

MONROE COUNTY COMMUNITY COLLEGE

# TECH UPDATE

NEWS FROM THE INDUSTRIAL  
TECHNOLOGY DIVISION

[www.monroeccc.edu](http://www.monroeccc.edu)

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# Site Work Begins On Career Technology Center

The Career Technology Center is being designed to support the delivery of instruction necessary for developing the skill set required by high-demand, high-skill jobs.





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## CAREER TECHNOLOGY CENTER UPDATE

# Site Work Begins On Career Technology Center; Groundbreaking Planned for Spring

Site work began during the fall on the Career Technology Center, which included the closure of a portion of Monroe County Community College's main access road between the Gerald Welch Health Education Building and the Life Sciences Building.

The road will be permanently realigned to accommodate the footprint of the new building.

An official groundbreaking ceremony for the Career Technology Center is planned for spring with anticipated completion in fall 2013.

The Career Technology Center is being designed to support the delivery of instruction necessary for developing the skill set required by high-demand, high-skill jobs both today and in the future. The center is intended to enhance job retention efforts in Monroe County by addressing industry-identified skills shortages in the region.

Recent reports estimate that 25,000 skilled workers will be needed nationwide in the nuclear industry, and conservative estimates project that

200,000 jobs will be created in the automotive sector in the region over the next five years. The Career Technology Center is designed to provide a ready pool of skilled workers to fill the jobs in these and other emerging sectors.

A combination of sustainable systems will be integrated into the design of the facility and incorporated into the curriculum. The building will serve as a learning laboratory for students in industrial technology fields.

The total construction cost for the 60,000-square foot facility is \$17 million. The state of Michigan will finance half the cost of construction. The college's Board of Trustees voted to match the other half required to accept the state's contribution out of college reserves until funding could be raised. The Career Technology Center Capital Campaign, similar to the capital campaign in 2003 to support the construction and operation of the La-Z-Boy Center, will be organized by The Foundation at Monroe County Community College.

*Architectural rendering of the  
Career Technology Center.*



### **REALIZING THE VISION** POWERING THE WORKFORCE OF TOMORROW

For more information on the Career Technology Center at Monroe County Community College, including ways to support the new facility, visit [www.monroeccc.edu/ctc](http://www.monroeccc.edu/ctc).



# MCCC Offers New Paths into RENEWABLE ENERGY CAREERS

MCCC is offering new paths into careers in the field of renewable energy.

These include individual specialty classes for the small business owner or skilled tradesperson wishing to add specific skills to an existing business or career and certificates in wind energy and solar energy showing basic, entry-level knowledge. A formal two-year associate of applied science degree in electronics with a specialization in renewable energy is planned for the near future.

According to Clifton Brown, assistant professor of renewable energy, jobs in this field require special knowledge and training that is just becoming available because the industry is so new and continues to evolve so rapidly. The job market is made up of both large multi-national companies that typically require apprenticeships or formal degrees, as well as a significant number of smaller family-owned and operated businesses and service providers. These smaller contractors represent opportunities for people who have acquired the proper skills to find useful work at reasonable pay.

For more information on the renewable energy curriculum at MCCC, go to [www.monroeccc.edu/industrial/renewableenergy.htm](http://www.monroeccc.edu/industrial/renewableenergy.htm), or e-mail Brown at [cwbrown@monroeccc.edu](mailto:cwbrown@monroeccc.edu). These programs require admission to MCCC, and prospective students can apply online at [www.monroeccc.edu/forms/online\\_application.aspx](http://www.monroeccc.edu/forms/online_application.aspx).



# EXPLORING CAREERS IN INDUSTRIAL TECHNOLOGY

Prospective students and their families who attended the recent X-TECH open house got a hands-on sampling of what it's really like to study and work in industrial technology fields

Faculty and staff showcased the Industrial Technology Division's programs and offered college and career advice. Attendees also had the opportunity to meet with bricklayers and masonry apprentices, as well as representatives from DTE Energy and Hexagon Metrology. Officials from Eastern Michigan University, Lawrence Technological University and Siena Heights University were on hand to discuss transfer opportunities.



