



CONNECTIONS

Western Ohio Chapter • National Electrical Contractors Association



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April, 2008

Electrician's job fair

Union electrical contractors have been responsible for building the infrastructure of our country. This includes manufacturing facilities (GM); hospitals (Miami Valley); government entities (WPAFB); universities (University of Dayton); municipalities (Schuster Center); and utilities (wastewater treatment facilities). These large projects require the expertise of dozens of well-trained electricians; International Brotherhood of Electrical Workers (IBEW) electricians.

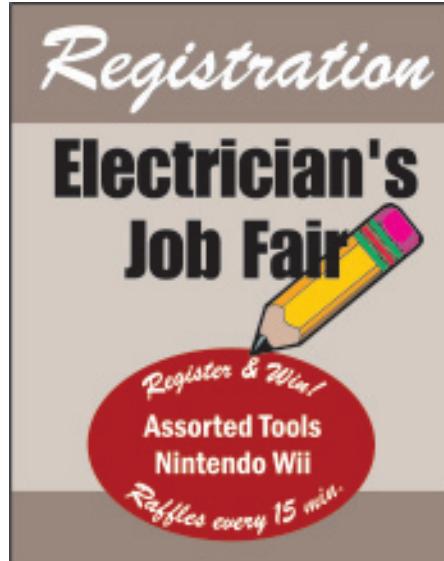
There are other types of smaller projects like restaurants, small office buildings, and retail outlets, that have not traditionally

been targeted by union contractors. In an effort to become more competitive, IBEW Local 82 and the National Electrical Contractors Association (NECA) Western Ohio Chapter recently held an Electrician's Job Fair to recruit new workers. The Job Fair was held at the Holiday Inn Dayton Mall on April 3. Sponsored by the Western Ohio Chapter NECA and IBEW Local 82, ten area contractors attended in order to interview potential recruits: ESI Electrical Contractors; Chapel

Electric; Chapel-Romanoff Technologies (CRT); Kastle Electric; Freedom Electrical Contractors; Studebaker

Contracting (Springfield); Dynamic Mechanical Systems (Cincinnati), and DeBra-Kuempel (Cincinnati). Several IBEW Local members from across the state also participated. It was a successful affair, complete with tool raffles, beverages and appetizers. Although the turnout was less than anticipated, Local 82 has since received 40 phone calls from candidates unable to attend the event. Several applicants have been hired and today are making a higher wage and are on the path to better training and increased benefits!

Another Job Fair is scheduled for September 17. If you are interested in working as an electrician, please contact Organizer Mike Evans at IBEW Local 82, 937-898-4239.



Electric; Reliable Electrical Mechanical; K & W

Survival of the fittest

Educator and Author Mark Breslin, was in town recently to address over five hundred Ironworkers with a plan for capturing more market share. He is no stranger to the union trades. The IBEW adopted a "Code of Excellence" based on suggestions by Breslin's work that addresses the need to change Attitudes, Skills and Behavior in order to survive in today's competitive economy.

Mr. Breslin spoke with overwhelming enthusiasm, despite lost luggage and one hour of sleep. He discussed the need to re-haul the business model traditionally found in

management/labor organizations in order to focus on solutions, and not problems. Mr. Breslin



Author Mark Breslin speaks at Dayton Convention Center.

directed a large portion of his presentation toward the rank and file, particularly Journeymen and Foremen, and the role they

must play in mentoring apprentices...for they are the future leaders of the union.

Mr. Breslin discussed the benefits of unionized

construction and the need to parlay those benefits into winning over customers. In the consumer world, top brands must compete on value versus price. And most people really do buy on value, quality, and reliability. For

example, people buy name brand products like Dell, Adidas, and Carhartt, not because they are the cheapest, but because they

provide the best value for the money. Mr. Breslin encouraged the audience to "market" their performance with the same values: a quality product delivered professionally, drug free, and on-time to meet customer expectations.

Adopting a "Code of Excellence" benefits both labor and management to grow market share and improve field performance.

Author of several books, Mark Breslin is a nationally recognized speaker, trainer and strategist specializing in market share strategies for labor and management across the United States and Canada.

