In an effort to reduce the carbon footprint on the environment made by meetings like ours, we have implemented some features this year to make this year’s conference a little more environmentally friendly.

To reduce plastic waste, we will not serve bottled waters at the ATE Conference this year. Instead, every speaker, attendee, and staff person will receive a 100% recycled water bottle for use throughout this event and back home for continued GREEN behavior.

To take advantage of already recycled products, we used recycled materials for your tote bag and lanyard. All remaining tote bags will go to a local charity for use.

To encourage recycling, we have recycle containers set up throughout the Omni Shoreham and encourage you to do your part and recycle all unwanted handouts, newspapers, and flipchart papers.

To reuse next time, we will also be collecting name badge holders at the conclusion of this event and will recycle and reuse them next year.

Finally, we printed this program book on paper that is Forest Stewardship Council (FSC) certified, and is made of 30% recycled material. FSC sets forth principles, criteria, and standards that span economic, social, and environmental concerns. The FSC standards represent the world’s strongest system for guiding forest management toward sustainable outcomes.

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The American Association of Community Colleges (AACC) is the primary advocacy organization for the nation’s community colleges. The association represents 1,200 two-year, associate degree-granting institutions and more than 12 million students. AACC promotes community colleges through five strategic action areas: recognition and advocacy for community colleges; student access, learning, and success; community college leadership; economic and workforce development; and global and intercultural education. Information about AACC and community colleges can be found at www.aacc.nche.edu.
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**FACES OF SUCCESS**  
**OCTOBER 29-31, 2008**

**OMNI SHOREHAM HOTEL • WASHINGTON, DC**

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CONFDENCE AT A GLANCE

WEDNESDAY, OCTOBER 29, 2008

10:00 AM – 7:30 PM
CONFERENCE REGISTRATION
West Conference Foyer

10:00 AM – 7:30 PM
INTERNET CAFE
Executive

1:00 – 5:00 PM
WORKSHOP A: GETTING STARTED
Ticket required
Palladian

1:00 – 4:00 PM
WORKSHOP B: MEASURING FOR SUCCESS
Ticket required
Ambassador

1:00 – 4:00 PM
WORKSHOP C: ETHICS COMPLIANCE AND FINANCIAL MANAGEMENT – AN INSPECTOR GENERAL PRIMER
Ticket required
Congressional

1:00 – 5:00 PM
WORKSHOP D: LEVERAGING FAB LABS IN AN ATE WORLD
Ticket required
Hampton

1:00 – 5:00 PM
WORKSHOP E: SECOND LIFE – THE THIRD DIMENSION OF LEARNING
Ticket required
Diplomat

3:30 – 6:00 PM
SHOWCASE I SET-UP
Exhibit Hall

6:00 – 7:15 PM
OPENING PLENARY SESSION: EDUCATION – FOUNDATION FOR SUCCESS
Keynote Speaker: Captain Robert “Hoot” Gibson, NASA Astronaut (former)
Regency

7:30 – 10:00 PM
SHOWCASE I AND WELCOME RECEPTION
Exhibit Hall

10:00 – 10:45 PM
SHOWCASE I BREAKDOWN
Exhibit Hall

THURSDAY, OCTOBER 30, 2008

7:30 AM – 6:00 PM
CONFERENCE REGISTRATION
West Conference Foyer

7:30 – 8:45 AM
SHOWCASE II SET-UP
Exhibit Hall

7:30 – 8:45 AM
CONTINENTAL BREAKFAST
Regency

7:30 – 8:45 AM
ATE STUDENT/ALUM RECOGNITION BREAKFAST
By Invitation Only
Hampton

7:30 AM – 6:00 PM
INTERNET CAFE
Executive

7:45 – 8:45 AM
BREAKFAST ROUNDTABLES
Regency

8:00 AM – 5:30 PM
ATE RESOURCE CENTERS DISSEMINATION STATION: MAKING YOUR CURRICULUM OR PROJECT DISSEMINATION A PRIORITY
Executive

9:00 – 10:15 AM
PLENARY SESSION: HOW TO BECOME A THOUGHT LEADER FOR $0
Regency

10:15 – 10:30 AM
REFRESHMENT BREAK

10:30 – 11:45 AM
CONCURRENT SESSIONS
SESSION 1: WORKFORCE DEVELOPMENT CHALLENGES AND OPPORTUNITIES – PHILANTHROPIC COMMUNITY PERSPECTIVES
Palladian

SESSION 2: THE POWER OF LEARNING COMMUNITIES IN TECHNICIAN EDUCATION
Empire
SESSION 3: REBUILDING THE TECHNICIAN PIPELINE THROUGH PARTNERSHIPS
Diplomat

SESSION 4: EMPLOYERS TELL US WHAT THEY NEED
Ambassador

12:00 – 2:30 PM
SHOWCASE II AND LUNCH
Exhibit Hall

2:30 – 3:15 PM
SHOWCASE II BREAKDOWN

2:45 – 3:45 PM
WORKSHOPS AND DISCUSSION SESSIONS

4:00 – 5:00 PM
WORKSHOPS AND DISCUSSION SESSIONS

4:30 – 5:15 PM
STUDENT SHOWCASE SESSION SET-UP
Exhibit Hall

5:15 – 6:30 PM
STUDENT SHOWCASE SESSION AND RECEPTION
Exhibit Hall

FRIDAY, OCTOBER 31, 2008

7:15 AM – 12:00 PM
CONFERENCE REGISTRATION
West Conference Foyer

7:15 – 10:00 AM
INTERNET CAFE
Executive

7:15 – 8:30 AM
CONTINENTAL BREAKFAST
Regency

7:30 – 8:30 AM
BREAKFAST ROUNDTABLES
Regency

7:30 – 8:45 AM
SHOWCASE III SET-UP
Exhibit Hall

8:45 – 10:00 AM
PLENARY SESSION: FACES OF SUCCESS – ATE GRADUATES PANEL
Panel Facilitator:
Moira Gunn, National Public Radio
Host of Tech Nation and Biotech Nation
Regency

10:00 – 12:30 PM
SHOWCASE III AND LUNCH
Exhibit Hall

12:30 – 1:15 PM
SHOWCASE III BREAKDOWN

12:45 – 3:00 PM
ATE CENTER DIRECTORS MEETING
ATE Center Staff Only
Palladian
GUIDE TO CONFERENCE SESSIONS

Please refer to the conference schedule for specific session times and and room locations.

BREAKFAST ROUNDTABLES  Breakfast roundtables are a forum for interactive discussion of a topic among a small group of 5-10 people. They are designed as informal sessions and attendance is not pre-assigned. Attendance at roundtables is first come, first served, and limited to a maximum of 10 people including the moderator.

CONCURRENT SESSIONS  Concurrent sessions include formal presentations and/or panel discussions that address topics pertaining to the conference theme.

WORKSHOPS  Workshops provide a venue for formal presentation. Presenters may facilitate a systematic exchange of ideas or conduct a demonstration or application of techniques and/or promising practices to provide greater insight into the issues outlined in the conference tracks (listed below). Please note that the session capacity for workshops range from 50-60 people.

DISCUSSION SESSIONS  Discussion sessions are excellent venues for engaging in in-depth discussions, and meeting colleagues with similar interests. Discussion moderators serve as facilitators of interactive, substantive discussions and small group activities. Please note that the session capacity for discussion sessions is 25-30 people.

SESSION TRACKS  The Workshops and Discussion Sessions scheduled on Thursday, October 30, feature topics pertaining to advanced technological education, and are organized by the following tracks:

TRACK 1: Highlighting Technician Achievement and Impact  Sessions in this category may include: stories, experiences, and opinions of current and former students, ATE alumni working in industry, and perspectives from those that helped to enable success such as faculty, advisors, and hiring managers/employers.

TRACK 2: Developing and Sustaining Technician Programs  Sessions in this category may include: facing issues of high costs and low enrollments, increasing student pipelines, addressing emerging career fields, building discipline specific programs, entrepreneurship strategies, comprehensive design.

TRACK 3: Keeping Faculty and Curriculum Current in the Discipline  Sessions in this category may include: faculty development for secondary school teachers and community college faculty, methods and models for professional development, curriculum design/revision.

TRACK 4: Engaging Students in the Classroom  Sessions in this category may include: undergraduate research, business strategies, student internships, addressing the needs of 21st century learners.

TRACK 5: Recruiting and Retaining Students  Sessions in this category may include: specific and proven strategies for targeting women and underserved populations, marketing to students, learning communities, building pathways into technical programs.

TRACK 6: Marketing to External Constituencies  Sessions in this category may include: marketing technical programs to industry, secondary schools, guidance counselors, parents, and/or the community.

TRACK 7: Using New and Emerging Technologies and Pedagogies  Sessions in this category may include: problem or case-based learning, virtual labs, Web 2.0 applications, digital interactive simulations.

TRACK 8: Keeping Employers Involved and Partnerships Active  Sessions in this category may include: engaging employers in curriculum development and improvement, strategies for serving company needs, scholarships, internships, externships, developing industry champions.

TRACK 9: Assessing Student Learning, Evaluating Programs, and Research  Sessions in this category may include: project evaluation, electronic systems concept inventory, student assessment strategies, targeted research for technicians.

SHOWCASE SESSIONS  The showcase sessions provide grantees an opportunity to exhibit their projects and share information with other programs, and with guests at the conference. ATE projects and centers present displays that capture the purposes and products of their programs. The displays are divided into three sessions; one center showcase and two project showcases. The conference’s main meal events are coordinated as part of the showcase sessions.

SHOWCASE DEMONSTRATIONS  The 2008 ATE PI Conference will offer Showcase Demonstrations for the first time. These sessions will take place at a demonstration station within the exhibit hall—near the booths for the ATE projects and centers. For each showcase session, 2-3 projects or centers will give short demonstrations of innovative implementation approaches, technologies, and/or tools related to technician education. This format will allow for a more dynamic presentation than possible at a project or center booth. Showcase demonstrations provide a seating area for up to 20 people.

STUDENT SHOWCASE SESSION  ATE students will highlight their program of study and/or career path at a showcase session and reception held in their honor. ATE PIs and team members are encouraged to attend and show support for the ATE students and recent alumni taking part in this session.
CONFE RENCE SCHED ULE

W E D N E S D A Y , O C T O B E R 2 9

P R E C O N F E R E N C E A C T I V I T I E S

1 0 : 0 0 A M – 7 : 3 0 P M
C O N F E R E N C E R E G I S T R A T I O N
W e s t C on f e r e n c e F o y e r

1 0 : 0 0 A M – 7 : 3 0 P M
I N T E R N E T C A F E
E x e c u t i v e

1 : 0 0 – 5 : 0 0 P M
W O R K S H O P A : G E T T I N G S T A R T E D
A d v a n c e R e g i s t r a t i o n a n d T i c k e t R e q u i r e d
P a l l a d i a n
D a v i d C a m p b e l l , P r o g r a m D i r e c t o r , N a t i o n a l S c i e n c e F o u n d a t i o n , V A
B r i a n G a t e s , A T E S c i e n c e A s s i s t a n t , N a t i o n a l S c i e n c e F o u n d a t i o n , V A
K . C . B a u k i n , T e a m L e a d e r , D i v i s i o n o f G r a n t s a n d A g r e e m e n t s , N a t i o n a l S c i e n c e F o u n d a t i o n , V A
K i m B u b , G r a n t s a n d A g r e e m e n t S p e c i a l i s t , D i v i s i o n o f G r a n t s a n d A g r e e m e n t s , N a t i o n a l S c i e n c e F o u n d a t i o n , V A
R a s h a w n F a r r i o r , G r a n t s a n d A g r e e m e n t S p e c i a l i s t , D i v i s i o n o f G r a n t s a n d A g r e e m e n t s , N a t i o n a l S c i e n c e F o u n d a t i o n , V A
P a m H a w k i n s , E H R T e a m L e a d e r , D i v i s i o n o f G r a n t s a n d A g r e e m e n t s , N a t i o n a l S c i e n c e F o u n d a t i o n , V A
A r l e n G u l l i c k s o n , C o n s u l t a n t , E v a l u a t i o n C e n t e r , W e s t e r n M i c h i g a n U n i v e r s i t y , M I
L o r i W i n g a t e , P r o j e c t M a n a g e r , E v a l u a t i o n C e n t e r , W e s t e r n M i c h i g a n U n i v e r s i t y , M I

This workshop is recommended for all principal investigators, co-principal investigators and other team members involved in newly awarded projects and centers in FY08. Others who may find the workshop useful include new awardees in FY07 and other project personnel from prior years who have recently become involved in ATE projects and centers. The workshop will be divided into three parts: (1) ATE Program Issues. Topics to be covered include reporting requirements such as annual and final reports, working with NSF program officers, changes in project personnel or scope, data collection, FastLane and other reporting systems, use of Advisory Boards and National Visiting Committees, preparing project highlights for NSF and others, Institutional Review Boards (IRBs), and many other relevant topics. (2) Financial Management and Grant Management Issues. This section will focus on financial accounting issues and discuss in detail problems often seen in monitoring visits such as participant support, time and effort accounting, subawardees, record keeping, changes in scope, overload, and use of consultants. (3) Evaluation. This segment will address building in evaluation from the start of your project or center. The ATE program has an annual survey of all projects and centers that have been active for more than one year. Additional evaluation topics to be addressed include, but are not limited to, evaluation design, methods and instrumentation, resources for learning about productive evaluation, the roles of internal and external evaluators, and evaluation challenges.

1 : 0 0 – 4 : 0 0 P M
A d v a n c e R e g i s t r a t i o n a n d T i c k e t r e q u i r e d
A m b a s s a d o r
N o r e n a N o r t o n B a d w a y , A s s o c i a t e P r o f e s s o r , U n i v e r s i t y o f t h e P a c i f i c , C A
K a r l K a p p , P r o f e s s o r o f I n s t r u c t i o n a l T e c h n o l o g y , B l o o m s b u r g U n i v e r s i t y , P A
J e a n K . S a n d o , A s s o c i a t e V i c e P r e s i d e n t f o r A c a d e m i c A f f a i r s , M i n n e s o t a S t a t e U n i v e r s i t y M o o r e h e a d , M N

All ATE centers and projects are required to evaluate their activities and impact. However, when preparing proposals, center and project grantees are busy determining their goals, and evaluation plans are frequently tacked-on with details added after the grant is awarded. In addition, common misconceptions about program evaluation make the process seem overly complex and without much merit. Led by three experts on measurement and evaluation of ATE centers and projects, this workshop will show how to evaluate more effectively, such as using evaluations for continuous improvement and building on existing data. Promising practices in evaluation will be discussed, common evaluation myths will be dispelled, and participants will have a hands-on opportunity to develop promising evaluation designs for a hypothetical ATE project.
1:00 – 4:00 PM
ETHICS COMPLIANCE AND FINANCIAL MANAGEMENT: AN INSPECTOR GENERAL PRIMER
Advance Registration and Ticket Required
Congressional
James T. Kroll, Head, Administrative Investigations, Office of Inspector General, National Science Foundation, VA

This workshop is recommended for principal investigators, co-principal investigators, and other team members involved in awarded ATE projects and centers that have been in operation for at least one year. Others who may find the workshop helpful include research administrators from the colleges. The workshop will be divided into two parts. (1) Ethics and Compliance Issues: Topics to be covered address compliance with Federal research regulations. Topics will include issues such as intellectual theft, data tampering, conflicts of interest, collaborative issues, financial management issues such as program income, and obtaining necessary oversight approvals (human and animal research). This presentation will contain numerous case studies based on investigations that the Office of the NSF Inspector General has conducted. (2) Audit Issues: Topics to be covered include proper financial management, adequate procedural guidance, and A-133 audits. Case studies and examples will focus on issues identified in audits of ATE projects and centers by the Office of the Inspector General and grant monitoring visits at ATE sites conducted by the Division of Grants and Agreements.

