK, Riya Karmakar, Damodaran N, Pratim B, Bikash Rajguru, Ayan Ghosh, Narayana P, Amaresh Kumar MV, Balaji Raghvendra, and Vijaya B, Zentron Labs Pvt. Ltd.**

Developing a 12 m Wide Printer With LabVIEW and CompactRIO

**Stephan Cepek**, Big Image Systems Deutschland GmbH, and **Udo Schwadtke**, Technische Universität Berlin

Wearable Robotics for Walking Assistance

**DongJin Hyun, KyungMo Jung, SangIn Park, HyunSeob Lim, and SeoHo Choi, Hyundai Motor Company**

Developing a Facility-Wide Internet of Things Technology for Machine Condition Monitoring and Diagnostics

**Zhizhong Wanga, Zhonghe Ke, and Xianjia Li, China Steel Corporation**  
**Zhixian Lin, and Yongli Huang, Dragon Steel Corporation**  
**Hongfei Chen, Quanliang Lin, and Jiangsheng Wang, Chung Hung Steel Corporation**

## Advanced Research

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Autonomous and Ultrarapid Cavitation Control Feedback Loop for Focused Ultrasound Surgery

**Paul Prentice, University of Dundee, Institute of Medical Science and Technology**

ARTSENS: An Easy-to-Use, Image-Free Technology for Arterial Stiffness Evaluation and Vascular Screening

**Dr. Jayaraj Joseph, Healthcare Technology Innovation Centre, IIT Madras**

## Aerospace and Defense

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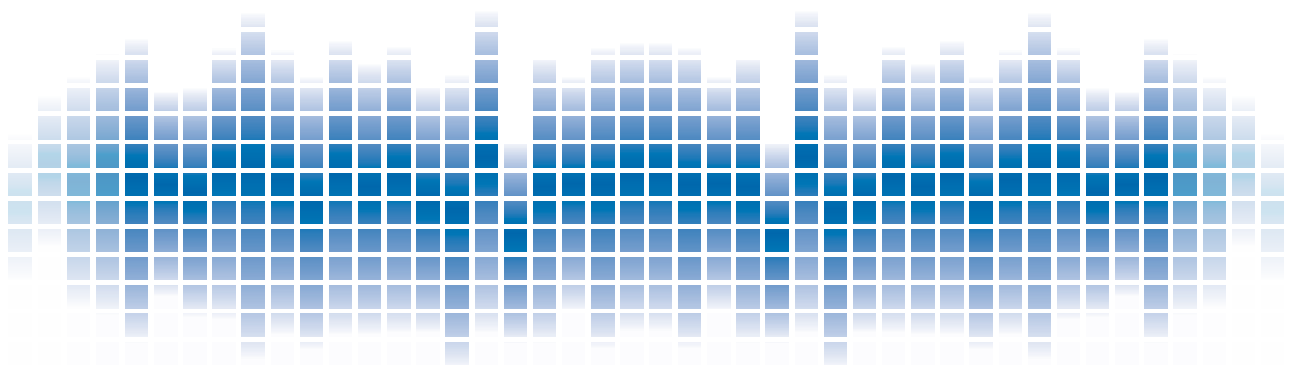
Developing Earth-Observation Cameras Attached to the International Space Station for Streaming Live High-Definition Footage Across the Internet

**Mike Salter, STFC RAL Space**

Developing Smart Tools for the Airbus Factory of the Future

**Sébastien Boria and Bernard Duprieu, Airbus**





## Consumer Electronics

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High-Performance RF and Functional Test of Automotive Infotainment and eCall Modules

**Markus Krauss, Andreas Kappler, and Gergely Boros,**  
*HARMAN/Becker Automotive Systems Kft.*  
**Manuel Bogedain, Dirk Laus, Matyas Süveg, and Franz Weller,**  
*NOFFZ ComputerTechnik GmbH*

Fujitsu and NI Demonstrate the Interoperability of the New ORI Specification for Base Stations

**Masaki Taniguchi, Kazuhiko Yamaguchi,**  
and **Takefumi Miyamoto,** *Fujitsu Limited*

## Energy

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Controlling Zinc-Flow Batteries and Switch-Mode Power Regulation for Megawatt-Scale Energy Storage

**François Normandin, Javier Ruiz, Tomi Maila,**  
**Jim Kring, JKI, and Ryan Talbot,** *Primus Power*

Smart Renewable Energy Micro-Grid

**Ganesh Shankar, Kaustubh Karnataki, Tejas Kumar N, and Shodhan S,**  
*FluxGen Engineering Technologies Pvt. Ltd.*

## RF and Communications

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Tracking WiFi Signals to Passively See Through Walls Using NI USRP and LabVIEW

**Bo Tan,** *Bristol University*

Airborne Multichannel Snow Thickness Sensing and Imaging Radar Based on NI FlexRIO

**Yan Li and Dr. Zongbo Wang,** *Center for Remote Sensing of Ice Sheets (CReSIS)*

## Transportation

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Replacing Diesel With Hybrid Power in Buses

**Toby Schulz and Balazs Pal,** *Vantage Power Ltd.*

Building an HIL Test System for Vehicle Simulation and Testing

**Sanjay Mane,** *Tata Motors*





## IBM Internet *of* Things

Engineer the next generation of connected devices and deliver better business outcomes through improved **innovation, operation** and **customer engagement**.

- Continuous verification
  - Condition monitoring/predictive maintenance
  - Create a culture of continuous innovation.
- Visit [ibm.biz/loTatSpeed](http://ibm.biz/loTatSpeed) to learn more!

**Talk to our experts at Booth #905**



**Maximize your NIWeek experience** with training courses and certification exams. Available at the Austin Convention Center at discounted rates, NI training and certification are the most effective way to increase your productivity and ability to efficiently develop robust, maintainable applications with NI products. You can take training courses before and certification exams during NIWeek. Visit the NI Services and Training area on the expo floor or the NI Learning Lab in the Atrium for more information. Visit [NI Training and Certification](#) to view courses and training offerings.

## Training Courses

Gain in-depth product knowledge and learn best practices for developing applications by attending a two-day training course that begins two days prior to NIWeek. With NI training, you can develop 50 percent faster and spend 43 percent less time on code maintenance. The following courses are offered as two-day modules Sunday–Monday, August 2–3:

- LabVIEW Core 2
- Object-Oriented Design and Programming in LabVIEW
- LabVIEW Machine Vision
- Wireless Prototyping Fundamentals With NI SDR and the LabVIEW Communications System Design Suite
- Using NI InsightCM™ Enterprise for Condition Monitoring

## Certification Exams

Validate your skills or renew your LabVIEW, TestStand, or LabWindows™/CVI certification at NIWeek at discounted rates:

- All NIWeek attendees: 50 percent off list price

## Certification Preparation

Not ready to obtain your certification yet? NI offers complementary certification preparation courses for the LabVIEW Certification exams prior to NIWeek on Monday, August 3:

- Certified LabVIEW Associate Developer Preparation Session, 8:00–10:00 a.m.

- Certified LabVIEW Developer Preparation Session, 10:00 a.m.–Noon
- Certified LabVIEW Architect Preparation Session, 1:00–3:00 p.m.
- Certified LabVIEW Embedded Systems Developer Preparation Session, 3:00–5:00 p.m.

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Training and Certification Exam Schedule	Room	August 5	August 6–August 8
Certified LabVIEW Associate Developer (CLAD) Certified TestStand Architect (CTA) Certified TestStand Developer (CTD) Certified LabVIEW Embedded Systems Developer (CLED) Part 1 Certified LabVIEW Architect Recertification (CLA-R) Certified LabVIEW Developer Recertification (CLD-R) Certified LabVIEW Associate Developer Recertification Certified TestStand Developer Recertification Certified TestStand Architect Recertification	5C	1:30–2:30 p.m. 3:30–4:30 p.m.	10:30–11:30 a.m. 1:30–2:30 p.m. 3:30–4:30 p.m.
Certified LabVIEW Architect (CLA) Certified LabVIEW Developer (CLD) Certified LabWindows/CVI Developer (CCVID) Certified LabVIEW Embedded Systems Developer (CLED) Part 2 Certified LabWindows/CVI Developer Recertification	5B		1:00–5:00 p.m.



# INTELLIGENCE

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Intelligence and efficiency  
across the manufacturing floor  
from device to datacenter.



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In addition to a variety of technical sessions, NIWeek gives you several opportunities to meet industry and academic leaders, learn about engineers in the NI Community, and enhance your product knowledge and expertise during the following special events:

### Build Your Own Embedded System Workshop

Sponsored by **Cyth Systems**

This hands-on workshop focuses on extending your LabVIEW skills into FPGA-based design with the LabVIEW reconfigurable I/O (RIO) architecture. Learn how to use the LabVIEW Real-Time and LabVIEW FPGA modules to configure, program, and deploy a RIO-based embedded system and take it home after the conference. This full-day workshop on Monday, August 3, requires an additional fee.

