

## Lincoln Electric to Preview New Virtual-Reality Welding Simulator



**T**he Lincoln Electric Company will showcase its new virtual reality welding simulator this month at the NCATC Fall Conference in Chicago. Show attendees will be able to experience Lincoln's ultimate new training tool, the VRTEX 360™.

Lincoln Electric, the world's leader in arc welding equipment, recently acquired the new technology from VRSim, a leading technology company based in East Hartford, Conn. VRSim serves a variety of industries including aerospace and defense manufacturers.

The predecessor to the VRTEX™ 360, the SimWelder, was initially developed for military contractor General Dynamics with additional funding from the U.S. Navy. It was later installed by the U.S. Army at the Aberdeen Proving Ground in Aberdeen, Md.

Lincoln Electric acquired the technology for the welding simulator. Together, VRSim and Lincoln Electric have developed a new cost-effective training tool designed to accelerate welder training, improve the learning curve and provide cost savings through the reduction in welding materials, such as metal, consumables and gas.

Students enter an interactive virtual environment that merges computer-generated data with physical props, such as a virtual GMAW gun and a welding helmet equipped with internal monitors.

Students practice their welding technique in the virtual world, while the system provides student and teacher with real-time graphic data and feedback about the torch angle, travel speed and other technique variables. The system is also customizable to industry-specific applications. Welding parameters and desired technique can be tailored as well.

"This system merges welding training with cutting edge simulation technology," said Lincoln Electric product manager, Erin Justice. "It can be used to train the next generation skilled welders faster while reducing material waste and saving money."

The VRTEX™ 360 allows trainers to closely monitor a student's work and breakdown welding technique on a computer monitor for

visual inspection and instruction. Each weld pass creates a detailed student report based on empirical data.

"Lincoln has found that this process not only helps build the students' confidence in their technique and ability, but also significantly increases their engagement in the process," Justice said.

"There's an undeniable cool factor in this," she said. "Younger

students, especially those who grew up on video games, are instantly drawn to this technology. It can give students the chance to be exposed to a career that they might not have otherwise had the opportunity to experience."

Lincoln Electric has taken the virtual experience one step farther by developing a welding stand for the simulator. The stand is modeled after the booths in the Lincoln Electric Welding School. They create a real-life effect that allows students to virtually weld in multiple positions

using different types of joints and welding processes.

Lincoln Electric plans to make the VRTEX™ 360 available for purchase in the United States by the end of 2009, as well also use it in its own welding school in Cleveland.

During the NCATC Fall Conference, Lincoln Electric will offer a wide variety of educational materials, many at no charge. For more than 90 years, Lincoln has been committed to advancing the education process of welding. The Lincoln Electric Welding School performs courses throughout the year on the various types of arc welding methods to educate and train students in arc welding safety, processes, techniques and Lincoln products as well as qualification and certification programs.

The James F. Lincoln Arc Welding Foundation, created in 1936, is the only organization in the United States solely dedicated to educating the public about the art and science of arc welding. Formed when the industry was in its infancy, the foundation is now in its seventh decade of publishing educational texts and granting cash awards to recognize technical achievements.

For more information visit [www.lincolnelectric.com](http://www.lincolnelectric.com).



Student virtually welds in the VRTEX™ 360 – looks and feels like the real thing



# NCATC President's Message

It's hard to believe that 2009 is moving rapidly towards a close! This has truly been an exciting year. Amid changes and challenges, our Advanced Technology Centers (ATC) have risen to and answered the challenging call of our nation. However, answering that call has not been easy. During a recent board meeting, several resounding themes could be heard. The first - *and perhaps the most devastating* - theme was the budget reduction faced by our schools. Operational and program dollars were not to be had. Despite stimulus funding, many schools are cutting or scaling back programs and services. Travel, both in and out of state, comes at a premium and must be deemed essential to the school. Still, the ATCs continue to move forward. Our enrollments are soaring! People needing to retool or gain additional skills to survive difficult economic times, are flocking to our doors in what could be record numbers. But traditional students are not the only ones finding their way to our doors. Businesses are seeking out our workforce training centers as well. Whether these companies are searching for a solution to a business problem or needing assistance with emerging technology, the end result is the same: a sustainable, competitive advantage to businesses to help them survive the shifting global economy.

