Northwest Iowa Community College’s Electrical Technology and Industrial and Commercial Wiring Students Win 2015 Fluke Connect® International Student Contest

The team from Northwest Iowa Community College has been chosen the winner of the Fluke Connect™ Student Contest, which tested the skills, innovation, and business application of student teams enrolled in two and four year colleges, universities, trade/tech schools, and apprenticeship programs.

The Northwest Iowa Community College team — students Tory Schmidt, Electrical Technology; Joel Groeneweg, Electrical Technology; Eric Bernier, Electrical Technology; Taylor Kruse, Industrial & Commercial Wiring; and Blake Odle, Industrial & Commercial Wiring all worked together to design a project to increase the efficiency of technicians and electricians when troubleshooting or performing preventive maintenance in ethanol production. Since they could not perform measurement in an actual ethanol plant, the team simulated the process control system of a diverter gate and distillation column used in grain handling during ethanol production. Their project demonstrated a significant improvement in troubleshooting and preventive maintenance as a result of capturing and sharing measurement data using the Fluke Connect system.

"The projects produced by the Northwest Iowa Community College team and the other finalists demonstrate how capturing and sharing measurements across team members using mobile technology can speed troubleshooting and improve maintenance practices," said Leah Friberg, education and public affairs manager for Fluke Corp. "We look forward to the Northwest Iowa team's visit at Fluke Park and using the feedback and learning from all the team projects in the continued development of Fluke Connect."

The winners of the Fluke Connect Student Contest were determined by which team made the biggest impact using the Fluke Connect system, with 75 percent of the decision based on the evaluation by the panel of six industry judges and 25 percent on the public vote on the Student Contest website.

The student team and their advisor receive a paid trip to Fluke headquarters in north Seattle in May to spend a day meeting with the Fluke executive and engineering leadership, tour Fluke engineering and manufacturing, and see the Boeing manufacturing facility and Future of Flight Aviation Center next door.

Odle commented on his experience, “It was an awesome experience – life changing. It has given me a lot of confidence. I know the tech, but we also had to give a large presentation and now I know I will be able to do something like that in the future. I have never been to that part of the country, so this was all new for me. I like meeting new people and seeing
their stories. I never thought we would win. It made me really proud to represent NCC and Iowa.”

Kruse added, “I thought Mark was joking when he told us we won. When I realized he wasn’t joking, I was very proud! I will keep this with me for the rest of my life.”

When they toured the Fluke plant Kruse really liked the thermal imaging technology they saw, “It can show you exactly where the hot spots are on bearings in a motor or a junction box - there are a lot of applications.”

Mark Bohnet, NCC Electrical Instructor and team Advisor said, “I was very excited and proud of the students. It’s really nice to see people who put forth an effort get rewarded. This was a group of really self-motivated individuals who worked really well with other programs on campus to get their project done. This was a great education for them in leadership and management skills they will need in the workforce.”

Bohnet continued, “The students winning speaks volumes to the quality of the education we provide at NCC. This is the second year Fluke has held this contest and last year the University of Kentucky won. The students were competing against the best in the country. The Fluke representatives said they were really impressed with the depth of knowledge that our students presented.”

The students not only won a paid trip to Fluke headquarters NCC’s Electrical Department receives $1,000 worth of Fluke tools, and the Fluke Connect tools used in the contest submission, worth approximately $2,500.

**Project: Preventive Maintenance and Electrical Safety Practice/Improvements**

Team Members: Tory Schmidt, West Bend, Iowa; Joel Groeneweg, Orange City, Iowa; Eric Bernier, Hartley, Iowa; Taylor Kruse, Little Rock, Iowa; and Blake Odle, Wapello, Iowa. Advisor: Mark Bohnet

NCC Project Synopsis:
NCC’s project idea revolves around the ethanol industry. This industry employs Industrial Electricians, Electrical Technicians, and Instrumentation Technicians, just to name a few. This industry also utilizes a variety of control equipment, some discrete and some analog, all of which will need to be maintained, updated, and loops that will need troubleshooting. In our project, the Electrical Technician plans on troubleshooting a diverter gate which is used in the grain handing system. We also plan on having the Industrial Electrician troubleshoot a hammer mill, which is a piece of equipment used to pulverize the corn. The Instrumentation Technician will troubleshoot a distillation column, which is having trouble maintaining a temperature. We feel in these three scenarios that we could demonstrate using the Fluke Connect® equipment to measure discrete signals and analog signals commonly found in process control loops.

**About NCC’s Electrical Programs**
The Electrical Technology program is a great fit for those who wish to combine electrical wiring skills with industrial electronic fundamentals. Building on the Industrial and Commercial Wiring program, students develop additional skills in industrial controls and will use the latest technologies for electronic motor drives, and plant automation. Further
studies include electrical control of temperature, pressure and liquid flow. Upon completion of the Electrical Technology program, graduates are fully prepared to enter today’s competitive job market.

Our graduates have found success as plant maintenance electricians and managers. Job opportunities may also be found in residential, commercial and industrial construction wiring. This program is one-of-a-kind in Iowa. Graduates receive an Advanced Standing AAS degree. Earning potentials are $22.50 per hour. Advancement opportunities include supervisor and plant manager.

About Fluke
Founded in 1948, Fluke Corporation is the world leader in compact, professional electronic test tools. Fluke customers are technicians, engineers, electricians, and metrologists who install, troubleshoot and manage industrial, electrical and electronic equipment and calibration processes.

Quick facts about NCC:
- 3rd Best Online College in America for 2015 - BestColleges.com
- 7th in the nation for Graduate Success - CNNMoney.com
- Top 150 Best Community Colleges in the Nation (4 years in a row) - Aspen Institute
- Highest Graduation/Transfer Rate – CollegeMeasures.com
- 11th Best Community College in the Nation – TheBestSchools.com
- 15th Best Community College in the Nation - Createacreer.com
- Safest College in Iowa – StateUniversity.com

To receive your free copy of the NCC Viewbook or schedule a campus visit, contact the Admissions office at studentservices@nwicc.edu, call 712-324-5061, 800-352-4907. Or visit our website at nwicc.edu. Northwest Iowa Community College – Your Success is Our Story! Proudly celebrating 50 years of service to our communities in 2016!

Photo: Hands-on thermography training for the Fluke Connect Student Contest Winners from Northwest Iowa Community College