

ABB

INDUSTRY LEADER RECEIVES NEMA AWARD

At NEMA's 90th Annual Membership Meeting in Cleveland, Ohio, **Roger Daugherty, Ph.D.** of Baldor Electric Company, a member of the ABB Group, was awarded the Kite & Key Award from NEMA, the National Electrical Manufacturers Association in the U.S. This award recognizes industry leaders whose pioneering innovations epitomize the best in codes, standards and advocacy.

Daugherty, consulting engineer in Baldor's Advanced Development Technology Group, has been passionate about motors and their standards for most of his career. Since 1984, he has served on numerous committees, subcommittees, and working groups within the NEMA Motor and Generator Section, including chairman of the Medium Machine Subcommittee and chairman of the Technical Committee as it assumed responsibility for all machine types and sizes within the NEMA scope.

"Roger's strong presence representing the electric motor industry in technical and government circles helped not only strengthen the motor industry positions but also to raise the status of NEMA as a global authority for motor issues and policies," said Daniel Delaney, current chair of the Motor and Generator Section.

Daugherty was instrumental in the establishment of efficiency standards for energy-efficient induction motors, including the passing of the landmark Energy Policy Act of 1992. He then represented the NEMA Motor and Generator Section on all subsequent DOE motor rulemakings, including the Energy Independence and Security Act of 2007, the Small Motor Rule and Test Procedures in 2010, and the Integral Horsepower Motor Rule and Test Procedures in 2014. He has been influential in the continuous revision of NEMA MG 1 Motors and Generators and other NEMA standards and guides.

In addition to his work with NEMA, Daugherty has traveled throughout the world participating in the development of IEEE, IEC, CSA, and CANENA global motor standards and has been active in the revision of IEC standards relative to application in the U.S. (www.abb.com)



C&U Americas

RECEIVES 2016 SUPPLIER QUALITY AWARD

C & U Americas, LLC, the North American subsidiary of the C&U Group, recently received a 2016 Supplier Quality Award from Hitachi Automotive Systems México S.A. de C.V. Gilberto Figueroa, Hitachi Automotive Systems Mexico, SA de, C.V. chief operation officer, sanctioned the award to C&U Americas in recognition of exceptional quality and continuous improvement.



Tom Rouse, president of C & U Americas, accepted the award along with Mike Caldwell, quality manager and Victor Lopez, regional sales manager Mexico, during Hitachi's 7th Supplier Quality Day, which was held at the Hitachi Automotive Systems México facility in Toluca, MX.

Rouse noted, "It is a particular honor to receive Hitachi's 'Supplier Quality Award' because it recognizes and reinforces one of our key positions in the marketplace. At C&U Americas, we promise our customers 'World Class Quality' and this important award from Hitachi is a testament to our commitment and ability to deliver on that promise."

Hitachi Automotive Systems Mexico, S.A. de C.V., a part of Hitachi Automotive Systems' global operations, offers a broad range of products and services for the automotive industry. The company manufactures and markets automotive components that contribute to fuel efficiency, engine, and tire performance as well as heightened driver and passenger comfort, convenience, and enjoyment. (cubearing.com)

CTI

ANNOUNCES WINNERS OF YOUNG DRIVE EXPERTS AWARD

No fewer than three candidates won the 8th CTI Young Drive Experts Award at the 15th International CTI Symposium for Automotive Transmissions, HEV and EV Drives. First place overall went to Dr. Marco Denk (research associate at Bayreuth University), second place to Harald Kraus (head of the scientific team E-Mobility and Alternative Drives) and third place to Dr. Markus Bachinger (executive engineer at AVL List GmbH, Graz).

Denk won first place with his doctorate entitled "In Situ Monitoring of IGBT Performance Semiconductor Modules using Real-Time Rectifier Temperature Readings." This involved developing a smart drive switch element for the power electronics that not only activates and deactivates the

semiconductors, but for the first time can identify its operating load and age-related performance too — and store both on an EEPROM. To enable this, Denk developed a procedure that can be implemented on an industrial scale to measure the semiconductor's rectifier temperature. The measuring procedure was successfully implemented in a hybrid automotive transmission's inverter, and is the first functional, series-production enabled solution for identifying the load status of a non-modified power module.

