



National Coalition of Advanced  
Technology Centers

*A Network of Advanced Technology Expertise*

# ***ATCs: Developing the Next Generation of America's Technical Workforce***



## **NCATC Fall Conference**

**October 5–7, 2011 • Chattanooga, Tennessee**

Hosted by:



## Welcome to Chattanooga!



It is my pleasure to welcome you to Chattanooga and to the 2011 National Coalition for Advanced Technology Centers (NCATC) Fall Conference. The conference theme, Developing the Next Generation of America's Technical Workforce, represents both the

mission of community colleges across America and our college's commitment to develop our students for the community we serve.

Chattanooga is fortunate to have many companies doing well during this very challenging time. Our college is the exclusive training partner with these companies. We have arranged tours of several: Volkswagen Academy; SIAG Aerisyn; Alstom TMG; and Westinghouse to highlight our work with these partners.

Our partners from the Chattanooga Area Chamber of Commerce, our electric power supplier, Wacker Chemie, and Volkswagen will help us welcome you. We are supporting Chattanooga's new standing as the city with the fastest fiber optic and wireless internet access in the U.S. by creating new programs to leverage this technology.

Chattanooga State is proud to be one of the founding members of NCATC and the host this year. Join us as we look forward to a great conference and a chance to learn from each other.

*James L. Catanzaro, Ph.D.  
President, Chattanooga State Community College*



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# 2011 NCATC Fall Conference

## Schedule at a Glance

### Wednesday, October 5 (All Events at the DoubleTree)

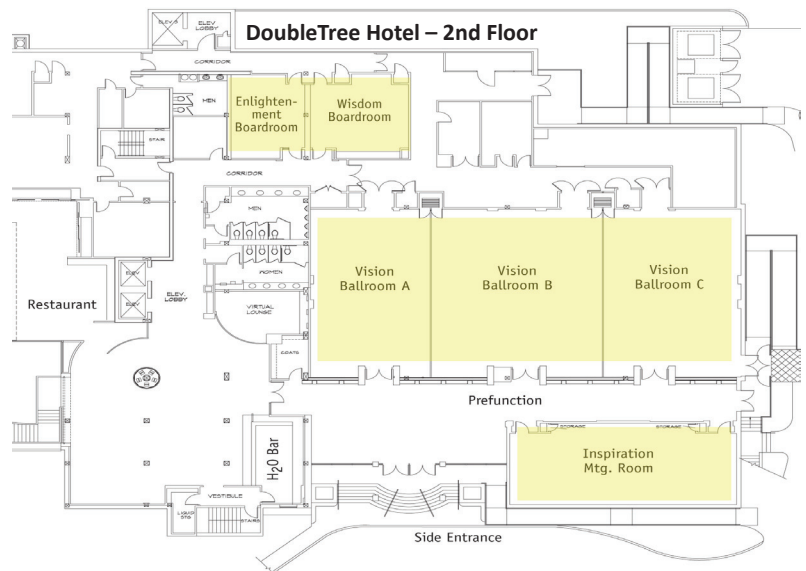
- 7:30 a.m. – 9:00 a.m. Morning Refreshments
- 7:30 a.m. – 5:30 p.m. Registration
- 7:30 a.m. – 9:00 a.m. Strategic Partner Alliance Exhibits
- 9:15 a.m. – 11:00 a.m. Morning Workshops
- 11:00 a.m. – 11:30 a.m. Break
- 11:30 a.m. – 12:30 p.m. Opening General Session and Lunch
- 1:00 p.m. – 2:30 p.m. Afternoon Workshops
- 2:45 p.m. – 4:00 p.m. Regional Roundtables and Strategic Partner Alliance Meeting
- 4:00 p.m. – 5:30 p.m. Strategic Partner Alliance Exhibit Showcase
- 4:00 pm. – 5:00 p.m. Presidents Advocacy Council Meeting
- 5:30 p.m. – 6:30 p.m. Welcome Reception