Within these soaring demands, we find the second theme - our Advanced Technology Centers have continued to move forward. Understanding the needs, the ATCs have worked to secure additional, sometimes non-traditional, funding to assist in meeting the needs of all of our customers. Collaboration between schools, public and private agencies, and multi-company initiatives are on the rise. We must understand that, if we are to survive, we must combine forces, remove historical barriers, and create a unified effort to move forward. In Oklahoma, I personally have witnessed the combining of K-20 systems, development of regional economies, and the leveraging of funding to reach across the divides and deliver needed services across the state.

Finally, other professional organization, both new and emerging, are seeking NCATC's involvement and alignment. As we continue to grow in stature and national recognition, we have emerged as the nation's leader in understanding business and technology. We will continue to foster and grow these relationships. International requests for alignment have risen to the surface and will be part of our growth in the future. No longer can we afford to hide our heads in the sand and pretend that we operate in a vacuum. International collaboration is imperative. Personally, I will spend up to sixty days next year in China, working with a national company, assisting with a global issue, using a Chinese educational institution to provide solutions. These forms of international collaborations with our ATCs, I believe, will continue to grow.

I have been honored to serve as your president this year. I have grown personally and professionally and I thank all of you for these opportunities. However, the best is yet to be. Starting January 2010, Scott Murakami will take the helm and work with our director to propel us to even greater heights.

*Advanced Technology Centers... Answering the Challenge.* It may seem like a fancy conference slogan, perhaps - but now it is more than that - it is a national reality. Advanced Technology Centers have become, and will continue to be, our nation's education and business stimulus package.

Willie E. Johnson  
Director, Great Plains Technical Center (OK)

## 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:

Mid-South Community College (AR)  
Tri-County Technical College (SC)

### Alliance Partners:

Profiles International (WI)  
PTDA Foundation/ICP (IL)

*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.*

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# Executive Director's Message

ATC Colleagues & Friends,

First, I want to say thanks to the hospitable folks at Florence Darlington Technical College/SiMT (SC) for hosting a very successful NCATC Summer Workshop in June 2009. What a great way to start the summer!

We have been working diligently this year to coordinate our 21st Annual Fall Conference, hosted by the College of DuPage (IL), and we continue to refine our member-requested format of Wednesday through Friday. This year we've added several superb workshops, breakout sessions, speakers, and college/industry tours. And remember—all meals are included in the registration fee—something many conferences do not offer.

COD is the third-largest single-campus community college in the U.S., and its newly-completed Technical Education Center will be the highlight of this year's NCATC Conference. COD is nationally-recognized for innovative partnerships with business and industry, and for ongoing success in receiving funding support from the National Science Foundation, Department of Labor, and others. COD is one of the premier advanced technology/manufacturing-focused training and education organizations in the country. I'm confident you'll be satisfied with what you take away from your time in Chicago, September 30–October 2.

For more details and up-to-the-minute updates about the conference, please visit our website at [www.ncatc.org](http://www.ncatc.org).

I look forward to seeing each of you in Chicagoland this fall!

Warmest regards,  
Craig

## NCATC Membership Benefits

- FREE membership in the National Council of Advanced Manufacturing (NACFAM) - valued at \$5,000 a year
- FREE access to best practices from most of the top Advanced Technology Centers (ATC) in the nation
- FREE access to the membership listserv where members readily exchange and share information and resources
- FREE access to our information-rich website
- Discounted registration for our annual national conference and our summer workshop
- Reduced costs for technical consulting through the Member Assistance Program (MAP)
- Exclusive discounts for products and services from our strategic partners, including: 3D Rapid Prototyping, Amatrol, EON Reality, Festo, Lab Volt, Lincoln Electric, MSSC, Materialise, NOCTI, PTDA/ICP, Profiles International, The Quality Group, Solidworks, ToolingU, Virtual Training Center
- Recognized external evaluation services for national grants such as Department of Labor (DOL), Department of Transportation (DOT), and the National Science Foundation (NSF)
- Discounted prices for "Necessary Skills Now."