### Trend Watch 2015: The Internet of Things Summit

Sponsored by **Bosch**

Intel, IBM, Bosch Software Innovations, and other leaders in industry and academia discuss how the Internet of Things (IoT) links our physical world with digital infrastructure and the resulting impact on engineering from design to manufacturing. Attend this two-day summit to hear about the enabling technology behind the IoT; see examples of how organizations are benefiting from smart, connected systems; and gain insight on how they are looking to create a smarter, more interconnected world.

### Panel: Explore the Internet of Things— Software, Sensors, and Systems

Wednesday, August 5, 1:00 p.m., Room 15

Join a panel discussion led by industry experts as they share their unique perspectives on the business opportunities and technical challenges of designing and building the IoT. Through an open dialogue, examine how engineers and scientists should approach the IoT and how they can shape the ecosystem in the future.

View sessions in the [online catalog](#) or via the [mobile app](#).

## Total Test Solutions *Testing Life's Ideas*



- Test Fixtures
- Test Systems
- Test Automation



[www.circuitcheck.com](http://www.circuitcheck.com)

**The Academic Forum** provides a platform for academic professionals to share best practices in engineering education methods, discuss the future of engineering, and network with colleagues. View presentations by expert engineering educators from around the world and learn how they integrate NI solutions to teach concepts and bring learning objectives to life. New in 2015, the Academic Forum includes a hands-on track featuring opportunities throughout the day for interactive exploration of NI academic hardware, software, and courseware

### Academic Forum Poster Session and Partners Exhibit

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See how engineering students and professors from around the world are incorporating LabVIEW and graphical system design into innovative research applications and a variety of design projects at the Academic Forum Poster Session. From simulated veterinary biomechanics to complex control of semiconductor manufacturing robotics, university students and professors engineer a better world using LabVIEW. Check out these cutting-edge applications alongside exciting new products from NI partners in Ballroom G throughout the day in the Academic Forum.

### University of Texas Lab Tours

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Monday, August 3 | 8:30–11:00 a.m. | The University of Texas at Austin

*Tour participants should meet in the registration area for transportation at 8:30 a.m.*

Tour some of the cutting-edge engineering labs at The University of Texas at Austin to see work in various application areas and discover how the facilities further academic research using LabVIEW and other NI technologies.

*View sessions and lab tour information in the [online catalog](#) or via the [mobile app](#).*



**Attend the industry-specific summits** to learn about new trends and techniques from targeted keynotes, product technical training, and demonstrations by NI developers and industry-leading researchers. Visit the corresponding pavilions on the exhibition floor to see the summit content in action. Visit [NIWeek 2015 Conference Content](#) to view the summit session catalog.

### Aerospace and Defense

Tuesday–Wednesday, August 4–5

Learn how NI customers are addressing the entire life cycle of aerospace and defense systems using graphical system design tools. These tools help them develop solutions ranging from software-defined test systems to deployed real-time embedded systems for control, monitoring, and operation that reduce total program cost and lower program risk.

### Semiconductor Test

Tuesday, August 4

Examine emerging test challenges in RF and mixed-signal IC test. Also learn from industry experts how to optimize your test solutions as the growth of IoT devices drives the demand to test highly connected, smart ICs at significantly lower costs despite shorter design cycles and increasing device complexity.



**COBHAM**

Cobham Wireless are global leaders in the provision of advanced wireless coverage and mobile communications systems, producing innovative, cost-effective solutions that address market requirements for improved connectivity, greater capacity and better quality of experience.

Our intelligent digital Distributed Antenna Systems (DAS), along with our advanced network validation tools for mobile and IP networks, are ready to help propel your network to the next generation.



NI Global Preferred Partner  
for Cellular and  
Connectivity Applications

Visit Cobham Wireless at Booth #103

[www.cobham.com/wireless](http://www.cobham.com/wireless)



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## 5G Wireless

Wednesday, August 5

Explore the technologies and trends in next-generation 5G wireless communications and learn how to accelerate research and validate results using the latest hardware and software technologies from NI. Hear from industry experts about their vision for 5G as they examine new physical layer designs, Massive MIMO systems, advances in millimeter wave communications, and other topics.

## Internet of Things

Tuesday -Wednesday, August 4-5

Sponsored by **Bosch**

Discuss with industry and academic leaders how the Internet of Things links our physical world with digital infrastructure and examine the resulting impact on engineering from design to manufacturing. Attend this summit to hear about the enabling technology behind the IoT; see examples of how organizations are benefiting from smart, connected systems; and gain insights on how they are looking to create a smarter, more interconnected world.

## Energy Technology

Tuesday–Wednesday, August 4–5

As electrical networks and devices undergo a wave of transformation, see how engineers are innovating in electrical power research, grid storage, security, wide-area monitoring, and more. Learn about the deployments, challenges, and best practices for solving energy problems and network with presenters, other energy-minded attendees, and NI design engineers who work on energy-focused tools from NI such as the new Grid Automation System, power measurement C Series modules, and the Electrical Power Suite for LabVIEW.

## Transportation

Tuesday–Wednesday, August 4–5

From passenger vehicles to agricultural machines and rail systems, the electronic complexity in transportation has rapidly increased. Likewise, the demand for higher quality, increased safety, and shorter times to market has grown along with this complexity. See how NI solutions help companies test from concept to production, including hardware-in-the-loop simulation, test cell control, in-vehicle data logging, and infotainment test.

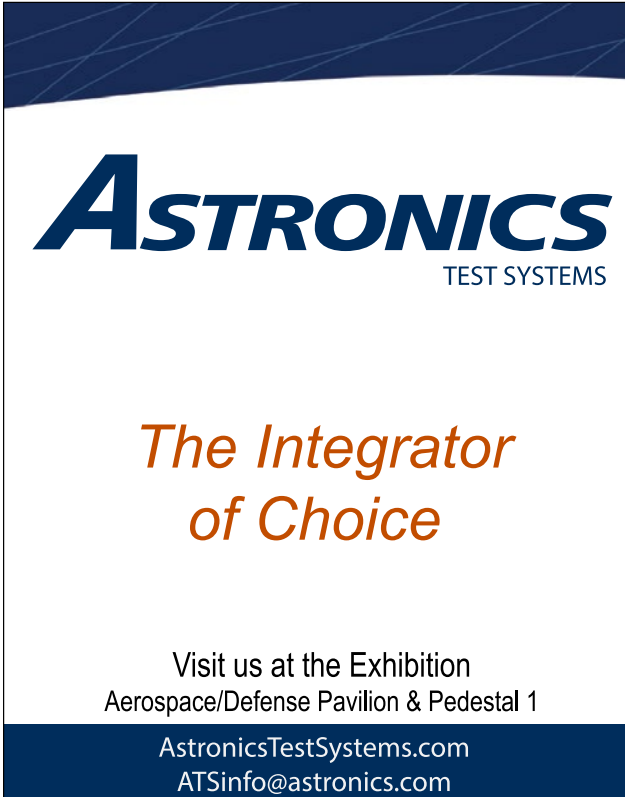
## Vision

Tuesday–Wednesday, August 4–5

Sponsored by **Xilinx**

One of the most comprehensive conference lineups on imaging applications and technologies, the Vision Summit features two full days of interactive technical sessions and hands-on workshops as well as three days of exhibitions on the NIWeek show floor. Learn about new technologies and industry best practices and network with vendors, integrators, users, and other vision experts including NI R&D.

View sessions in the [online catalog](#) or via the [mobile app](#).



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of Choice*

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Aerospace/Defense Pavilion & Pedestal 1

AstronicsTestSystems.com  
ATInfo@astronics.com



## Automated Test Systems

Discover the latest tools and techniques to help you successfully build modular and automated test systems and see new ways to combine NI hardware and software to make even better test stations. Also hear from test industry experts about their best practices and successes. Both first-time attendees and NIWeek veterans can find valuable information in this track to help them work toward their test solutions faster than ever before.

## Data Acquisition Systems

Build your knowledge of data acquisition hardware and software programming skills with a variety of in-depth product sessions, peer presentations, application best practices, programming techniques, and hands-on workshops. Gain the insights and skills to ensure that you're equipped to build DAQ systems that meet your application's exact requirements.