### Thursday, October 6 (All Events at the DoubleTree)

- 7:30 a.m. – 2:00 p.m. Registration
- 8:00 a.m. – 9:30 a.m. Breakfast
- 9:00 a.m. – 4:00 p.m. Strategic Partner Alliance Exhibits
- 9:45 a.m. – 10:45 a.m. Concurrent Session 1
- 11:00 a.m. – 12:00 p.m. Concurrent Session 2
- 12:30 p.m. – 1:30 p.m. Lunch
- 2:00 p.m. – 3:00 p.m. Concurrent Session 3
- 3:15 p.m. – 4:15 p.m. Concurrent Session 4
- 4:15 p.m. – 5:00 p.m. On Your Own
- 5:00 p.m. – 7:00 p.m. Reception and Dinner

### Friday, October 7

- 7:30 a.m. – 8:00 a.m. Transportation to Volkswagen Academy
- 8:00 a.m. – 8:30 a.m. Continental Breakfast
- 8:30 a.m. – 9:00 a.m. CSCC Presentation
- 9:00 a.m. – 10:00 a.m. Volkswagen Academy Tour
- 10:15 a.m. Load Buses for Industry Tours
- 10:30 a.m. – 12:15 p.m. Industry Tours
- 12:30 p.m. Lunch; adjourn following lunch



#### Additional Meeting Rooms:

**Hospitality** is on the 3rd floor, across from the elevators  
**Insight** is on the Lobby Level, near the front desk

# Wednesday, October 5

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**7:30 a.m. – 5:30 p.m.**  
*Coats/Prefunction Area*

**Registration Open**

**7:30 – 9:00 a.m.**  
*Vision C*

**Morning Refreshments**

**7:30 – 9:00 a.m.**  
*Vision C*

**Strategic Partner Alliance Exhibits Open**

**9:15 – 11:00 a.m.**  
*Vision A*

**Morning Workshops:**

**Turning Scanned Points into Finished Parts**

Mesh, Surface, and Solids – the three types of 3D models. This workshop will highlight six exciting uses from schools around the U.S. illustrating how 3D scanning is helping teachers trigger the imagination of students, young and old, by turning points into parts. “Create/Scan/Modify/Output” and build a healthy 3D modeling lab.

**Presenter:** *Daniel Gustafson, Next Engine*

*Inspiration*

**Teach Basic Digital Logic with Field Programmable Gate Arrays (FPGA)**

This workshop will provide attendees with a thorough introduction to FPGA technology, including why it should be used to teach basic digital logic. Through an NSF-funded project, the University of New Mexico and four community colleges are creating curriculum and providing training for this new technology. Attendees will get hands-on experience with the devices.

**Presenters:** *Karl Henry and Lardell Goodloe, J.F. Drake State Technical College; Craig Kief, University of New Mexico*

*Insight*  
*(Lobby Level)*

**Technical Skill Attainment Using the NOCTI Model**

Attend this session to learn more about NOCTI, a national assessment company providing assessments and related services for a variety of technical programs. We’ll also provide more information on a special offer for NCATC members!

**Presenter:** *Amie Birdsall, NOCTI*

**11:00 – 11:30 a.m.**

**Break**

**11:30 a.m.–12:30 p.m.**  
*Vision B*

**Opening General Session and Lunch**

**“Selection and Training for Success –  
Workforce Readiness in the Automotive Field”**

**Keynote Speaker:** *Hans Herbert Jagla*

*Executive Vice President for Human Resources  
Volkswagen Group of America*



# Wednesday, October 5

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1:00 – 2:30 p.m.

*Vision A*

## Afternoon Workshops:

### Designing and Building Green: Planning Your Successful High Performance ATC

The success of your Advanced Technology Center can be jumpstarted by proper planning. This presentation is based on lessons learned during the planning, construction, and operation of the Southeastern Institute of Manufacturing and Technology, with additional input from a LEED-credentialed architect on sustainability issues.