## Florence-Darlington Technical College Celebrates First-Year Anniversary of Pipe Welding Academy



**F**lorence-Darlington Technical College's (FDTC's) Advanced Welding and Cutting Center celebrated the first year anniversary in August of its initial class in the new Pipe Welding Academy. The academy was created in response to area nuclear power industries being concerned about the shortage of trained, certified pipe welders during their scheduled outages. Due to

the growing need for pipe welders and the retirement of Baby Boomer welders, the welding industry is projected to be short 250,000 welders by 2010. The Pipe Welding Academy was created to train certified pipe welders for work in nuclear and fossil power plants, petro-chemical plants, ship yards, etc.

Student tuitions are covered by a grant from two electric utilities — Progress Energy and Santee Cooper. Also, FDTC received assistance from DZ Atlantic, the contractor that supplies maintenance services for many nuclear power plants in the US. In addition, a \$150,000 grant from the Nuclear Regulatory Commission (NRC) was received to assist with student tuition since the program qualifies graduates to work at nuclear plants. Students who complete the training program are tested for pipe welding certification under the watchful eyes of professionals from DZ Atlantic and Progress Energy. Since August 2008, FDTC has trained and certified 58 pipe welders. Presently the program is filled with 17 students in the day class and 17 in the evening class.

FDTC recently learned that a second \$150,000 grant from the NRC will be received to fund tuition for students in the Pipe Welding Academy for the coming year. Ross Gandy, Director of FDTC's Advanced Welding and Cutting Center, stated, "We're very proud that the NRC chose Florence-Darlington Technical College for its support and we're also very proud that FDTC is the first two year college to receive such a grant."

The shortage of pipe welders is not the only problem facing the industry. The shortage of trained pipe fitters and valve technicians is affecting the industry as well. In September 2009, the Advanced Welding and Cutting Center will start a pipe fitting and a valve repair program to train technicians to fill this need. FDTC recently learned that it will receive a \$125,000 grant from the NRC to fund curriculum development for the pipe fitting program.

The shortage of certified pipe welders, pipe fitters, and valve technicians will continue to worsen as the power industry starts building new nuclear power plants to meet the growing need for clean electricity. Currently, employers must go beyond the region to fill pipe welding and pipe fitting positions. The academy will allow employers to offer these jobs to local technicians resulting in a significant economic benefit to the region. Pipe welders, fitters, and valve technicians are in such demand that they are some of the highest paid technicians in the industry.

For more information about FDTC's Pipe Welding Academy, contact Ross Gandy, Director of the Advanced Welding and Cutting Center, via email: [ross.gandy@fdtc.edu](mailto:ross.gandy@fdtc.edu) or call (843) 661-8330.

## Getting It Done with CACT

# Aerospace Fastener Training Program: High Workforce Demands Call for Innovative Solutions in Aerospace

**T**he aerospace fastener manufacturing industry is a global market that generates \$6.5 billion in sales. Southern California is home to dozens of small-to-medium sized manufacturers, including three of the world's largest global companies in this field. In fact, over \$4.5 billion in global sales are generated from Southern California-based manufacturers and distributors. That's nearly 70 percent of the global market!

But, the industry faces significant challenges in keeping up with the demand. Over 10,000 Southern Californians are employed by local aerospace fastener manufacturers and distributors, but many of these veteran workers holding 16-20 years of experience are due to retire in the next five to 10 years. How will the aerospace fastener industry find and train the next 200-400 workers it will need over the next five years quickly, in a time when the demand is so high for skill and experience?

The Centers for Applied Competitive Technologies (CACT) at El Camino College, Cerritos College, North Orange Community College District, and Los Angeles Community College District, along with the Statewide Initiative CACT Director, joined forces to assist California-based aerospace fastener manufacturers in finding solutions to the skilled worker shortage.