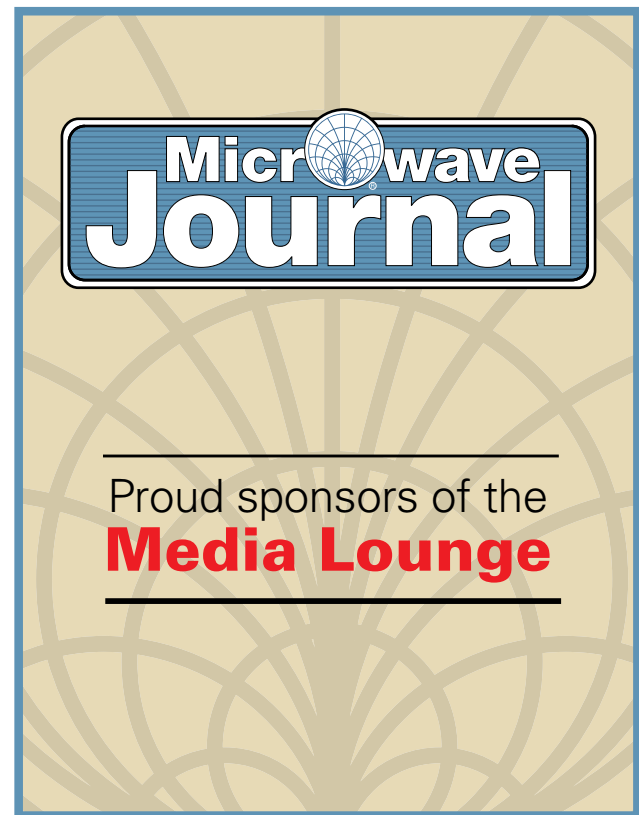
## Embedded Systems

As the Internet of Things expands, control and monitoring systems for the Industrial Internet of Things (IIoT) are getting more complex, taking longer to complete, and increasing in total cost of design. Discover a better way to design advanced control and monitoring systems that maximize flexibility, reduce time to market, and minimize cost and risk. Also learn from product and industry experts about the tools and techniques that deliver innovation for the IIoT. And explore the IIoT landscape and development strategies while learning about new features and releases for CompactRIO, Single-Board RIO, LabVIEW FPGA, and LabVIEW Real-Time.

View sessions in the [online catalog](#) or via the [mobile app](#).

## Software Development Techniques

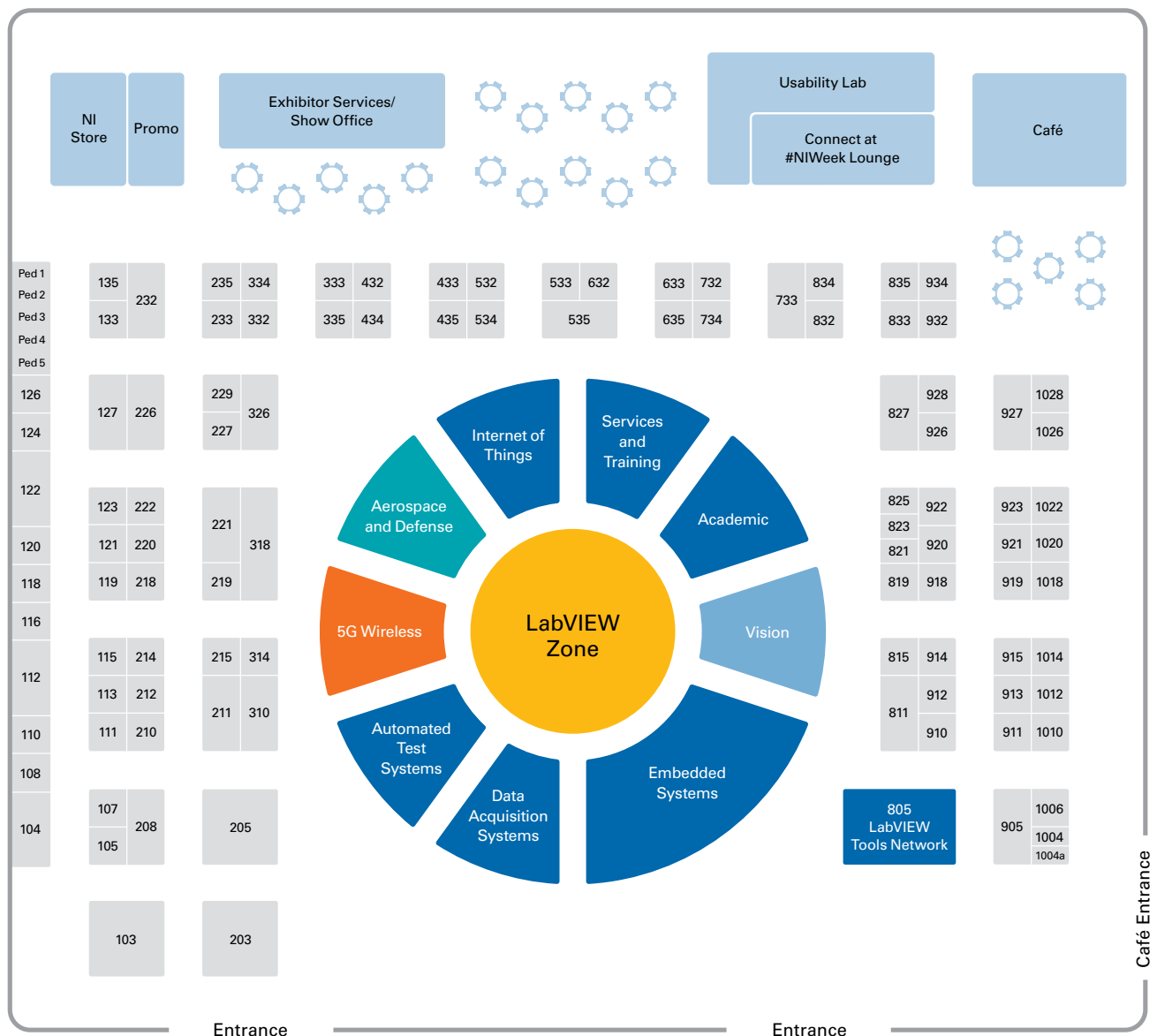
Explore new technologies and best practices to help you build IoT-ready software applications. Advanced users and NI experts show you how to increase productivity and ensure system flexibility and scalability while achieving peak performance. New and experienced users alike will gain a deeper understanding of NI software products and get hands-on experience with the complete NI hardware and software platform.





## Exhibit Hall Hours

Monday, August 3	5:30 p.m.–7:00 p.m.
Tuesday, August 4	10:00 a.m.–7:00 p.m.
Wednesday, August 5	10:00 a.m.–6:00 p.m.
Thursday, August 6	Closed

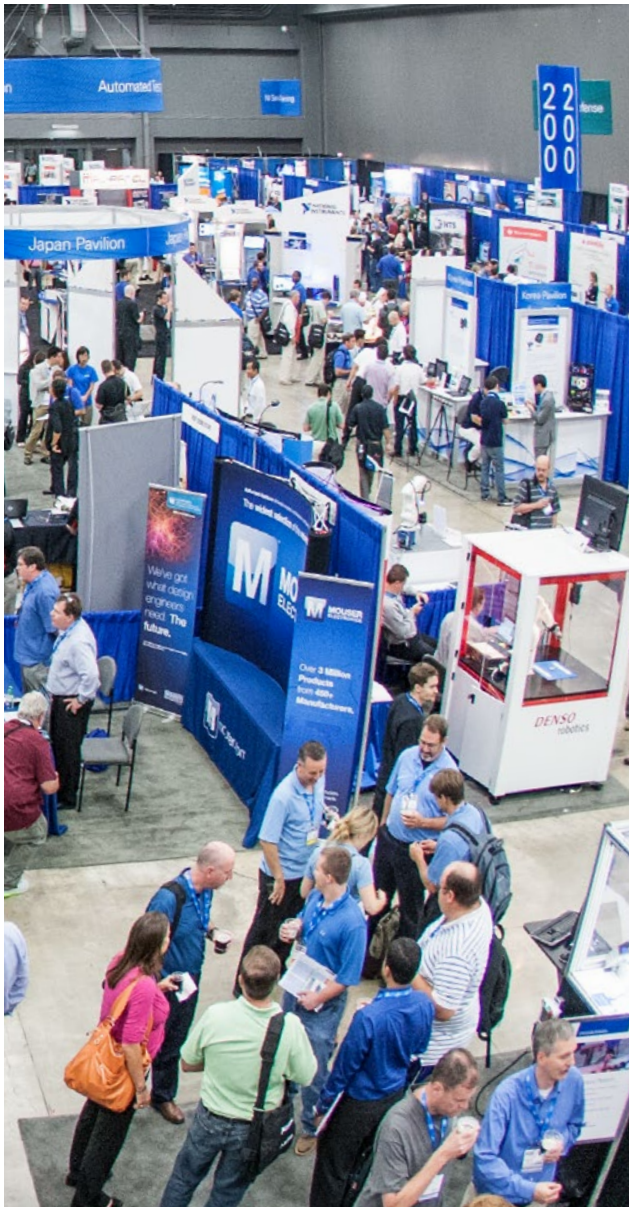




## Network at the NIWeek Lounges

### NIWeek has doubled your ability to grab a spot in one of our two lounges!

Enjoy comfortable couches, free Wi-Fi, and charging stations so you and your devices can recharge throughout the conference. Follow conversations and photos via social media. Include [#NIWeek](#) in any of your tweets and updates, and you might see them on the jumbo screen before NIWeek keynotes. “Like,” “Follow,” or “Friend” NIWeek to get official conference information in real time and participate in fun social media activities and the NIWeek Game on the mobile application.