**Presenters:** *Jack Roach, Southeastern Institute of Manufacturing and Technology/ Florence Darlington Technical College; Hank Wade, Lawson State Community College*

*Inspiration*

### Yes, Customers Do Indeed Prefer Blended e-Learning!

Your customers can't afford days and weeks of class to learn and become certified in mission critical and career essential subjects like Lean, Six Sigma, and Project Management. Find out why Blended e-Learning is a better way to teach and an improved way to learn even for complex skills sets. Benchmark your peers and get tips on how you can increase your value to customers.

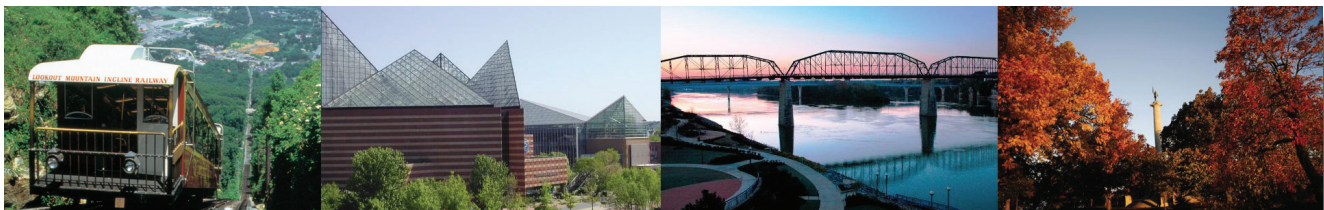
**Presenters:** *Rob Stewart, The Quality Group; Don Robison, St. Louis Community College; Debbie Davidson, Gateway Technical College*

*Insight*  
*(Lobby Level)*

### Changing the Future of Manufacturing with Additive Manufacturing

Additive manufacturing is changing the way people are manufacturing today and is playing a large part in the evolution of the way products are developed. This presentation will showcase companies using 3D Printers and 3D Production Systems in their product design, product development and manufacturing processes. Companies are saving thousands of dollars and precious time with the help of their 3D printing systems.

**Presenter:** *Jesse Roitenberg, Stratasys Inc.*



# Wednesday, October 6

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2:45 – 4:00 p.m.

## Regional Roundtables and Strategic Partner Alliance Meeting:

*Vision C*

Strategic Partner Alliance Members

*Vision A*

Northeast Region:

CT, DE, ME, MD, MA, NH, NJ, NY, OH, PA, RI, VT

*Inspiration*

Southeast Region:

AL, FL, GA, KY, MS, NC, SC, TN, VA, WV

*Insight*

*(Lobby Level)*

Midwest Region:

IL, IN, IA, MI, MN, NE, ND, SD, WI

*Enlightenment*

Central Region:

AR, CO, KS, LA, MO, NM, OK, TX

*Wisdom*

Pacific/Southwest/Northwest Region:

CA, HI, AK, AZ, ID, MT, NV, OR, UT, WA, WY

4:00 – 5:30 p.m.

## Strategic Partner Alliance Exhibit Showcase

*Vision C*

4:00 – 5:00 p.m.

## Presidents Advocacy Council (Invitation only)

*Enlightenment*

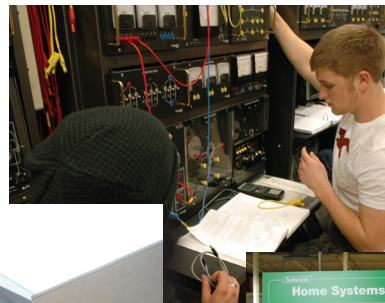
PAC members and NCATC Board Officers

5:30 – 6:30 p.m.