The CACTs teamed with industry by forming an alliance with the representatives from the Industrial Fastener Institute (IFI), Alcoa Fastening Systems (AFS), Bristol Industries, B&B Specialties, Click Bond, California Screw Products, LISI Aerospace, Monogram Aerospace Fasteners, Phillips Screw Products, PB Fasteners, SPS Technologies/Cherry Aerospace, and The Young Engineers. The alliance developed curriculum and received equipment donations from industry participants for a for-credit eight-week training program that includes 96 hours of industry paid internship at a local aerospace fastener manufacturer.

"This type of training allows the students to learn the skills necessary to get jobs in an industry that needs new workers as quickly as possible," said CACT Statewide Initiative Director Marshal Gartenlaub, PhD. "The training will allow people with virtually no manufacturing skills to achieve good paying jobs in the aerospace fastener industry."

The first cohort of participants was filled to capacity. The alliance will continue to work closely to expand the training program at the Compton Educational Center, and collaborate with other community colleges in Southern California to offer the training in communities that support this critical industry.

For information about the Aerospace Fastener Training Program, contact David Gonzales, Director, CACT at El Camino College at (310) 973-3170, or [dgonzales@elcamino.edu](mailto:dgonzales@elcamino.edu), or go to [www.MakingItInCalifornia.com](http://www.MakingItInCalifornia.com).



## High-profile Designers Benefit from New Technology

**L**ocation never seemed important to Peter Stathis, an accomplished industrial designer currently living and working in San Francisco. After all, they can ply their trade anywhere. But Stathis changed his mind when he collaborated with Pablo Designs, located in the City's Bayview district, to create the Link LED Task Lamp.

"It used to not matter where I worked, but here the confluence of engineers, designers and investment capital makes everything so easy," said Stathis. "It was a San Francisco-based designer, a San Francisco-based manufacturer/producer, with a very close working process."

Part of the development process for the Link Lamp was creating prototypes for design evaluation. When the time to have them made arrived, the CACT at City College of San Francisco (SF CACT) provided access to rapid prototyping technology, specifically 3D printing services. The SF CACT is housed at the Evans Campus of City College of San Francisco (CCSF), also in Bayview. Instead of having the work done in Asia, the SF CACT produced the prototypes locally.

This saved Stathis and Pablo Designs time and money, and allowed for more experimentation within their budget.

"The designs can mature, and the refinement is due to keeping that prototyping here, instead of shipping it to Asia, where typically I won't hear anything for three weeks," said Stathis. "Here I was able to verify designs in a matter of hours and days. The turnaround time is phenomenal for my practice."

The Link Lamp received the Editors Award for Best Lighting at the International Contemporary Furniture Fair in New York, and has been featured in *California Home + Design* magazine.

Since fall 2007, the SF CACT has offered both 3D printing services and training in SolidWorks CAD design software. The services go hand in

~ see **New Technology** next page

## South Placer Robotics Club makes semi-finals at UCD regional competition

**H**igh school students in the South Placer Robotics Club participated in the *FIRST* (For Inspiration and Recognition of Science and Technology) regional competition at UC Davis. The team is sponsored by the Sierra College CACT, Intel, NEC Electronics America Inc., and private donors. Over 40 teams from the western United States – including representatives from California, Washington, Oregon, Montana and Arizona – were there to vie for a shot at winning and competing at the National competition in Atlanta. Much like a major sporting event, spectators in the stands cheered, music played nonstop, and teens and their mascots danced on the game floor

South Placer's team, "Renevatio" and their entry "RunAway Runway" were selected to compete in the semi-finals against an alliance of three school teams that included the Northwest Regional Champions.

For many students, it was the first time that they had applied mathematics, physics, design, communication, and computer programming to something real, according to faculty advisor Stephen Miller. "This is experimental learning in its truest form," said Miller. "As a result of being on the team, many of my former students have gone on to pursue engineering and technical careers."

# **Training the Workforce of Tomorrow Silicon Valley Solar Industry-Driven Regional Collaborative**

According to the California Community College's Centers of Excellence 2008 Solar Industry & Workforce Study Key Findings, the California's solar industry employs between 14,500 and 17,000 workers. In spite of layoff projections in the state, over 70 percent of solar-related surveyed employers plan to hire more employees over the next 12 months. Solar-related firms are expected to increase employment by up to 29 percent, or approximately 5,000 jobs.