1:00 – 5:00 PM
WORKSHOP D: LEVERAGING FAB LABS IN AN ATE WORLD
Advance Registration and Ticket Required
Hampton
Neil Gershenfeld, Director, Center for Bits and Atoms, Massachusetts Institute of Technology, MA
Sherry Laseter, Program Manager, Center for Bits and Atoms, Massachusetts Institute of Technology, MA
Jim Janisse, Chairman, Development Manager, Fox Valley College, WI
Scott Simenson, Program Director, Information and Telecommunication Technologies, Century College, MN
Kelly Zelesnick, Dean, Engineering Technologies Division, Lorain County Community College, OH
R. Scott Zitek, Assistant Professor, Engineering Technologies, Lorain County Community College, OH
David Richardson, Program Developer, University Partnerships, Lorain County Community College, OH
Rita Mazzola, Instructional Technician, Engineering Technologies, Lorain County Community College, OH

A Fab Lab, short for Fabrication Laboratory, is a special lab comprised of off-the-shelf, industrial-grade fabrication and electronics tools, integrated in open source software and programs developed by researchers at the Massachusetts Institute for Technology (MIT) Center for Bits and Atoms. Both technical and non-technical users around the world share a common set of platforms and tools to permit easy and rapid translation of ideas into reality. Fab Labs create a highly engaged learning environment that also significantly stimulates creativity and innovation. The first Fab Labs in the USA outside of MIT have been deployed at several Midwestern colleges who also created the Midwest Fab Lab Network (MFLN). One major MFLN initiative will be an NSF-supported project to integrate digital fabrication experiences into product-realization curriculum while assessing impacts on STEM competencies and attitudes. MFLN and MIT team members will review the experiences, applicability and considerations of Fab Labs in education (secondary through graduate) and demonstrate selected Fab Lab capabilities. This session will also provide an exchange forum to understand interests and requirements for future development in the ATE community.

1:00 – 5:00 PM
WORKSHOP E: SECOND LIFE – THE THIRD DIMENSION OF LEARNING
Advance Registration and Ticket Required
Diplomat
Michael Mino, Director, Center for 21st Century Skills, Education Connection, CT
Phyllis Owens, Professor, Computer Graphics Program, Camden County College, NJ

Unlike the 20th century when teaching took place only in the face-to-face classroom, learning in the 21st century is evolving to include 3-dimensions, the classroom, online courses and 3-D immersive environments. This session will showcase NSF-funded educators who have evolved traditional STEM course curricula, teaching and learning activities and online course delivery systems into the popular 3-D virtual world Second Life. Workshop activities will include a review of NSF funded course curriculum documents, online course environments and tours of both public and private Second Life islands. Due to the hands-on component of the workshop, all participants must bring a laptop with wireless Internet access capacity. Note on time: the workshop is scheduled from 1:00 – 4:00 p.m. followed by an additional one-hour lab that is optional.

3:30 – 6:00 PM
SHOWCASE I SET-UP
Exhibit Hall
CONFEERENCE OPENING

6:00 – 7:15 PM
OPENING PLENARY SESSION
Regency Ballroom

Gerhard Salinger, Lead Program Director, ATE, National Science Foundation, VA
Cora Marrett, Assistant Director, Directorate for Education and Human Resources, National Science Foundation, VA
Lynn Barnett, Vice President for Academic, Student and Community Development, American Association of Community Colleges, Washington, DC

RETIREMENT TRIBUTE TO ELIZABETH J. TELES
Lead ATE Program Director, National Science Foundation, VA

FOUNDATION FOR SUCCESS
Keynote Speaker: Captain Robert “Hoot” Gibson, NASA Astronaut (former)

Captain Gibson will discuss his career, beginning with his days as a community college student to the exciting life of a flight test pilot and Space Shuttle astronaut. He will discuss the vital role of science, technology, engineering and math in his fields of endeavor and illustrate the importance of a lifetime of continuous learning in meeting challenges. The importance of a solid education, as provided by the U.S. system of community colleges and universities, cannot be over emphasized in the competitive world that we find ourselves in today.

7:30 – 10:00 PM
SHOWCASE I AND WELCOME RECEPTION
Exhibit Hall

10:00 – 10:45 AM
CONTINENTAL BREAKFAST
Regency Ballroom

ATE STUDENT/ALUM RECOGNITION BREAKFAST
By Invitation Only
Hampton

7:30 – 8:45 AM
BREAKFAST ROUNDTABLES
See Breakfast Roundtable Schedule
Regency Ballroom

8:00 AM – 5:30 PM
ATE RESOURCE CENTERS DISSEMINATION STATION – MAKING YOUR CURRICULUM OR PROJECT DISSEMINATION A PRIORITY
Executive

Dissemination is a key element of the ATE program. Whether projects are locally, regionally, or nationally focused, their impact depends on sharing information. The ATE Resource Centers can help ensure effective dissemination of your curriculum or project’s results and materials. As dissemination conduits, they provide access to a wide range of technology education resources for students, faculty, and industry professionals. Visit the Dissemination Station in the Executive room across from the registration area to see how the ATE Resource Centers can help you. Also, learn more about the new ATE Central, a comprehensive web portal and database that draws together all of the ATE Resource Centers and projects for one simple search.

THURSDAY, OCTOBER 30

7:30 AM – 6:00 PM
CONFERENCE REGISTRATION
West Conference Foyer

7:30 – 8:45 AM
SHOWCASE II SET-UP
Exhibit Hall

7:30 – 8:45 AM
CONTINENTAL BREAKFAST
Regency Ballroom

7:30 – 8:45 AM
ATE STUDENT/ALUM RECOGNITION BREAKFAST
By Invitation Only
Hampton

7:45 – 8:45 AM
BREAKFAST ROUNDTABLES
See Breakfast Roundtable Schedule
Regency Ballroom

7:30 AM – 5:30 PM
ATE RESOURCE CENTERS DISSEMINATION STATION – MAKING YOUR CURRICULUM OR PROJECT DISSEMINATION A PRIORITY
Executive

8:00 AM – 5:30 PM
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FIFTEENTH NATIONAL ATE PRINCIPAL INVESTIGATORS CONFERENCE
Representatives from national philanthropic organizations with significant programmatic focus on workforce development, postsecondary education and/or the future of learning share their organizations’ perspectives, strategic goals, and programmatic initiatives targeting the challenges facing workers, employers, communities, and the nation.

SESSION 2: THE POWER OF LEARNING COMMUNITIES IN TECHNICIAN EDUCATION

Empire
Elaine Craft, SC ATE Center of Excellence, Florence-Darlington Technical College, SC
Ann Davis, Teaching and Learning Center, Pasadena Community College, CA
Elaine Johnson, Bio-Link: Bridge to Biotech, UC San Francisco, CA
Diego Navarro, Digital Bridge Academy, Cabrillo College, CA
Chrys Panayiotou, OP-TEC, Indian River State College, FL
Moderator: Anthony Benoit, Project TLC, Three Rivers Community College, CT

Academic, emotional, and social challenges prevent many students from succeeding in technology education. First generation college students and members of under-represented groups in particular may have difficulty obtaining college support services. The presenters for this session have created learning communities that bring these services closer to the students who need them and that facilitate peer support to help students surmount these challenges. These communities have accelerated the transition to college and have improved recruitment and retention into technology programs. The session will describe the problems facing such communities and ways to make them work.

SESSION 3: REBUILDING THE TECHNICIAN PIPELINE THROUGH PARTNERSHIPS

Diplomat
Greg Kane, State of CT Department of Education, Project Lead the Way and Engineering by Design, CT
Mirella Jones, MIIKC Employment Coordinator, Metropolitan Community College-Business and Technology, Making It in Kansas City, MO
Will Anderson, Director of Technology, Maryland Business Roundtable, MD
Moderator: Kathy Alfano, ATE Regional Center CREATE, CA

Many of our secondary and postsecondary technical programs, as well as industry employers, are suffering the effects of low enrollments and their increasingly negative impact on the student pipeline. This session will highlight innovative and successful models for the development of student recruitment pipelines and share information on...
successes and lessons learned. Panelists in this session will discuss strategies to deliver educational solutions that integrate innovative programs with targeted career information to reach students, teachers, and parents; collaborate with the workforce development systems to transition workers to industry employment; and create and adapt exciting curricula to facilitate articulation pathways to AS and BS degree programs.

SESSION 4: EMPLOYERS TELL US WHAT THEY NEED

Ambassador
Jill Heiden, former Vice President of Human Resources, ESAB Welding and Cutting Products, SC
Geoffrey Little, Senior Consultant, The Clements Group, UT
Sandra Porter, Director of Education, Geospiza, Inc., WA
Thomas Wagar, Northeast Sales Engineering Leader, Nortel Networks, NY
Moderator: Ann Beheler, PI, Convergence Technology Center, TX and Dean, Orange Coast College, CA

Hear from a diverse group of industry representatives involved with the ATE program regarding their impressions of the impact of ATE on the workforce and the skills they wish to see in our graduates. Panelists will also discuss current job prospects and answer questions from the audience.

12:00 – 2:30 PM
SHOWCASE II AND LUNCH
Exhibit Hall

2:30 – 3:15 PM
SHOWCASE II BREAKDOWN

WORKSHOPS AND DISCUSSION SESSIONS

2:45 – 3:45 PM
DISCUSSION: FLEXIBLE MODELS FOR TWO-YEAR AS DEGREE PROGRAMS
TRACK 1
Forum

Marilyn Barger, Florida Advanced Technological Education (FLATE) Regional Center for Manufacturing Education, FL
Karen Wosczyna-Birch, Regional Center for Next Generation Manufacturing, CT

FLATE and its community college partners with the FL DOE have created a two-year technical degree related to manufacturing. The CT COT and its Regional Center for Next Generation Manufacturing has developed a working 2+2+2. These two seamless pathways have some common elements and include industry driven curriculum enabling students to pursue high tech, high paying jobs as well as continue their education at four-year institutions. This discussion will provide details about these two statewide programs and how they are working, as well as have participants share their own strategies.

How can you build consensus and get buy-in from various programs and institutions? Should we be consolidating separate technical degree programs with common core skills? How do various traditional and new disciplines maintain their individuality? How do you build in multiple exit and entry points and ensure integrated pathways from high schools to baccalaureate degrees when designing an academic program? How do we evaluate the impact of systemic degree reform?

DISCUSSION: ATE STUDENT VOICES – STUDENT ENGAGEMENT FROM THE STUDENT PERSPECTIVE

TRACK 1
Regency

Jessica Alicdan, Southwestern College, CA
Abiodun Adeloba Ajayi, Community College of Baltimore County, MD
Myra Espinoza-Chavez, John F. Kennedy High School/Ohline College, CA
Norton Troy Martza, Southwestern Indian Polytechnic Institute, NM
Anthony J. Ross, Central New Mexico Community College, NM
Tressa Gardner, Florence-Darlington Technical College, SC

Hear from current ATE students regarding their experiences in technical education programs and in internship programs. Four students will discuss what attracted them to their college program, what kept their interest, how their ATE-supported program has shaped their learning, and how they envision their careers unfolding. Additionally, they will share their ideas about how the ATE program might improve to serve future students.

What attracts students to ATE programs? What keeps them there? What improvements do current students suggest to attract future students to ATE programs?

TRACK KEY

TRACK 1
Highlighting Technician Achievement and Impact

TRACK 2
Developing and Sustaining Technician Programs

TRACK 3
Keeping Faculty and Curriculum Current in the Discipline

TRACK 4
Engaging Students in the Classroom

TRACK 5
Recruiting and Retaining Students

TRACK 6
Marketing to External Constituencies

TRACK 7
Using New and Emerging Technologies and Pedagogies

TRACK 8
Keeping Employers Involved and Partnerships Active

TRACK 9
Assessing Student Learning, Evaluating Programs, and Research

FIFTEENTH NATIONAL ATE PRINCIPAL INVESTIGATORS CONFERENCE
2:45 – 3:45 PM
WORKSHOPS AND DISCUSSION SESSIONS
(Continued)

DISCUSSION: TRANSITIONING TO THE NEW CTE THROUGH CAREER CLUSTERS AND PROGRAMS OF STUDY
TRACK 2
Cabinet

Scott Hess, Career and College Transitions Branch Chief, U.S. Department of Education, OVAE, DC
Ellen Holland, Education Program Specialist, U.S. Department of Education, OVAE, DC
Steve Frank, on exchange under the Intergovernmental Personnel Act from the Texas Education Agency, TX

Learn more about the Office of Vocational and Adult Education’s (OVAE) career cluster initiatives. OVAE has awarded funding to six states to develop a network for creating solutions and removing barriers to creating statewide articulation agreements and rigorous programs of study. Each of the selected states has identified one of four career clusters: STEM, finance, transportation distribution and logistics, and health science. This session will identify how the states are approaching programs of study, development of statewide articulation agreements, partnership development, documentation of the process, and dissemination efforts to build capacity.

Information will also be included on OVAE’s STEM Transitions: Enhancing Mathematics and Science Rigor Through Evidence-Based Curriculum Projects, which focuses on raising the mathematics and science rigor of community college courses. Under a cooperative agreement with the League for Innovation in the Community College, 62 curriculum projects have been completed in six STEM-related career clusters: health science, information technology, manufacturing, transportation, STEM, and agriculture.

DISCUSSION: MOVING STUDENTS FROM DEVELOPMENTAL MATH INTO TECHNICAL PROGRAMS
TRACK 2
Embassy

Elizabeth Teles, National Science Foundation, VA
Deborah Boisvert, University of Massachusetts-Boston, MA
Sue Parsons, Ceritos College, CA

Community colleges are challenged by the large numbers of students who arrive underprepared to succeed in college level mathematics courses. However, it is vital to our success as a nation that colleges proactively focus on this problem. As more and more good jobs depend heavily on science, technology, engineering, and mathematics (STEM) skills, community college leaders are recognizing the importance of providing pathways where students can move quickly from developmental mathematics courses into technical programs. Among the strategies that are showing promise are learning communities, accelerated learning, intermediate economic payoffs as students progress, and comprehensive support to keep students in college. This session will discuss policies and practices that help students succeed, support for faculty and students to implement programs, and resources available.

WORKSHOP: RAPIDLY EMERGING CAREER FIELDS IN SUSTAINABLE ENERGY TECHNOLOGY
TRACK 2
Capitol

Melonee Docherty, Advanced Technology Environmental and Energy Center (ATEEC), IA
Kirk Laflin, Partnership for Environmental Technology Education (PETE), IA

This session will focus on the area of sustainable energy technician education and how green jobs will be critical in meeting the current challenges in the U.S. and global economies. Individuals with programs and those thinking about starting programs will learn where technologies are going, where the programs currently are, and where the professional development opportunities are to develop skills in this area. The session will also present practical information on ATEEC’s online energy resources clearinghouse and how ATE-funded projects and programs can participate in the center’s resource-sharing efforts. The clearinghouse provides free, downloadable materials and online services to the sustainable technology field at large, and is developing ways to share existing energy resources such as instructional materials, curricula, technical and educational forums, professional networking, partnering opportunities, and professional development efforts.

Where are the new green jobs for technicians likely to be? Where are the current energy programs? Where are the professional development opportunities? Where are the technologies going?

WORKSHOP: INTEGRATING COMPUTER-BASED CURRICULUM IN THE SCIENCE CLASSROOM
TRACK 3
Congressional A

Kelly McDonald, American River College - North Valley Biotechnology Center, CA
Jeffery O’Neal, American River College - North Valley Biotechnology Center, CA

Presenters will describe a professional development program aimed at training science educators to design and implement computer-based curriculum that engages students and facilitates learning. Students use publicly-available computer tools, databases, and programs...
to analyze data and solve problems related to current biological issues. Presenters will demonstrate several of these activities, which include hands-on components for workshop participants. This session will benefit educators interested in the benefits and challenges of teaching with technology.

