

## The AMTEC model: Industry focus with national and international reach

The Automotive Manufacturing Technical Education Collaborative (AMTEC) National Center for Excellence and Bluegrass Community and Technical College (BCTC) will host the NCATC Summer Workshop in Lexington, Kentucky, the "Horse Capital of the World." The workshop, *Sharpening the Focus: Retooling the Automotive Workforce*, will focus on AMTEC's nationally standardized hybrid curriculum, career pathway model, and assessments for industry's workforce. In addition, industry partners will host sessions in a new industry track. The workshop will be held at the Griffin Gate Marriott, June 8-10, 2011.

Registration and accommodation information can be found on the NCATC web page: [www.ncatc.org/284549.ihtml](http://www.ncatc.org/284549.ihtml)

AMTEC is a recognized collaboration of colleges and companies working to strengthen the competency and global competitiveness of the automotive workforce. Its partners seek to create and sustain an innovative, responsive, and standards-based workforce education development system that meets industry skill requirements. The success of this endeavor will be highlighted during the sessions presented at the workshop in June. What began as a dream of a few colleagues from industry and education has morphed into a reality that is transforming technical education and the workforce.

The National Science Foundation (NSF) Advanced Technological Education (ATE) program awarded



Partners meet to review trainers for curriculum training.

AMTEC a 5.5 million dollar grant as a National Center for Excellence in 2009 at a time when the automotive industry was experiencing great challenges. The Center, a Kentucky Community and Technical College System (KCTCS) project, began when KCTCS was awarded an NSF Planning Grant for an automotive manufacturing project in 2006. The purpose of the grant was to determine if colleges would come together to bene-

fit the development of the future automotive workforce. "The synergy and collaboration of the college and industry partners around this project was phenomenal," says Annette Parker, the executive director and principal investigator.

The Center has developed an innovative manufacturing maintenance curriculum that includes machine-focused instruction, fault-based learning  
~ see AMTEC page 6



## Center for Sustainable Living



Gateway Technical College's newest advanced technology center; the Center for Sustainable Living on its Kenosha, Wisconsin campus, serves as a resource for students, the community, business leaders, teachers and other students from kindergarten through college.

The center encompasses a residential building and two outbuildings on five

acres of land. Its mission is to create a venue for "green" and sustainability-related training for students as well as a venue for the community and industry, providing valuable information on how to apply sustainability and environmental knowledge into their everyday lives and businesses.

Components of the center include hands-on training for Gateway students, a green idea and concept resource room for business and community, and a place for environmental and green education for students in grades kindergarten through 12th grade. The center allows for engagement on cross-disciplinary demonstration projects and topics. Sustainable practices are employed at the

~ see GATEWAY page 4

SAVE THE DATES!

NCATC

2011 NATIONAL EVENTS

Summer Workshop

Lexington, KY  
June 8-10

Hosted by:

Fall Conference

Chattanooga, TN  
October 5-7

Hosted by:



## NCATC President's Message

The NCATC Board of Directors has adopted the theme of Connections for 2011. I believe that if ever there was a time for us to surround ourselves with the strongest colleges and colleagues, that time is NOW. As we struggle with balancing our resources with our community needs we know we can't do it alone. We don't have the luxury of time or funding to develop new programs, or processes; rather we must look at best and promising practices and adapt or adopt them to our local needs.

The strength of NCATC is that it provides access to a network of more than 150 community colleges across the United States; colleges that are leaders in advanced technology education such as Energy, Power Generation, Alternative Energy, Green, Sustainable Technologies, LEED, Information Technology, Lean Six Sigma, Material Science, Welding, Composites, Mechatronics, Nanotechnology, Precision Machining, and Rapid Prototyping. Keeping up-to-date in any of these technologies requires investment and partnerships. Connections are key and NCATC members embody a willingness to share whether it is at our Summer workshop, Fall conference, through our newsletter, or in less formal ways such as picking up the phone and making an inquiry.

In 2011 NCATC is fostering greater connectivity through coordination of member-to-member connections in an effort to share best and promising practices. This will shorten the research and development process at individual colleges and allow for a more rapid response to our local industry needs.