*Alex Babycz, assistant professor of construction management technology, illustrates construction cost estimating software to an X-TECH attendee.*

**Associate degree and certificate programs offered by MCCC's Industrial Technology Division include:**

## ASSOCIATE DEGREE PROGRAMS

- Automotive Engineering Technology
- Construction Management Technology
- Electronics and Computer Technology
- General Technology
- Industrial Electricity/Electronics Technology
- Industrial Management – Plant
- Mechanical Design Technology
- Mechanical Engineering Technology
- Metrology Technology
- Nuclear Engineering Technology
- Product and Process Technology
- Quality Systems Technology
- Welding Technology

## CERTIFICATE PROGRAMS

- Automotive Engineering Technology (36 credits)
- Construction Management Technology (37 credits)
  - Heavy and Industrial Construction (31 credits)
  - Residential and Light Commercial Construction (37 credits)
- Mechanical Design Certificate (26 credits)
- Metrology Certificate (31 credits)
- Product and Process Technology
  - CAD/CAM Technician Certificate (17 credits)
  - CNC Technician (17 credits)
- Quality Systems Technology (25 credits)
  - Quality Technician – Basic (12 credits)
- Solar Energy (26 credits)
- Welding
  - Basic (15 credits)
  - Advanced (28 credits)
- Wind Energy (23 credits)

## IT Division Awarded Grant to Attend IMTS



SEPTEMBER 10-15, 2012  
CHICAGO, IL – MCCORMICK PLACE

In February, the Industrial Technology Division was awarded a \$1,500 Enhancement Grant from The Foundation at Monroe County

Community College to attend the [International Manufacturing Technology Show in Chicago](#), which will take place the fall 2012.

At the event, students and faculty from across various programs in the Industrial Technology Division –

accompanied by industry representatives – will have the opportunity to see and experience what would not be possible in a classroom setting.

If you are interested in attending IMTS with us, contact [calbring@monroeccc.edu](mailto:calbring@monroeccc.edu).

# Faculty, Staff and Students Tour Largest Wind Farm in Michigan; 80-foot Wind Tower Planned for MCCC Campus

The Industrial Technology Division faculty, staff and students toured the largest wind farm in Michigan over the winter.

The group saw more than 100 wind turbines in Gratiot County, and explored a turbine hub and blade operated by DTE Energy and Invenergy. A video of the visit is available online at <http://www.youtube.com/watch?v=RbPp16KBkx&feature=youtu.be>

MCCC plans to install an approximately 80-foot tall wind turbine this spring on the Main Campus that will be used for instructional use in the area of renewable energy. The turbine will be located to the east of the Gerald Welch Health Education Building.

The tower will be guyed in four directions at vertical intervals of approximately 20 feet. The wind turbine itself would be about 8 feet in diameter.



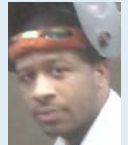
MCCC faculty, students and friends pose in front of a wind turbine blade at the largest wind farm in Michigan.

## MCCC Hosts Professional Society of Metrologists' Meeting

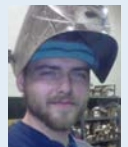
In the fall, the Industrial Technology Division hosted the National Conference of Standards Laboratories International Professional Society of Metrologists – Midwest Chapter meeting in MCCC's La-Z-Boy Building. At the meeting, approximately 35 local and regional industry representatives discussed various aspects of metrology and career opportunities in the field for MCCC students.

### Professional Development News

- Dr. Dean Kerste, professor of mechanical design technology, attended the Region 25 Career Technical Education Advisory Committee Meeting. He also attended a SolidWorks User Group Network Technical Summit in Detroit. The one-day user group event featured technical presentations by SolidWorks program managers and local experts. Two technical tracks included sessions on general SolidWorks functionality and specialty sessions on such topics as PhotoView360, PDMWorks and Simulation.
- Kerste reported that he received 31 inquiries from local employers throughout the Fall Semester from local employers looking to fill positions with mechanical design technology students. Employers were looking for students skilled in AutoCAD, SolidWorks and Catia software, all of which are part of the mechanical design technology curriculum at MCCC.
- The following former or current MCCC Industrial Technology students have secured employment in their fields: Kayla Beard, La-Z-Boy Inc., CAD technician; Jon Bullard, Tenneco, CAD Designer; Ashley Dart, La-Z-Boy Inc., CAD Technician; Omar Ferdin, La-Z-Boy Inc., CAD technician; Wayne Hood, La-Z-Boy Inc., CAD technician; Kyle Jansen, La-Z-Boy Inc., CAD Technician; Nathan Nusbaum, Connectronics Corp, CAD designer/detailer; Justin Olson, Inovate, CAD engineer; Mike Reaume, La-Z-Boy Inc., CAD Technician; Ben Stadler, La-Z-Boy Inc., CAD technician; Mathew Wardell, La-Z-Boy Inc., CAD technician; Ken Cole, PBF Energy, CAD technician; Joel Oerther, CAD Technician, Tenneco; Justin Zanger, Paladin Productions, MIG welder; Joel Church, Wade Trim, welder; Matt Smith, Fauceria, welder; Timothy Foster, Eagle Tugs, welder; Darcell Doles, RCO Engineering, welder; James Anteau, Watson Engineering, welder.