What are the benefits and challenges of using technology to supplement the standard high school and college science classes? How do we keep teachers and students current when the field of science is so dynamic?

**DISCUSSION:** FROM THEORY TO PRACTICE – HOW ADJUNCT FACULTY SUSTAIN THE SPACETEC PROGRAM

**TRACK 3**

Council

Delores McNair, University of the Pacific, CA
Frank Margiotta, SpaceTEC: National Aerospace Technical Education Center, FL

Although there is considerable criticism of hiring adjunct faculty in community colleges, ATE programs often rely on instructors who have specialized skills, connections with industry, and current experience in the field. These qualities are typically found in part-time (adjunct) faculty who are full-time industry professionals. In this discussion, we’ll review trends related to adjunct faculty and examine one program that intentionally relies on adjunct faculty to sustain and enhance its program.

How have you capitalized on the expertise of adjunct faculty in your program? What challenges have you faced in successfully integrating adjunct faculty into the college community? What resources do you provide adjunct faculty in support of their teaching?

**WORKSHOP:** INNOVATIVE INTENSIVE BIOTECHNOLOGY PROGRAMS PROMOTE RETURNING STUDENT SUCCESS

**TRACK 4**

Empire

Elaine Johnson, City College of San Francisco, Bio-Link, CA
Jeanette Mowery, Madison Area Technical College, WI

Innovative biotechnology programs tap into extraordinary talent. Both Madison Area Technical College and City College of San Francisco have immersion programs that provide strong foundational laboratory techniques that move students rapidly into advanced activities coupled with work experience. Students practice molecular biology techniques, protein purification, and cell culture while learning business planning, product production, documentation, and finance. This session provides the nuts and bolts of intensive programs that can be modified for regional needs.

What characteristics attract students into intensive biotechnology programs? What do students need to know upon entering the program in order to succeed? What data can be used to support the need for such programs?

**DISCUSSION:** CAREER TRANSITION SPECIALISTS – LINKING TODAY’S EDUCATION WITH TOMORROW’S OPPORTUNITIES

**TRACK 5**

Regency

Dale Cox, Gadsden State Community College, AL
Matthew Burtrum, Gadsden State Community College, AL

This presentation will describe the Career Coach program, an initiative that places community college funded career specialists in local high schools. The Career Coaches bridge the gap between school and career, providing greater awareness of opportunities that require technical education. The coaches are an integral part of CARCAM STEM Camp recruiting and delivery.

What does the Career Coach provide that a high school counselor doesn’t offer students? With budgets ever shrinking, how are the positions funded? What are some reasons why other colleges and states should consider funding similar programs?

**WORKSHOP:** MENTORING AND MYTHBUSTING – CULTIVATING GENDER EQUITY IN EMERGING TECHNOLOGIES

**TRACK 5**

Hampton

Margaret Semmer, Center for System Security and Information Assurance, IL
Ann Claire Anderson, CORD, TX

The gender equity collaborative was developed as a National Science Foundation project with the Center for System Security and Information Assurance (CSSIA) at Moraine Valley Community College (MVCC) and CORD (Waco, TX). The two-year project takes a multi-faceted approach toward encouraging high school girls to pursue careers in emerging technologies. This presentation will provide an overview of the collaborative and how resources from this project will help educational institutions retain female students in nontraditional careers, emerging technologies, and STEM. Educators interested in understanding the dynamics of gender bias, learning more about the latest research on gender equity, and developing retention strategies will benefit from this presentation.

In today’s society, what are the primary reasons young women do not stay in STEM educational pathways and/or careers? What are the most predominant factors in a woman’s socialization that impact career decision making? What are the most effective methods for recruiting and retaining women in STEM programs?
THURSDAY, OCTOBER 30 (CONT.)

2:45 – 3:45 PM
WORKSHOPS AND DISCUSSION SESSIONS
(Continued)

WORKSHOP: HYBRID ET COURSES – MATCHING COURSE DESIGN TO STUDENT LEARNING STYLES AND TIME CONSTRAINTS
TRACK 5
Congressional B
Bill Ware, Piedmont Technical College, SC
Charles Dixon, Piedmont Technical College, SC
Lynn Mack, Piedmont Technical College, SC

Come and discuss our approach for removing barriers to student enrollment, learning, and program persistence in electronics programs. Strategies to be presented will address student problems of class availability, high travel costs, and learning style mismatch. Student concerns dealing with content review and missed content decrease as they develop time management strategies and become self-directed learners. Instructors will find assistance with course organization, attendance issues, and documentation as well as strategies that allow offering low enrollment courses. Come hear how we have addressed self-efficacy issues with female students and discuss our results.

WORKSHOP: TEACHING AND LEARNING IN 3-DIMENSIONS
TRACK 7
Palladian
Michael Mino, Center for 21st Century Skills, Education Connection, CT
Dan Cogan-Drew, Center for 21st Century Skills, Education Connection, CT

Education in the 21st century is evolving into 3-dimensions of teaching and learning in the classroom, online, and in 3-D environments. This session will showcase NSF-funded educators who are developing STEM teaching and learning activities in Moodle and in a private 3-D virtual world in Second Life. STEM educators must embrace new modalities of teaching and learning to address the issue of declining enrollments and lack of interest in STEM programs and careers.

What are the teaching and learning modalities of the 21st century? What is the most effective environment for delivering instruction in the 21st century? How can we leverage all modalities of teaching and learning to engage students in STEM education?

DISCUSSION: GIS FOR ATE PROJECTS AND CENTERS
TRACK 7
Governors
Vince DiNoto, GeoTech Center, TX
Mike Rudibaugh, GeoTech Center, TX

ATE researchers are challenged by the need to best represent their data and results to their committee, program officer, and evaluator. Lobbying efforts to secure dollars and students often depends upon telling the best story to legislators. Geographical Information System (GIS) provides the powerful graphical tools necessary to tell a compelling story. This discussion session will provide an overview of how GIS can be used to address current and future administrative issues facing community colleges.

What types of needs to present data in graphical or analytical terms do you have in your own project? What administrative applications on your campus, such as institutional research and reporting could benefit from the use of GIS? Envision how a GIS application could improve your own college or project/center reporting of data, statistics, or other facts.

WORKSHOP: LINKING ATE PROJECTS TO REGIONAL WORKFORCE INITIATIVES
TRACK 8
Ambassador
Patrice Cromwell, Senior Fellow, The Annie E. Casey Foundation, MD
Representatives from philanthropic organizations and CAEL (Council for Adult and Experiential Learning) will lead a discussion with ATE Principal Investigators about opportunities for linking their projects with other regional workforce and education initiatives, such as those sponsored by the National Fund for Workforce Solutions.

**DISCUSSION: ENVISIONING WHAT YOUR STUDENTS CAN LEARN THROUGH A PROJECT-BASED TASK**

**TRACK 9**

*Senate*

Louise Yarnall, SRI International, CA  
Elaine Haight, Foothill College, CA

When instructors choose to integrate project-based learning (PBL) into their courses, they have different goals for student learning. When it comes to assessing this broad range of learning outcomes, one test does not fit all! In our discussion session, we will engage instructors in identifying the PBL learning goals for their students and then share the kinds of assessment that will help them monitor student progress toward these goals.

When you think about doing project-based learning in your class, what do you hope students will learn? How would you give students feedback and grades for their performance?

**DISCUSSION: WHAT INFORMATION DO YOU NEED TO MANAGE AN ATE PROGRAM?**

**TRACK 9**

*Regency*

Norena Norton Badway, University of the Pacific, CA  
Jerry Somerville, University of the Pacific, CA

What information do you need? Our goal is to help university and program researchers give you the information you need to manage your ATE program effectively. This session is to share what we’ve learned so far, and to ask you to help us identify other information that might be useful to you.

What issues arise in managing an ATE program about which you wish you had more information? Why do you want that information? How can we provide that information in a way that would be useful to you?

**WORKSHOPS AND DISCUSSION SESSIONS**

**4:00 – 5:00 PM**

**DISCUSSION: STEM TEACHER EDUCATION – ACHIEVEMENT, IMPACT AND POSSIBILITIES**

**TRACK 1**

*Council*

Julie Guelich, Normandale Community College, MN  
Peggy Rejto, Normandale Community College, MN

Participants in this session will discuss the unforeseen impact and opportunity teacher education programs can foster. The partnerships built through EdTrAc have benefited Normandale Community College in unexpected ways, including an on-site secondary math education pathway, the opportunity to provide STEM training for in-service teachers, the identification of avenues for financial aid and academic support for students in STEM areas, and new curriculum in STEM disciplines. EdTrAc has even impacted the college’s long-range facility plan.

How have campus departments and service areas been impacted by teacher education programs at your campus? How can partnerships work to disseminate program achievements and extend benefits of the program to new areas of student need and professional interest? What are some of the grant opportunities that teacher education programs can pursue?

**WORKSHOP: ENGAGING STUDENTS IN REAL-WORLD INTEROPERABILITY STUDIES**

**TRACK 2**

*Congressional B*

Ann Beheler, Convergence Technology Center, CA  
Bill Saichek, Orange Coast College, CA

To meet the growing need for technicians supporting the converged network and the increasing Green IT needs in energy conservation, the Convergence Technology Center (CTC) has implemented strategies to help other colleges to rapidly implement their own convergence programs. Orange Coast Community College, a mentored college, will share how the process worked in their district and how other colleges can benefit from their experiences. Specifics for creating a mentoring program will also be discussed.

How has the mentored college program through the CTC helped to accelerate the implementation of new convergence technology programs? How can this mentoring program be a model for other mentoring programs to help in scaling up the dissemination of proven ATE programs?
CONFEERENCE SCHEDULE

THURSDAY, OCTOBER 30 (CONT.)

4:00 – 5:00 PM
WORKSHOPS AND DISCUSSION SESSIONS
(Continued)

DISCUSSION: PRACTICES, PEDAGOGIES, AND
VENUES FOR HYBRID, ONLINE TECHNICAL COURSES
TRACK 2
Governors

John Souders, OP-TEC: National Center for Optics and
Photonics Education, TX
Fred Seeber, Camden County College, NJ

This session will engage attendees in an open discus-
sion about the current status and future expectations of
online instruction as a pipeline building tool for technical
programs. The National Center for Optics and Photonics,
OP-TEC, will briefly report its results of offering an online
hybrid introductory-level photonics course and its plans for
extending its use to secondary/postsecondary dual-credit
offerings and incumbent worker retraining. Attendees will
be asked to comment on this plan, share experiences, and
provide insights on best practices.

What are the most effective ways to conduct labora-
tories and hands-on activities in an online environment?
What are the challenges in offering online instruction for
retraining incumbent workers? How can online courses be
better structured to entice more students and incumbent
workers to participate in technical programs?

DISCUSSION: PROJECT FAST FORWARD – A
NATIONAL DUAL CREDIT PROGRAM FOR THE DEAF
TRACK 2
Embassy

Donna Lange, Rochester Institute of Technology, NY
Myra Pelz, Rochester Institute of Technology, NY

Project Fast Forward has established a framework for a
dual-credit program for deaf and hard-of-hearing
students. The project partners with 12 high schools from
eight states and has over 100 students registered in dual-
credit courses. This session will discuss the dual-credit
model implemented for this project including its unique
professional development component for high school
teachers and counselors, the anticipated impact on the
student pipeline, and challenges faced in establishing a
national dual-credit program.

How do we ensure that the course rigor expected in
college courses is being met in the high school classroom?
How are partner schools recruited on a national level? How
can we work with your community college to increase the
number of deaf/hh students in IT programs?

DISCUSSION: ENTREPRENEURIAL, SOFT, IT, AND THE
SHARED CORE SKILLS FOR TECHNICIANS
TRACK 2
Senate

Edgar Treadt, CUNY Kingsborough Community College, NY
Christoph Winkler, CUNY Institute for Virtual Enterprise, NY

Much existing work has infused skills beyond the tradi-
tional technical core in order to produce the well-rounded
technician. The discussion often focuses entirely on soft
skills and is only relevant to a particular discipline. We
believe that the discussion needs to be broadened in scope
of skills and to encompass all disciplines. This discussion
will focus on the basic set of skills common to the majority
of technical careers; and the scope will be broadened to
include entrepreneurship and IT skills.

What basic soft, entrepreneurial, and IT skills transcend
all technical careers? Does IT form the foundation for many
technical jobs? Is it possible to design a general course
that provides these common skills to students of all techni-
cal majors?

WORKSHOP: TEACHING IMPROVEMENT FOR
COMMUNITY COLLEGE FACULTY
TRACK 3
Hampton

Kathleen Alfano, College of the Canyons, CA
Mary Slowinski, Bellevue Community College, WA

Community college part-time faculty frequently enter the
profession with a high degree of expertise in the field and
a dearth of classroom experience. This session describes
a model for training full-time faculty members in the skills
needed to facilitate teaching workshops for improving com-
community college part-time teaching. Attendees will see an
overview of the model; learn how faculty members on their
own campuses can receive training; and have an opportu-
nity to ask questions and engage in discussion.

In regards to providing professional development for
part-time community college faculty, what challenges do
you face on your own campus? What strengths and weak-
nesses do you see in the model? Do you think the model
could be applied successfully on your home campus?
WORKSHOP: FACE REALITY – HOW TO INITIATE AND SUSTAIN A COMPREHENSIVE SECONDARY SCHOOL CAREER PROGRAM WITH SUCCESSFUL TRANSITION TO COLLEGE AND CAREER PATHWAYS
TRACK 3
Congressional A
Susan Roark, Clark Advanced Learning Center, FL
Melinda Cottrell, Clark Advanced Learning Center, FL
This workshop highlights successful career curriculum designed for secondary students from beginning concepts to a fully-operational program based upon student achievement results showing the district’s highest science test scores and 100% student pass rate on the state math exam. Through internships, career shadowing, instructor externships, and more, secondary students explore STEM career options, gain real-world experiences, acquire employability skills, and create projects to enhance business operations. Attendees to benefit are instructors, businesses/industries, and curriculum planners.

How do institutions initiate and sustain a successful career program involving interaction and collaboration with the local business community? What effective strategies can secondary schools implement to support student career development as they transition from high school to post-secondary education and/or student-chosen career fields? How can comprehensive secondary school career programs assist both instructors and students in linking classroom learning with the changing business/industry world to enhance education and prepare students for the workplace?

DISCUSSION: CREATING AND SUSTAINING SUCCESSFUL PROFESSIONAL DEVELOPMENT STRATEGIES IN BIOTECHNOLOGY FOR SECONDARY SCIENCE TEACHERS AND CAREER COUNSELORS
TRACK 3
Regency
Sylvia Oliver, Washington State University Spokane, WA
Debra Schultz, Washington State University Spokane, WA
Moderators will discuss successful strategies and outcomes of a biotechnology education program designed to assist K-12 educators to successfully infuse technical skills and career awareness into classrooms to inspire and better prepare students for careers in biotechnology. Results are based on work with 90 secondary teachers and counselors from public, private, and alternative schools. Topics of discussion will include professional development strategies, teacher-student research opportunities, industry internships, and institutional collaborations.

What are the opportunities and barriers to infusing new curriculum and lab experiences into the secondary school setting? What level of professional development is needed to promote in-depth learning opportunities for students? What support systems, including collaborations, need to be in place to promote sustainability of professional development programs?