In order to make the best use of our Regional Coordinators they have transitioned to Board members for the balance of 2011 as their talents and efforts can be more fully utilized within the committee structure implemented in 2010. The Strategic Partner Alliance has been re-energized allowing for greater involvement by and with NCATC's strategic partners. Two additional committees were formed: the Advocacy Committee – to increase awareness of ATCs and the positive impact we have on America's competitive ability and economic growth; and the Strategic Plan Committee – to provide metrics and monitoring of the NCATC strategic plan. We have engaged alumni NCATC board members to serve on the committees as well.

This year we are highlighting a multi-member effort at our Summer workshop in Lexington, KY hosted by Bluegrass Community & Technical College and AMTEC the Automotive Manufacturing Technical Education Collaborative. The workshop will focus on automotive manufacturing and service technology as well as innovative career pathways programs to meet the needs of the global automotive industry. Three tracks including: Standardizing Curriculum to Meet Industry's Needs, Providing a Pipeline Through Career Pathways, and Industry Perspectives on Technician Education are available in addition to industry tours which provide an opportunity for attendees to delve into the best practices of a college and their industry partners. The Summer Workshop is designed for administrators AND faculty attendees. If you've never attended a Summer Workshop, consider this your invitation and plan to join us on June 8-10, 2011 in Lexington, KY.

As the US economy begins to recover we know the role of the community and technical colleges is more essential than ever. We provide the flexibility and responsiveness that is required by industry and although industry may require fewer employees, those employees will require higher levels of education and cross training in several areas. We are poised to answer the call by providing a ready network of ATC expertise and connections to industry. Your leadership is what has made all of this possible. The wide array of ATCs across the country and the unique character each of you brings to this organization are the cornerstones of the educational values we provide to the American workforce.

In the spirit of connectivity I urge you to get involved and use this unique network to your advantage whether it is for collaborative grant applications, adopting a new program or practice at your college or sharing lessons you have learned along the way. We are only as good as the people we associate ourselves with and I believe we are in good company.

On behalf of your Board of Directors, I look forward to working with each of you and providing the resources and connections to keep us at the forefront of growing America's workforce and economy.

NCATC Board President

## NCATC Board of Directors

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Prospective students and their parents talking with local employer Kohler Company

## Engineers Week at NWTCTC

National Engineers Week was February 20-26, 2011, and Northeast Wisconsin Technical College in Green Bay, Wisconsin, hosted an Engineering Open House to celebrate. The purpose of the Open House was to highlight careers in engineering and engineering technology. Tables set up throughout the Manufacturing Technology Lab were staffed by NWTCTC program instructors, local engineering related employers, professional engineering societies and four year universities. Attendees were invited to walk through the lab and find out about education and jobs in the engineering fields.



# LBCC and Snap-on bring certification training center to Oregon

In early February, Linn-Benton Community College realized part of its plan for an Advanced Transportation Technical Center by opening a NC3 Certification Center in partnership with Snap-on, and by becoming one of the NC3 Leadership schools. The college is one of 27 nationally recognized Snap-on Certified Training Centers across the country.

Did you know that the average new car today has more computer power than the Space Shuttle? According to Greg Rintala, Snap-on National Sales Manager, today's cars run almost entirely by micro-processors.

"The average new car has dozens of micro-processors that run everything from the door locks to the engine systems," said Rintala.

Knowing how to diagnose problems in these often-complex systems is a critical part of automotive repair today. LBCC's Snap-on certification program aims to teach the skills necessary to understand the capabilities of the diagnostic tools used in the field.

As the largest mechanical tool vendor and manufacturer in the world, Snap-on holds approximately 65 percent of the aftermarket automotive diagnostic tool sales.

Through the Snap-on certification program, current automotive students and working technicians will be able to certify for competence with Snap-on equipment. Certification helps assure vehicle owners and potential employers that the technician has the skill sets to repair computer-controlled vehicles successfully.

"The Snap-on certification program is designed to train technicians to be power users of Snap-on equipment through hands-on training and rigorous



LBCC automotive majors Justin Dow, left, and Jamie Gayler check out some of the newest Snap-on diagnostic tools from the college's certification program.

testing," said LBCC program instructor Bryan Schiedler.