Teledata systems

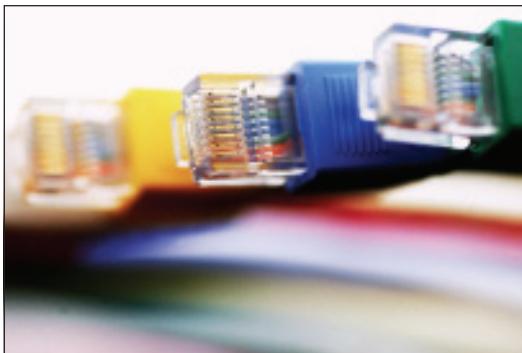
The technology of communications systems evolves every year. With the Internet, email, LANs/WANs and wireless satellite technology, we can be in touch with anyone in the world in a matter of seconds. Coupled with the high demand for security systems in our country, it made sense for the electrical industry to establish an apprenticeship training program to produce the technicians required to meet these needs. Four years ago, the Electrical Training Center in Dayton (Joint Apprenticeship Training Committee, JATC) did just that.

In May, 2007 the first class of five graduated. At present, there are eleven in the first year class, six in the

second year class, and two in the third year class, which will graduate this May.

The Teledata Installer Technician apprenticeship is a three year training program. In general, the Installer Technicians design, install and maintain systems that are placed permanently, as opposed to being portable. While Installer Technicians make use of a home or building's 120V AC power to activate control panels, audio and video sources, and signal amplifiers,

their work focuses on the distribution of low-voltage signals among microprocessor-based devices and controls.



The types of systems they work on are:

- Entertainment (audio, video, multimedia and home and corporate theater)
- Communications (telephone, fax, modem, internet, local area

networks, paging, intercoms, and public address systems)

- Life safety (access control, burglar and fire alarms, video surveillance and nurse call)
- Control of indoor, outdoor and specialty lighting
- Control of heating, ventilation, and air conditioning (HVAC) and energy management
- Other forms of home and building security, control and automation.

The work accomplished by these dedicated technicians seems staggering when you look at the miles of cable that must be installed. For example, at the new Atrium Medical Center in Middletown, Kastle Technologies installed: Two million feet of CAT 6 data cable to support the high speed data requirements; three hundred

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Safety on the job

According to the U.S. Department of Labor, construction fatalities increased 2.6 percent in 2006 to 1,226 from 1,192 in 2005. The Occupational Safety and Health Administration (OSHA) estimates that of the 350 electrical-related fatalities in that period, 143 were construction workers. More than half of the electrocutions suffered by electrical workers involved direct or indirect contact with live electrical equipment, indicating that proper lockout/tagout and de-

energizing procedures could have saved lives.

Many injuries can be avoided with awareness of the following hazards:

Contact with power lines. Overhead and underground power lines are hazardous because they carry extremely high voltage. Electrocution is the main risk. However, burns and falls associated with a shock are common. Always assume power lines are energized unless specifically informed otherwise.

Lack of ground-fault protection. Normal use of electrical equipment at job sites causes wear and tear that results in insulation breaks, short-circuits and exposed wires. The use of ground-fault circuit interrupters (GFCIs) can prevent potential injury created by these hazards. All equipment should be visually inspected before use. Any

equipment with frayed cords, missing ground prongs or cracked tool casings should be tagged and removed from service immediately.

Path to ground missing or broken. Fault current can travel through a worker's body, causing electrical burns or death if the power supply is not grounded or the path has been broken. Although the electrical system may be properly grounded, it also is necessary for all equipment to be grounded. By grounding all power supply systems, electrical circuits, and electrical equipment, and frequently inspecting electrical systems to ensure the path to ground is continuous, such hazards can be avoided.

Equipment used incorrectly. Any time electrical equipment is used in ways for which it is not designed, you cannot depend on manufacturers' safety features. This may damage

your equipment and cause employee injuries. A simple modification could lead to death. For example, an employee was using an air compressor with a plug and an extension cord modified to fit a wall outlet for a common household clothes dryer (220V). While trying to unplug the compressor, he was electrocuted. Had he used the equipment as it had been manufactured, his death might have been avoided.

Improper use of cords. The normal use and wear and tear can cause flexible and extension cords to no longer be properly insulated or grounded. Employees must use extension cords that are the three-wire type and designed for hard or extra-hard use. Equipment should be unplugged by pulling on the plug, not the wire. As always, all cord should be inspected for signs of wear or fraying.

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April, 2008

Your comments, suggestions and questions are welcome! Contact the Western Ohio Chapter - NECA.

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The power of the knee

Amid the growing trend of research into harnessing kinetic energy, a device has surfaced that can capture energy from a person who is simply walking. Researchers at the Simon Fraser University in Burnaby, British Columbia, have developed a device that generates electrical power from the swing of a person's knee.

