

# THE ELECTRIC TIMES

SERVING THE ELECTRICAL INDUSTRY IN ARIZONA

VOLUME 21, NUMBER 3

www.TheElectricTimes.com

DECEMBER 2013

## Construction Career Days draws record attendees

**Alan M. Petrillo**  
Electric Times

The Arizona Construction Career Days held Nov. 7 and 8 at the Army National Guard, Papago Site on McDowell Road in Phoenix, drew a record number of students, adults, schools and exhibitors, according to the organizer of the event.

Rose Ann Canizales, president of the non-profit Association for Construction Career Development (ACCD), which sponsors the Arizona Construction Career Days, said the event tallied a total of 1,520 students for two days, representing 88 high schools from around the state. A total of 253 adults also attended and 50 exhibitors displayed their goods and services during the two days.

Canizales said she was pleased with the turnout of students and schools, which was an increase of 420 students and 23 high schools over the 2012 Construction Career Day figures. High school sophomores, juniors and seniors are the targeted audience for the event, Canizales pointed out.

Encouraging a new generation to enter into the construction industry is one of the chief goals of the Career Days, she noted.

“By attending the Construction Career Days, the students can get a feel for the vari-

ous trades and can consider all the facets that an education in a construction field would offer,” she said. “That might be an apprenticeship program, or a two-year or four-year college curriculum.”

Canizales noted that the success of the current and past Construction Career Days have been due to the participation of partners in the events.

***Fifty companies and organizations participated in the Arizona Construction Career Days as exhibitors, including utilities, contracting companies, subcontractors, union locals, colleges and educational institutions.***

“No one entity can solve the shortage of qualified workers in the trades,” she said. “We were very pleased to have as our partners the Arizona Department of Transportation, federal Department of Transportation, the U.S. Army National Guard and the Arizona Department of Education.”

The Career Days kicked off with a VIP reception where keynote presentations were



This year's Construction Career Days was attended by 1,520 students.

made by John Huppenthal, Arizona State Superintendent of Public Instruction; Vivienne Lattibeaudiere, PhD, manager of the Arizona Department of Transportation's Business Engagement and Compliance Office; Arizona State Senate President Andy Biggs; and Brig. Gen. Michael T. McGuire, Adjunct General, Arizona, U.S. Army National Guard.

Career Days featured a new event this year—a luncheon for school counselors from around the state. At that time, Dan Brown, deputy superintendent of the Arizona Department of Education spoke to the group, as did Sapna Gupta, senior policy analyst for the Morrison Institute for Public Policy at Arizona State University.

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## Cook joins ELA education program as new instructor

**Alan M. Petrillo**  
Electric Times

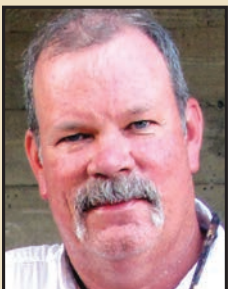
Mark Cook, owner of Trinity Power & Electric Inc. in Fountain Hills, is a new instructor for the Electric League of Arizona (ELA) educational program.

Cook, who has been in the electrical trade since 1978, currently is teaching 10 students in ELA's grounding and bonding course. He anticipates teaching a course on the electrical code next year for ELA. Cook also teaches 28 students in their first year of apprenticeship through the Independent Electrical Contractors (IEC) of Arizona.

“I think it is important to encourage continuing education for people working in

the field,” Cook said. “In my classes, I have some guys who have a couple of weeks in the field and those with eight to 10 years of experience. I believe it's important to arm yourself not only with hand tools, but also with books and reference manuals in order to do your job better.”

Cook was introduced to electrical work when he was a junior in high school and two years after he graduated, he got a job with an electrical contracting company in northern Virginia.



Cook

Ultimately Cook received his journeyman's ticket in Florida, where an electrician had to be certified in every county he wanted to work in.

***Cook said he specializes in commercial and residential service work, from low voltage landscape lighting to custom home work and medium sized tenant improvements.***

“I moved to Scottsdale in 1990 and first worked for Hatfield Electric,” Cook pointed out. “My more than four years in the

trade in Florida got me journeyman status here. In 1994 I started my own business in Scottsdale, and then moved the business to Fountain Hills.”

Cook said he specializes in commercial and residential service work, from low voltage landscape lighting to custom home work and medium sized tenant improvements.

“I got involved with the IEC of Arizona on the apprenticeship committee in the early 1990s and they asked me to teach,” Cook observed. “I was their first paid instructor from 1992 to 1994 and taught all four apprenticeship years in one week with about five students per class. Back then, I

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# Room occupancy sensors gain notoriety, offer rebates

**Jayne Cook**  
**Electric Times**

Researchers at the Department of Energy's Pacific Northwest National Laboratory, located in Richland, WA, released a report in August this year that has pushed HVAC occupancy sensors into the industry limelight. The report, based on simulations of the effectiveness of an advanced building "capable of customizing the level of ventilation by sensing the number of people in different areas or zones of a building and then adjusting fan speed and air movement accordingly," according to the Pacific Northwest National Laboratory report.