Four separate Snap-on certifications currently are being offered at LBCC: meters, undercar (tire and wheel service), diagnostics and shop management. The program will provide training on Snap-on scan tools, lab scopes, alignment machines, tire machines and related tooling.

LBCC's certification program will offer evening seminars for working technicians in Vantage Pro, Solus Pro and Verus starting fall term. Students in

the program will have access to current diagnostic tooling and software, a curriculum developed for using the equipment, and increased exposure to scan tools and lab scope technology.

Recognized industry-wide, Snap-on provides the curriculum and testing while LBCC provides instruction and training. Most certifications are an eight-hour course held over two evenings.

With this partnership, LBCC is now part of the National Coalition of Certification Centers (NC3), which is recognized by the

~ see Snap-on page 8

## Former autoworker advocates workforce training as State Representative

Clem Smith has lived through the harsh realities of the economic recession, and now is an advocate for the working class in the Missouri Legislature.

A third-generation autoworker, Smith lost his job at the Chrysler Assembly Plant after 13 years when the recession forced its closure in 2009. Through a partnership program between Boeing and St. Louis Community College, Smith not only had an avenue out of unemployment, but he also had a job with Boeing within three months. He currently is an aircraft assembly mechanic.



Mo. Rep. Clem Smith, center, hosted visitors from St. Louis Community College last month during the Missouri Community College Association's Rally Day in Jefferson City. Pictured with Smith are Laura Stevens, manager of campus auxiliary services at STLCC-Florissant Valley, and Hosani Webster, a student at Florissant Valley.

STLCC's Aerospace Pre-Employment Training Project creates a pool of candidates for positions as sheet metal assembler-riveters with Boeing. There is no cost to participants, but they must meet all screening requirements, entry test scores and be selected for the program. Students must successfully complete the whole program to be considered for employment within Boeing.

"I got information about the program through a coworker and the Machinists Union president," Smith said. "I left Chrysler in June 2009, got into this program in July, graduated by October and got the job with Boeing at the end of October. The program was very much like a job – 8-1/2 hours a day for 10 weeks. It was intense, but the instructors made sure you had the knowledge and tools you needed to succeed."

"These programs work," said Smith, who has a liberal arts degree from Columbia College. "As I went through the Boeing program, I learned more about St. Louis Community College and found that the college has a wide variety of programs and classes. I know people want to work, and St. Louis Community College provides opportunities for people to retrain and get into other industries, whether it's biotechnology, science, automotive or construction. The college has a program for it."

Smith now hopes to become a voice for working men and women in Jefferson City in his role as representative of the 71st District in the Missouri House of Representatives.

"I want to help people get back to work," Smith said. "I know we have a highly trained, skilled work force. We build things and do research very well. I am a product of workforce training. My goal is to do meaningful work and help the people of Missouri by ensuring we make every attempt to bring high-paying, good-benefits jobs to this region."

# Green Pathways at MATC

The transformation of existing industries and the emergence of new industries that contribute to protecting the environment and reducing ecological footprints essentially make up the green economy. Milwaukee Area Technical College (MATC) is aggressively developing sustainable pathways to green collar jobs and green careers in the new green economy by introducing a new set of green courses, certificates and programs.



## Applied Environmental Studies

The MATC Environmental Studies Cluster is about pathways that are adaptable to a variety of backgrounds where the end result is a career that pays a family supporting wage or salary while sustaining the natural environment. The new areas of study at MATC are Sustainable Facilities Operations, Energy Engineering Technology, Renewable Energy, Environmental Health and Water Quality Technology, the new Advanced Energy Engineering Technology Certificate and Quality Engineering Technology. MATC is the only college in the region to offer such a wide

variety of green courses, certificates and programs.

1. Environmental Health and Water Quality Technology AAS Degree - Jan. 2010
2. Sustainable Operations Certificate
3. Energy Engineering Technology Certificate
4. Sustainable Facilities Operations AAS Degree - 2009-2010
5. Advanced Energy Engineering Technology Certificate - 2011-12

In addition, we are offering renewable energy courses and certificates.