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#### Connect at [#NIWeek](#) Lounge | Expo Floor

Sponsored by **NASA Tech Briefs**

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#### Microwave Journal Lounge | Outside Exhibit Halls 4 and 5

Sponsored by **Microwave Journal**

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#### NI Store

Take the NIWeek experience home with you. Visit the NI Store to purchase NI-branded merchandise, including stylish T-shirts, polos, and other apparel. The store accepts American Express, MasterCard, and VISA. It is open during Exhibition Hall hours.



## Embedded Systems Pavilion

As the Internet of Things expands, control and monitoring systems for the Industrial Internet of Things (IIoT) are getting more complex, taking longer to complete, and increasing in total cost of design. Discover a better way to design advanced control and monitoring systems that maximize flexibility, reduce time to market, and minimize cost and risk. Also learn from product and industry experts about the tools and techniques that deliver innovation for the IIoT. Explore the IIoT landscape and development strategies while learning about new features and releases for CompactRIO, Single-Board RIO, LabVIEW FPGA, and LabVIEW Real-Time.

## Data Acquisition Systems

Discuss your applications with NI engineers presenting the latest capabilities of the NI hardware and software used for taking measurements in R&D and design validation and verification. View technology demonstrations of data acquisition products, including VirtualBench, CompactDAQ, and PXI, along with applications such as test cells, HIL, and in-vehicle data logging.

## Automated Test Systems

See how NI is redefining instrumentation with open software and modular hardware. Covering a range of applications from semiconductor test and validation to consumer electronics test, see how leading companies are using PXI, LabVIEW, and TestStand to meet today's test challenges while reducing the total cost of test.

## 5G Pavilion

Learn about the latest technologies and trends in next-generation 5G wireless prototyping with live demonstrations covering a wide range of 5G topics that span from RF design and analysis to high-performance Massive MIMO systems and more.

## Aerospace and Defense Pavilion

View live demonstrations of aerospace/defense industry application solutions using NI test and embedded technology. Discuss solutions with NI partners and engineers and gain insight into using the power of software-defined modular instrumentation and embedded systems to lower the costs and risks of system development, operation, and maintenance.

## Internet of Things Pavilion

Learn how the Internet of Things links our physical world with digital infrastructure and examine the resulting impact on engineering from designing and prototyping to testing these intelligent devices. View demonstrations of the enabling technology behind the IoT; see examples of how organizations are benefiting from smart, connected systems; and gain insights on how they are looking to create a smarter, more interconnected world.

## Academic Pavilion

Discover how NI enables students to become innovation ready by giving them experience with industry-proven hardware and software that moves beyond classroom theory. With NI's hands-on approach to engineering education, students actually "do engineering."

**Shaping the Future of Next Generation Systems**

Smarter • Connected • Differentiated

**ALL PROGRAMMABLE**

ANY MEDIA • 5G • ANY MACHINE • 4K/8K • ANY STANDARD • ANY NETWORK

5G Wireless • SDN/NFV • Video/Vision • ADAS • Industrial IoT • Cloud Computing

Software Defined • Hardware Optimized

**XILINX**  
ALL PROGRAMMABLE.

LEARN MORE: [xilinx.com](http://xilinx.com)



## Vision Pavilion

See machine vision solutions in action and view demonstrations of vision software programming for FPGAs, embedded vision system design, and deployment options featuring CompactRIO, Single-Board RIO, and the Compact Vision System. Interact with Vision Specialty Alliance Partners, vision system integrators, machine vision component providers, and NI engineers at one of the largest vision expositions in North America.

## LabVIEW Zone

Discover what's new in LabVIEW and get a close-up look at demos featured in the conference. Along with learning about new programming resources, you can interact with other LabVIEW users as you try some of the fun and exciting demos powered by LabVIEW.

## LabVIEW Tools Network Pavilion

The LabVIEW Tools Network is the NI app store that equips engineers and scientists with certified, third-party software add-ons. Stop by the pavilion to explore cutting-edge technologies that can expand the power of LabVIEW graphical system design software and NI modular I/O hardware.

## NI Services and Training

Ensure success with NI products by leveraging new services and training options. Stop by the pavilion to discover faster ways to learn LabVIEW, best practices for using technical support, and new service programs designed to save you time and money.

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The **LabVIEW Tools Network** is the NI app store that equips engineers and scientists with certified, third-party software add-ons. Stop by the pavilion to explore cutting-edge technologies that can expand the power of LabVIEW graphical system design software and NI modular I/O hardware. Learn more about these products at [ni.com/labviewtools](http://ni.com/labviewtools).



## Featured Products

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### **3D Express by Synergy**

3D Machine Design and Motion Control  
Simulation Platform

### **BLT for LabVIEW by Studio Bods**

Manage, Distribute, Protect, and Track Your  
LabVIEW Programs

### **DSA 2.9 by Signal.X Technologies**

Sound and Vibration Analyzer

### **INERTIA for VeriStand by Wineman Technology**

Test Cell Control and Automation

### **LabSocket System by Bergmans Mechatronics**

Easily Access LabVIEW VIs Over the Web or a LAN  
From Any Browser

### **Localization Toolkit for LabVIEW by S.E.A. GmbH**

Create and Distribute Multilanguage LabVIEW Applications

### **NC-10 Channelization Toolkit for LabVIEW**

by Novator Solutions  
RF Channelization Toolkit

### **Pebbles UI: State Machine Controller by BatchTest**

High-Performance State Machine for Quickly Creating  
Well-Structured Applications

### **Power Electronics Teaching Software by OPAL RT**

Teach HIL and RCP Basics for Power  
Electronics Applications

### **Robotics Libraries by DigiMetrix GmbH**

Graphical Programming for Applied Robotics

### **RTI DDS Toolkit for LabVIEW by RTI**

(Real-Time Innovations)

High-Performance and Interoperable Publish/Subscribe

### **SignalPad by KeyGo Technologies**

Turnkey Solution for Data Logging, Sound, and Vibration

### **Wezarp for LabVIEW by APPANDO**

Control LabVIEW Applications With Your Remote Device

### **SP7 by DATA AHEAD GmbH**

Exchange Data With Siemens PLCs

### **XLR8 by DATA AHEAD GmbH**

Read and Write Microsoft Excel Files

### **SM Instruments**

Create, Design, and Manufacture Highly Technological  
Instruments for Surface Characterization





## 6TL Engineering

Booth 227

6TL has redefined the way ATE integrators build testers. Using COTS hardware and software blocks, integrators can shorten delivery times and build cost-effective, reliable solutions.

[6tlengineering.com](http://6tlengineering.com)

## Acquired Data Solutions Inc.

Booth 934

ADS integrates data capture, emulation, analysis, and process improvement solutions for RF/EMSEC, pressure/vibration, and image/video acquisition systems. It provides solutions for subsystem, system level, and final assembly test as well as triggered data collection for defense, aerospace, biomedical, infrastructure, and security applications.

[acquiredata.com](http://acquiredata.com)

## Advanced Illumination

Booth 823

An LED lighting solutions provider, Advanced illumination designs and manufactures versatile lighting for the machine vision industry, including standard and customized LED fixtures and electronics.

[advancedillumination.com](http://advancedillumination.com)

## Advint

Booth 112

Advint is a product partner to NI for rugged, IP67-rated DAQ and control platforms for condition monitoring, oil and gas, test cell, and off-highway and in-vehicle applications.

[advint.com](http://advint.com)

## Aledyne Engineering

Booth 1004

Aledyne is a leading LabVIEW solutions provider that delivers cutting-edge products and services to enrich the user experience and meet every client's unique needs.

[aledyne.com](http://aledyne.com)

## Allied Vision Technologies

Booth 922

For over 25 years, Allied Vision has helped people see the bigger picture to achieve their goals. It delivers camera solutions for industrial inspection, medical and scientific imaging, traffic monitoring, and many more applications.

[alliedvisiontec.com](http://alliedvisiontec.com)

## AMETEK Solartron Metrology

Booth 435

Solartron Metrology is a world leader in the innovation, design, and manufacture of precision digital and analogue dimensional LVDT gauging probes, displacement sensors, noncontact sensors, optical linear encoders, and associated instrumentation.

[solartronmetrology.com](http://solartronmetrology.com)

## Amfax Ltd

Booth 432

Amfax designs, manufactures, and supports functional and special-to-type solutions from fixtures and cable assemblies to large-scale ATE systems. It has over 20 years' experience supplying to the aerospace, defense, RF, and automotive markets.

[amfax.co.uk](http://amfax.co.uk)

## Appando

Booth 805—LabVIEW Tools Network Pavilion

Appando provides its customers with the Wezarp software suite. Wezarp allows remote monitoring and control of software applications.

[wezarp.com](http://wezarp.com)

## Artisan Technology Group

Booth 235

Artisan Technology Group buys and sells obsolete and legacy NI and other commercial off-the-shelf equipment to help you extend the life cycle of your critical systems.

