

## From the Director ...

NCATC Friends and Colleagues,

NCATC had an amazingly successful year in 2012.

We have been working diligently over the last six months to coordinate our National Events for 2013 which will be NCATC's 25th Anniversary year. NCATC will celebrate by bringing all of our members even more value and benefits through our ATC network of technical expertise, sharing many more best and promising practices.

Mark your calendars for the 2013 Summer Workshop hosted by Ivy Tech Community College in Terre Haute, IN on June 12-14.

And, the NCATC 25th Anniversary Fall Conference will be in Panama City, FL, hosted by Gulf Coast State College on October 9-11. You DO NOT want to miss this one — mark your calendars now!

NCATC worked very closely with the American Association of Community Colleges (AACC) over the last 24 months and will continue to do so this year. We continue to align our mission, goals, and outcomes around three of the seven recommendations of the 21st Century Commission's Report released in 2012. Be sure to visit the NCATC booth and attend our featured sessions at the WDI Conference in San Diego in January and at the AACC Convention in San Francisco in April.

And, last but not least—check out our new, continuously updated website at [www.ncatc.org](http://www.ncatc.org). With Holly Rolf's diligence and hard work, NCATC continues to keep information current and fresh for our members.

NCATC now boasts 25 Strategic Partners that you can find more about under the "Strategic Partners" *tab* on our website. Please feel free to send us suggestions for improvements to our website and social media sites as we continue to evolve our communications support for all members.



I hope you all have a great start to 2013 and we look forward to serving you and seeing you at NCATC's two 25th Anniversary National Events later this year.

Craig

J. Craig McAtee  
NCATC Executive Director ◆



## Cuyahoga Opens Advanced Technology Training Center

Cuyahoga Community College (Tri-C®) hosted the grand opening celebration of the College's Advanced Technology Training Center (ATTC) on October 24, 2012. The 50,000-square-foot ATTC offers the latest state-of-the-art technology and curriculum in programs such as Robotics; Information Technology; Cisco Academy Support Center; Advanced Metals Joining and Nondestructive Testing; Construction Engineering Technology; and Preconstruction and Alternative Energy. The ATTC features high-bay labs, multi-purpose training areas, and an energy-efficient and naturally lighted environment for learning. Construction of the Center took place between March 2011 and August 2012.

The ATTC, combined with the College's Unified Technologies Center, is now the largest technology training complex in Ohio. The ATTC provides students with education, hands-on training, and employment preparation skills for well-paying jobs. Many of the programs offered take just 10-18 weeks to complete, providing employers with a constant feeder system of job-ready candidates for the in-demand high-tech industry.

Long-time NCATC member Susan Muha, executive vice president of the Workforce and Economic Development Division of Cuyahoga Community College, says "Some programs were moved to the ATTC and expanded and improved. Welding had been offered but now students can learn the skill in a large lab featuring 12 welding booths, a welding simulator, and a robotic welder. Nearly all the equipment was purchased from Lincoln Electric, which offered an NCATC Member/Strategic Partner discount and will provide some instructors, as well."

To learn more about programs at Tri-C's ATTC, contact Susan at [Susan.Muha@tri-c.edu](mailto:Susan.Muha@tri-c.edu). ◆

## President's Message



Welcome to the winter edition of the 2013 NCATC Newsletter. I am honored to serve as your organization's president this year and look forward to meeting many of you throughout the year.

2013 has special significance for NCATC as this year marks your organization's 25th year of enhancing economic and workforce development programs and services across the country through advanced technology solutions. Over the years, NCATC membership has continued to grow to encompass some of the best and brightest innovative thinkers throughout higher education.

Some twenty-five years ago a handful of colleges met in Dallas, TX to assemble a coalition to function as a network of mutual support to help community and technical colleges linked to advanced technology centers achieve their full potential. Today, I am proud to report that NCATC boasts more than 160 Full or Associate-Member Centers and includes a Strategic Partner Alliance of more than 25 of the country's leading technology-driven enterprises.

As American industry continues to adjust to its "new normal," NCATC is positioned to leverage some of the most innovative workforce development programming through our nationwide network of advanced technology expertise. NCATC member institutions continue to gain widespread attention as **the** solution for skill enhancement, with our goal to keep the American workforce the most productive, highest trained, and most highly educated in the world. This is critical if we are to maintain our competitive edge in the global economy.

Again this year, NCATC is well represented with policymakers at the national level. As an Affiliated Council of the American Association of Community Colleges, NCATC holds seats on the Commission on Economic and Workforce Development and the Commission on Emerging Trends, Research and Technology. Also, NCATC has direct representation on the Board of Directors of AACC. This gives our organization a unique advantage and clear insight for programmatic advocacy and policy alignment which directly benefits our members.