However, employers are facing significant challenges finding qualified workers. Two out of every three employers indicate difficulty finding entry-level employees. Three out of four employers indicate difficulty finding experienced employees in the industry.

SolarTech, the solar industry association that recently emerged from the San Francisco Bay area's Silicon Valley Leadership Group, identified workforce development as a major barrier to the growth and market penetration of Solar Photovoltaic (PV) Installation. Simultaneously, regional community colleges identified the development of the "New Energy Workforce" as an important priority to address skills gaps and employment trends and needs in the solar industry. These two groups, along with NOVA (the local workforce investment board) created the Silicon Valley Solar Industry-Driven Regional Collaborative (IDRC) as an effective regional response to create customized training curriculum, and design and broker resources to support the highly specialized industry.

The CACT at De Anza College leads a team of talented partners on the initiative, including the Workplace Learning Resource Center at Mission College, San Jose City College, Cabrillo College, Ohlone College, the Silicon Valley Leadership Group, SolarTech, and the NOVA WIB.

To support the project goals and build momentum and support for this initiative, the IDRC will be developing a resource-rich Web site that connects its collaborative partners, stakeholders and constituents.

For information about the IDRC, contact Rick Kuhn, Director, CACT @ De Anza College at (408) 864-8710 or [kuhnrick@fhda.edu](mailto:kuhnrick@fhda.edu), or go to [www.MakingItInCalifornia.com](http://www.MakingItInCalifornia.com).

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## **New Technology** *continued from page 4*

hand, as a 3D model from a CAD program is necessary to create an object on the 3D printer. The SF CACT offers these particular technologies and training, in order to assist the large design community located in the greater Bay Area. Attendees learn technological skills necessary for working in industrial and product design, and make connections with others in the field.

Jon Oxford, a manufacturing engineer for Pablo Designs who taught the first SolidWorks Essentials workshop at the SF CACT agrees with the customization features and also had a very positive experience with the 3D print services provided by the CACT.

"The price was competitive, and the turnaround time was usually one or two days as opposed to three to five for typical Web-based services," said Oxford. "Even the resolution (quality) of the parts was higher than the typical services, which was unexpected, but great!"

The SF CACT is expanding its SolidWorks training workshop offerings with the addition of an advanced workshop. The CACT's 3D printing and rapid prototyping services have helped numerous small businesses to locally develop new products and still remain competitive.

For information about the CACT @ City College of San Francisco, contact Wendy Miller, Director, at (415) 550-4424 or [wlmiller@ccsf.edu](mailto:wlmiller@ccsf.edu), or go to [www.MakingItInCalifornia.com](http://www.MakingItInCalifornia.com).

## **Future Trends: A Look Into the Life of an ATC in Economic Recovery**

**W**e've all heard the old adage that money makes the world go round. If anything, this financial crisis should have taught us that more to the point, credit makes the world go round. A number of factors have caused the global financial crisis. International wealth created by demand for lower cost goods manufactured overseas, created large sums of foreign capital flowing back into the US credit markets, the easing of regulations in lending, and the securitization of Mortgage Backed Assets among other factors, which all contributed to one result — they stopped the flow of credit.

The economic crisis forced PCATT, and I would venture to guess many of your ATCs, to shift away from a longer-term focus on issues such as economic diversification to short-term issues focusing on economic revitalization. Although the short-term actions are critical to accelerating a successful economic recovery, it is incumbent upon us to ask: How will the global financial crisis affect the long-term performance of ATC's and community colleges?

Understanding that credit makes the world go round is important because as of the writing of this article, we are starting to see signs of the easing of lending practices and greater stability in our financial markets. As credit begins to flow again, commercial paper, which is a major source of capital used by businesses to finance common operating activities such as inventories and payroll, will again, generate the capital necessary to hire back employees.