1. Wind Energy Courses and Certificate - 2011-2012
2. Photovoltaic Energy Courses - 2010-2011
3. Solar Thermal (residential and commercial) courses - 2011-2012
4. Geothermal Course - 2011-2012

The first course, sustainable facilities operations, ended on March 9, 2009 with 32 students with excellent evaluations. The second course is the LEED for Green Buildings and it started on March 30, 2009, also with great success. Other new courses that have been running for several years are measurement and verification specialist, energy auditing and commissioning agent. The range of student backgrounds we see in these courses are from little experience and education to graduate degrees in engineering and architecture with over 10 years experience.

The new advanced energy engineering technology certificate stretches the knowledge of students even further. With courses like 1) energy modeling, 2) microgrid systems, 3) intelligent lighting systems, 4) advanced continuous and retro commissioning, 5) advanced power engineering and 6) energy project management, students will be prepared to meet the challenges of a variety of complex occupations in the resources, utilities and other energy related fields.

Lastly, a new degree in quality engineering technology is being developed this semester and we will start offering Six Sigma and Lean certifications in the fall of 2011. In addition some of the courses in this program speak to green manufacturing, ISO standards and commercial and industrial efficiencies thereby adding to our portfolio of green curriculum.

Almost all of the new curriculum development and some technology installations are paid for through a variety of grants from the US Department of Energy and the State Technical College System. NCATC has been hired as an outside reviewer of the largest grant activity.

For more information, please contact Joseph J. Jacobsen, Ph.D.; Assoc. Dean - Environmental Studies; Director - ECAM and Energy; Milwaukee Area Technical College, (414) 570-4478

## GATEWAY *continued from page 1*

center and nearby grounds, including using sustainable building products, organic seeds and plants and implementing energy efficiencies where practical. A solar panel is providing energy and a learning experience.

### A lab

The center provides a hands-on lab for several programs offered by Gateway such as Horticulture, Engineering (solar PV and solar thermal), Georexchange Technology, Interior Design, Air Conditioning, Heating and Refrigeration Technology, and Gateway's apprenticeship program.

The residential building provides an environment

for students and the community to learn about green building and décor. Interior Design students have already applied what they've learned by creating a "green room" in the center. The room features repurposed furnishings and finishes that promote sustainable and green design. In addition, signs are placed in every room to provide information about the many green building products and practices used in the building.

The center also provides opportunities for Gateway instructors to use the lab for training to infuse "green" concepts into their curriculum. Students receive hands-on training and work with other students across disciplines, mirroring a real-world business setting where many skill sets are needed to work as a team to complete a project.

A newly installed solar panel generates power for the building and provides a monitoring system for students to gather information and learn about the impact on the building's energy load.

### K-12 education

K-12 teachers and students can use the center and grounds as a resource for environmental education, from reading under an apple tree for small children to providing high-schoolers the opportunity to see how solar energy systems work.

### Inside: A community resource

The center provides a resource to the community, a venue for discussing and learning sustainability skills for business – and life. It also provides a space for businesses or organizations to identify and engage in applicable sustainable business practices.

Seminars led by experts on a number of sustainability-related topics provide training to business and community members on practices including gardening, renewable energy, home energy systems, smart recycling and more. Gateway's Workforce and Economic Development Division has already held the first series of seminars focused on topics including "green" cleaning, energy efficiency and sustainable economic development. Seminars yet to be held include those on alternative energy and wind energy.

Green and sustainable installations have been made to key components of the building including appliances, fixtures, window treatments, countertops, flooring and other key design products.

### Outside: The grounds

The grounds are as diverse as the region – an environmental backdrop including a small orchard, forested area and prairie, each presenting Horticulture students with real-life examples of topics discussed in their classroom. In addition, an urban garden plot created on the nearby grounds was dedicated in April to serve as a training area for students in Gateway's Horticulture program and urban farming technical certificate under development.

For more information, please contact Stephanie Skiba, Vice President, Community and Government Relations, (262) 564-2662.



GTC Interior Design students created a "green room" for the program.



# Strategic Partners – Spotlight

## Danville Community College

In December 2010, Jerry Franklin of Danville Community College (DCC) received funds to train and certify people as Lean Six Sigma Green Belts. Jerry contacted The Quality Group (TQG) for help in developing a program. By March 2011, the online



branded e-Learning portal had been set up, a local instructor identified, and eighteen students recruited from local industry. Jerry reports, "Everything is going well." Students like the e-Learning and appreciate the productivity, quality, and efficiency of DCC's blended learning model. In addition, the instructor has been so impressed with the e-Learning content that he is now pursuing a corporate license to train his own employees. If they choose to move forward, DCC will receive a finder's fee of 15% of first-year revenue.