Kraus won second place for developing an operation strategy for plug-in hybrid electric vehicles based on previous vehicle and driver data. He presented an intelligent Energy Management Controller that can improve vehicle performance by maintaining the battery's energy level efficiently. This is claimed to yield fuel savings of up to 11.7 percent, and could also help to achieve future CO₂ targets: even high-performance automobiles (>200 kW) could approach 95g/CO₂ on average by 2020.



Due to higher version counts and the complexity of electrified drivetrains, together with rising demands in terms of shift quality, the automotive industry is focusing more strongly on model-based solutions. Until now, no generic approaches were known for releasing fixed sample steps for multiple interacting friction elements. Bachinger won third place with his approach for the generic modelling of transmission topologies with multiple coupled friction elements. In addition to general usability, the core of this approach is the release for the discontinuously occurring friction fit. The generic approach also provides the basis for a status and input disturbance monitor that is based on a single monitoring feedback matrix, despite the system's shift character. (www.transmission-symposium.com)

Rocky Mountain Technologies

State of the Art Custom Design and Consulting Services

Where Innovation and Solutions Meet

- We Deliver Custom Motors and Drives
- We Design Your Custom Motors and Drives
- We Assist with In-House Design and Consulting
- Prototyping, Pre-Production, Product Performance
- Strategic Partners Volume Sourcing



(406) 552-4260

sales@rockymountaintechnologies.com

Rocky Mountain Technologies, P.O. Box 210, Basin, MT 59631

BEYTA GEAR SERVICE

**PUTTING
A LIFETIME**

OF

**GEAR
DESIGN**

EXPERIENCE

TO WORK FOR YOU

- Reverse engineering
- Gearbox upgrades
- Custom gearbox design
- Specification development
- Project management
- Vendor qualification
- Design reviews
- Bid evaluations
- Tooling design
- Customized gear training
- Equipment evaluation
- Custom machine design

Charles D. Schultz
chuck@beytagear.com
[630] 209-1652

www.beytagear.com

Gates Corp.

ANNOUNCES 2016 TOOLS FOR SCHOOLS/ASE INSTRUCTOR OF THE YEAR

Gates Corporation and the National Institute for Automotive Service (ASE) has announced that Dan Rowland of Hesperia, California is the 2016 Gates Tools for Schools/ASE Instructor of the Year. Rowland is an instructor at Victor Valley Com-



munity College in Victorville, California. Rowland bested thousands of ASE technicians who competed for top honors within this category. He and other educators and technicians were honored by the ASE at the annual Fall Board Meeting. The purpose of the Tools for Schools program is to provide educators with supplemental educational materials from a global leader in the Automotive Aftermarket. (www.gates.com)

In-Tech

HIRES 100TH ASSOCIATE IN THE UNITED STATES

In-Tech recently announced that its center in Greer, South Carolina, just appointed its 100th associate. In 2013, the U.S. In-Tech affiliate started with just five associates. Since then, the company has grown tremendously. Initially, the business focused on the development of electronic components for the automotive industry. Step by step, In-Tech added expertise in the areas of mechanical and software engineering. Now, In-Tech accompanies numerous projects in the United States and abroad.



"We are very happy with our continuous growth and look forward to the coming projects, which will keep our 100 associates busy. Our business relies on friendly relations with all our associates. We made this our maxim when we estab-

lished the U.S. In-Tech affiliate company," said Christoph Schönmetzler, CEO of In-Tech Automotive Engineering.

The US domicile of In-Tech Automotive Engineering is located in downtown Greer, South Carolina. This puts the company right in the center of many automotive OEMs and their suppliers. Greer is also the direct port of call for automotive suppliers south-east of Greer. Offices in New Jersey and California complete the In-Tech network in the United States.

The 100th associate joining In-Tech in Greer represents a milestone and emphasizes both the company's employee-friendly culture and its taste for innovation. Associate Christopher Collins is a perfect fit: "I always wanted to contribute my expertise in automotive engineering at work. Therefore, I did not hesitate a moment to make my new home in a place 900 miles away and work for In-Tech."