Darcell Doles



James Anteau



Former MCCC students on the job at La-Z-Boy as CAD technicians and designers. Front row, from left: Omar Ferdin, Kayla Beard, Ashley Dart and Ben Stadler. Back row, from left: Mike Reaume, Wayne Hood, Matt Wardell and Kyle Jansen.





*From left, welding students Merlin Case and Jacob Thomas cut a ceremonial “ribbon” to dedicate the new Welding Center for Expertise facility. The metal ribbon was designed by students in MCCC’s product and process technology program.*

# Ribbon Cut on New Welding Center at MCCC

In the fall, officials marked the opening of the MCCC Welding Center of Expertise, located in a newly renovated facility at 1004 West Hurd Rd. in Frenchtown Township.

A metal ribbon, fabricated by MCCC product and process technology student Curt Connor, was torch-cut to ceremonially mark the opening of the facility.

The building is the former site of Pump Engineering Inc. After moving to a new location, the company sought to repurpose the facility. Local architect Jim Jacobs connected the college with Pump Engineering Inc. officials after hearing a presentation about MCCC’s welding program at a Kiwanis Club of Monroe gathering.

In October 2010, the company decided to donate its 18,190 square foot factory to The Foundation at Monroe County Community College.

The college used part of a \$1.7 million U.S. Department of Labor Community-Based Job Training grant, awarded in 2009, to convert the building into a state of the art, cross-categorical welding skills laboratory. The remaining grant funds are being used by the college’s Industrial Technology Division to offer accelerated 10-week courses to prepare students for American Welding Society’s QC10 and QC11 certification. Both examinations are offered at MCCC.

The certifications qualify students for entry into advanced-level employment, self-employment and local welding labor unions.

For more information about the program, contact Joe Czapiewski, welding grant coordinator, at 734.384.4145 or [jczapiewski@monroeccc.edu](mailto:jczapiewski@monroeccc.edu). Prospective students can download application materials at [www.mcccweldcoe.org](http://www.mcccweldcoe.org).

## BABYCZ, COOMAR EXHIBIT AT CONSTRUCTION CAREER EXPO



In the fall, Alex Babycz, assistant professor of construction management technology, and Parmeswhar (Peter) Coomar, dean of the Industrial Technology Division, exhibited at MCCC’s booth at the JUST BUILD IT! Construction Career Expo at Eastern Michigan University’s Convocation Center. The event was sponsored by Washtenaw Contractors Association in conjunction with the Michigan Works! Association. More than 1,500 students were in attendance to explore and view demonstrations of construction career opportunities in the state of Michigan. Many skilled trade apprenticeship representatives were also on site, including industry professionals such as architects and engineers.