To get the sales, marketing, and program staff team from the Continuous Improvement Department aligned on the ambitious goals, Susan Muha, EVP of workforce development, brought in TQG CEO Rob Stewart for a one-day planning session.

During the morning, Rob reviewed TQG's products, marketing aids, and OpusWorks platform. In the words of Ed Siurek, Director of Quality Programs, "the team quickly realized the perfect alignment between Corporate College's goals and TQG's strategy – that was far broader than simply as a vendor for lean six sigma e-Learning." As a result of the day's work, Corporate College developed its fiscal year 2012 training schedule, marketing plan, and sales approaches. They also optimized their Project Management offering, identified



opportunities for custom e-Learning development and scheduled a Lean Six Sigma Yellow Belt class for Division staff to improve internal processes and program understanding.

Please contact Rob Stewart (rstewart@thequalitygroup.net, 404.843.9397) or Carol Dierdorff (cdierdorff@thequalitygroup.net) and visit the website at [www.thequalitygroup.net](http://www.thequalitygroup.net) for more information.

## Cuyahoga Community College (Tri-C)

Cuyahoga Corporate College is driving toward a million dollar revenue target, using its partnership with TQG, to provide blended e-Learning programs for the following:

- 1) Lean Six Sigma (including Healthcare-specific) and Project Management for contract training and open enrollment
- 2) WinAt-Work® Online, a cost-effective pre-employment program that can expand services without increasing staff
- 3) An 8-week, 160-hour Certified Logistics Technician Program with MSSC

## Pueblo Community College Gears Up for High Performance Manufacturing with ToolingU.com

Pueblo Community College received a US Department of Labor – Employment and Training grant for \$1.99 million to provide



manufacturing training throughout southern Colorado. Partnering with the local workforce centers, the goal of this initiative is to serve over 450 participants including unemployed and employed adults as well as youth.

A tiered learning approach was used and began with Work Readiness training to help build and reinforce critical skills necessary to be successful in the workforce. Implementing ACT's WorkKeys Certifications, participants gain recognition for their academic and learning competencies.

Next, students learn basic production skills and go through the Manufacturing Skills Standards Council (MSSC) certification process. ToolingU.com is an instrumental tool in preparing participants in the four key areas of safety, pro-

duction and processes, quality assurance & continuous improvement and maintenance awareness. Reinforcing and

expanding on lecture material, ToolingU.com enhanced the training ten-fold..

The program concludes with specialized skills development in several career tracks:

- Electrical Maintenance
- Mechanical Maintenance
- Machining
- Welding
- Material Management



ToolingU.com's robust curriculum compliments instructor material to take participants to the "next" level of skill development with specialized courses in these areas.

Pueblo Community College found that ToolingU.com provided flexibility for a variety of learners – new and experienced. It is a complimentary foundation to "hands on" training cours-

es and can also serve as a pre-assessment tool to identify the skill level of current employees prior to customized-training delivery. Using ToolingU.com, instructors have critical information needed to develop courses that meet employer needs and are appropriate for all participants. The extensive ToolingU.com catalog continues to enhance our ability to deliver up-to-date and relevant courses practical for all industry areas.

For more information about the Manufacturing Training and Customized Training options at Pueblo Community College, contact John Vukich at (719) 549-3334 or [john.vukich@pueblocc.edu](mailto:john.vukich@pueblocc.edu).

For more information about integrating ToolingU.com into your training solutions please contact Toni Neary, Government & Education Group at (216) 706-6644 or [toni.neary@toolingu.com](mailto:toni.neary@toolingu.com)

## Where are the jobs?



By Dr. Paul Pierpoint  
VP Community Education; Dean, Southside Center  
Northampton Community College, Bethlehem, Pa.