## Welcome Reception

*Vision B/Prefunction*

Hors d'oeuvres and cash bar



# Thursday, October 6

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8:00 – 9:30 a.m.  
*Vision B*

## **Breakfast/NCATC Business Meeting and Elections** **“Chattanooga Can Do – Leveraging Public-Private Partnerships for Economic Development Success”**

**Keynote Speaker:** *Trevor Hamilton, Vice President of Economic Development, Chattanooga Area Chamber of Commerce*



9:00 a.m. – 4:00 p.m.  
*Vision C*

## **Strategic Partner Alliance Exhibits Open**

9:45 – 10:45 a.m.  
*Vision A*

## **Concurrent Session 1:** **eLABorate Success**

This presentation will describe the flexible delivery system implemented in Northeast Wisconsin Technical College’s Electromechanical Technology and other electronics-based associate degree programs. A recently awarded NSF project to provide cross-training for faculty will be described. Successes and challenges with this delivery system will be discussed.

**Presenters:** *Pam Mazur and Ed Kralovec, Northeast Wisconsin Technical College*

*Inspiration*

## **Staring At the Sun: Chattanooga State’s New Solar Energy Technology Concentration**

This presentation offers a brief view of today’s energy generation business and the important role of solar power in the energy generation industry. At Chattanooga State Community College, we have developed the new Solar Energy Technology concentration under our Electrical/Electronic Engineering Technology A.A.S degree program with state-of-art training equipment and highly qualified instructors to meet the educational demand of the fast-growing Renewable Energy business in this region.

**Presenters:** *William Wan, Tim Anderson, and Rich Carson, Chattanooga State Community College*

*Hospitality*  
*(3rd Level)*

## **Meeting the Startup Needs of a Major New Manufacturer**

When a major new manufacturer chooses your community, it presents many challenges. Knowing how to recognize and then address these challenges and training needs is critically important. This presentation will describe one community’s approach to meeting those needs.

**Presenter:** *Richard Burke, Chattanooga State Community College*

*Wisdom*

## **Early College Student Experiences**

Have you ever wondered what concurrently enrolled high school students really think about their college technical course experiences? This session includes the exploration of three Photonics students’ personal educational experiences and peer interactions while participating in the IHCC Early College Program. One-on-one interviews with students provide qualitative data representing individual student experiences. Audio excerpts from the original student interviews will be included and pictures and comments from participating students will be shared.

**Presenters:** *Greg Kepner, Indian Hills Community College*

# Thursday, October 6

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11:00 a.m. – 12 noon

*Vision A*

## Concurrent Session 2:

### **Bridging the Skills Gap with Industry Standards**

Is your college seeking access to current curriculum developed collaboratively with experts from the aviation, energy and transportation industries? Do you want to set your college apart and provide your graduates with a differentiation when marketing themselves to employers? Learn how some NCATC colleges have already taken the first step and how you can join them.

**Presenters:** *Deborah Davidson, Gateway Technical College; Roger Tradajewski, NC3 National Coalition of Certification Centers*

*Inspiration*

### **Creating New Opportunities in Technical Education by Launching America's First Unmanned Aircraft System Maintenance Training Center**

In March 2010, Northland Community and Technical College (NCTC) was awarded a \$5 million grant by the U.S. Department of Labor to develop a first-of-its-kind unmanned aircraft systems (UAS) maintenance technician program. As part of the project, NCTC worked with the National Center for Aerospace and Transportation Technologies (NCATT) to develop a national standard for workplace competencies fully endorsed by the UAS industry and other stakeholder groups. This presentation will explore the challenges of developing technical workforce development programming for an emerging industry that will mature to a level of full-scale commercialization over the next several years.

**Presenters:** *James Retka, Northland Community Technical College; Lee Brewster, National Center for Aerospace and Transportation Technology*

*Hospitality  
(3rd Level)*

### **Regional Center for Nuclear Education and Training**

NSF recently awarded a regional center grant for nuclear training to a consortium of colleges led by Indian River State College. Midlands Technical College is leading the efforts of South Carolina partner institutions. This presentation will outline the role of the South Carolina partners to develop and distribute turnkey solutions for nuclear operations training.

**Presenter:** *Thomas C. Chandler, Midlands Technical College*

*Wisdom*

### **PBL & PBJ! Are They Meat for The Job!**

Join us at an "Art Auction" as we share the tools we are piloting to develop courses in advanced manufacturing career pathways that focus on accelerated delivery and project-based design and content. Join us as we share some of the ideas and processes piloted to make this happen while having some fun!