WORKSHOP: IMPLEMENTING AN INTEGRATED PROJECT-BASED APPROACH IN A DEVELOPMENTAL PROGRAM USING THE SCATE TECHNOLOGY GATEWAY CURRICULUM
TRACK 4
Empire
Jim Giuranna, Benjamin Franklin Institute of Technology, MA
Jackie Cornog, Benjamin Franklin Institute of Technology, MA
Tanya Rogers, Benjamin Franklin Institute of Technology, MA
This workshop focuses on the implementation of Technology Gateway, a curriculum using an interdisciplinary, project-based approach to teach developmental math and science while providing opportunities for students to develop communication skills. The presenters will address curriculum development, integrated teaching, student learning, assessment, and the values of project-based learning. The workshop includes an in-depth look at one of the projects.

How can project-based learning be used to develop student engagement, teamwork, critical thinking, and creative problem solving? How can faculty work in interdisciplinary ways to create contextualized, real-world scenarios for students?

TRACK KEY
TRACK 1
Highlighting Technician Achievement and Impact
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TRACK 8
Keeping Employers Involved and Partnerships Active
TRACK 9
Assessing Student Learning, Evaluating Programs, and Research
CONFFERENCE SCHEDULE

THURSDAY, OCTOBER 30 (CONT.)

4:00 – 5:00 PM
WORKSHOPS AND DISCUSSION SESSIONS
(Continued)

DISCUSSION: STRATEGIES FOR RECRUITING MINORITIES AND YOUNG WOMEN IN ENGINEERING
TRACK 5
Forum
Dayl Walker, Connecticut Business & Industry Association (CBIA), CT
Mary deManbey, Connecticut Business & Industry Association (CBIA), CT

CBIA’s project grant with the Regional Center for Next Generation Manufacturing focuses on recruiting and retaining students in manufacturing programs, with an emphasis on building a pipeline from technical high schools to community college technician training. Minorities and women are targeted through such programs as an engineering learning academy at an inner-city high school, teacher guides and DVDs, and workshops for young women. Educators interested in promoting manufacturing will particularly benefit from this discussion. All participants will receive CBIA’s Career Pathways Teacher’s guide and DVD on engineering.

What are the clear benefits of developing a learning academy at a high school? How can you inspire young women to enter nontraditional technology careers? What recruiting materials work?

DISCUSSION: ENHANCING THE ROBOTICS PIPELINE
TRACK 5
Capitol
Dennis Faber, TIME Center, Community College of Baltimore County, MD
Jeff Tjiputra, College of Southern Maryland, MD

Attracting students to technical careers is a tough challenge for many community colleges and building the collaborative networks needed to support those efforts is often the key to success. The TIME Center (Technology and Innovation in Manufacturing and Engineering) and the College of Southern Maryland will share our multi-faceted, comprehensive strategy to attract students into STEM programs by encouraging and enhancing several different robotics initiatives. We also invite discussion on how others are capitalizing on similar robotics interest.

What strategies are session participants employing to leverage student interest in robotics for enrollment gains?

What support systems are needed to grow and sustain robotics initiatives over time in order to increase the pool of potential students for our technical programs? What are some of the barriers to capitalizing upon this robotics interest?

WORKSHOP: INNOVATION IN TEACHING AND LEARNING PROJECT – EVOLUTION OF PROBLEM-BASED CASE LEARNING (PBCL)
TRACK 7
Ambassador
Jim Johnson, Nashville State Community College, TN
Arthur Smith, WGBH Educational Foundation, MA
Skip Cunningham, Olsen Laboratories, NE

Explore the new Problem-Based Case Learning (PBCL) project, Innovation in Teaching and Learning (ITL), designed for dissemination of PBCL as a practice. Hear from a business partner, WGBH, and ITL leader and respond in guided small group activity to critical features of the project: (1) business partners co-develop PBCL experiences; (2) interaction with resources and community online; and (3) hub and spokes model for implementation of ITL through professional development and train the trainer programs.

How could collaboration with a business partner in the co-development of learning experiences impact student learning, course content, and program development? How could an online resource and community impact teaching practice, curriculum content, and program development? How could groups of practitioners committed to adoption and adaption of an innovative practice impact organizational change?

TRACK 7
Diplomat
Michael Qaissaunee, Brookdale Community College, NJ
Gordon Snyder, NCTT, Springfield Technical Community College, MA
Vince DiNoto, Jefferson Community and Technical College, KY

The Apple iPhone and the Amazon Kindle have dramatically changed the way we view the mobile web and electronic or e-books. Traditionally, web browsing on mobile devices has been clumsy and unsatisfying. The iPhone has changed all of that, providing a web browsing experience that approaches the desktop computer. Likewise, the Amazon Kindle has created a platform for e-books that is simple, intuitive and satisfying to the user. In this presentation, we will discuss how these two devices; along with the iPhone
software development kit (SDK) will forever transform mobile teaching and learning.

How would you define the current state of mobile learning? What applications do you see for the iPhone in teaching and learning? What applications do you see for the Amazon Kindle in teaching and learning?

DISCUSSION: EFFECTIVE PRACTICES IN DEVELOPING, USING, AND MAINTAINING DIGITAL RESOURCE LIBRARIES

TRACK 7
Regency

Sandra Mikolaski, Bellevue Community College, WA
Rachael Bower, Internet Scout Project, WI

Digital resource libraries often play an important role in a project’s dissemination activities. Absent a strategy to make them known and accessible to a broad base of potential users, they often miss connecting with much of their audience and fail to achieve their potential benefit. This session will provide opportunities for discussion of best practices and experiences in the use of digital resource libraries and for learning about work currently underway on the ATE Center project as well as a project led by NWCET and the LIFE Center at University of Washington on new models for resource centers.

What are the attributes of an effective digital resource library from the perspective of a user? What are the attributes of an effective digital resource library from the perspective of a resource developer/provider? From a user perspective, what are the biggest challenges in accessing and using resources from most digital libraries?

DISCUSSION: SUCCESS STORIES OF INTEGRATING WORK EXPERIENCES INTO TECHNICAL EDUCATION

TRACK 8
Regency

James Swindell, Calhoun Community College, AL
Patricia Taylor, Thomas Nelson Community College, VA

This discussion session will provide an overview, best practices, and lessons learned from two examples of Co-op programs at SpaceTEC partner colleges, Calhoun Community College’s Co-operation Program with local industry and Thomas Nelson Community College’s Co-op program with the NASA Langley Research Center. This session will benefit institutions and industry partners seeking to establish highly-effective cooperative educational programs and those seeking to grow existing programs by learning from other’s successes and challenges.

How do you approach industry/government to form partnerships and co-op programs? How do you structure a co-op package that will attract the best students and meet industry/government objectives?

DISCUSSION: ASSESSING STUDENT PERFORMANCE IN PROBLEM-BASED LEARNING

TRACK 9
Regency

Nicholas Massa, Springfield Technical Community College, MA
Michele Dischino, Central Connecticut State University, CT

Problem-based learning (PBL) is emerging as an exciting alternative to traditional lecture-based instruction. In PBL, students learn by actively and collaboratively solving authentic problems presented in a real-world context. One of the challenges associated with PBL, however, is the assessment of student learning outcomes. Traditional measures of content knowledge are often inadequate for assessing and evaluating higher level thinking skills. In this interactive discussion session, we invite you to explore with us the various assessment strategies currently being employed by practitioners of PBL in technology education.

How is learning assessed in PBL? What are the different models for assessment in PBL currently being employed in technology education? What assessment strategies have been demonstrated as most effective for PBL in technology education?
WORKSHOP: EXPLORING DIMENSIONS AND PRACTICES OF SCALING UP
TRACK 9
Palladian

Deborah Boisvert, University of Massachusetts Boston, MA
David McNeil, Nashville State Community College, TN
Michael Lesiecki, Maricopa Community College District, AZ

Achieving scale in the implementation of an innovation across a target population is a common objective among ATE centers and projects. Too often, a successful pilot, when implemented, fails to live up to the expectations set by the pilot or is unable to be implemented effectively when applied to other situations. Participants in this workshop will compare and contrast successful practices and experiences of scaling; work with a five-dimension, research-based model for successful scaling up; and achieve new insights into moving forward in achieving scale in their own projects or initiatives.

What constitutes a successful dissemination plan? What successful practices have you used or observed in scaling up? Is sustainability necessary for achieving scale across a target population?

DISCUSSION: ATE PROFESSIONAL DEVELOPMENT EVALUATION
TRACK 9
Cabinet

Arlen Gullickson, Western Michigan University, MI
Lori Wingate, Western Michigan University, MI

This discussion focuses on NSF’s expectations for ATE professional development and how to improve professional development evaluation utility and credibility. Findings from the 2007-08 ATE annual survey provide the basis for a discussion among principal investigators and evaluators about the current status of ATE-supported professional development and its evaluation. Participants will learn about criteria and approaches for evaluating professional development and how to use evaluation to help meet NSF’s expectations and enhance student outcomes.

How do your evaluation practices fit with NSF’s expectations for ATE-supported professional development? How do you know if you’ve been successful with your professional development efforts? To what extent does your local evaluation capture credible evidence of professional development effectiveness?

4:00 – 5:00 PM
WORKSHOPS AND DISCUSSION SESSIONS (Continued)

4:30 – 5:15 PM
DISCUSSION: ATE PROFESSIONAL DEVELOPMENT EVALUATION
TRACK 9
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Lori Wingate, Western Michigan University, MI

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How do your evaluation practices fit with NSF’s expectations for ATE-supported professional development? How do you know if you’ve been successful with your professional development efforts? To what extent does your local evaluation capture credible evidence of professional development effectiveness?

4:30 – 5:15 PM
DISCUSSION: ATE PROFESSIONAL DEVELOPMENT EVALUATION
TRACK 9
Cabinet

Arlen Gullickson, Western Michigan University, MI
Lori Wingate, Western Michigan University, MI

This discussion focuses on NSF’s expectations for ATE professional development and how to improve professional development evaluation utility and credibility. Findings from the 2007-08 ATE annual survey provide the basis for a discussion among principal investigators and evaluators about the current status of ATE-supported professional development and its evaluation. Participants will learn about criteria and approaches for evaluating professional development and how to use evaluation to help meet NSF’s expectations and enhance student outcomes.

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FRIDAY, OCTOBER 31

7:15 AM – 12:00 PM
CONFERENCE REGISTRATION
West Conference Foyer

7:15 – 10:00 AM
INTERNET CAFE
West Conference Foyer

7:15 – 8:30 AM
CONTINENTAL BREAKFAST
Regency Ballroom

7:30 – 8:30 AM
BREAKFAST ROUNDTABLES
See Breakfast Roundtable Schedule
Regency Ballroom

7:30 – 8:45 AM
SHOWCASE III SET-UP
Exhibit Hall

8:45 A.M. – 10:00 AM
PLENARY SESSION
Regency Ballroom
Joan Ferrini-Mundy, Director, Division of Research and Learning in Informal Settings, National Science Foundation, VA

FACES OF SUCCESS: ATE GRADUATES PANEL
Panel Facilitator: Moira Gunn, National Public Radio Host of “Tech Nation” and “Biotech Nation”

Panelists:
Willard Cooper, Factory Service Engineer, ESAB Welding & Cutting Products, SC
Charles Daniel, Industrial Maintenance Technician, Alabama Cullman Yutaka Technology, AL
Priscilla A. Holliday, Technical Assistant, Chevron, TX
Marlena Jackson, Research Assistant, Genentech, Inc., CA
Katrice Jalbert, Downstream Processing Technician, Lonza Biologics, NH
Dylan Maho, Navigation Communications Tech Ops, U.S. Department of Transportation, Federal Aviation Administration Automated Flight Station, NM
Frank Frydrych, Information Security Analyst, SecureWorks, IL

The closing plenary session focuses on the 2008 conference theme of “Faces of Success” and features ATE program graduates now successfully working in business and industry. Come hear their diverse perspectives on their educational experiences, personal and professional goals, and how the ATE program helped them transition into the workplace, where they are helping to advance the U.S. STEM workforce and our nation’s competitiveness.

10:00 – 12:30 P.M
SHOWCASE III AND LUNCH
Exhibit Hall

12:30 – 1:15 P.M
SHOWCASE III BREAKDOWN

12:45 – 3:00 P.M
ATE CENTER DIRECTORS MEETING
ATE Center Staff Only
Palladian
BREAKFAST ROUNDTABLES

THURSDAY, OCTOBER 30

7:45 – 8:45 A.M.
Regency Ballroom

TABLE 1: MAKING IT INTERESTING
George Bilokonsky, Cuyahoga Community College, OH
This roundtable will present some strategies that have
met with great success in the recruiting and retention of
students for Cuyahoga Community College’s ATE program,
which is designed to encourage students to pursue STEM
studies and activities through project-based learning.

TABLE 2: LABORATORY INTERNSHIP PROGRAM
Mel Cossette, Edmonds Community College, WA
In collaboration with The Boeing Company, an internship
program was developed that provides our materials science
students access to various laboratories and related hands-on
activities. This internship is an excellent opportunity for
students to identify which type of lab or materials testing
they might prefer to work with.

TABLE 3: SUMMER INSTITUTES FOR STUDENTS AND
EDUCATORS – FACES OF RECRUITING
Steve Duke, Auburn University, AL
Recruiting effectiveness of process technology summer in-
stitutes will be discussed. Experiences from (npt)² summer
educator and student institutes in Alabama and Washing-
ton (2005-2008) will be used to promote discussion of best
practices; effectiveness; the challenges of such activities;
and their influence on high school educators, counselors,
and students.

TABLE 4: CONNECTING WITH YOUR BUSINESS
PARTNER – KEYSTONE TO PROBLEM-BASED
CASE LEARNING
Ruth Loring, Nashville State Community College, TN
Come discuss the high value and worthwhile challenge of
starting with a business partner to co-develop Problem-
based Case Learning (PBCL) modules that setup power-
ful learning environments for students. Hear from PBCL
practitioners about strategies gained from their experience.
Be ready to ask questions, share your ideas, and receive
successful practice guidelines and examples.

TABLE 5: COMMUNITY COLLEGE VIP MODEL FOR
RESEARCH, OUTREACH, AND STUDENT EDUCATION
IN STEM MATHEMATICS
Nader Vadiee, Southwestern Indian Polytechnic Institute
(SIPI), NM
The Vertically Integrated Pyramid (VIP) model for under-
graduate research, outreach, and student education will
be discussed. The model includes three teams comprised
of 3 SIPI and 6 high school students per team. Every team
is supervised by a University of New Mexico graduate/
senior student and a high school teacher mentor. The three
teams’ main activities include research and development,
education and outreach, and documentation and informa-
tion dissemination.

TABLE 6: UNDERGRADUATE RESEARCH AT
COMMUNITY COLLEGES – MODELS FOR SUCCESS
Nancy Hensel, Council on Undergraduate Research, DC
The goal of this project is to describe successful approaches
of collaborative student-faculty undergraduate research
endeavors at community colleges. The Council on Under-
graduate Research and the National Council of Instruc-
tional Administrators have recently conducted six regional
conversations with community colleges and identified four
approaches to undergraduate research: (1) applied research
on the campus; (2) collaborative research with an industry
partner; (3) collaborative research with a four-year campus;
and (4) research incorporated into the curriculum.

TABLE 7: ENGAGING COMMUNITY COLLEGE
AND SECONDARY SCHOOL FACULTY IN
CURRICULUM DEVELOPMENT
David Spang, Burlington County College, NJ
As part of the NSF-funded project entitled Institution-Level
Reform of an Engineering Technology Program, community
college and secondary school faculty have engaged in a
multi-disciplinary approach to curriculum development. This
breakfast roundtable discussion will focus on the unique
value-added aspects of such curriculum development ef-
forts for engineering technology programs.

TABLE 8: IS IT RECRUITING OR IS IT JUST
MORE OUTREACH?
Larry Loomis-Price, Lone Star College, TX
Want to grow your program? Do you have limited resources
for outreach and recruiting? How are they different and
how do you divide your time and resources between the
two? This discussion will focus on how to recruit students
and let the world know about your program or field.