[artisanatg.com](http://artisanatg.com)

## Astronics Test Systems

Turnkey Pedestal 1

Astronics Test Systems is your systems integrator of choice for test solutions focused on "copy exact." Serving multiple industries and offering nearly 60 years of experience, the company solves test challenges with a complete range of standard products and custom capabilities, from flexible, scalable components to system-level test solutions.

[astronictestsystems.com](http://astronictestsystems.com)

## Averna

Booth 203

A global leader in test engineering, Averna delivers high-value test solutions to clients in aerospace, automotive, consumer electronics, defense, life sciences, telecom, and other industries.

[averna.com](http://averna.com)

## Avionics Interface Technologies

Booth 434

AIT is a leading manufacturer of high-performance flight, test and simulation modules, embedded solutions, databus analyzers, and support systems for the commercial aerospace and defense industries. Its modules support MIL-STD-1553A/B, MIL-STD-1760E, ARINC 429, ARINC 615/615A, ARINC 664, and Fibre Channel.

[aviftech.com](http://aviftech.com)

## Ball Systems Inc.

Booth 116

Ball Systems Inc., an NI Gold Alliance Partner, specializes in custom test system design, software development, manufacturing, and integration solutions for customers in the semiconductor, RF, aerospace, and automotive markets, among others.

[ballsystems.com](http://ballsystems.com)



**Basler***Booth 815*

Founded in 1988 in Germany, Basler is a leading global manufacturer of digital cameras for industrial applications, medical devices, and traffic systems. Its cameras combine excellent image quality with compact size and easy integration.

[baslerweb.com](http://baslerweb.com)**Beltronic Industrie-PC AG***Booth 220*

Beltronic Industrie PC is a Swiss supplier of rugged computers and displays since 1986. With highly reliable embedded COTS components and devices, Beltronic focuses on achieving cost-effective rugged and reliable system solutions that comply with customer project specifications.

[beltronic-IPC.com](http://beltronic-IPC.com)  
[beltronic.fr](http://beltronic.fr)**Bergmans Mechatronics***Booth 805—LabVIEW Tools  
Network Pavilion*

Bergmans Mechatronics LLC, founded in 2003, is dedicated to solving technical challenges at the intersection of the mechanical, electronics, and software fields.

[bergmans.com](http://bergmans.com)**Bloomy***Booth 205*

Bloomy provides products and services for electronics functional test; avionics, battery, and BMS hardware-in-the-loop test; and world-class LabVIEW, TestStand, and VeriStand application development.

[bloomy.com](http://bloomy.com)**Bosch Rexroth***Booth 208*

Economical, precise, safe, and energy efficient, drive and control technology from Bosch Rexroth moves machines and systems of any size. The company bundles application experiences in the mobile applications, machinery applications/engineering, factory automation, and renewable energies market to develop innovative components as well as tailored system solutions.

[boschrexroth.com](http://boschrexroth.com)**Bosch Software Innovations***Booth 208*

Your partner for implementing Industry 4.0, Bosch Software Innovations provides manufacturers and stakeholders along the manufacturing value chain with innovative software solutions to collect, visualize, and analyze machine, process, and sensor data. Create transparency. Increase productivity. Reduce costs.

[bosch-si.com](http://bosch-si.com)**Bruel & Kjaer***Booth 219*

Bruel & Kjaer offers acoustic and vibration transducers including specialty microphones, high-temperature IEPE accelerometers, signal conditioning, vibration test solutions, and an audio analyzer based on LabVIEW.

[bkhome.com](http://bkhome.com)**BTS Technologies Inc.***Booth 1020*

BTS Technologies Inc. provides the R-Bench automated test solution for electronic control units. Visit the booth to view automated test equipment for instrument clusters based on image recognition technology.

[btstech.co.kr](http://btstech.co.kr)**Carmel Instruments Inc.***Booth 105*

Carmel Instruments is a leading manufacturer of precision time and frequency measurement instruments to the picosecond level and clock sources to 4 GHz.

[carmelinst.com](http://carmelinst.com)**CCS America Inc.***Booth 833*

CCS is a leading company that boasts top-level market shares in Japan and overseas for machine-vision-use LED lighting. Machinevision is actively used for quality control purposes at various manufacturing worksites.

[ccsamerica.com](http://ccsamerica.com)**CertTech***Booth 835*

CertTech is a domain expert in safety and mission-critical applications. It delivers instrumentation and test products, systems, and services to the aerospace and defense, national security, automotive, medical device, energy, agriculture, and rail industries.

[certtech.com](http://certtech.com)**Chroma Systems Solutions Inc.***Booth 218*

Chroma manufactures advanced power electronics and safety test instrumentation and automated systems backed by unmatched service and support.

[chromausa.com](http://chromausa.com)**Circuit Check Inc.***Booth 211*

Circuit Check designs and builds automated test fixtures and test systems. Its design staff includes 60 electrical, software, and mechanical engineers and project managers at two design locations in Minnesota and Toronto. Its support staff is located in the United States, Canada, Mexico, Europe, Malaysia, and China.

[circuitcheck.com](http://circuitcheck.com)



## Clemessy Booth 107

Clemessy Group, a Platinum Alliance Partner, offers TestInView (TIV) to design and validate electronic systems and A2C to test power networks on planes. It also specializes in multitechnical test bench supply, automation and test equipment for production lines, and smart flight test installation.

[en.clemessy.com](http://en.clemessy.com)

## Cobham Wireless Booth 103

Cobham delivers state-of-the-art wireless and connectivity solutions that give its customers a competitive edge. As global leaders in the provision of advanced wireless coverage and mobile communications systems, Cobham produces innovative and cost-effective solutions.

[cobham.com](http://cobham.com)

## COMSOFT GmbH Booth 920

COMSOFT offers a wide range of components, services, and individual solutions for PROFIBUS, real-time Ethernet PROFINET, and EtherCAT networks.

[comsoft.de](http://comsoft.de)

## Connection Technology Center Booth 229

CTC vibration analysis hardware, such as accelerometers and cables, includes the PRO Instrumentation line of proximity probes, signal conditioners, relays, and loop power sensors. Lifetime warranty included.

[ctconline.com](http://ctconline.com)

## DATA AHEAD GmbH Booth 805—LabVIEW Tools Network Pavilion

DATA AHEAD, based in Germany, focuses on distributed measurements and smart devices. Its tools and products include LabVIEW productivity tools, such as XLR8 and SP7, as well as cloud data storage.

[dataahead.de](http://dataahead.de)

## DENSO Robotics Booth 126

The DENSO VS Series aseptic robot is sterilizable for pharmaceutical, medical, and life sciences applications. The high-speed VS-050 six-axis aseptic robot, which features an ISO 5 cleanroom rating and specially designed coverings, is designed for applications that require biocontamination control.

[densorobotics.com](http://densorobotics.com)

## DigiMetrix GmbH Booth 805—LabVIEW Tools Network Pavilion Booth 910

LabVIEW Robotics libraries make the integration of DENSO, Epson, Kawasaki, KUKA, Mitsubishi, Toshiba Machines, and YASKAWA MOTOMAN robotics into the LabVIEW world as simple as any other hardware compatible with LabVIEW.

[digimetrix.com](http://digimetrix.com)

## DMC Inc. Booth 533

DMC offers high-caliber engineering and software development services for manufacturing, test, and product development organizations to customers worldwide. Since 1996, it has built mission-critical systems for top organizations.

[dmcinfo.com](http://dmcinfo.com)

## Dynamic Test Solutions Asia PTE Ltd Booth 732

Headquartered in Singapore, Dynamic Test Solutions supports the design, fabrication, and assembly of both custom and generic PCBs for wafer and package test applications and provides complete turnkey ATE hardware solutions.

[dynamic-test.com](http://dynamic-test.com)

## Edmund Optics Booth 821

Edmund Optics is your partner in imaging optics. With 800 stock imaging lenses and custom manufacturing, it can help you find the optimal design for your application.

[edmundoptics.com](http://edmundoptics.com)

## Emona Instruments PTY Ltd Booth 919

Emona Instruments manufactures add-on boards and student course material for NI ELVIS II/II+ and myDAQ. The material covers topics such as wireless telecoms, DSP, fiber optics, green energy, signals, and systems.

[emona-tims.com](http://emona-tims.com)

## Erdos Miller Booth 123

Erdos Miller specializes in creating a custom device or product that suits your company's needs and is designed to operate in any environment. It can take any existing device or process and enable it to do more.

[erdosmiller.com](http://erdosmiller.com)

## Ettus Research, a National Instruments Company Booth 314

Ettus Research is the world's leading supplier of software defined radio platforms, including Universal Software Radio Peripheral (USRP) products.

[ettus.com](http://ettus.com)



## G Systems

Booth 326

G Systems is a leading provider of solutions for automated test and measurement, DAQ, and control systems. Services range from design and consulting to complete turnkey systems.

[gsystems.com](http://gsystems.com)

## G.R.A.S. Sound & Vibration

Booth 332

G.R.A.S. provides high-quality acoustic solutions and consultancy for anyone interested in sound within aerospace, automotive, audiology, consumer electronics, noise monitoring, building acoustics, and telecommunications.