As I write this, Apple stock is going for about \$350 a share and the company has a market value of over \$300B – up more than 300 percent since 2008. The USA Today this week has an article speculating on whether Apple could reach \$1 Trillion market value. (If you believe that then you probably have a good case of amnesia from the tech crash of the late '90s but that is another story.) Three hundred percent growth in value in three years is great news for shareholders and clearly pumps wealth into an otherwise sluggish economy. But do you want to know one thing this incredible growth does not produce?

Jobs.

Apple, Inc. has approximately 35,000 employees worldwide. Granted, that is twice as many employees as it had five years ago but it is only about ten percent of the number of employees GM had in 2006 (335,000) when its market value was only \$12B. Apple has one employee for every \$8.6M of company value.

Similarly, Google, with a market value of over \$150B has barely 20,000 employees worldwide or about \$7.5M per employee. On the other hand Caterpillar, a traditional manufacturer with a strong bottom line, has a market value of about \$640K per employee.

The point is in today's economy hugely successful companies are not necessarily huge employers. In fact, it is pretty safe to say that the most

financially successful big companies today are more likely to maximize shareholder wealth by eliminating jobs – not by creating them.

Meanwhile, small businesses have been cited by many politicians as the job-creators of the modern economy. But most of the millions of small businesses in America are single proprietorships, employ fewer than 10 people, and have very limited growth potential. Dileep Rao, columnist for Forbes.com, calls the belief that small businesses create jobs "the most dangerous and misguided myth in America today."

The real job-creating engines in today's economy (and probably for years to come) are the mid-sized companies with growth strategies. These are companies like the manufacturers that are further up the supply chain, regional construction companies and utilities, local financial institutions, business service providers, healthcare providers (direct care, not necessarily insurance companies), and many of the other companies that tend to make up most of the client list for our ATCs.

Most of these companies are large enough to become job-creators but not so large as to have their own training department. They need to hire employees who can be productive almost from the day they walk onto the floor, and they need to regularly upgrade the skills of their existing employees to keep them productive enough to compete.

NCATC member colleges fill these needs better than anyone else. It is why we exist. We help employers and we help individuals succeed in a very turbulent and competitive economy. We are more essential to the health of our regional economies now than ever before.

So, if you want to help your region grow its economy and create more opportunities for everyone to get good, family sustaining jobs, invest as much as you can in training for mid-sized companies, patronize as often as you can your community's small businesses, and watch out for the big high-fliers in the stock market. The iPad may change the world, but it won't create jobs for your workforce.



A new kind of technician for the automotive industry.

### AMTEC *continued from page 1*

scenarios, and a systems-thinking approach to problem-solving and learning. These innovations were made possible through intense college and industry collaboration. The curriculum development work began by using a DACUM/Delphi process to reach consensus on skill standards. Through the use of four regional gap analysis workshops, the AMTEC partners developed a set of national industry standards for the common core fundamental skills.

AMTEC recruited industry experts from across the country as course leaders and recruited college faculty as curriculum developers to work together to design a detailed and comprehensive curriculum to meet industry's educational needs. The design of the curriculum is a modularized hybrid online/in-person format that insures standardized level of mastery whether implemented at General Motors in Michigan or Toyota in Kentucky. The curriculum development teams adopted a machine focus so that all modules of instruction begin and end with an industry-designed systems trainer to contextualize instruction. They also designed an inquiry-based approach to teaching and learning by guid-

ing instruction through fault-based learning scenarios of the most common faults that occur in automotive manufacturing equipment.

AMTEC will demonstrate their dynamic interactive curriculum that includes the virtual model of the industry-designed systems trainer at the workshop. Industry course leaders and module developers will discuss this unique and challenging experience.

AMTEC team partners are developing a career pathway model to be used by AMTEC colleges and their respective high school and four-year postsecondary institution partners to increase accessibility, portability and graduation rates for students in automotive and related technical fields. The team performed a literature review that found six key elements needed for a successful career pathway model. They include

1. Employer involvement in all phases
2. Institutional and instructional transformation that links education and career competencies and training
3. Wrap around support services, including counseling, financial assistance, and internships for student success
4. Partnerships that make good use of data to drive planning and implementation, as well as the blending and/or reallocating of funding sources
5. Continuous improvement
6. Sustainability