TABLE 9: INCORPORATING GEOSPATIAL
TECHNOLOGIES INTO ATE PROJECTS
Ann Johnson, ESRI, NV
Geospatial Technologies—GIS, remote sensing and GPS—
are used in workforce disciplines that are the focus of
many ATE projects. This roundtable will examine resources
that can help incorporate geospatial technologies into ATE
projects. Special focus on the role of iGETT materials and
the GeoTech Center support.
FRIDAY, OCTOBER 31

7:30 – 8:30 A.M.
Regency Ballroom

TABLE 1: BUILDING AND STRENGTHENING THE BIOMANUFACTURING WORKFORCE

Melanie Lenahan, Raritan Valley Community College, NJ

There has been an interest in the further skills development of workers in biomanufacturing in our local area. However, we lacked a workable model that could be offered within the employee’s work week that would address the skill needs of the industry. The college has proposed two plans: (1) providing training to incumbent workers and (2) establishing a 12-week certificate program to prepare unemployed individuals for work in biomanufacturing. We are developing novel approaches in content design using a combination of alternative scheduling, technology, advising and internships.

TABLE 2: EVALUATE: EVALUATION NEEDS ASSESSMENT

Arlen Gullickson, Western Michigan University, MI

EvaluATE is a new resource center whose mission is to assist other ATE grantees to produce high-quality evaluations that ultimately advance the goals of ATE projects and centers and the overall ATE program. We seek input from project/center staff and evaluators about the best strategies for achieving this aim.

TABLE 3: RECRUITING AND RETAINING STUDENTS – WHAT WORKS?

Matthias Pleil, University of New Mexico - SCME, NM

Emerging technology programs have difficulty recruiting students. A program not only needs to make itself known; but also needs to educate the general population. What is the best approach? This breakfast roundtable will provide an exchange of ideas and discussion on generating increasing student enrollments.

TABLE 4: ENGAGING STUDENTS IN TEACHER EDUCATION CLASSES

Julie Johnson, Normandale Community College, MN

Participants will share information about engaging activities and assignments they have implemented in classes for teacher education students. The moderator will share information about field experiences and short-term independent physics projects she implemented that have been received positively by students. Please bring copies of assignments and activities to share.

TABLE 5: HOW IS YOUR INSTITUTIONAL REVIEW BOARD WORKING OUT?

Karen Palmer, Lone Star College-Montgomery, TX

Many community colleges have formed Institutional Review Boards or are beginning the process. Registration is straightforward, but developing and implementing an IRB presents challenges. Opening with one institution's lessons learned, the roundtable will proceed to experiences and questions from participants new to the IRB process or with wisdom to share.

TABLE 6: ICT-RELATED CENTER AND PROJECT CROSS FERTILIZATION

Pierre Thiry, City College of San Francisco, CA

This roundtable is intended to create and improve relationships and awareness between NSF ATE centers and projects related to Information and Communications Technologies. Let’s realize benefit for our various communities from the related and complementary good practices of others by getting to know each other better, by becoming better informed about each other’s efforts, and by working together. Through improved communication, information sharing, and collaboration, let’s figure out how to improve impact in our regions by leveraging products and practices from other regions.

TABLE 7: DEVELOPING MICRO- AND NANOFABRICATION TECHNICIAN PROGRAMS

Paul Hallacher, Pennsylvania State University, PA

Micro- and nanofabrication technician education programs are beginning to proliferate around the country. Community and technical college leaders will learn recent findings concerning how nanotechnology is being applied across industry sectors, and effective strategies for developing and sustaining education programs, including programs for incumbent workers as well as traditional students.

TABLE 8: BUILDING AND SUSTAINING A COMMUNITY COLLEGE GIS PROGRAM

Jane Benjamin, Lane Community College, OR

Join our discussion! This roundtable will share Lane’s MAPS GIS program model and what has been successful for students and the program, as well as barriers along the way. We believe promoting GIS in a variety of careers and having transfer agreements with four-year institutions can help sustain fledgling GIS programs.
Captain Robert “Hoot” Gibson graduated with a degree in aeronautical engineering from California Polytechnic State University in San Luis Obispo, California. He entered the United States Navy and served as a Fighter Pilot in F-4 “Phantom” and F-14 “Tomcat”. Aircraft and flew combat missions in Southeast Asia, making more than 300 carrier landings aboard the aircraft carriers “USS Coral Sea” and “USS Enterprise.” After attending the Navy Fighter Weapons School “Topgun,” and the Navy Test Pilot School, he served as a flight test pilot prior to being selected as an astronaut in 1978 in the first Space Shuttle astronaut selection.

In 18 years as an astronaut he flew five space flights, four of them as the Mission Commander, aboard the Space Shuttles “Challenger”, “Columbia”, “Atlantis”, and “Endeavour”. His final space flight was the first mission to rendezvous and dock with the Russian Space Station “Mir” in 1995. In his career with NASA, he held the positions of Deputy Chief of NASA Aircraft Operations, as the Chief of the Astronaut Office, and as the Deputy Director of Flight Crew Operations. After leaving NASA in 1996, Captain Gibson flew for 10 years as an airline pilot with Southwest Airlines.

In a flying career covering over 40 years, he has accumulated more than 13,000 hours of flight time in more than 60 types of military and civilian aircraft. He has been an air race pilot continuously since 1998 in the Reno National Championship Air Races, racing in the Unlimited Class and the Jet Class.

He has received numerous honors, awards and decorations including the Distinguished Service Medal, the Legion of Merit and the Distinguished Flying Cross, and has established five aviation and three space world records. He was awarded an honorary doctorate from Westminster College in 2002, and from the California University System in 2004. Captain Gibson was inducted into the Astronaut Hall of Fame in 2003.

Paul Gillin is a veteran technology journalist with more than 25 years of editorial experience. Since 2005, he has advised marketers and business executives on strategies to optimize their use of social media and online channels to reach buyers cost-effectively. He is a popular speaker who is known for his ability to simplify complex concepts using plain talk, anecdotes and humor. Gillin was previously founding editor-in-chief of TechTarget, one of the most successful new media entities to emerge on the Internet.

Prior to that, he was editor-in-chief and executive editor of the technology weekly Computerworld for 15 years. His critically acclaimed 2007 book, The New Influencers, chronicles the changes in markets being driven by the new breed of bloggers and podcaster. Among the more than 100 positive published reviewers of The New Influencers were The Wall Street Journal, The San Jose Mercury News, and the BBC. The book was also awarded a silver medal in the business category by Foreword magazine. His next book, Secrets of Social Media Marketing, will be published in the fall of 2008.

In addition to his consulting and speaking, Gillin writes columns for BtoB and Deliver magazines and online for Ziff-Davis Enterprise. His work has appeared in scores of publications, including The New York Times, Advertising Age and the San Jose Mercury News. His website is www.gillin.com. He also writes the popular Newspaper Death Watch blog, as well as his own blog: paulgillin.com. Gillin is a Research Fellow and a member of the advisory board of the Society for New Communications Research and he co-chairs the social media cluster for the Massachusetts Technology Leadership Council. Married with two children, he lives in Framingham, MA, where he lives and dies by the fortunes of the Boston Red Sox.

Moira Gunn hosts both Tech Nation and its weekly segment, BioTech Nation, the sole nationally-syndicated biotech segment on National Public Radio’s SIRIUS Satellite Radio Service NPR Now and NPR Talk. Its weekly reach further includes over 200 public radio stations nationwide, multiple airings to 133 countries on American Forces Radio International, and popular podcasts via the Internet. A former NASA scientist and engineer, Gunn holds a software patent in nutrition science, and she was the first woman to be awarded a PhD in mechanical engineering from Purdue University, where she also earned an MS in computer science. She is the director of information systems programs in the College of Professional Studies at the University of San Francisco. In this capacity she focuses on expanding the credentials of working professionals to deal with today’s information explosion. At the same time, her media work is dedicated to making the issues related to science and technology visible, comprehensible and compelling to the adult listening public. Her book Welcome to BioTech Nation… My Unexpected Odyssey into the Land of Small Molecules, Lean Genes, and Big Ideas was cited on Library Journal’s “Best Science Books of 2007.” She was recently named the EE Times 2008 Educator of the Year for her contributions to updating the information systems curriculum to reflect the needs of modern society.
The journey she would like to share is about family, life, and the mentors that continue to encourage her to believe that she can make a difference in the lives of others.

Katrice Jalbert participated in the biotechnology program through her high school’s vocational school, the Seacoast School of Technology. From there, she enrolled into the biotechnology program at Great Bay Technical College, NH. She graduated in 2007 with an associate’s degree in biotechnology. Jalbert completed an apprenticeship with Lonza Biologics, where she was able to work in every department of manufacturing, upstream to downstream. She was then hired full time in May of 2007 at Lonza after finishing her degree. Jalbert has worked for Lonza for two and a half years and is currently taking classes at the University of New Hampshire to obtain her baccalaureate degree in microbiology. Lonza is reimbursing her 100% tuition for all of her classes.

Dylan Maho, an enrolled member of the Rosebud Sioux tribe from Wisconsin, traveled to Albuquerque, New Mexico to seek higher education at a tribal institution known as Southwestern Indian Polytechnic Institute (SIPI). Maho capitalized on several internship opportunities while at SIPI including NASA’s Jet Propulsion Laboratories, Los Alamos National Laboratories (home of the Atom Bomb), and the Federal Aviation Administration. He currently works as a Federal Aviation Administration.

Willard Cooper, after being laid off from a welding position, pursued an EET degree at Florence-Darlington Technical College (FDTC), where he enrolled in ATE curriculum. After only a few semesters, his National Guard unit was activated and sent to Iraq in support of Operation Iraqi Freedom. Upon return, Cooper re-enrolled at FDTC and was hired by ESAB Welding and Cutting Products as an engineering technician intern. After graduating from the EET program, he was hired full-time at ESAB as a Factory Service Engineer, and often travels to provide troubleshooting/training on ESAB machinery. Cooper has also graduated from the Palmetto Military Academy, where he was commissioned a 2nd Lieutenant, and recently took part in a Military Officer Basic Course in Fort Sill, Oklahoma. He and wife Catastia have four daughters.

Charles Daniel entered Wallace State College in Hanceville, Alabama, as a Fast Track student (early college acceptance program) at the age of 16. He completed his high school degree and AAS degree concurrently at the age of 18. At Wallace State, Daniel chose to pursue a degree in Automotive Manufacturing Technology. He recently completed his finals and began work as an Industrial Maintenance Technician at an automotive tier supplier to Honda.

Frank Frydrych attended Moraine Valley Community College in Palos Heights, IL. He was enrolled in the IT Data Assurance and Information Security AAS degree program, which was funded by an NSF grant for the Center for Systems Security and Information Assurance (CSSIA). He currently holds the position of Information Security Analyst at SecureWorks, which was named best MSSP three years in a row by SC Magazine.

Priscillia A. Holliday graduated with honors from Houston Community College (HCC), TX with an AAS degree in Process Technology (May 2007). She held an internship with BP Amerca where she served as a petroleum engineering technologist. Currently, she works as a technical assistant with Chevron, and is pursuing her BS in Engineering from McNeese State University, LA.

Marlena Jackson is a biotechnology program graduate from the City College of San Francisco. Seventeen years ago, her mother was diagnosed with breast cancer. She watched and cared for her mother as she struggled through chemotherapy and radiation treatment. Jackson painfully experienced the struggles of all cancer patients and their families. The Bridge to Biotechnology Program at City College of San Francisco was the force that led to an internship with the U.S. Department of Agriculture. An opportunity to become a co-op student in the DNA purification group at Genentech in research followed, as did the encouragement to complete an undergraduate degree in biology from the University of the Pacific in Stockton, California. As a current Research Assistant at Genentech, Jackson contributes to the research that will hopefully lead to new treatments for, and a better understanding of cancer. The journey she would like to share is about family, life, and the mentors that continue to encourage her to believe that she can make a difference in the lives of others.

Joan Ferrini-Mundy is the Director of the National Science Foundation’s (NSF) Division of Research on Learning in Formal and Informal Settings (DRL), in the Directorate for Education and Human Resources. In this role she supports NSF’s strategic goal of “fostering research that will advance the frontiers of knowledge” to improve science, technology, engineering, and mathematics (STEM) learning. The signature programs of DRL are: Research and Evaluation on Education in Science and Engineering (REESE), Discovery Research K-12 (DR-K12), Information Technology Experiences for Student and Teachers (ITEST) and Informal Science Education (ISE). Collectively, these programs support research, development, implementation, evaluation, and synthesis to build a knowledge base for ongoing
innovation in STEM learning, in both formal and informal settings, at all levels.

While at NSF, Ferrini-Mundy continues to hold her faculty position at Michigan State University where she is a University Distinguished Professor of Mathematics Education and Assistant Vice President for STEM Education Research and Policy. Ferrini-Mundy was a Visiting Scientist in NSF’s Teacher Enhancement Program from 1989-1991 and worked at the National Research Council from 1995-1999 as Director of the Mathematical Sciences Education Board and Associate Executive Director of the Center for Science, Mathematics, and Engineering Education. From 1983-1999 Ferrini-Mundy was a member of the mathematics department at the University of New Hampshire, and in 1982-1983 she was a mathematics faculty member at Mount Holyoke College, where she cofounded the Summer Math for Teachers Program. Active in professional societies, Ferrini-Mundy has served on the Board of Directors of the National Council of Teachers (NCTM), chaired the Writing Group for the National Council of Teachers of Mathematics Principles and Standards for School Mathematics, and completed a term as a member of the Board of Governors of the Mathematical Association of America in 2006. Her research interests include calculus teaching and learning, the development and assessment of teachers’ mathematical knowledge for teaching, and the improvement of student learning in K-12 mathematics and science.

Cora B. Marrett is the Assistant Director of the Directorate for Education and Human Resources (EHR) at the National Science Foundation (NSF). She leads the NSF’s mission to achieve excellence in U.S. science, technology, engineering, and mathematics Education with oversight of a budget of approximately $825 million and a staff of 150. EHR is the principal source of federal support for strengthening STEM education through education research and development (R&D). Marrett currently co-chairs the Subcommittee on science, technology, engineering and mathematics Education of the National Science and Technology Council, Committee on Science.

Prior to her appointment at the NSF, Marrett served as the Senior Vice President for Academic Affairs in the University of Wisconsin System. Her NSF position is in conjunction with the UW-Madison Department of Sociology, where she remains a tenured faculty member. Earlier, she held the post of Senior Vice Chancellor for Academic Affairs and Provost at the University of Massachusetts-Amherst.

Her current position represents a return to NSF. She served at NSF as the first Assistant Director of the Directorate for Social, Behavioral and Economic Sciences. She received the NSF’s Distinguished Service Award for her leadership in developing new research programs and articulating the scientific projects of the directorate. Marrett also served as the initial chair of the Committee on Equal Opportunities in Science and Engineering (CEOSE).

In addition to her faculty appointment at the University of Wisconsin-Madison, she has been a faculty member at the University of North Carolina and Western Michigan University. Marrett holds a B.A. degree from Virginia Union University, and M.A. and Ph.D. degrees from UW-Madison. She has an honorary doctorate from Wake Forest University. She is a Fellow of the American Association for the Advancement of Science, the American Academy of Arts and Sciences, and Sigma Xi, the Science Research Society.

Marrett received the Erich Bloch Distinguished Service Award from the Quality Education for Minorities (QEM) Network, given annually to an individual who has made singular contributions to the advancement of science and to the participation of groups underrepresented in science, technology, engineering and mathematics. She is widely published in the field of sociology, and has held a number of public and professional service positions.