[gras.us](http://gras.us)

## GDCA

Turnkey Pedestal 4

GDCA's Proactive Legacy Management (PLM+) delivers peace of mind and reduces the long-term support costs of legacy embedded systems for the defense, medical, and industrial manufacturing industries.

[gdca.com](http://gdca.com)

## Gemalto

Booth 1006

Gemalto, through its acquisition of SafeNet, is the market-leading provider of software licensing and entitlement management solutions for on-premises, embedded and cloud-based software vendors. Gemalto's Sentinel is the most trusted brand for secure, flexible, and future-proof software monetization solutions.

[safenet-inc.com](http://safenet-inc.com)

## Girlstart

Booth 1026

Girlstart's mission is to increase girls' interest and engagement in science, technology, engineering, and math (STEM) through innovative, nationally recognized informal STEM education programs.

[girlstart.org](http://girlstart.org)

## Graftek Imaging

Booth 819

Graftek Imaging is a solutions provider for the industrial, medical and scientific markets. Graftek Imaging provides all the components of a machine vision system.

[graftek.biz](http://graftek.biz)

## GuideTech

Booth 832

Since 1988, GuideTech has been the leading innovator of time and frequency continuous time interval analysis (CTIA) instruments, delivering superior performance at installations worldwide.

[guidetech.com](http://guidetech.com)

## Hiller Measurements

Booth 111

Inspired measurement design is what we're about. Hiller Measurements has tested toys, simulated atmospheric effects of satellite communications, designed unique parts of US radar systems, and designed test systems for the most exciting electronic vehicles on the road.

[hillermeas.com](http://hillermeas.com)

## Honeywell Sensing and Control

Booth 926

Honeywell offers a broad portfolio of load cells, pressure sensors, torque transducers, and more for test and measurement applications with plug-and-play compatibility using NI equipment.

[measurementsensors.honeywell.com](http://measurementsensors.honeywell.com)

## IBM

Booth 905

IBM Continuous Engineering provides a platform for the makers of the Internet of Things to speed the delivery and improve the quality of increasingly sophisticated and connected products.

[ibm.com/ibm/continuousengineering](http://ibm.com/ibm/continuousengineering)

## IEEE Central Texas Section

Booth 912

IEEE is the world's largest technical professional association for the advancement of technology. Through its publications, conferences, standards, and professional and educational activities, IEEE is the trusted voice.

[sites.ieee.org/ctx/](http://sites.ieee.org/ctx/)

## IES Systems Inc.

Turnkey Pedestal 5

IES Systems Inc. is a global supplier of factory automation and test equipment. It provides cost-effective solutions to manufacturing and engineering professionals that meet production quotas and exceed quality standards.

[ies-us.com](http://ies-us.com)

## JKI

Booth 534

JKI helps teams of scientists and engineers transform their high-tech innovations into state-of-the-art systems by designing and implementing the logic of these systems in LabVIEW.

[jki.net](http://jki.net)

## KeyGoTech

Booth 805—LabVIEW Tools Network Pavilion

With expertise in sound and vibration, KeyGoTech develops LabVIEW-based applications (for example, SignalPad) for data logging, sound, vibration, and strain.

[keygotech.com](http://keygotech.com)

## Kistler Instrument Corp.

Booth 210

Kistler North America specializes in force, pressure, acceleration, and torque measurement and related systems. Applications include R&D test and evaluation and production automation.

[kistler.com](http://kistler.com)



## Konrad Technologies

Booth 335

As a Platinum Alliance Partner with more than 120 employees and eight locations worldwide, Konrad Technologies delivers turnkey solutions for electronic manufacturing including PXI-based in-circuit test, vision-guided microcontacting, semiconductor test, and inline handling equipment.

[konrad-technologies.com](http://konrad-technologies.com)

## KUKA Robotics

Booth 121

As a pioneer in robotics and automation technology, KUKA Robotics is one of the leading manufacturers of robotic systems worldwide. It offers a unique, wide range of industrial robots and robot systems that cover all common payload categories and robot types.

[kukarobotics.com](http://kukarobotics.com)

## LHP Software LLC

Booth 122

LHP Engineering Solutions provides tools and services that accelerate the development and deployment of embedded control systems using its expertise in model-based design for transportation domains.

[lhpsoftware.com](http://lhpsoftware.com)

## M3 Systems

Booth 124

M3 Systems provides engineering services and test solutions that support GNSS and navigation technology development in a broad range of application domains.

[m3systems.net](http://m3systems.net)

## MAC Panel Co.

Booth 827

MAC Panel offers modular Mass InterConnect solutions for ATE systems. Its high-performance SCOUT interface has become the benchmark interface for PXI-based ATE globally.

[macpanel.com](http://macpanel.com)

## Maury Microwave Corp.

Booth 222

Calibration, measurement, and modeling device characterization for R&D, preproduction, and production test. Modular and turnkey solutions and consulting services.

[maurymw.com](http://maurymw.com)

## MAX Technologies

Booth 214

MAX Technologies has provided hardware and software COTS products for avionics test and measurement and simulation to major aviation and aerospace companies worldwide for over 25 years.

[maxt.com](http://maxt.com)

## Meggitt Sensing Systems

Booth 215

Meggitt Sensing Systems, a Meggitt group division, is a leading supplier of high-performance sensing and monitoring systems for physical parameter measurements in extreme environments.

[endevco.com](http://endevco.com)

## Mesuro Ltd, a Focus Microwaves Co.

Booth 212

Mesuro Ltd. is a leading supplier of device characterization and modeling solutions. In January 2015, it was acquired by Focus Microwaves, Montreal. Visit this booth to learn more about the RAPID digital tuner, which offers fast load pull measurements using PXI hardware.

[mesuro.com](http://mesuro.com)

## Methode Electronics

Booth 110

Methode Electronics designs, manufactures, and markets devices that use electrical, electronic, wireless, safety radio remote control, sensing, and optical technologies to control and convey signals through sensors, interconnections, and controls.

[methode.com](http://methode.com)

## Micro Precision Calibration Inc.

Booth 532

With over 40 years in the metrology industry, Micro Precision Calibration has become a specialist in the calibration, inspection, and repair of electronic and mechanical measuring and test instruments. All calibrations are traceable to National Institute of Standards Technology (NIST) and National Metrology Institute (NMI) standards and comply with ISO standards.

[microprecision.com](http://microprecision.com)

## Mouser Electronics

Booth 927

Mouser Electronics is one of the fastest growing, customer-focused global catalog/e-marketing online semiconductor and electronics distributors. It offers the newest products and leading-edge technologies.

[mouser.com](http://mouser.com)

## Navitar

Booth 913

Navitar manufactures a range of machine vision optical products for OEM and factory floor applications.

[navitar.com](http://navitar.com)

## Neosys Technology Inc.

Booth 633

Neosys Technology designs and manufactures embedded, rugged, fanless, wide temperature, and longevity computers for machine vision, in-vehicle, and robotic subsystems. It also provides frame grabber cards and system boards to build customized smart cameras.

[neosys-tech.com](http://neosys-tech.com)

## NET USA

Booth 635

NET USA supplies high-quality cameras such as GimaGO GigE Vision, FOculus IEEE 1394, and iCube USB 2.0 as well as OEM boards and camera heads for medical and industrial applications.

[net-usa-inc.com](http://net-usa-inc.com)



**Nexjen Systems***Booth 104*

Nexjen Systems is a system integrator that specializes in customer-defined test, measurement, and automation systems for product development, production test, and monitoring and control.

[nexjen.com](http://nexjen.com)**Novator Solutions***Booth 805—LabVIEW Tools Network Pavilion*

Novator Solutions is a Silver Alliance Partner that provides LabVIEW integration services and SIGINT products based on NI hardware. Applications span from FPGA-based, channelized receiver systems to recording and playback solutions.

[novatorsolutions.se](http://novatorsolutions.se)**OPAL-RT Technologies***Booth 805—LabVIEW Tools Network Pavilion*

OPAL-RT is the world leader in the development of PC/FPGA-based real-time digital simulators, hardware-in-the-loop (HIL) test equipment, and rapid control prototyping (RCP) systems.

[opal-rt.com](http://opal-rt.com)**OPC Foundation***Booth 1010*

OPC is the interoperability standard for the secure and reliable exchange of data in the industrial automation space and in other industries. It is platform independent and ensures the seamless flow of information among devices from multiple vendors.

[opcfoundation.org](http://opcfoundation.org)**Optimation Technology***Booth 811*

As a Gold Alliance Partner (Embedded Control Specialty), Optimation is a unique full service multilocation team that implements custom processes, machines, and systems. It conceptualizes, engineers, fabricates, automates, tests, installs, commissions, integrates, documents, trains, supports, and provides maintenance.

[optimization.us](http://optimization.us)**Osela Inc.***Booth 221*

Osela is a specialized manufacturer of laser illumination systems and structured lighting for industrial applications in machine vision, life sciences, and research.