NCATC continues to enhance services for its member institutions and I encourage you to consider how NCATC's Member Assistance Program can support you in developing or revitalizing your ATC.

Finally, I want to extend a personal invitation to each member institution to join us at NCATC events throughout 2013. I especially want to invite you to **your** 25th anniversary celebration at NCATC's National Conference, October 9-11 in Panama City, FL. This is sure to be a grand event!

On behalf of the NCATC Board of Directors and the entire staff, thank you for your continued support and we look forward to an exciting year.

James Retka, Northland Community & Technical College  
2013 NCATC President ◆

## From the Fall 2012 Conference



## NCATC Member Colleges Selected as Bellwether Finalists

The Community College Futures Assembly recently announced the names of 30 community colleges as finalists for the 2013 Bellwether Award. Colleges were competitively chosen from nearly 250 applicants. Ten finalists were selected in three categories: Instructional Programs and Services; Planning, Governance and Finance; and Workforce Development. All finalists will present at the Assembly on January 28 in Orlando, Florida, and one winner will be selected from each category by a panel of national experts. NCATC congratulates the following member institutions who were among the 10 finalists in the Workforce Development category:

- Alamo Colleges
- Chattanooga State Community College
- Edmonds Community College
- Gateway Technical College
- Polk State College
- Sinclair Community College

The Bellwether Awards annually recognize outstanding and innovative programs and practices that are successfully leading community colleges into the future. ◆



**SAVE THE DATES:**

**NCATC** National Coalition of Advanced Technology Centers  
Celebrating 25 Years of Advanced Technology Expertise  
1988 - 2013

**2013 NATIONAL EVENTS**

**Summer Workshop**  
Partnerships for Progress  
Hosted by: Terre Haute, IN  
June 12-14, 2013  
Hosted by: IVY TECH COMMUNITY COLLEGE  
MADRAS VALLEY

**Fall Conference**  
25th Anniversary: Celebrating Advanced Technology Expertise, 1988-2013  
Hosted by: GULF COAST STATE COLLEGE  
Panama City, FL  
October 9-11, 2013  
Wyndham Bay Point Resort  
www.ncatc.org

# Mott CC's FABLAB Brings Entrepreneurship and Innovation to Life

By Tom Crampton, Mott Community College

Bring your ideas. Bring your imagination. Build your invention. Many people and small businesses have ideas for new or improved products but have a hard time accessing the tools needed to create functional, working models. However, the recent development of digital fabrication laboratories—FABLABs—may help alleviate that problem in the future.

The FABLAB concept originated at the Massachusetts Institute of Technology's (MIT) Center for Bits and Atoms. When MIT professor Neil Gershenfeld and his colleagues dreamed up the FABLAB concept in the late 1990s, (fueled by a popular MIT course titled "How to Make (Almost) Anything"), they saw it as a way to bring digital fabrication to the masses. Since that time they have worked tirelessly to promote and establish FABLABs around the globe.

Over the past 10 years, approximately 60 FABLABs have been opened at colleges, universities, museums, and community centers around the U.S. FABLABs are a dream-come-true for inventors of all ages—a hands-on laboratory that provides the technology and modern fabrication tools that let people build their own creations and products for personal or commercial use.

Mott Community College opened its FABLAB in January 2011 after visiting existing labs at Lorain County Community College, Fox Valley Technical College, and Lake Michigan College. Mott's FABLAB includes 3D solid



modeling software, rapid prototyping, a laser cutting and etching system, CNC routers and plasma cutters, CNC vinyl cutters, electronics workstation, and more. The college also leverages additional resources located at the Regional Technology Center on its main campus in Flint, Michigan. Mott is part of the U.S. FABLAB Network and the MIT FABLAB community which provides access to a network of FABLABs located across the globe.

FABLABs support innovation and entrepreneurship—both critical components of our nation's future. In that spirit, Mott uses the FABLAB in three major ways:

1. As a member of the regional Entrepreneurship Team—a network of service providers who support new business creation and/or expansion;
2. Through college credit academic coursework to reinforce and expand STEM education;
3. To create an "open door" for individuals and small businesses to access the FABLAB to develop digital models and prototypes of their product ideas.

Mott offers two access models for

the community inventor—both are not-for-credit and are designed to improve easy access. The first provides the inventor with access to the lab where they learn to operate only the necessary software and hardware tools required to produce their product. The second provides the inventor with technical support (generally provided by advanced students in CAD design, electronics, and manufacturing) to accomplish the same task. To date, almost every inventor has used the second model.

In the past two years, over 3,000 individuals have visited the lab, nearly 50 products have been developed or taken to market, new academic courses have been developed, and interest in innovation and entrepreneurship has blossomed. In addition, industry has been extremely interested in the technical students who work in the FABLAB based on their interaction with inventor "clients," experience in early-stage product development, and knowledge of technologies such as rapid prototyping, CNC programming, and fabrication.