Linda L. Slakey joined the National Science Foundation (NSF) in November 2006 as Director of the Division of Undergraduate Education (DUE). She is a graduate of Siena Heights College (B.S. in Chemistry), and the University of Michigan (Ph.D. in Biochemistry.). She did postdoctoral research at the University of Wisconsin. Slakey was appointed to the faculty of the Department of Biochemistry at the University of Massachusetts Amherst in 1973. She was head of the department from 1986 until 1991, and Dean of the College of Natural Sciences and Mathematics (NSM) from 1999 until 2000. In September of 2000, she was appointed Dean of Commonwealth College, the honors college of the University of Massachusetts Amherst. Her scientific work focused on lipid metabolism and vascular biology, and was funded by the National Institutes of Health, the American Heart Association, and the National Science Foundation. As Dean of NSM and of Commonwealth College she was active in supporting teaching and learning initiatives throughout the university.
THANKS TO OUR CORPORATE SPONSORS FOR THEIR GENEROUS SUPPORT
# SHOWCASE SESSION

## WEDNESDAY, OCTOBER 29

### ATE CENTERS

7:30 – 10:00 PM  
Exhibit Hall

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<td>CSSIA - Center for Systems Security and Information Assurance</td>
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American Association of Community Colleges
ATE Conference
October 29-31, 2008
OMNI Shoreham Exhibit Hall
Washington, DC
SHOWCASE ABSTRACTS

WEDNESDAY, OCTOBER 29 (CONT.)

**BOOTH # 101/102**
Kentucky Community & Technical College System
KitCenter – Kentucky Information Technology Center

KitCenter has enabled the colleges of the Kentucky Community and Technical College System to offer IT degree and certificate programs to provide IT graduates with the skills needed by business and industry in Kentucky.

**BOOTH # 103/104**
Hillsborough Community College
Florida Advanced Technological Education (FL-ATE) Regional Center for Manufacturing Education

FLATE partners with industry across the state to conduct statewide educational reform for technical education at all levels and aggressively encourages, implements, and supports outreach and student recruitment through its well-branded “Made in Florida” outreach campaign.

**BOOTH # 105/106**
University of Massachusetts Boston
Boston Area Advanced Technological Education Connections (BATEC)

BATEC is transforming education to develop the IT professional of the 21st century by offering curriculum and professional development that is regionally connected, advanced in content and pedagogy, and industry-linked; attracting and advancing a diverse population of technology students; and connecting education, industry, and community to promote mutually-beneficial partnerships.

**BOOTH # 201/202**
Community College of Baltimore County, Essex
Maryland Center for Manufacturing Education Excellence

Maryland’s continuing manufacturing transformation requires a workforce with increasingly advanced manufacturing and engineering technology skills. The TIME Center showcase will highlight the center’s collaborative efforts with partners to support that transformation through curriculum improvement, professional development, pipeline rebuilding, and promotion of manufacturing and engineering technology careers.

**BOOTH # 203/204**
Saddleback College
National Center For Rapid Prototyping and Additive Manufacturing Technologies (Rapid Tech)

RapidTech is the national center for rapid technologies focusing on reverse engineering, rapid prototyping, rapid tooling, and rapid digital manufacturing. The college offers a certificate and AS degree program in the field. RapidTech supports a web page to assist in dissemination.

**BOOTH # 205/206**
Florence-Darlington Technical College
South Carolina Advanced Technological Education Center of Excellence (SC ATE)

SC ATE is significantly expanding excellence in technician education by providing a central web-based clearinghouse (www.TeachingTechnicians.org) to increase participation in professional development in the ATE program and assist project personnel who deliver professional development; expanding the number of educators using SC ATE strategies to increase the number of students in the advanced technological educational pipeline; and stimulating high school and community/technical college use of ATE curriculum models and best practices that attract students, reduce dropout rates, and positively impact technician education.

**BOOTH # 207/208**
Edmonds Community College
National Resource Center for Materials Technology Education (MatEd)

MatEd is headquartered at Edmonds Community College in Lynnwood, WA. MatEd is creating a national network of industry and educational professionals to increase the number and the diversity of highly skilled technicians, and to provide curriculum resources for materials technology program enhancement nationwide.

**BOOTH # 209/210**
Pennsylvania State University
National Center for Nanotechnology Applications and Career Knowledge (NACK)

NACK helps prepare students for work in any industry that uses micro- or nanotechnology. The center’s curriculum and program design enables community and technical colleges across the United States to offer associate degree programs in micro- and nanotechnology. The hands-on nanotechnology course curriculum can be delivered by community and technical colleges anywhere in the nation.

**BOOTH # 211/212**
Chemeketa Community College
Northwest Center for Sustainable Resources (NCSR)

NCSR is a leading information network for natural resource instructional materials. The center’s materials and professional development institutes are a major provider of cutting-edge technology and education curricula. These curricula are based on industry and employer needs, and support creating a sustainable source of natural resources to meet the growing demands of our society. NCSR’s instructional materials emphasize science-based, state-of-the-art ecosystem management practices.
BOOTH # 301/302
University of New Mexico
Southwest Center for Microsystems Education

Microsystems are an enabling technology that supports biotechnology, transportation, homeland security, and consumer product applications with an $8 billion per year market. The Southwest Center for Microsystems Education continues to increase the region’s educational capacity to produce technologists while increasing the general public’s awareness of the Microsystems industry.

BOOTH # 303/304
Western Michigan University
ATE Evaluation Resource Center

EvaluATE supports ATE projects and centers in their evaluation efforts by providing technical assistance, resources, and workshops on evaluation. The center’s purpose is to help ATE grantees conduct and use evaluations to inform program planning and improve services in ways that advance ATE program goals.

BOOTH # 305/306
College of the Mainland
Center for the Advancement of Process Technology (CAPT)

Established in 2002, CAPT supports the development of a highly skilled, educated, and diverse process technician workforce for the chemical manufacturing, refining, and oil and gas production industry sectors. To accomplish this, CAPT focuses on developing educational materials and fostering outreach activities.

BOOTH # 307/308
Kirkwood Community College
AgrowKnowledge – The National Center for Agriscience and Technology Education

Agricultural colleges nationwide have become members in AgrowKnowledge to share in educational resources in the areas of biotechnology, geospatial technology, environment, and energy. These resources are distributed as workshops, curriculum modules, and learning activities through conferences and an online clearinghouse.

BOOTH # 309/310
Center for Occupational Research and Development (CORD)
OP-TEC - The National Center for Optics and Photonics Education

OP-TEC works with secondary, postsecondary, and industry partners to increase and sustain our nation’s capacity to produce photonics technicians. OP-TEC focuses on curriculum and faculty development; college enlistment; and technical support for infusing photonics into existing AAS programs where photonics is an enabling technology.

BOOTH # 311/312
Southwest Missouri State University-West Plains
Viticulture and Enology Science and Technology Alliance (VESTA)

VESTA is a multi-state alliance of two-year colleges providing a comprehensive, regional approach to meet current and future education and training requirements of the grape growing and wine making industry through online certificates and degree programs.

BOOTH # 401/402
Maricopa County Community College District
MATEC - National Resource Center

MATEC focuses on semiconductor manufacturing, automation, electronics, energies, and related fields. MATEC produces and delivers unique web-based resources that help faculty prepare students for industry’s most technically challenging needs.

BOOTH # 403/404
University of Tulsa
Oklahoma Center for Information Assurance and Forensics Education (OCIAFE)

The Cyber Security Education Consortium (CSEC) is a cohesive partnership of community colleges and career and technology centers in Arkansas, Colorado, Kansas, Louisiana, Oklahoma, Tennessee, and Texas, and the University of Tulsa which serves as the principal training entity and mentor to the two-year institutions. CSEC has built strong cybersecurity programs at 32 two-year colleges in its six-state region. CSEC has a three-fold mission to develop and disseminate cybersecurity curricula for two-year institutions; offer professional development opportunities to instructors and assist them in building programs; and design and implement workforce development programs in cybersecurity that will contribute to economic development and the national homeland security effort.
SHOWCASE ABSTRACTS

WEDNESDAY, OCTOBER 29 (CONT.)

BOOTH # 405/406
Connecticut’s Community-Tech Colleges’ College of Technology (COT)
Regional Center for Next Generation Manufacturing (RCNGM)

The COT received an NSF ATE award to establish the Regional Center for Next Generation Manufacturing (RCNGM). Its unique governance, strengthened by its partners, has ensured the success of the COT-RCNGM. The COT-RCNGM is in its fourth year of operation and has catalyzed technician and engineering education throughout Connecticut through its 2+2+2 seamless pathways, utilization of industry, and university validated curriculum. Over the last three years, COT-RCNGM has engaged 247 faculty members from community colleges; and 49 faculty members and deans from the public and private four-year institutions. In addition, COT-RCNGM actively engaged 500 middle and high school teachers. These efforts directly involved 30,000 students.

BOOTH # 407/408
Prince George’s Community College
CyberWATCH (Cybersecurity: Washington Area Technician and Consortium Headquarters)

CyberWATCH is a consortium of over 40 higher education institutions, federal and state agencies, and businesses. Its mission is to improve the quality and quantity of the information security workforce by focusing on curriculum development, student development, and faculty development.

BOOTH # 409/410
The Advanced Technology Environment and Energy Education Center (ATEEC): A Resource Center

ATEEC promotes and supports environmental and energy technology education to address the needs of our national workforce through partnerships with business, industry, and government organizations. ATEEC serves as a clearinghouse for environmental and energy technology education resources; facilitates faculty professional development opportunities; and supports instructional programming for technician education.

BOOTH # 411/412
Central Alabama Community College, Talledega Center Consortium for Alabama Regional Center for Automotive Manufacturing (CARCAM)

CARCAM is a consortium of five Alabama colleges that are developing instructional programs, providing professional development, and recruiting students in automotive and STEM-based disciplines. The consortium promotes seamless transitioning from the secondary level to postsecondary and beyond. CARCAM is on the web at www.carcam.org.

BOOTH # 501/502
Del Mar College
National Geospatial Technology Center (NGT Center)

The National Geospatial Technology Center (www.geotech-center.org) provides curriculum resources, geodatabase web services, articulation assistance, grant development services, and industry workforce information to colleges and schools in GIS, remote sensing, surveying, and other areas.

BOOTH # 503/504
City College of San Francisco
Bio-Link – The Advanced Technological Education Resource Center in Biotechnology

Bio-Link serves as a national resource center for the education of a technical biotechnology workforce, and provides a network of educators and industry partners to assist in successful programs that prepare quality candidates.

BOOTH # 505/506
College of the Canyons
CREATE – The California Regional Consortium for Engineering Advances in Technological Education

The CREATE regional center is a consortium formed to develop better approaches to faculty development; pedagogy and content; industry partnerships for the improvement of curricula; 2+2 BS program development and articulation; and improved assessment.

BOOTH # 507/508
Brevard Community College
SpaceTEC - National Aerospace Technical Education Center

Based at Cape Canaveral Air Force Station, Florida, SpaceTEC and its partner colleges have successfully developed and delivered practice-based aerospace programs and certifications.

BOOTH # 509/510
Bellevue Community College
National Workforce Center for Emerging Technologies (NWCET)

NWCET and the Career Center at Bellevue Community College are partners with the Community College Research Center (CCRC) at Columbia University on a three-year project to engage industry with educators and administrators at community colleges, and to better educate executives, first-line hiring managers, human resources professionals, and technical directors about the competencies and qualities of two-year graduates and programs.
BOOTH # 511/512
Alabama Southern Community College
The National Center for Pulp and Paper Technology (npt²)

The center enhances the workforce and serves the community by advocating innovative delivery systems for education to ensure a technologically advanced workforce. (npt²) meets the pulp and paper industry’s hiring needs by offering the scholarships-internships-jobs model. Companies choose their future employees and influence their education and workforce skills.

BOOTH # 601/602
Lorain County Community College
National Center of Excellence in Welding Education and Training (NCWET)

The center’s focus is on the recruitment and education of welding technicians to meet today’s high technology manufacturing needs. In addition to training welding technicians, professional development for secondary and postsecondary welding educators is an important goal of the center.

BOOTH # 603/604
Springfield Technical Community College
NCTT – National Center for Telecommunications Technologies

Since it began, NCTT has constantly and consistently supplied educators, business, and industry with the content and information they need to educate technicians in a variety of formats. Today, the center community of practice continues this work.

BOOTH # 605/606
Moraine Valley Community College
Center for Systems Security and Information Assurance (CSSIA)

CSSIA established the first comprehensive Information Technology Security and Data Assurance Center in the Midwest. This center collects, categorizes, adapts, enhances, standardizes, and evaluates curriculum; and offers training programs to community college and university faculty, secondary school faculty, and students across the region.

BOOTH # 607/608
Sinclair Community College
National Center for Manufacturing Education (NCME)

NCME, a leading provider of information and professional development for ATE educators for over a decade, is merging MERC Online and NETEC to increase impact and improve engineering technology education, primarily in the area of manufacturing.

BOOTH # 609/610
Collin County Community College
Convergence Technology Center (CTC)

The CTC partners with business and educational institutions to create a pool of qualified convergence technicians for enterprise and home markets. This showcase will focus on the advantages and opportunities to become a mentored college as well feature online resources that include curriculum and recruitment strategies.

BOOTH # 611/612
New Hampshire Community Technical College Manchester/Stratham
The Northeast Biomanufacturing Center and Collaborative (NBC²)

The NBC² Global Biomanufacturing Curriculum (GBC) and Harmonized Biopharmaceutical Manufacturing Skill Standards on which the GBC is based, will be presented along with images of large-scale biomanufacturing equipment and processes. Two biomanufacturing apprentices, now employed in industry and “faces of success,” will be with us at the showcase along with NBC² biomanufacturer partners, the PI and Co-PIs. There will be a biomanufacturing acronym competition and prizes.

BOOTH # 004/005
Fox Valley Technical College
Midwest Digital Fabrication Partnership

A Fab Lab, short for Fabrication Laboratory, is a special lab comprised of off-the-shelf, industrial-grade fabrication and electronics tools, integrated in open source software and programs developed by researchers at the MIT Center for Bits and Atoms. Both technical and non-technical users around the world share a common set of platforms and tools to permit easy and rapid translation of ideas into reality. Fab Labs create a highly engaged learning environment that also significantly stimulates creativity and innovation. Members of the Midwest Fab Lab Network and MIT team members will demonstrate selected Fab Lab capabilities and share exciting experiences and successes to date.
# SHOWCASE SESSION

**THURSDAY, OCTOBER 30**

**ATE PROJECTS**

12:00 – 2:30 PM  
Exhibit Hall

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American Association of Community Colleges
ATE Conference
October 29-31, 2008
OMNI Shoreham Exhibit Hall
Washington, DC
SHOWCASE ABSTRACTS

THURSDAY, OCTOBER 30 (CONT.)

BOOTH # 101
Southwestern College
Biotechnology Education and Training Sequence Investment (BETSI) Phase II

Phase II of BETSI project is preparing high school students in southern San Diego County for postsecondary education and careers in biotechnology. The project is continuing high-impact Phase I education and teacher professional development activities; focusing recruiting efforts on students who have responded positively to classroom outreach; and improving parental awareness of biotech educational opportunities.

BOOTH # 102
Fox Valley Technical College
Retention Solutions in Advanced Electromechanical Technology

The Electromechanical Technology program at Fox Valley Technical College and its partners have developed over 200 learning objects on electronics technology topics. It is currently in its final year of the project and has created over 300 more of them for automation, mechanics, instrumentation, process technology, and fluid power. The primary objective of using learning objects is to improve retention by using multimedia instruments on concepts that are typically difficult for students to understand.

BOOTH # 103
Northeast Community College
Developing a Model for Agriculture, Information Technology, and Electronics Technician Education in Rural Communities

Learn how a rural community college has partnered with 10 regional high schools at three strategic sites to offer advanced information technology courses. The Technology Academies of Northeast Nebraska (TANN) has been very successful in preparing students for work and postsecondary education programs in information technology.