[osela.com](http://osela.com)**PCB Piezotronics Inc.***Booth 734*

The pioneer of ICP technology, PCB Piezotronics is a designer, manufacturer, and global supplier of accelerometers, microphones, and force, torque, load, strain, and pressure sensors.

[pcb.com](http://pcb.com)**Pebbles UI***Booth 632**Booth 805—LabVIEW Tools Network Pavilion*

BatchTest Corporation is a Silicon Valley company that provides LabVIEW consulting, turnkey automated testers, and embedded systems design and firmware engineering. Its expertise includes providing products and services to the medical device, semiconductor, automotive, and contract manufacturer industries.

[batchtest.com](http://batchtest.com)**Perkins Coie LLP***Booth 915*

With offices across the United States and Asia, Perkins Coie LLP provides IP, corporate, and litigation legal services to a variety of clients, ranging from FORTUNE 50 corporations to independent startups.

[perkinscoie.com](http://perkinscoie.com)**PFC Flexible Circuits Limited***Booth 914*

PFC designs, manufactures, and assembles flexible circuits: single- and double-sided, multilayer, and rigid. It specializes in fine line and impedance control.

[pfcflex.com](http://pfcflex.com)**Pleora Technologies***Booth 932*

Pleora Technologies is the world's leading supplier of video interfaces for system manufacturers and camera companies serving the military, medical, intelligent transportation, and industrial automation sectors. It helps system and camera manufacturers shorten time to market and reduce system costs and design risk.

[pleora.com](http://pleora.com)**Point Grey Research Inc.***Booth 1022*

Point Grey is a global leader in the design and manufacturing of innovative, high-performance digital cameras for industrial, scientific, medical, traffic, and security applications.

[ptgrey.com](http://ptgrey.com)**Precision Filters Inc.***Booth 135*

Since 1975, Precision Filters has been a manufacturer and global distributor of high-performance instrumentation for test measurements.

[pfinc.com](http://pfinc.com)

## PVI Systems Inc.

Booth 333

PVI Systems, a Certified Alliance Partner, offers custom and turnkey systems for DAQ, vision, and process control applications.

[pvisys.com](http://pvisys.com)

## QC Graphics

Booth 119

QCG is your quick-turn solution for QCG is your quick-turn solution for design engineering, PCB design, fabrication, and assembly needs for over 30 years. Its expertise constantly pushes the technology window.

[QCG.com](http://QCG.com)

## Quanser

Booth 318

Quanser is a leading developer of experiments and courseware for teaching control systems design. Stop by to learn about its exciting collaborations with NI.

[quanser.com](http://quanser.com)

## ROAL Electronics S.P.A.

Booth 108

ROAL combines leading-edge R&D, world-class manufacturing, and consistently high-quality products. The company has developed and honed its capabilities over many years of working with leading Fortune 500 companies such as Alcatel, Cisco, and IBM.

[roallivingenergy.com](http://roallivingenergy.com)

## RTI

Booth 805—LabVIEW Tools

Network Pavilion

Booth 1018

Are shared variables or network streams too limited? RTI provides the IIoT connectivity standard DDS for developing fast, scalable, and distributed systems. It's available in LabVIEW today!

[rti.com](http://rti.com)

## S.E.A. Datentechnik GmbH

Booth 805—LabVIEW Tools

Network Pavilion

Booth 911

S.E.A. provides customized software and hardware development projects, test system and test cell integration, hardware products and development for CompactRIO and Single-Board RIO modules, and LabVIEW add-on software.

[sea-gmbh.com](http://sea-gmbh.com)

## Schneider Optics Inc.

Booth 825

Schneider Optics designs and manufactures high-performance industrial lenses (visible through near IR corrected).

[schneideroptics.com](http://schneideroptics.com)

## Signal.X

Booth 805—LabVIEW Tools

Network Pavilion

Signal.X empowers collaborative data-driven decision making by creating innovative test and measurement products that automate end-of-line NVH assessment, analyze mixed-signal sound and vibration data, and enable its customers to use previously untapped information.

[signalxtech.com](http://signalxtech.com)

## Sixclear

Booth 334

Sixclear delivers world-class LabVIEW training and development services across diverse industries. We dare you to try our online or classroom training and not love it.

[sixclear.com](http://sixclear.com)

## Smart Vision Lights

Booth 918

Smart Vision Lights has partnered with Gardasoft Vision to provide LED lighting solutions enabled with Gardasoft's Trinit technology. This technology offers expert control, operational intelligence, and full integration of machine vision lighting within a plug-and-play environment.

[smartvisionlights.com](http://smartvisionlights.com)

## STUDIO BODs

Booth 805—LabVIEW Tools

Network Pavilion

Discover how BLT for LabVIEW drastically drops your maintenance time with tools like remote debugging, tracking, automatic updates, software protection, and more.

[studiobods.com](http://studiobods.com)

## SVTRONICS Inc.

Booth 232

SVT's product design and manufacturing services cover electrical engineering, PCB layout, design verification and validation, compliance test, and industrial design.

[svtronics.com](http://svtronics.com)

## Taconic

Booth 113

By pioneering the manufacture of PTFE coated fabrics and other high-temperature/nonstick materials, Taconic has become a leading supplier to the food processing industry. It also supplies coated materials, including tapes, fabrics, and belts, for industrial applications.

[taconic-add.com](http://taconic-add.com)



## TDK-Lambda Americas

Booth 115

Located in Neptune, NJ, the TDK-Lambda Americas High Power Division is a leading manufacturer of programmable, high-density power supplies

[us.tdk-lambda.com/hp](http://us.tdk-lambda.com/hp)

## Technology Service Corp.

Booth 105

TSC specializes in the development of automated test and control systems using LabVIEW and NI hardware. Specific areas of focus include RF and battery systems.

[tsc.com](http://tsc.com)

## Tekscan Inc.

Booth 928

Tekscan manufactures ultra-thin, tactile pressure and force measurement systems. Products range from simple force sensing systems to complex systems with over 100,000 sensing points.

[tekscan.com](http://tekscan.com)

## Teledyne Microwave Solutions

Booth 535

Teledyne Microwave Solutions is a worldwide leader in the design, development, and manufacture of microwave components, integrated microwave assemblies, and subsystems.

[teledynemicrowave.com](http://teledynemicrowave.com)

## Teledyne Relays

Booth 535a

Teledyne Relays provides subminiature RF electromechanical relays, which deliver high performance from DC to 10 GHz, and coaxial switches that offer DC to 40 GHz for instrumentation, test, measurement, and industrial applications.

[teledynerelays.com](http://teledynerelays.com)

## TestEquity LLC

Booth 233

TestEquity combines exceptional depth of product and application knowledge with hands-on capabilities including a fully accredited cal lab and a line of environmental chambers.

[testequity.com](http://testequity.com)

## Thinkbot Solutions

Booth 120

Thinkbot Solutions is a systems integrator and consulting company based in Austin, Texas. Its services range from complete system development to hourly consulting. Thinkbot Solutions is a Preferred System Integrator for Universal Robots and an NI Alliance Partner.

[thinkbotsolutions.com](http://thinkbotsolutions.com)

## Trescal Inc.

Booth 733

Trescal is an A2LA ISO/IEC17025 accredited calibration service provider and NI Certified Calibration Center. It offers electronic, physical, and dimensional instrumentation calibration; instrument repair; and on-site services.

[trescal.us](http://trescal.us)

## Tresys Technology

Booth 921

Tresys Technology provides effective, secure, state-of-the-art solutions to constantly changing cyber security threats. It has unparalleled expertise in high-assurance architectures for enterprise and mobile computing to protect the access, transfer, and storage of its customers' information assets.

[tresys.com](http://tresys.com)

## TSXperts

Booth 1004a

TSXperts is an innovative NI Alliance Partner that specializes in the creation and use of new tools for the successful execution of low-cost embedded test and measurement solutions.

[tsxperts.com](http://tsxperts.com)

## UE Systems Inc.

Booth 223

UE Systems manufactures and supports ultrasound instruments used for condition monitoring and energy conservation programs.

[uesystems.com](http://uesystems.com)

## UT Austin Master of Science in Technology Commercialization Program

Booth 127

The University of Texas Master of Science in Technology Commercialization (MSTC) is a one-year master's degree focused on business and innovation. Meeting alternating weekends, students learn to profitably launch tech products as entrepreneurs or intrepeneurs.

[texasmstc.org](http://texasmstc.org)

## Verivolt

Booth 834

Verivolt develops advanced sensing platforms for energy-related applications. It specializes in delivering solutions that address not only the sensing aspects but also deployment, timing, system architecture, and low-cost targets.

[verivolt.com](http://verivolt.com)

## Viewpoint Systems

Booth 133

Viewpoint Systems offers condition monitoring, embedded control, FPGA technology, and custom electronics.

[viewpointusa.com](http://viewpointusa.com)

## Virginia Panel Corporation

Booth 310

As a global leader in the test and measurement industry, Virginia Panel Corporation (VPC) takes pride in meeting the market's current and future needs by providing the highest quality and most innovative Mass InterConnect solutions.