**Presenters:** *John Calver and Gary Randall, Thomas Nelson Community College*

12:30 – 1:30 p.m.

*Vision B*

## **Lunch and Conference Address:**

### **"WACKER Group Environmental, Health, Safety, Security and Regulatory Sustainability"**

**Keynote Speaker:** *Timothy Sloan, Senior Director/*

*Head of Environmental, Health, Safety, Security and Regulatory Affairs, WACKER POLYSILICON North America*





# Thursday, October 6

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2:00 – 3:00 p.m.

*Vision A*

## **Concurrent Session 3:**

### **E-Learning in Technical Programs, There is Light at the End of the Tunnel!**

It's a challenge to develop material related to a program of study which brings value to the students. For most technical programs not a lot of electronic material is available and the burden of creating it falls on instructors. While developing and creating class materials, we found ways to increase students' access to information, assess student progress, and reduce printing costs and paperwork simultaneously. This session will demonstrate ways to improve and increase student tracking using E-Learn.

**Presenters:** *Jimmy Jones and Jill Wentworth, Chattanooga State Community College*

*Inspiration*

### **Toward State-of-the-Art Power System Training:**

#### **DOE Smart Grid Grant Utilization and Partnership with UTC**

This presentation offers an overview of the problems and demands of today's electric power industry and the Chattanooga State Engineering Technology Division's efforts to meet the training and workforce development challenges. A DOE Smart Grid grant and partnership with the University of Tennessee at Chattanooga to build a state-of-the-art Power System/Smart Grid training program will be discussed.

**Presenters:** *William Wan, Chattanooga State Community College; Stephen Craven, University of Tennessee at Chattanooga*

*Hospitality*

*(3rd Level)*

### **Pathway to a Modern Apprenticeship**

In response to a continual need for technical skilled labor in the energy and manufacturing industries, Lone Star College has developed innovative ways to work with its business partners to address that need. This presentation will cover Lone Star College's new structure of corporate training, the importance of corporate partnerships, and how to build an apprenticeship model for a specific career occupation for both pre and post-employment. The presentation will include best practices, lessons learned and how oil and gas companies in the Houston area are partnering with community colleges. Paramount to the discussion is the new apprenticeship model for machining and how NIMS credentialing is a part of the deliverables. Participants will learn about developing, marketing, and implementing a four to five-year apprenticeship program through credit or non-credit programs that incorporates a co-op experience and/or internship with corporate sponsors.

**Presenters:** *David Lenzi, David Mott, and Bonnie Dean, Lone Star College*

*Wisdom*

### **The Building and Construction Institute of the Southeast:**

#### **A Chattanooga State Initiative**

The purpose of the Building and Construction Institute of the Southeast (BCIS) is to provide multiple avenues of training and education that will ensure the greater Chattanooga economic region has the best-prepared and best-trained construction workforce in the Tri-State area. This is accomplished through an intense focus on quality training and education along with strong partnerships with local construction industry leaders.

**Presenters:** *Caitlin Moffitt and Tim McGhee, Chattanooga State Community College*

# Thursday, October 6

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3:15 – 4:15 p.m.

*Vision A*

## Concurrent Session 4:

### Pathways to Construction Trades

Pathways to Construction Trades is a Department of Education-FIPSE project designed to address the impending shortage of construction workers and increase the number of minorities entering the industry through the development of a short-term training program in construction and green skills. Native language instruction in the construction trades and math is integrated with delivery of contextualized teaching in Adult Basic Education (ABE) and English as a Second Language (ESL) instruction for low-skilled displaced workers. The program provides participants with skill development in construction, information on career pathways, and assistance in planning educational and career goals.