Max Donelan, a researcher on the project, says the device works on the theory that, with each step a person takes, the leg accelerates and decelerates. He compares it to the way some hybrid-electric cars produce electricity from braking. With one minute of walking, the device can power a cell phone for 10 minutes. Donelan cited other uses, such as powering a GPS locator, a motorized prosthetic joint or an implanted drug pump. However, the first use the researchers are aiming for is producing power for artificial limbs.

Automated Savings

According to the Associated Press, automation is a proven

topics

means for homeowners to conserve energy. With automated systems or smart meters, experts say homeowners can lower their power usage during peak times.

The International Consumer Electronics Show showcased a variety of systems at its conference in Las Vegas on January 7-10, 2008, including a \$2,500-plus home server that can transmit media feeds around the house and communicate with thermostats, light switches and alarms. Not long ago, systems that allowed people to control security, lights and entertainment devices with a single remote control were restricted to wealthy consumers. Today, these systems present an affordable means to conserve energy, especially when networked.

Water...electricity's best friend?

When thinking about a relationship between electricity and water, your first thought



probably isn't that electricity needs water. In a way, however, it does.

Much of the Southeastern United States has been in a drought, and the drop in water levels may force the closure of some nuclear plants later this year.

Of the 104 nuclear reactors in the United States, 24 are in severe drought areas. Twenty-two exist on the shores of lakes and rivers and use submerged intake pipes to draw the water they need to cool the reactors and condense steam after the water has turned the plant's turbines.

The area has been under a year-long dry spell, already, one reactor in Alabama briefly shut down over the summer of 2007. If conditions do not improve, water levels may drop below the minimums set by the Nuclear Regulatory Commission. This poses a danger because the water level can drop below the intake pipes, or the water can become too hot to effectively cool the reactors.

Teledata cont'd

sixty thousand feet of CAT 5e for the nurse call system; thirty three thousand feet of high pair count copper backbone to support special circuits; one hundred five thousand feet of high strand count multimode and singlemode fiber optic cable for high speed and large bandwidth applications; six hundred seventy five thousand feet of coax cable to support CATV/MATV applications; and over 30,000 copper terminations and 4,000 fiber optic terminations.

Chapel-Romanoff Technologies (CRT) recent projects include the Lima Tank Plant. This is a new, two-story command and control building, where CRT is installing voice/data/paging capabilities. They have also been working on a WPAFB, AFIT renovation. CRT installed a new hybrid fiber-optic backbone, multi-air copper and rework of existing RF distribution network between existing campus networks and new communication closets in this 130,000 sq. ft., three-story wing campus.

Moves, adds,

& changes

Several trends provide opportunities for electrical contractors: new advances in technology; changes in personnel and new deployment needs of a company's human resources; and the need to reduce energy consumption or cut costs to increase profitability.

Essentially, all these trends require retrofit moves, adds and changes (MAC) work.

MAC work runs the gamut from providing the required electrical and voice/data/video (VDV) outlets and

jacks to reconfiguring large swaths of space and moving great numbers of workstations at a time, to running phone service from the communications provider to workstations or other outlets.

MAC's on the traditional electrical side of the business, mostly defined as service work, still involve dealing with VDV devices and computer and telecommunication systems. The work primarily entails upgrading and servicing outlets, improving power distribution efficiency,

and providing reliable power quality for computer networks and other systems.

Electrical contractors that don't already have a dedicated division to handle MAC work might want to consider forming one and staffing it with the necessary expertise, so they can be prepared to fulfill the customer's MAC requirements even before the construction process is complete. Ninety percent of the time, the electrical contractor that performs the initial installation is chosen for the subsequent MAC work because the

company is already familiar with the building.

The MAC market in parts of the Mid-Atlantic has grown 50 percent in the last 18 to 30 months. Growth is expected to remain steady as companies expand, remodel or adopt new technologies, including wireless, all of which require adaptation of the existing infrastructure to accommodate the changes. No matter how tight the economy gets in terms of new construction, MAC work is always growing as companies change size and try to reduce costs and maximize the use of their space.



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Electrician's Job Fair, April 3, 2008



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Chapel Electric Company
Chapel-Romanoff Technologies
ESI Electrical Contractors
Freedom Electrical Contractors
High Voltage Maintenance
Kastle Electric Company
Kastle Technologies
Lake Erie Electric, Inc.
Maxwell Lightning Protection
Mutual Electric Company
Reliable Electrical Mechanical
Studebaker Electric
Wagner Industrial Electric
York Electric, Inc.

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Integrated Control Solutions
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Spurling Electric Co., Inc.
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