BOOTH # 104
San Diego Mesa College
A Scalable Skills Certification Program in Geographic Information Systems (GIS)

Based on employer needs for geospatial technologists in today’s workplace, Mesa College redesigned its GIS courses. New courses address emerging applications and industry-specific requirements. In addition to the existing GIS certificate, new skills certificates were developed that address student achievement in specific areas of interest to employers.

BOOTH # 105
Hofstra University
Project ESTEEM (Equitable Science, Technology, Engineering, Education, and Mathematics)

Project ESTEEM will more fully engage community college women in STEM education. We have developed a framework to enable instructors and curriculum developers to equitably adapt existing STEM materials so that an educational environment is created that is enriching for students of both genders, and especially appealing to community college females.

BOOTH # 106
Lane Community College
Mapping, Analyzing and Problem Solving Using Geographic Information Science: Implementing a GIS Curriculum for Technical Literacy

Lane Community College offers web-based Geographic Information Science (GIS) modules embedded in various courses. Modules are conceptualized and taught by interested faculty working with GIS specialists. Embedded modules promote GIS awareness and guide students into Lane’s MAPS GIS Program. Lane’s program sequence teaches basic GIS skills through project-based learning, team environments, hands-on labs, and internship placements.

BOOTH # 201
Museum of Science
Advancing Technology Literacy and Skills (ATLAS) of Elementary Educators

This project works with three community colleges and their four-year transfer institutions. Community college faculty are developing models for integrating engineering and technology in courses taken by elementary education preparation students. College faculty participate in intensive professional development that supports the development and delivery of these models in elementary education courses.

BOOTH # 202
Foothill Community College
Using a Web-Based GIS to Teach Problem-Based Science in High School and College

Foothill Community College and San Jose State offer classes on building and maintaining web-based Geographic Information Systems (GIS). The GIS built by the college students is based on real-world, real-time data from a regional issue and is used by high school students to conduct hands-on, problem-based science that is linked to state and national science standards.
BOOTH # 203
Arizona State University East Campus
Arizona-Texas Consortium for Alternative and Renewable Energy Technologies (ATCARET)

The ATCARET project has developed a block of web delivered courses creating a 2+2 academic pathway for an AAS and BS degree in alternative and renewable energy technologies. Curriculum and related educational materials will be featured during the showcase.

BOOTH # 204
Illinois Valley Community College
Embedding CQI Methodology In Two-Year College Technical Curricula

This grant is built on a well-established, multi-disciplinary project to immerse technical students into reengineering and entrepreneurship throughout their programs. This showcase will focus on the project (MIMIC), curriculum revisions, a model leadership team, and materials developed to help others adopt similar, cost-effective programs.

BOOTH # 205
Quinsigamond Community College
Massachusetts Technician Education Collaborative (Mass-TEC)

Partnering with education, industry, and community-based organizations, the Mass-TEC project aims to produce more engineering technicians to meet regional advanced manufacturing workforce demands. Through grassroots public communications and outreach campaigns, Mass-TEC is increasing the frequency and effectiveness of advocacy for technical employment and education conveyed by parents, teachers, and career counselors.

BOOTH # 206
Tulsa Community College
SEEDBEd (Stimulating Enthusiasm, Exploration and Discovery through Biotechnology Education)

The SEEDBEd showcase highlights activities designed to stimulate a pipeline of students into the Tulsa Community College Biotechnology Program. Activities include academics for secondary students and teachers, foot-locker resources, learning extravaganzas for high school students, articulation agreements, and college faculty development. The showcase will provide successful biotechnology resources.

BOOTH # 207
Rock Valley College (RVC)
Development and Field Test of a Multimedia Simulation System for Training Aviation Maintenance Technicians via the Internet - Phase II

Nationally, this project created a network of faculty for the dissemination of aviation simulation modules. Locally, recruitment partnerships resulted in increased numbers of women and Hispanic students in the RVC aviation program. Learn how project staff worked with a measurement specialist to create innovative ways to document student learning and project outcomes.

BOOTH # 208
New England Board of Higher Education
PHOTON PBL (Problem-Based Learning)

Project PHOTON Problem-Based Learning (PBL) is developing eight industry-based, multimedia challenges in the field of optics and photonics. In PBL, students learn by actively and collaboratively solving authentic problems presented in a real-world context. The challenges are designed for use in high school and college level science and technology classes.

BOOTH # 210
Mount San Antonio College
Regional Information Systems Security Center (RISSC)

BOOTH # 211
Rochester Institute of Technology
Project Fast Forward: Pathway to an IT Education for Deaf and Hard-of-Hearing Students

The National Technical Institute for the Deaf, a college of the Rochester Institute of Technology, is partnering with high schools across the country to transition deaf and hard-of-hearing students from high school to college by offering IT-related dual credit courses and professional development for high school teachers and guidance counselors.

BOOTH # 212
Bristol Community College
Southeastern Massachusetts Achievement and Retention in Technology (SMART)

The SMART project will build regional capacity in Southeastern Massachusetts’ secondary and post-secondary schools to provide students (Grades 6-16) with clear and supported pathways to careers in civil, environmental, marine, and GIS technology fields.
SHOWCASE ABSTRACTS

THURSDAY, OCTOBER 30 (CONT.)

BOOTH # 301
City College of San Francisco
Institute for Convergence of Optical and Network Systems (ICONS)

The ICONS project just ended. It met its objectives and provided the opportunity to the CNIT department to grow and offer an updated and modern curriculum reflecting the new converging field of ICT. The Mid-Pacific ICT Center has just been funded and will propagate best practices and pathways in ICT education throughout the region.

BOOTH # 302
Evergreen Valley College
Incorporating 3-D Laser Scanning into Land Surveying Curricula

The project is designed to incorporate 3D laser scanning into land surveying curriculum. The showcase will demonstrate a courseware developed as part of the project. The courseware is a piece of multimedia software that students can use as a supplement to their class instructions. It can also be used by beginners to learn the principles and operations of 3D laser scanning in land surveying.

BOOTH # 304
CUNY Kingsborough Community College
The Brooklyn Biotechnology Bridge

Kingsborough Community College, with Brooklyn College, its partner institution, will be offering a two-year AS degree program in biotechnology to prepare students for entry-level positions in the biotech industry, while giving them the option to transfer to a four-year institution to continue their studies if so desired. Unique to the program will be a series of summer workshops to train both high school and college faculty in the latest biotechnological techniques.

BOOTH # 305
El Camino College
Advanced Aerospace Manufacturing Education Project

Broadly supported by the aerospace manufacturing industry, the focus of this project is to research and develop curricula to fill the gap between community college manufacturing programs and the skills needed for aerospace technicians. More than 200 aerospace industry personnel were surveyed to establish the baseline for curriculum development.

BOOTH # 306
Monterey Peninsula College
Marine Advanced Technology Education (MATE) Resource Center

The MATE Center is a leading organization for supporting, enhancing, and expanding marine technology education at community colleges, high schools, and universities. Key activities include ocean workforce studies, ROV competitions, faculty development, at-sea internships, and building extensive networks of partnerships with industry, education, professional societies, and government agencies.

BOOTH # 307
Owensboro Community & Technical College
Discover Mechatronics - Next Generation Manufacturing

This project is designed to increase the number and skill levels of under-represented groups, including youth, minorities, females, and disabled populations entering into and completing advanced manufacturing training. The program focuses on creating middle and high school Mechatronics clubs to introduce students into STEM career fields.

BOOTH # 308
Tacoma Community College
Creation of Instructional Program in Secure Logistics

Tacoma Community College is developing and implementing a certificate and degree program in logistics. Coursework focuses on transportation; distribution; international logistics, including importing and exporting; and logistics technology. A newly developed RFID lab will highlight Auto-ID technologies.

BOOTH # 309
Normandale Community College
Technician Education Materials in Plasma Technology; TEMPlaTe

Plasma technology is a critical enabling technology for manufacturing nanoscale devices; yet few technicians are trained in it. Normandale Community College addresses this need by creating educational materials for technicians, operating a plasma instructional laboratory, and providing professional development for community college faculty.
The role of multimedia in biotech science programs addresses all learning styles: auditory, visual, and kinesthetic. Studies show that students working on multimedia projects demonstrate a greater concern for accuracy and much better content retention a year later than traditional teaching methods. The SUCCESS showcase will demonstrate the pros and cons of widespread adoption of multimedia film projects in the science (majors) classes. Students are reporting a sense of accomplishment, project and time management skills, critical thinking skills, better content retention, and the development of interpersonal skills.

BOOTH # 311
Partnership for Environmental Technology Education
ATE - A National Collaboration to Strengthen the Advanced Environmental Technology Education Programs at Tribal Colleges
The mission of this project is to strengthen environmental science and technology programs at Tribal Colleges consistent with the unique needs and traditions of these communities. More specifically, this project will strengthen STEM education at Tribal Colleges, while acknowledging there is a critical cultural component to the study of environmental science by Native Americans.

BOOTH # 312
Century Community and Technical College
Investigative Sciences and Law Enforcement Technology (ISLET) Project
ISLET features technologically integrated curriculum in forensic biology, forensic visual imaging, crime mapping, homeland defense, interview-interrogation-investigation, computer forensics, and HAZMAT. This project uses workshops, professional development, and service learning as part of the partnership development process.

BOOTH # 402
J Sargeant Reynolds Community College
Pathways to Teaching
Through Pathways to Teaching, we will increase the number, quality, and diversity of teachers in the J. Sargeant Reynolds Community College service area, especially in mathematics, science, and technology education. The grant will provide pathways to teaching for middle school, high school, and community college students.

BOOTH # 403
Indian River Community College
Project CAPSTONE: Contextual Application of STEM Objectives in Interdisciplinary Education
Project Capstone employs the Florida Everglades Restoration Project to promote school-wide student involvement in science, math, and technology through authentic learning involving businesses and organizations throughout the community. Providing both high school and dual-enrollment college credits, students connect classroom learning to local and global issues, successfully developing their future career pathways.

BOOTH # 404
Macomb Community College
Development of a Learning Environment for Hybrid Electric Vehicle Technology
Macomb Community College, in partnership with Wayne State University, is developing a Hybrid Vehicle (HEV) learning environment. Macomb offered workshops that focused on HEV fundamentals and safety to five different audiences, and developed two courses, HEV Fundamentals and HEV Powertrain and Controls, to support the existing automotive service program.

BOOTH # 405
SUNY at Buffalo
Nanoscale Manufacturing Curriculum for Advanced Technological Education (NaMCATE)
NaMCATE develops grades 11-14 benchmarks for nanomanufacturing and ten nanomanufacturing curriculum modules for those grade levels. A collaborative effort of New York State and Arizona State, this project involves community colleges, universities, NSF nanotechnology research centers, and nanoscale manufacturing associations and companies. The project's learning modules introduce high school and community college students and teachers to the methods, applications, and processes of nanomanufacturing and can become a stimulus to the pursuit of further education and careers in this promising field.
BOOTH # 406
Carnegie Mellon University
Robotics Corridor Phase II
The Robotics Corridor Phase II project provides teacher training; creates partnerships with articulation agreements between high schools, community colleges, and four-year colleges; and provides incumbent worker training to South Western Pennsylvania companies for technicians and technologists around robotics and embedded systems.

BOOTH # 407
Purdue University
Midwest Coalition for Comprehensive Design Education
This project is a collaboration between two-year and four-year education partners. It is an effort to develop curriculum towards product lifecycle management education, and disseminate that education for the improvement of technician and technologist education.

BOOTH # 408
Greenville Technical College
Upstate Engineering Technology Articulation Project
Five South Carolina two-year colleges have partnered with the University of South Carolina-Upstate to create a seamless articulation (2+2) from engineering technology associate degree programs to a four-year Bachelor of Science degree in Engineering Technology Management. This seamless access to a BS degree provides upward mobility and new opportunities for students and graduates of associate degree programs in South Carolina.

BOOTH # 409
Madison Area Technical College
Partnerships in Educational Resources for Renewable Energy Technologies
This project is increasing the expertise of qualified renewable energy technicians in existing two-year college and high school programs through a collaborative infrastructure that delivers a certificate model of online and face-to-face renewable energy courses developed and taught by top experts in the field.

BOOTH # 410
Three Rivers Community College
Project TLC (Technology Learning Community)
Project TLC has established a Technology Learning Community to ease the transition to college and enhance retention. The community has improved success in precalculus, an essential math course in Three Rivers’ technology programs. The student members of the community support each other and reach out to high school seniors.

BOOTH # 411
Internet Scout Project
AMSER: Applied Math and Science Education Repository
AMSER is an online portal containing thousands of free, hand-picked resources created specifically for community and technical colleges. A new addition to AMSER is ATE Central, which connects community and technical college educators and the general public to high-impact, ATE online resources including curricula, learning objects, and podcasts.

BOOTH # 412
Stark State College
Great Lakes Fuel Cell Education Partnership
The partnership is a collaboration of two-year colleges, four-year colleges, high schools, and fuel cell related businesses and organizations in New York, Pennsylvania, Ohio, Indiana, and Michigan. The goals include providing innovative solutions for advancing fuel cell education and trainings; defining essential technical job skills; promoting the creation of jobs; serving as a clearinghouse for curriculum; and fostering public understanding of fuel cell technologies, the hydrogen economy, and sustainable energy sources.

BOOTH # 501
West Virginia High Technology Consortium Foundation
Expanding Pathways for Educational Development and Information Technology Experiences (ExPEDITE)
This project provides a smooth transition to an IT career by enhancing current IT related programs; developing articulation agreements between secondary schools, community college, and university; implementing comprehensive IT internship/fellowship programs for students, secondary teachers, and college professors; and using awareness materials to attract students to IT career paths.
BOOTH # 502
Sinclair Community College
Applying Research-Based Instructional Methods in the Classroom

We will be providing examples of faculty projects and the impact on their institutions, including two- and four-year engineering technology schools. A handout with web links to online webinars and resources will be provided.

BOOTH # 503
Northern Illinois University
Development and Field Test of an Internet-Based Multimedia Simulation and Remote Laboratory System of Laser Cladding Technology for Technicians

This is a collaborative project between Northern Illinois University, Rock Valley College, and the Abilities Center to establish a training program encompassing laser cladding operations. The project is developing and field testing multimedia- and database-supported simulation and remote laboratory system on the Internet for training laser cladding process technicians.

BOOTH # 504
Chippewa Valley Technical College (CVTC)
Adapting Nanoscience Curriculum to a Collaborative Delivery System

This project was to develop an alternative nanoscience capstone experience by partnering with regional four-year institutions. By working with several regional four-year institutions, CVTC has developed a powerful, engaging, hands-on experience for training high tech and nanoscience technicians.

BOOTH # 505
Ohlone College
Learning Alliance for Bioscience (LAB)

LAB is a collaboration between Ohlone College and local high schools, putting underrepresented students on a career track into the sciences. Students receive tutoring while they take biotechnology and biochemistry classes. They earn college credit and build key job skills for the biotechnology industry.

BOOTH # 506
University of Hawaii
Partnership for Advanced Marine and Environmental Science Training for Pacific Islanders

This project provides training opportunities for Pacific Islanders in the marine and environmental sciences through research experiences, internships, and curriculum modules using a cohort approach at the regional community colleges in American Samoa, the Commonwealth of the Northern Mariana Islands, Palau, the Marshall Islands, and the Federated States of Micronesia.

BOOTH # 507
Mid-South Community College
Mid-America Transportation Technology Education Center (MATTEC)

This showcase will provide a progress report on the development of an education program specifically focused on high school and community college students interested in the transportation, distribution, and logistics field, and the role of advanced technology in future development. We will review the programs and courses developed to date and provide a perspective on the next step—the creation of a National Center for Excellence in Transportation, Distribution, and Logistics.