**Presenters:** Michael Brenner, Mona Schroeder-Beers, Bev Sroka, and Juan Marquez, Milwaukee Area Technical College

*Inspiration*

### WorkKeys and the National Career Readiness Certificate – A Foundation for Technical Career Pathways

The National Career Readiness Certificate (NCRC) is the nationally-recognized measure of career readiness based on ACT's WorkKeys skills. This presentation will show how WorkKeys and NCRC skills are vital to technical career pathways, and how they are being integrated into technical college programs via the National Association of Manufacturers (NAM)-endorsed stackable certificate program.

**Presenter:** Sheila Boyington, ACT/WorkKeys

*Hospitality*

*(3rd Level)*

### University Transfer Program in Industrial Technology

Chattanooga State Community College and Tennessee Technological University have partnered to provide a unique educational collaborative blending the best of both institutions with the training resources available through the Volkswagen Academy. The partnership has a mission to stimulate and develop a highly-skilled and prepared workforce through an educational arrangement that provides a seamless articulation through CSCC and TTU for students to pursue a Bachelor of Science degree in Industrial Technology upon completion of an Associate of Applied Science in Engineering Technology - Mechanical Engineering Technology concentration at CSCC.

**Presenters:** Mark Palmer, Chattanooga State Community College; George Graham, Tennessee Technological University

*Wisdom*

### Nuclear Power Industry Careers

This presentation will cover two degree concentrations specifically designed to meet the needs of the nuclear power industry. To address industry needs, Chattanooga State started two degree programs in partnership with Tennessee Valley Authority on radiation protection and power plant operations. This presentation will highlight the content of the two programs and the employment opportunities for the graduates.

**Presenters:** Lisa Miller and Beth Ruta, Chattanooga State Community College

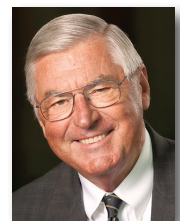
5:00 – 7:00 p.m.

*Vision B and Prefunction*

## Reception and Dinner

### "EPBs Fiber Optic Network – Accelerating Our Community and its Economic Growth"

**Keynote Speaker:** Joe Ferguson, Chairman of the Electric Power Board of Chattanooga; Immediate Past Chairman-U.S. Maglev Coalition



# Friday, October 7

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<b>7:30 – 8:00 a.m.</b> <i>DoubleTree Lobby</i>	<b>Transportation from DoubleTree Hotel to Volkswagen Academy</b>
<b>8:00 – 8:30 a.m.</b>	<b>Continental Breakfast</b>
<b>8:30 – 9:00 a.m.</b>	<b>Chattanooga State Community College Presentation:</b> <b>“Role of Community Colleges in Workforce Development”</b> <i>Dr. James Catanzaro, President, Chattanooga State Community College</i> <b>“Chattanooga State’s Industry Training Partnership Programs”</b> <i>Dr. James Barrott, Vice President of Technology</i>
<b>9:00 – 10:00 a.m.</b>	<b>Tour of Volkswagen Academy</b> Pristine and state-of-the-art, the Volkswagen Academy is a 162,000 square foot facility that blends traditional classroom and laboratory instruction with hands-on training opportunities. This educational strategy exposes individuals to critical and essential automotive manufacturing concepts and equipment with a goal of developing an exceedingly well-qualified technologically-literate and highly-skilled workforce. Chattanooga State Community College was selected by Volkswagen to manage its training center. CSCC continues to collaborate with Volkswagen to design and implement educational programs that are specific and germane to the technologically-rich Volkswagen production environment.
<b>10:15 a.m.</b>	<b>Load Buses for Industry Tours</b>
<b>10:30 a.m.–12:15 p.m.</b>	<b>Industry Tours:</b> - Alstom Power - Chattanooga - SIAG Aerisyn Energy LLC - Westinghouse Electric Company
<b>12:15 p.m.</b>	<b>Lunch provided; participants return to DoubleTree and conference adjourns</b>

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## ***Special Thanks to the 2011 Fall Conference Planning Team at Chattanooga State Community College:***

- **Lulu Copeland**, Manager, Technical Training-Engineering Technology Division
- **Dr. James Barrott**, Vice President
- **Dr. James Catanzaro**, President



[www.ncatc.org](http://www.ncatc.org)