If you would like more information on Mott's FABLAB, please contact Tom Crampton at [thomas.crampton@mcc.edu](mailto:thomas.crampton@mcc.edu) or (810) 762-0506. ♦

## Bringing Manufacturing Technology to a High School Near You!

By Pam Mazur, Northeast Wisconsin Technical College

Students in Northeast Wisconsin's high schools can get rolling on their college education and future careers with the new Computer Integrated Manufacturing Mobile Lab (CIM Mobile Lab)—a collaborative project from Northeast Wisconsin Technical College, Bay Area Workforce Development Board, Wisconsin Job Center, Lakeshore Technical College, Door Kewaunee Business & Education Partnership, and area school districts.

The primary focus of the CIM lab is to develop and promote an interest in CNC programming and Machining to students who are still in high school. Due to the high cost of purchasing modern CNC equipment and tooling, most school districts are unable to offer this programming to their students. A few schools throughout the district have obtained some equipment through industry donations, or have purchased equipment from a postsecondary institution who has upgraded its machines to keep pace with mod-

ern manufacturing methods and processes. However, most of the schools simply lack funding to purchase their own equipment. To attract them to the manufacturing career path, students need some exposure to the field prior to high school graduation.

The CIM lab is a self-contained classroom that is housed inside a custom-built 45 foot trailer, and towed by a Ford F-350 commercial grade 1-ton truck. The trailer is powered by two commercial grade diesel gen-sets, and

continued on page 4



is able to operate independently of any building supplied power. Inside the trailer, there are a dozen workstations for students. Each station is equipped with a computer, workspace, and all of the related software needed to support the training including MasterCam X6 and Solid Works. The lab also houses an instructor workstation, Smart board projector and two fully functional, modern CNC machines. They include the Haas OL-1 Office lathe and the Haas OM-1 Office Mill. Both of these machines were purchased new, and utilize the latest controls like those used in industry.

Instruction in the mobile lab is provided by high school technical education instructors. They were trained by NWTC to teach the content to their students and achieve course competencies and standards. Training was provided to the instructors at no cost during summer break. Once trained, the technical education teachers are able to grant transcribed credit to the students who successfully meet course standards.

Each high school is typically scheduled

to use the trailer for one day a week for a 3.5 hour block of instruction. NWTC provides a Lab-Tech who delivers the trailer to the school, sets up the equipment, and provides assistance to both the students and teacher as needed. The Lab-Tech is a graduate of the two year CNC Technician program, and is qualified to program and operate the CNC machines.

The CIM Mobile Lab was cited in Wisconsin's recently released Sullivan report as a promising idea. "North-east Wisconsin Technical College has partnered with the Bay Area Workforce Development Board to build a mobile manufacturing lab. The lab is equipped with the latest manufacturing technology."

NWTC's Machine Tool and CNC Technician program enrollments increased by over 50% in 2012, largely due to an increased awareness generated by the CIM Mobile Lab. NWTC plans to expand CIM Mobile Lab capabilities with additional units equipped to deliver Electro-Mechanical and Welding courses. ♦

## Welcome, New Members

The NCATC Membership Committee is pleased to announce the addition of these new member organizations since our last newsletter was published.

### Full Centers

Haywood Community College (NC)  
New River Community Technical College ATC (WV)

### Associate Members

Metropolitan Community College (NE)  
Monroe Community College (NY)  
Oklahoma State University Institute of Technology (OK)  
Pierpont Community & Technical College (WV)  
Rowan Cabarrus Community College (NC)

### Strategic Partners

Association for Manufacturing Technology  
ETA International  
FANUC  
Festo Corporation  
IBM - Power Systems Academic Initiative  
Nida Corporation  
Ronald A. Williams Ltd.  
Sandvik Coromant Company  
SpaceTEC Partners, Inc.

Full contact information for each member institution is located in the Members section of the NCATC web site. If you are interested in joining NCATC, applications are available on the NCATC web site, [www.ncatc.org](http://www.ncatc.org), under the "Member Benefit/Join" tab.

To contact NCATC, please call or email us at:

National Coalition of Advanced Technology Centers  
33607 Seneca Drive  
Cleveland, OH 44139-5578  
Phone: 708-326-2509  
Fax: 708-326-2511  
Website: [www.ncatc.org](http://www.ncatc.org)  
Executive Director:  
J. Craig McAtee  
[ncatc1@gmail.com](mailto:ncatc1@gmail.com) ♦

## Welcome, New Board Members



L to R: Steve Dunnivant, Interim Dean of Advanced Technology Center, Gulf Coast State College; Deborah Porto, Department Chair Advanced Technologies, Haywood Community College; Mark Manuel, Vice President for Workforce and Institutional Development, Bluegrass Community and Technical College