Students currently being recruited into your ATC and community college programs will be faced with a very important decision: Do I stay in school and continue my studies or do I return to work? Given that these are non-traditional students accustomed to a certain lifestyle, with mounting personal debt, family obligations, and other personal needs, will we see higher attrition rates, or inversely, lower client retention. We have to begin developing innovative strategies that allow these students to return to work and complete their education.

As we make our way out of the recession and into recovery, I suspect we will find that prior to the collapse of the global financial markets, workforce development was chic. It was a vogue trend that allowed us to focus on measures such as the number of students served and ROI on the funds invested on the clients trained. It allowed us to implement measures of success that we were comfortable with.

These measures will remain important. However, I believe we will begin to see a trend towards new outcomes measures that account for the impact of training on business and economic development. We've always believed that businesses and employees existed in a symbiotic relationship, but the simple reality is that although symbiotic, this is not an equally balanced equation. The workforce is just one of the many assets a business needs. Although the workforce plays a vital role in business, the global financial crisis has taught us that the workforce is one asset of many that businesses need to survive. Through outsourcing and other temporary solutions, many businesses can survive (albeit not forever) without our local workforce. However, our local workforce ceases to exist without business. This reality should teach us a very important lesson about managing our ATCs. Our outcomes cannot focus solely on the impact on the workforce, but rather, must make an impact on business and economic value. We have to find a way of dealing with both workforce and economic development at our ATCs.

This situation brings to mind what Max De Pree said of leadership: "The first responsibility of a leader is to define reality. The last is to say thank you. In between the two, the leader must become a servant and a debtor... A friend of mine characterized leaders simply like this: 'Leaders don't inflict pain; they bear it.'"

In struggling through these tough times, you are demonstrating tremendous leadership. Your NCATC member partners are behind you and thank you for your courage and commitment in being a part of the solution to economic recovery.

*~ Scott Murakami  
Honolulu Community College*

## Is It Over?



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

**N**ewsweek magazine says it's over. *Forbes* magazine says it ended in May. *The New York Times* hedges a little saying it is "technically" over. For the first time in a long time we are hearing reputable publications saying that the longest and deepest economic downturn in almost 70

years has run its course. The stimulus efforts from Washington (Obama's package and Bush's TARP) along with those from major countries around the world appear to have saved the globe from a total melt down of the economy and another global depression.

So, is the recession really over?

Personally, I would not bet the ranch on it. Those green shoots could easily turn out to be weeds – especially if the collapse in the commercial real estate market leads to the kinds of mortgage foreclosures we saw in the housing market last year.

But there is reason to be hopeful. For NCATC colleges, there is opportunity to make a difference. While economic growth may have started already, nearly everyone agrees unemployment will continue to climb for a few more months. Employers are not hiring fast enough to change that trend yet. Instead they are squeezing greater and greater productivity out of their existing workers. With orders beginning to come in, manufacturers are ramping up and increasing output. For many employers this means they have to invest in training their employees after more than a year of neglecting this crucial asset.

Many NCATC colleges may already be experiencing an increase in demand for incumbent worker training. This is what we do better than anyone and our customers are turning to us once again to meet their most critical training needs. But unfortunately, just as their need for training is starting to revive, many states (including my own) have gutted their incumbent workforce development programs to try to meet their own budget challenges. Pennsylvania doesn't even have a budget yet (I think the entire state leadership should be jailed for criminal negligence but that is for another column) but the best budget proposal calls for a 62 % reduction in state support for incumbent worker training programs. While state training funds for incumbent workers represent only about 15 % of my college's contracted training revenue in a normal year, they are significantly more than that among the small and mid-sized employers that most need them. Many cash-strapped companies are going to struggle mightily to get the worker training they desperately need in order to meet growing demand.

It seems that the worst is probably over. The economy is probably on the mend. We have probably avoided a global recession thanks to massive spending by governments around the globe. (Isn't it nice when a global stimulus effort does not involve a world war?) But in each of our communities we can expect months, if not years, of continuing challenges as we seek to create and maintain a globally competitive workforce. Whether privately funded or publicly funded, the incumbent worker training provided by NCATC members will have to be high quality – to meet the employers' needs, low cost – to meet the short supply of available funds, and very effective – to help this country and rest of the globe to put a definitive end to this recession and get the economy back on its feet again.