AMTEC and BCTC are proud and privileged to host this year's NCATC Summer Workshop and invite everyone to visit the beautiful Bluegrass State. Participants are invited to learn about AMTEC's innovative approach to developing a national curriculum, assessments and certification and to implementing a career pathway for students that compliments the curriculum. A tour of a local distillery, Buffalo Trace, will take place on Wednesday evening. In addition, on Friday, participants have a choice of touring our local automotive manufacturers or a "triple crown tour" of BCTC's North American Riding Academy, Kentucky Horse Park and a local horse farm led by Hall of Fame Jockey and two-time Kentucky Derby winner Chris McCarron. For more information about AMTEC or BCTC visit the websites at [autoworkforce.org](http://autoworkforce.org) or [bluegrass.kctcs.edu](http://bluegrass.kctcs.edu). If you are interested in being a partner, contact Annette Parker at [annette.parker@kctcs.edu](mailto:annette.parker@kctcs.edu).

# STLCC and RugDoctor are partners in progress

Like all advanced manufacturing companies in today's economy, RugDoctor faces continuing pressures to increase the productivity and profitability of its manufacturing processes.

For the past two years, St. Louis Community College's Center for Business, Industry and Labor (CBIL), a department within the Workforce and Community Development division, has provided training and consulting services for RugDoctor's manufacturing facility in Fenton, Mo. RugDoctor's headquarters is located in Plano, Texas.

To aid in meeting this ongoing challenge, RugDoctor applied for and was approved for funding through the Missouri Customized Training program. The company, along with a group of other



A group of RugDoctor managers and supervisors are completing the STLCC Lean Leadership Certification program.

manufacturers throughout the St. Louis region, was selected because its continued corporate presence was considered vital to Missouri's economic health. After receiving this funding, RugDoctor enlisted the services of CBIL's Lean Manufacturing Business Unit to support its aggressive transition to Lean manufacturing.

"Lean thinking and work processes, including the use of tools such as 5S, Visual Management, Work Cell Redesign and Six Sigma, are being used by corporations worldwide to increase their competitive strength by driving higher degrees of employee engagement," said Schubert Pereira, vice president of manufacturing and research and development at RugDoctor. "Lean works because it strongly encourages all employees to think about ways to make the work they do more productive. And it's certainly done that in our plant. Our team members are continually thinking about ways to improve their workspaces, and their ideas are making our plant more competitive."

Pereira noted that one team member submitted an idea on the company's idea board that saved 30 seconds per processed box, equaling a savings of \$3,162.50 per year. Another idea implemented has a line lead operator carrying a whistle to shut down the line immediately when the capping machine stops. This idea prevents damage to the labeler machine and saves at least \$1,100 in repairs for each incident.

"These examples are just small ones," Pereira said. "The Lean training and consulting services we've received from St. Louis Community College are playing an important role in our becoming a stronger manufacturer in the Fenton area."

In the last 11 years, CBIL's Lean Manufacturing Business Unit has provided training and consulting services to a wide variety of manufacturers in the St. Louis region, said George Friesen, CBIL's business practice leader of Lean manufacturing.

"It's always especially rewarding to work with a team of managers, supervisors and line workers like those at RugDoctor. Currently, we are providing training and consulting services in support of RugDoctor's implementation of the 5S System, a powerful process used to transform work spaces. In addition, a group of RugDoctor managers and supervisors are completing St. Louis Community College's Lean Leadership Certification program, a resource we designed three years ago to give managers and supervisors the skills needed to drive successful transformations to Lean manufacturing."

Friesen added that RugDoctor employees have an obvious dedication to staying competitive.

"What's happening at RugDoctor needs to be happening at all advanced manufacturing facilities throughout the state of Missouri," Friesen said. "When the thinking processes of Lean manufacturing are put to full use throughout Missouri's manufacturing community, our state's economy will be much stronger."