In-Tech started in 2002 in Munich. Worldwide, more than 800 people have joined In-Tech as associates. In 2015, the company founded the affiliate enterprise In-Tech Industry and with it expanded its portfolio to Industry 4.0 solutions. Right now, In-Tech expertise and services are synonymous with smart machine parts, networked production facilities and intelligent building automation for customers in the fields of mechanical engineering, automotive engineering and the transportation industry. (www.in-tech.com)

ITAMCO

ATTENDS WHITE HOUSE EVENT

ITAMCO attended an event at the White House hosted by the National Economic Council on Wednesday, December 21. The function was held in recognition of the progress made by ITAMCO and other U.S. manufacturers in the Manufacturing USA program. Daniel Neidig, vice president, and Joel Neidig, business development and technology manager, represented ITAMCO at the event. "It was an honor for ITAMCO to be invited by President Obama's Chief of Staff, Denis McDonough, to participate in the emerging technology event held at the White House. Enhancing our industrial competitiveness through advanced manufacturing initiatives has always been an essential principal of the company's philosophy since its early beginnings over 60 years ago. Collaborating with various departments of the government and universities is a key strength of our organization. ITAMCO looks forward to being a stakeholder in Manufacturing USA and is excited to help solve industry-relevant manufacturing challenges in the future," said Daniel Neidig. (www.itmaco.com)



Miki Pulley

LAUNCHES 3D CAD PRODUCT DOWNLOADS ON WEBSITE

Now designers can select and configure the exact Miki coupling, brake and clutch solution for a particular application at the website below. The 3D model interface allows for an intuitive, faceted search so customers can find a solution quickly.

To select the correct product, the system designer simply enters the product type. The search will provide varying degrees of performance criteria, sizes, bore configurations, voltage, etc. Each selection made by the designer will shorten and narrow the list. Once the exact model, size and configuration is shown, it can be downloaded in most CAD formats for importing into the designers' drawing.



No more modifying a generic one-size-fits-all drawing, Miki-Pulley will give the designer the exact drawing of what is needed for correct system operation.

"Miki Pulley product downloads have proven extremely helpful to design engineers when configuring a system because of the precision detail they provide," reports Jon Davidson, Miki Pulley product specialist. "For example, when searching for the correct coupling to use in a system, Miki Pulley downloads provide exact bore and keyway sizes. This allows the system designer to import the CAD model into a full assembly drawing with complete accuracy as to the coupling's size, fit and performance capabilities. It shortens the design cycle."

The Miki Pulley 3D model interface operates with all popular browsers including Internet Explorer, Firefox and Google Chrome. The website interface will facilitate a design engineer's evaluation and navigation to a product solution. Additional site features include: PDF catalog downloads, complete product listing, examples of industries served. (www.mikipulley-us.com)

Hansford Sensors

PUBLISHES WHITE PAPER ON EARLY BEARING FAILURE DETECTION

Hansford Sensors, a manufacturer of vibration monitoring equipment, has published a new white paper that reveals how to use envelope signal processing to pinpoint bearing failure at an early stage. The new white paper is a must read for engineers looking to minimize the risk of machine damage and failure.

Vibration analysis has become a popular method for discovering wear and damage to rotating components in machinery, but sometimes the identifying signal is drowned out in all the other noise produced by a machine. Acceleration enveloping allows maintenance teams to overcome this challenge and pinpoint potentially costly problems as early as possible.



The new white paper, which is titled, "Acceleration Enveloping to Detect Bearing Damage," explores the relatively unknown acceleration enveloping technique in new depth. It explains the important role it has to play in today's manufacturing and process environments and describes how it works. It also provides an example of the process in application, helping readers to gain a better understanding of the technique in practice.

"Catching bearing defects as early as possible is essential if manufacturers are to stop them developing into more serious problems. One way of achieving this is to implement the acceleration enveloping technique," explained Chris Hansford, managing director of Hansford Sensors. "Our new white paper provides maintenance and servicing teams with all of the information they require to fully understand this technique." (www.hansfordsensors.com)