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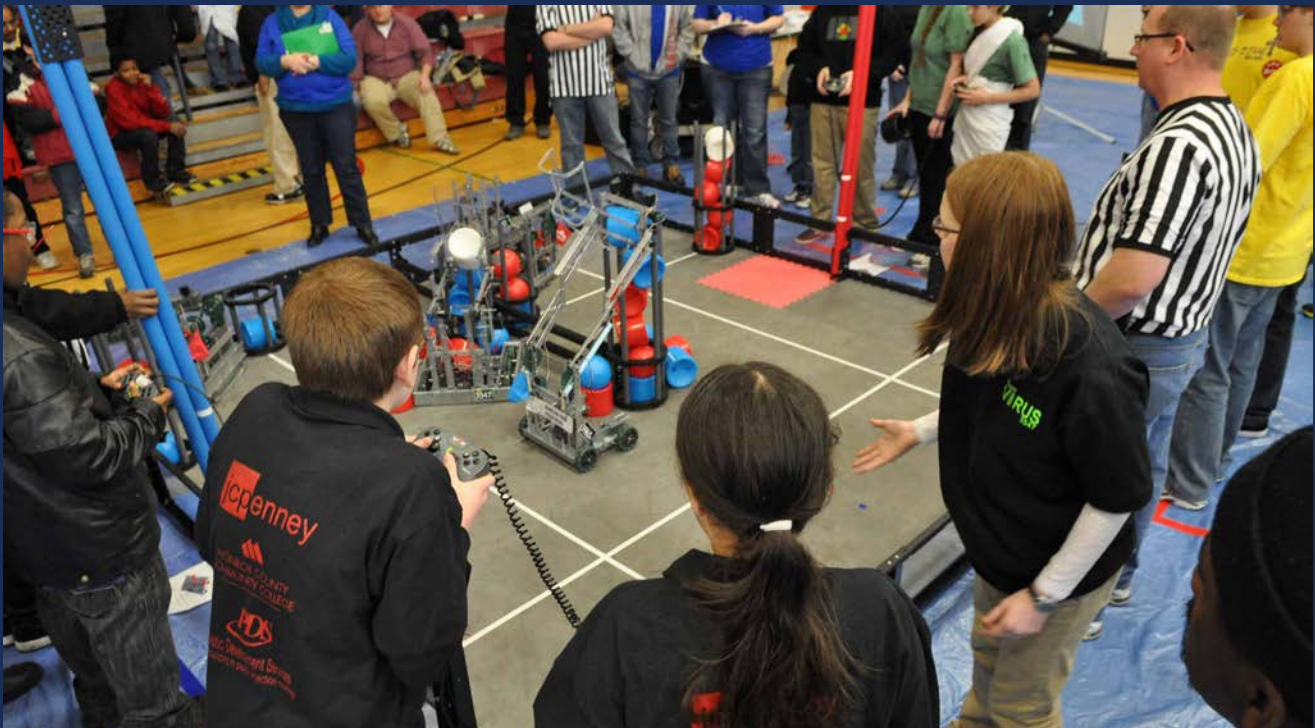
# MCCC HOSTS WORLD CHAMPIONSHIP-QUALIFYING ROBOTICS COMPETITION

MCCC's Society of Manufacturing Engineers Robotics Club hosted a world championship-qualifying high school robotics competition last month in the Gerald Welch Health Education Building.

The MCCC/Autodesk Technology First VEX qualifier was a VEX Robotics Competition event. Local VEX Robotics competitions are being held in many different cities, states and countries. At the events, student teams, with guidance from their teachers and mentors, aim to build the most innovative robots possible. This was the first time MCCC has hosted a VEX Robotics competition.

The VEX Robotics Design System offers students a platform for learning about areas rich with career opportunities that involve science, technology, engineering and math. Beyond science and engineering principles, a VEX Robotics project encourages teamwork, leadership and problem solving among groups and allows educators to easily customize projects to meet the level of students' abilities. The VEX platform is expanding rapidly and is now found in middle schools, high schools and university labs around the globe.

The competition featured teams from Monroe, Bloomfield Hills, Warren, Highland Park and Livonia. Monroe's entry was by the Technology First organization, and the team's name was "Virus."



*Members of the Monroe team, Virus, control their robot during VEX Robotics Competition event at MCCC last month.*





*Students in MCCC's product and process technology program display the sign they made for MCCC's new on campus vineyard, which is under development and being spearheaded by the culinary skills and management program. Paul Knollman, dean of the Business Division which oversees the culinary program, looks on.*

## MCCC Inks Product and Process Technology Program Transfer Agreement with EMU

MCCC and Eastern Michigan University have signed an articulation agreement that allows a product and process technology student at MCCC to transfer up to 101 credits towards a bachelor's degree at EMU.

Under the terms of the agreement, after completing the MCCC portion of the curriculum, a student can take as few as 39 credit hours at EMU and earn a bachelor of science in product design and development. Prior to that, the student would earn an associate of applied science in product and process technology from MCCC.

Students who major in product and process technology will be prepared for careers in the high-performance manufacturing of consumer goods. Bob Leonard, assistant professor of manufacturing technology, believes the

agreement benefits students by saving them money, offering advanced career opportunities and providing a simple system of transferring credits.

And although the word "manufacturing" might carry a negative connotation after the recent downsizing of the automobile industry, Leonard says that the industry is again on the rise in Michigan and across the country.

"Everything that you can think of has to be manufactured," he said. "People don't realize we're not just making cars and stamping out dies. This program is about the process and about the product. I'm getting calls now for CNC (computer numerical control) technicians. They need people that know the machines and the codes and can actually program the 'X, Y, and Z.'"



**MONROE COUNTY  
COMMUNITY COLLEGE**

enriching lives

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