It's what NCATC colleges do best.

## KCTCS Awarded Prestigious \$5.5 Million Grant from National Science Foundation

**K**entucky Community and Technical College System (KCTCS) is proud to announce it is the recipient of a \$5.5 million dollar grant from the National Science Foundation (NSF) to strengthen the competency and global competitiveness of the automotive manufacturing workforce.

"This grant is the largest, nationally competitive, discretionary grant in KCTCS history," said KCTCS President Michael B. McCall. "KCTCS continues to be a real leader in developing programs at our colleges that meet the demand for high wage, high skilled jobs in the workforce."

The grant project is entitled "AMTEC National Center for Excellence in Advanced Automotive Manufacturing." The Automotive Manufacturing Technical Education Collaborative (AMTEC) is a

**AMTEC**

multi-college, multi-state collaborative of community and technical colleges, and automotive manufacturers and their suppliers

(25 community colleges and 21 corporate automotive companies) across the United States working together to improve the initial and ongoing preparation of highly skilled technicians and manufacturing engineers for successful work in automobile manufacturing.

AMTEC originally began developing a national standardized curriculum for the automotive industry to be taught by participating college partners. It was discovered that validated assessments were needed to identify the gaps in the skills and knowledge. Through needs assessments of the fundamental skills required within the industry, AMTEC is now designing a curriculum based on learning objectives that meet skills required by the industry partner.

"AMTEC will be a disseminator of high quality education information and career pathways for sustainable programs in tomorrow's automotive manufacturing workforce as it faces a very unique and challenging economical environment. It is higher education and industry working together for an American auto industry that will continue to compete successfully in the future global marketplace," said Principal Investigator Annette Parker.

KCTCS was chosen from among 200 nationwide NSF grant applicants. The award is effective September 15, 2009 and expires August 31, 2013. It has been approved on scientific/technical merit for approximately four years.

Every year the Kentucky Community and Technical College System provides real opportunity to real people – transforming the economy of the entire state by transforming the lives of the people who live in it. Help us continue transforming lives and our state's economy by joining the Kentuckians for Community and Technical Colleges at [kctcs.edu](http://kctcs.edu).





NCATC President, Will Johnson welcomes attendees.



SiMT welcomes NCATC and its members.

# Summer '09 Workshop

Hosted by the Southeastern Institute for Manufacturing & Technology (SiMT) at Florence-Darlington Technical College (FDTC) in South Carolina.



Day one of the workshop opened with over 75 attendees.



FDTC President, Dr. Gould welcomes attendees.



Jack & Scott check out GE MRI unit.



Lorna, Hope, and Will plan the evening.



Tour of the Darlington Raceway.



Jeff relaxes before EON 3D simulation begins.



Like a beacon – SiMT Welcomes NCATC.



Workshop attendees gather between session to chat.

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## St. Louis Community College Earns \$500,000 Grant

**S**t. Louis Community College was awarded a \$500,000 American Recovery and Reinvestment Act Brownfields Job Training Grant by the U.S. Environmental Protection Agency. Brownfields are abandoned or underutilized sites where actual or perceived environmental contamination is viewed as a barrier to redevelopment.

The grant will enable St. Louis Community College, in partnership with Saint Louis University's Center for Environmental Education and Training, to train unemployed and underemployed residents of local communities impacted by brownfields or other environmental issues.

"This just-in-time training program with the hands-on involvement of community-based, labor and business partners will allow the College to connect relevant, accelerated training to real jobs during the economic rebound," stated Rod Nunn, Vice Chancellor, Workforce & Community Development. Nunn also noted that the lack of skilled workers and training was cited as one of the largest barriers to expanding employment in the region in the recently released State of St. Louis Workforce report.

Those who graduate from the training will earn credentials in areas such as: Lead and Asbestos Abatement; the Hazardous Waste Operations and Emergency Response (HAZWOPER) standard and OSHA Construction Safety Standards certificate. St. Louis Community College will create an advisory board, consisting of local government, community-based organizations and industry to help identify job opportunities for those graduates.



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