[vpc.com](http://vpc.com)





**Vision Research***Booth 1014*

Vision Research designs and manufactures the most comprehensive range of high-speed cameras, all of which deliver unsurpassed light sensitivity, image resolution, acquisition speed, and image quality.

[visionresearch.com](http://visionresearch.com)

**Wibu-Systems USA***Booth 1028*

Wibu-Systems has always been an early adopter of new manufacturing technologies such as miniaturization and chip-on-board or the latest encryption algorithms. It also creates systems that go on to become standards for others companies.

[wibuusa.com](http://wibuusa.com)

**WIN-911 Software***Booth 1012*

WIN-911 is real-time alarm notification software that works with SCADA systems to monitor operations and notify personnel of problem conditions. With WIN-911, your operators can concentrate on other tasks while your computer system does the monitoring.

[win911.com](http://win911.com)

**WireFlow AB***Booth 923*

A Silver NI Alliance Partner (Electronic Design Specialty), WireFlow develops software and hardware that complements NI products.

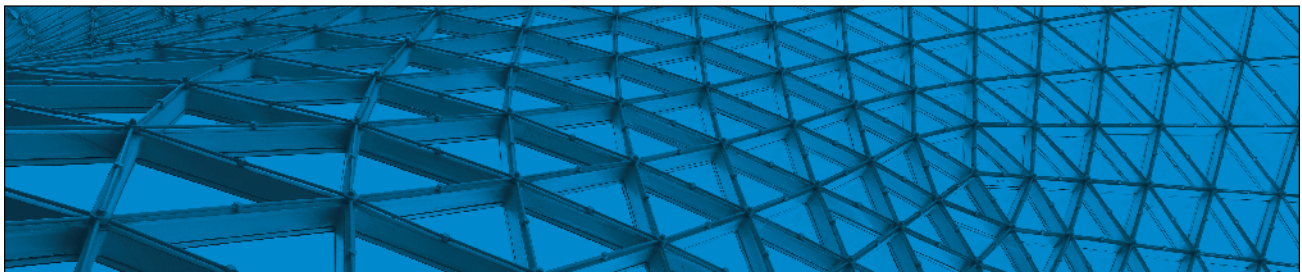
[wireflow.se](http://wireflow.se)

**Wineman Technology Inc.***Booth 226*

*Booth 805—LabVIEW Tools  
Network Pavilion*

As a specialized and proven development partner, Wineman Technology embraces new technologies in the creation of test systems and test cells. It serves as an expert resource, adviser, manufacturer, and project manager to help you meet complex test challenges.

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[circuitcheck.com](http://circuitcheck.com)



## Cobham

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Delivering state-of-the-art wireless and connectivity solutions that give its customers a competitive edge, Cobham is a global leader in providing advanced wireless coverage and mobile communications systems. It produces innovative, cost-effective solutions that address market requirements for improved connectivity, greater capacity, and better quality of experience. Its intelligent digital Distributed Antenna Systems (DAS), along with its advanced network validation tools for mobile and IP networks, can help propel your network to the next generation.

[cobham.com](http://cobham.com)



## IBM

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IBM is helping engineers accelerate the innovation of the next generation of Internet of Things (IoT) devices and helping the operators of those devices gain insight to deliver better business outcomes, operation, and customer engagement. IBM Continuous Engineering provides a platform for the makers of the IoT to speed the delivery and improve the quality of increasingly sophisticated and connected products. IBM's continuous validation and verification capabilities provide collaboration and test automation to make sure that you build the right product with the highest quality.

[ibm.com/ibm/continuousengineering/us/en/](http://ibm.com/ibm/continuousengineering/us/en/)



## Intel

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Intel has been a technology leader for nearly half a century. It is continuing that commitment by providing the foundation for the IoT and the innovation it makes possible. Together with its partners, Intel is helping trillions of devices talk to each other and share valuable information, protecting sensitive data, and providing critical analytics and API offerings. Through its unique combination of integrated hardware, software, and services, Intel is helping turn data into action and accelerating the realization of cleaner cities, personalized health care, more responsive homes, and smarter factories.

[intel.com/iot](http://intel.com/iot)



### Astronics

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Astronics Test Systems is your systems integrator of choice for test solutions focused on “copy exact.” Serving multiple industries and offering nearly 60 years of experience, the company solves test challenges with a complete range of standard products and custom capabilities, from flexible, scalable components to system-level test solutions.

[astronics.com](http://astronics.com)



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Bosch Software Innovations and Rexroth combine their competences for the Internet of Things with expertise in Open Core Engineering for enhancing production workflow automation and flexibility.

[bosch-si.com/home/homepage.php](http://bosch-si.com/home/homepage.php)



### Rexroth

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Economical, precise, safe, and energy efficient: drive and control technology from Bosch Rexroth moves machines and systems of any size. The company bundles application experience in the market of mobile applications, machinery applications/engineering, factory automation, and renewable energies to develop innovative components as well as tailored system solutions.

[boschrexroth.com](http://boschrexroth.com)



### Microwave Journal

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*Microwave Journal* provides leading-edge technical content for RF, microwave and wireless engineers worldwide. The magazine reaches 50,000 qualified subscribers globally with practical design application articles, the latest product features, news, and analysis. MWJournal.com delivers the latest news, events, webinars, white papers, blogs, video, and newsletters to wireless professionals everywhere.

[mwjournal.com](http://mwjournal.com)



### Mouser Electronics

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Mouser Electronics, a subsidiary of TTI Inc., is part of Warren Buffett's Berkshire Hathaway family of companies. It is an award-winning, authorized semiconductor and electronic component distributor focused on the rapid introduction of new products and technologies to electronic design engineers and buyers. Mouser.com features more than 4 million products online from more than 500 manufacturers. Mouser publishes multiple catalogs per year to provide designers with up-to-date data on the components now available for the next generation of electronic devices. It ships globally to over 500,000 customers in 170 countries from its 492,000 sq ft state-of-the-art facility south of Dallas, Texas.

[mouser.com](http://mouser.com)



### NASA Tech Briefs

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*NASA Tech Briefs* is NASA's official magazine of new technology. Engineers and managers in industries ranging from automotive to biomed to aerospace and military rely on *NASA Tech Briefs* for design ideas they can apply at the front end of the product development cycle, when critical decisions are made on technologies, products, and vendors.

[techbriefs.com](http://techbriefs.com)



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[xilinx.com](http://xilinx.com)



### Automation World

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*Automation World* is the leading publication for professionals in manufacturing automation. Its unique editorial approach provides intelligence for the entire buying team—from management to IT to professionals on the plant floor—and is written by journalists who possess a keen understanding of today's manufacturing and business environments. Monthly editions feature successful implementations that maximize return on automation, news, products, and technology reports. *Automation World* also publishes two series as supplements: Industrial Ethernet and Packaging Automation. In addition to a monthly print magazine, *Automation World's* free apps, newsletters, website, podcasts, and frequent webcasts keep buyers and sellers connected. Contact us for advertising information and free subscriptions.

[automationworld.com](http://automationworld.com)



### Control Engineering

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Control Engineering is the leading media brand connecting the global industrial engineering audience through coverage of and education about automation, control, and instrumentation technologies.

[controleng.com](http://controleng.com)



### Cyth

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Cyth Systems is a leading integration and engineering firm specializing in the design and integration of automated test, machine vision, and embedded control systems. Cyth differentiates itself by creating purpose-built systems using 95 percent standard products as building blocks across hardware and software. This results in maintainable, flexible, and reliable solutions with reduced risk, schedules, and budgets.

[cyth.com](http://cyth.com)



### Desktop Engineering

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*Desktop Engineering* shows design engineering teams design, simulation, high-performance computing, and rapid prototyping technologies to help create innovations that bring better products to market.

[deskeng.com](http://deskeng.com)



### Evaluation Engineering

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*Evaluation Engineering* has published in-depth technical information for more than 50 years, delivering multimedia resources to test engineering professionals.

[evaluationengineering.com](http://evaluationengineering.com)



## Thank You for Attending NIWeek 2015

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As the past few days have shown, your passion for innovation is unrivaled and your willingness to learn and share new ideas is infectious. It's what makes NIWeek unique and it's why NI will continue to provide the tools you need to change our world for the better.


Let's carry this week's excitement and energy forward as we continue to work together in understanding how NI system design software and virtual instrumentation can help you work smarter, faster, and more cost-effectively.

We hope you further developed skills and learned more about the products, trends, and technologies that can help you maintain a competitive advantage. Most of all, we hope you had fun at NIWeek 2015 and enjoyed your stay in Austin, Texas.

Be sure to view presentations and demos that you may have missed during the conference at [ni.com/niweekcommunity](http://ni.com/niweekcommunity).

Visit [ni.com/niweek](http://ni.com/niweek) before March 31, 2016, to register for NIWeek 2016 and receive a \$600 USD discount for your company.

See you at NIWeek 2016 on August 2.




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