## NCATC: More Critical Than EVER!



When Danville Community College was seriously contemplating the construction of an advanced technology center more than a decade ago, one of the first and best decisions we made was to join the National Coalition of Advanced Technology Centers. Before funding was secured, plans were drawn, programs were developed and personnel employed. When the new building was dedicated on October 31, 2005, after being in temporary quarters for more than five years, our affiliation with NCATC proved to be one of the most prudent decisions we made. And how exciting it was to introduce Executive Director Richard Hinckley at the dedication and later his successor, Craig McAtee, as one of our speakers at a summer workshop in 2008. Not only did we take full advantage of the ever-expanding benefits of membership, but our faculty, local industry partners, and I also quickly gained invaluable perspectives about what other members had accomplished. We also benefitted from the wonderful learning experiences at the annual meetings, the summer workshops and other events. Several of us have had the privilege of serving on either the Board of Directors or the Presidents' Advisory Council. I am only echoing what every community or technical president already knows, NCATC is a first class organization that adds value to our colleges, the employers and the communities we serve every day.

Now, as our nation begins a slow recovery from a prolonged recession, our colleges have the opportunity, indeed an obligation, to play a critical role giving our employers and their current and future employees a competitive edge in a rapidly changing global economy. But today's challenges are vastly different. The landscape has changed since pre-recession 2008, and we have even fewer financial resources. What we are witnessing across the nation from the state legislatures to the halls of Congress is no anomaly. I submit our community and technical colleges

will be expected to do more ... you can complete the sentence. For those of us who have vibrant and nimble advanced technology centers, with strong support from our industry partners and economic developers, we will apply the sound management strategies we provide to our industry partners, such as lean, to our own organizations in order to maintain a premier training delivery system to keep our workforce and, therefore, our communities competitive. NCATC will be one of those partnering organizations to provide that competitive advantage.

Dr. B. Carlyle Ramsey, President, Danville Community College (VA)

### NCATC Presidents' Advocacy Council

#### Chairperson

Mr. Bryan Albrecht  
Gateway Technical College (WI)

Dr. Jeffrey Rafn – Northeast Wisconsin  
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Dr. Deborah DiCroce – Tidewater Community  
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Dr. Marshall "Sonny" White – Midlands  
Technical College (SC)

Dr. Charles Gould – Florence-Darlington  
Technical College (SC)

Dr. Richard Hinckley – Center for Occupational  
Research & Development (TX)



# Welcome New Members

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

## Full Centers:

- Polk State College / ATC at Clear Springs (FL)
- Westmoreland County Community College (PA)
- Southwest Applied Technology College (UT)
- Northwestern Michigan College / Parsons Stulen Technical Education Center (MI)

## Associate Members:

- Jefferson College (MO)
- Southeastern Community College (IA)
- Central Oregon Community College / Redmond Technical Education Center (OR)

## Strategic Partners

- CISCO Systems

Full contact information, web site addresses, and email addresses for each member is located in the Members section of the NCATC web site. If you are interested in joining NCATC, membership 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, email, fax or write us at:

### National Coalition of Advanced Technology Centers

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## Snap-on

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U.S. Department of Education and the U.S. Department of Labor:

"Snap-on certifications are worth something to employers," said Schiedler.

"If the auto technician is already a power user of the tool, that makes it much easier to put that technician directly to work."

LBCC also sees the program as an opportunity to cross-train technicians. College programs such as automotive, heavy equipment and mechatronics will be able to share tooling and knowledge. "There are several systems that make it automotive," said Schiedler, "but all the advanced systems are electronically controlled, no matter if it is automotive-based, mechatronics-based, or heavy equipment."

Another goal of NC3, according to Schiedler, is to bring together major partners in industries such as transportation, energy, aviation and manufacturing, known as TEAM. Many skill sets in these industries overlap, giving a trained certified technician a leg-up in several different areas.

In the long run, says Schiedler, NC3 certifications would be advantageous for students by allowing them to switch from one field to another while only having to add a few specific certifications.

LBCC also has taken on a role as a leadership school for NC3. "We would like to see pathways established in high schools for the more common certifications," said Schiedler. "Students would then come to LBCC for the more advanced certifications."

Students in the LBCC Automotive Technology program can earn a two-year Associate of Applied Science degree or a two-year certificate.

The program prepares students to diagnose, repair and maintain modern automobiles and light trucks, including power train systems, steering, suspension and braking systems, electrical systems and electronic controls, automatic transmissions, engine overhaul, air-conditioning service and engine performance. All classes prepare students to pass the ASE certification tests.

Contact: Bryan Schiedler, Automotive Technology instructor,  
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