"An 18-percent boost in building energy efficiency by modifying a single factor is very, very good," said team leader Michael Brambley. "The savings were much greater than we expected."

The new occupancy sensor design is a departure from the way most sensor-based ventilation systems operate. Currently, if the sensors are unable to distinguish how many occupants are in a room, so a room with a single person receives the same degree of ventilation as a room that is full does.

"This is the reason you often feel cold when you're in a big space like a conference

room or cafeteria without a lot of people," said engineer Guopeng Liu, the lead author of the report. "Technology available today doesn't detect how many people are in a room, and so airflow is at maximum capacity nearly constantly. That creates a big demand to re-heat the air before it enters the rooms. It takes a lot of energy to keep you comfortable under those circumstances."

The findings of the Pacific Northwest Laboratory have spawned new interest in sensor occupancy, in both the electric and HVAC industries.

Stephen Miller of Miller Brothers Electric, said that room occupancy sensors have been largely used in Arizona for some time.

"There are two different prominent options, motion and heat," said Miller. "We've installed the motion sensors. They are popular in closets and bathrooms, and they are pretty simple to install. It just takes the place of a regular switch and it takes about two minutes to program, to determine how long you want the sensor to stay on for."

"At the commercial level, there are rebates for clients. The way the rebates work is that the switch that the sensor works has to control 100 watts of light for a rebate to be established, the typical cost of the motion sensors range from

9.99 up to 45.00, the rebate that SRP gives is 40 dollars towards the material and labor to install them," he added.

Rich Morgan, president of Phoenix-based Magic Touch Mechanical also has had positive experiences with HVAC sensors, and said there are multiple types, and agrees they are most commonly used in commercial settings.

"There are Carbon Dioxide sensors, ambient light sensors, motion sensors, and more. For the most part occupancy sensors are typically seen and most useful in commercial applications," said Morgan.

"For example, we have a large commercial client with a mixed use property, with a reception hall, bar and restaurant, offices, and other areas. We recommend occupancy sensors in larger rooms like the reception hall as there are multiple days during the week where the room is completely unoccupied. But say they have a wedding reception and the room has 200 people in it. Obviously you need to use a lot more of the HVAC load to keep that area comfortable, in that case we recommend carbon dioxide sensors which would detect a large number of people in a room."

Morgan also said that he has seen heightened interest in sensors even in residences and private homes.

"On a residential side, we are starting to see a greater entry into this market. For example, the NEST thermostat uses a combination of these sensors to optimize performance and efficiency. We have also seen Honeywell, Lennox and Ecobee moving into these features for residential use. With the emergence of the Wi-Fi capable thermostat residential clients can now control their thermostats from anywhere so long as they have an internet connection and we are seeing a greater demand for them. We sell a lot of them," Morgan emphasized.

"Now we are able to receive alerts, view trends, and a lot more. In fact we have a few NEST thermostats in our offices and have been able to reduce our utility costs by utilizing these features, so we can practice what we preach," he said.

Researchers at the Department of Energy's Pacific Northwest National Laboratory team found that advanced controls for ventilation offer about eight times as much savings as advanced controls for lighting, where lights are turned off more quickly than is now common after everyone leaves a room. When the HVAC system alone is considered, the advanced controls cut energy usage by nearly 40 percent.

## IDEAL promotes Terry Stevens to vice president of sales for North American electrical division

**Sycamore, Ill.** – IDEAL Industries on Nov. 21 announced the promotion of Terry Stevens to vice president of sales for its North American electrical division. Stevens replaces Joe Saganowich who was recently appointed vice president/general manager of IDEAL subsidiary, SK Hand Tool.

A seasoned executive with over 20 years of sales and senior management experience, Stevens will be responsible for managing the North American Electrical Division sales organization, its National Accounts, as well as its Customer Service department.

"As Joe leaves the Electrical Group and moves into his new role at SK, it is essential that we continue the focus and momentum of our sales organization," said Nick Shkordoff, group vice president, North American electrical division. "I have full confidence that Terry's substantial capabilities and experience in the electrical channel qualifies her as the right person for this leadership position. I look forward to working with her to continue to increase our market reach and elevate the impact of our sales programs."

Prior to this appointment, Stevens served

as the company's senior sales manager for the Central Region, a position she held for the past five years. Before joining IDEAL in 2007, Stevens served as national sales manager-consumer products and Great Lakes area manager at Osram Sylvania.

The IDEAL Electrical Division carries such tools and supplies for electrician needs as WireNut wire connectors, Tuff-Grip fish tapes, Yellow 77 wire pulling lubricants, T-Stripper wire strippers, and Twist-A-Nut screwdrivers and a comprehensive family of test and measurement instruments.

## ACCD

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Students attending the event got to spend two days at work in the construction industry participating in real life work applications. Hands-on demonstrations included building brick walls, CADD, a pipe design and build contest, cement mixing and setting, constructing a toolbox, estimating projects, designing and building projects, plumbing projects, pipe fitting and operating heavy equipment under the instruction of a professional operating engineer.


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