BOOTH # 508
Stark State College of Technology
Fuel Cell Technology Curriculum Development Project

This project focuses on the development of fuel cell curricula for inclusion in secondary and postsecondary education programs in Ohio. This work is undertaken in collaboration with the Ohio education system and special initiatives such as the TRIO Upward Bound Program, College Tech Prep, and the Ohio Fuel Cell Coalition.

BOOTH # 509
New Hampshire Technical College at Berlin
Simulation-Based e-Learning Tools for Science, Engineering and Technology Education (Project SimBeLT)

Project SimBELT has developed simulations and virtual labs for teaching physics and engineering students concepts in mechanics, thermodynamics, diesel and internal combustion engines, photonics, fiber optics, telecommunications, and fluids. The virtual labs include specific learning objectives assessment and progress tracking capabilities. www.atelearning.com/SimBeLT/
SHOWCASE ABSTRACTS

THURSDAY, OCTOBER 30 (CONT.)

BOOTH # 510
Kentucky Community & Technical College System
Power Plant Technology Program

This project has developed and implemented a comprehensive power plant program technology program to train operators and technicians for employment with regional power plants. More than 100 students have enrolled in the program and 30 have entered employment with the energy industry. In cooperation with the Kentucky Department of Education, the curriculum is now being used as the centerpiece for the statewide Energy Career Pathway program.

BOOTH # 511
Piedmont Technical College
Maximizing Learning and Retention in Online Courses for Electronics Students with Interactive Laboratory Experiences

This project has developed a model to support laboratory experiences in electronic technology courses. Asynchronous laboratory exercises are completed by the student while using a learning style, friendly help system. Faculty will share lessons learned for replicating this type of help system without programming.

BOOTH # 512
Mesa Community College
Visual Digital Literacy: Curricula and Modules for the IT Worker

The Digital Visual Literacy project has resulted in the development of curriculum modules for teaching digital visual literacy to information technology technicians and other students.

BOOTH # 601
Concord Consortium
Computer-Assisted Performance Assessment (CAPA) in Advanced Technological Education

Realistic computer simulations can assess students almost as well as hands-on tests. CAPAs are safer, won’t damage expensive equipment, are practical with a large class size, and can be objectively and instantly graded by the computer. They are obviously far better than a paper-and-pencil test. We will demonstrate and discuss these assessments.

BOOTH # 602
Sinclair Community College
Faculty Development Summer Institutes in Automotive Hybrid Vehicle Technology

This faculty development program is hosted by Sinclair Community College (Dayton, Ohio). The “hands-on” training is provided by corporate trainers from Toyota, Honda, Ford, and General Motors Corporation. The seminar also provided automotive fuel cell technology and emergency response training. This project will help ensure that tomorrow’s technicians have the skills and knowledge required for servicing hybrid vehicles.

BOOTH # 603
Raritan Valley Community College
Quality Matters: Advancing the Biotechnology Program at Raritan Valley Community College

We are continuing to modify and improve our newly developed biotechnology program at Raritan Valley Community College. We have built high quality laboratory facilities and developed innovative curriculum. We continue to develop and implement high school outreach, collaborations and articulation agreements with four-year institutions, and novel models to meet workforce development needs.
BOOTH # 604
CUNY Bronx Community College
Energy Services and Technology Program
This project developed an associate degree in Energy Services and Technology and new courses in vehicle alternative fuel technology. The programs will train a workforce that will focus on energy assessment, operations and maintenance, resource management, and alternative fuel vehicle operations and maintenance.

BOOTH # 605
Lee College
ATE Program for Physics Faculty
The ATE Program for Physics Faculty is in its third year providing three-day workshops and conferences for two-year college and high school physics faculty. We will present some of the information about the various components of this project.

BOOTH # 606
Community Colleges of Spokane
Biotechnology Education Infusion Program
The three-phase BEI project offers curriculum development, hands-on laboratory training, and career information for middle and high school science teachers and career counselors; summer research experiences for teacher-student teams; and industry internships for teachers leading to enhanced student knowledge and laboratory skill sets in biotechnology.

BOOTH # 607
CUNY Queensborough Community College
Technology Learning Academy
The Technology Learning Academy is being implemented at Queensborough Community College to increase retention and improve graduation rates. It aims to provide a special identity for technology students. Its goal is to give every technology student a peer reference and support group and to provide faculty and staff faces.

BOOTH # 608
Santa Barbara City College
Mobile Media Institute
The Mobile Media Institute is a California Community College program focused on training in mobile applications and content development. We will showcase our students work in application and content development for mobile delivery that includes social networking, Internet/mobile radio, gaming, marketing, and videos for mobile devices.

BOOTH #004
U.S. Department of Education
The New Career and Technical Education
The New Career and Technical Education materials that will be available at the discussion session and at the booth are OVAE Fact Sheets Promoting Rigorous Programs of Study through Statewide Articulation Agreements and STEM Transitions: Enhancing Mathematics and Science Rigor Through Evidence-Based Curriculum Projects, plus the National Association of State Directors of Career and Technical Education Consortium’s sample Programs of Study.
**SHOWCASE SESSION**

**FRIDAY, OCTOBER 31**

**ATE PROJECTS**

10:00 AM – 12:30 PM  
Exhibit Hall

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American Association of Community Colleges
ATE Conference
October 29-31, 2008
OMNI Shoreham Exhibit Hall
Washington, DC

Diagram showing exhibit hall layout with numbered booths and designated areas.

FIFTEENTH NATIONAL ATE PRINCIPAL INVESTIGATORS CONFERENCE
SHOWCASE ABSTRACTS

FRIDAY, OCTOBER 31

BOOTH # 01
De Anza College
*Internships and Underrepresented Student Persistence in Technical Education (CompTechS)*

The CompTechS program provides student interns with hands-on experience in refurbishing used and surplus computers, which are then given to deserving students. Students have opportunities for industry internships as well. CompTechS provides responsible reuse of e-waste, learn-by-doing instruction, and empowerment to needy students through a free computer.

BOOTH # 02
Indiana State University
*Collaborative Research: AutomationTek Hands-On Remote Labs Automation Curriculum*

The AutomationTek program will include 60 online modules used to train automation technicians. This showcase session will demonstrate these interactive modules.

BOOTH # 03
CBIA Education Foundation
*Pipeline from Technical High Schools to the College of Technology*

This project grant connected to the Regional Center for Next Generation Manufacturing Center promotes technical high school manufacturing training and recruitment while encouraging students to enter community college technician training programs.

BOOTH # 04
Bunker Hill Community College
*Computer Forensics Advanced Technology Education Project*

Four community colleges, one university, area high schools, law enforcement, and industry in the Greater Boston area have partnered to develop computer forensics programs at the community colleges and the university.

BOOTH # 05
Ruth Carranza Productions
*MEMS, Nanotechnology, and the Silicon Run Series*

In partnership with industry leaders and academia, Silicon Run Productions and the Film Arts Foundation, are expanding the Silicon Run Series to include new films on MEMS and nanotechnology. The project is also collaborating with existing ATE projects and centers.

BOOTH # 06
Mesa State College
*Integrated Learning Systems: A Model Approach*

The Integrated Learning Systems project is developing a cross-disciplinary team based curriculum for technician students. The program is based on real-world problems supplied by business partners. Students completing the courses being developed will possess the critical-thinking skills and problem-solving experience needed in current industrial and business operations.

BOOTH # 01
De Anza College
*Scenario-Based Learning in Technical Education: A Large Scale Materials Development Project*

This project provides training and support to faculty seeking to develop or implement industry inspired, scenario-based tasks and principled assessment items for their classrooms. Online scenario-based tasks in bioinformatics, engineering, environmental studies, network security, and computer programming (JAVA Python and Ajax) are available on our web site.

BOOTH # 202
Edmonds Community College
*Certificates in Advanced Manufacturing (CAM)*

CAM is a national project using industry and educational partnerships to develop and prepare educators to teach a new generation of composites technicians in aerospace, marine, and transportation, consumer products, and medical devices. The curriculum integrates the “Legacy Challenge Cycle” based on John Bransford’s groundbreaking work.

BOOTH # 203
Houston Community College
*The Gulf Coast - Technology Articulation Partnership (GC-TAP)*

GC-TAP is a model articulation project aiming to provide seamless pathways to process and related technologies; and AAS graduates to university engineering and engineering technology programs. The showcase will focus on successful students who benefited from the program and are currently working in industry.
BOOTH # 204
North Seattle Community College (NSCC)
Northwest Nanotechnology Node: Advancing Nanotechnology Education for Workforce Development
The nanotechnology program at NSCC offers multiple pathways into the nanotechnology workforce, each involving hands-on experience. NSCC is a central educational hub for the nanotechnology community in the Pacific Northwest connecting community colleges to universities and industry as well as training others to teach nanotechnology at the community college or high school level.

BOOTH # 205
Maricopa County Community College District
High-Tech Workforce Initiative (HTWI)
HTWI focuses on the education of technicians in the high-tech fields that drive our nation’s economy. This project provides professional development for college faculty; reforms current curriculum; and develops recruitment, outreach methods, and materials to ensure a diverse workforce by targeting underrepresented minorities, women, incumbent workers, career changers, out-of-school youth, and the K-12 continuum.

BOOTH # 206
Community College of South Nevada
Nevada Information Technology Education (NVITE)
The NVITE project will create an ongoing statewide business, industry, and education partnership to guide Nevada ICT education and facilitate efforts to meet the current and emerging ICT job demand. The project will offer increased career awareness, improved career pathways, revised curriculum, and continued professional development of faculty.

BOOTH # 207
San Antonio College
Technology-Based Inquiry and Curriculum Alignment (TICA) Project
San Antonio College has partnered with the San Antonio Independent School District in the TICA professional development project. This project utilizes intensive hands-on professional development, mentoring partnerships, and curricular alignment to improve the methodology and content of science teaching among secondary and two-year college faculty; and to align coursework from grades 6 through 14.

BOOTH # 208
Riverside Community College District
Close the Gap: Engineering Technology Education and Industry Partnership
The showcase will highlight the Summer Innovation Institute that our ATE project has been running for high school students.

BOOTH # 210
Madison Area Technical College
Intensive Post Baccalaureate Program in Biotechnology: A Bridge to the Biotechnology Workplace
The Intensive Post Baccalaureate Certificate Program in Biotechnology provides practical knowledge and skills to unemployed or underemployed students who already have college degrees in a biological science or related field to prepare them for employment in the biotechnology industry.

BOOTH # 211
National Council for Geographic Education
Integrated Geospatial Education and Technology Training (iGETT)
iGETT offers a faculty development program based on the integration of GIS, remote sensing, and GPS technologies. The project aims to enhance instruction at the participating institutions and, through web site dissemination of learning materials for both faculty and students at many other two-year colleges.

BOOTH # 212
Nashville State Technical Community College
Innovation in Teaching and Learning for Technological Education (ITL)
ITL, a large-scale resource development and dissemination project focuses on Problem-based, Case Learning (PBCL). ITL will include professional development and train the trainer programs, web-based resources and implementation support, and a PBCL dissemination network among community colleges around the United States.

BOOTH # 301
Maricopa County Community College District
A New Systems View of Electronics for 2010
This project provides a learning resource that advocates for a systems view for electronics education.
BOOTH # 302
Robeson Community College
Robeson Regional BioTech Education Consortium
RRBEC focuses on increasing knowledge and training in agricultural biotechnology. The project’s partnership has provided professional development for secondary school teachers and college faculty, improved postsecondary curriculum, and provided student internships. The opportunities created have had a significant impact on a rural, ethnically diverse area.

BOOTH # 304
Education Development Center
Information Technology Across Career Clusters (ITAC 3)
IT Across Careers resources and tools help students develop their IT skills while learning authentically how information technology is used in their chosen career field. Framed in a real-world context, ITAC’s problem-based scenarios cultivate the development of workplace readiness and foster higher order thinking skills. Materials align to ITAC’s performance-based rubrics.

BOOTH # 305
Montana State University-Billings
Online Plant Operator Training with Remotely Operated Laboratory Equipment
Implementation of remote access of laboratory equipment with a home-based personal computer provides students with real-time manipulation of process control and lab simulation equipment. MSU-Billings College of Technology will showcase how students have the ability to complete complex laboratory exercises in a hybrid learning environment.

BOOTH # 306
Cerritos College
Teaching Secondary School Scholar Partnership Program (TS3P)
TS3P is a partnership with California State University, and Long Beach and John Glenn High Schools in the Norwalk-La Mirada Unified School District. The focus of the grant is to recruit, prepare, and seamlessly transfer students seeking a major and secondary school credential in mathematics or science. Mentoring, counseling, advising, education coursework, early fieldwork and professional development are cornerstones of the program.

BOOTH # 307
Wake Technical Community College
Digital Interactive Entertainment and Simulation Technology: A New Curriculum and Source of Professional Workforce for the Digital Gaming Industry
Wake Tech has developed an AAS program to increase the supply of technicians for the gaming industry. This program provides professional development training for teachers on game technology and its applications in education.

BOOTH # 308
Peralta Community College
Educating Technicians for Building Automation and Sustainability
Dramatically more sophisticated skill and knowledge requirements for HVAC and building control systems technicians present one of the greatest barriers to improving building performance and energy efficiency in commercial buildings. Laney’s Environmental Control Technology program is developing labs and curriculum to teach the complex skills knowledge necessary to succeed in this high-wage, high-growth field.

BOOTH # 309
CBIA Education Foundation
Problem Based Learning of Life Support and Sustainable Living
Today’s employers seek graduates with more than technical knowledge; they look for graduates who can join their organization and immediately function productively with the ability to quickly assume leadership positions. Our program provides creative solutions to environmental, medical and science applications, as well as project planning, leadership, and teamwork training and experience.

BOOTH # 310
Baton Rouge Community College
NSF ATE Planning Grant: A Gulf States Collaborative to Develop a Strategic Plan for a Gulf States Advanced Technology Education Center for Coastal Resources

BOOTH # 311
CORD
Cultivating Gender Equity in Emerging Technologies
The Collaborative for Gender Equity is a multi-faceted project aimed at increasing the participation of women in cutting-edge technological programs. This partnership dispels myths about girls’ scientific abilities, provides regional workshops and online tools for establishing mentoring programs, and fosters the development of gender equitable classrooms through faculty professional development.
The Youth Technology Academy is a model recruitment and training program designed to encourage diverse populations to enter the advanced technology workforce. This showcase will focus on the process of recruiting, maintaining, and engaging the students in project-based STEM learning.

**BOOTH # 401**

Louisiana Technical College Greater Northeast District
Pathways to Careers in Information and Communication Technology

In collaboration with industry experts, Louisiana Technical College offers training to secondary and postsecondary faculty to enhance the quality of technical training as well as provide students with the opportunities to gain expert knowledge and strengthen academic skills. This showcase will highlight resources for training and recruiting business partners.

**BOOTH # 402**

Gateway Community and Technical College
Mechatronics Technician

Gateway Community and Technical College has partnered with local industry to develop and launch two certificates for advanced manufacturing companies, the Integrated Manufacturing Skills certificate and the Mechatronics certificate. These certificates focus on educating and training the multidisciplinary workers that are needed by advanced manufacturers. The project includes curriculum development and marketing and recruitment efforts.

**BOOTH # 403**

Laramie County Community College (LCCC)
Wind Energy Technology

Based on input from our wind advisory board, LCCC implemented AAS and AS degrees, and a wind energy technician certificate. We are developing career pathways in wind energy technology utilizing a combination of traditional, hands-on, and computer based training. The goal is to graduate highly-qualified technicians capable of maintaining utility-scale wind turbines.

**BOOTH # 404**

Ohio Supercomputer Center
Computational Science Program for Ohio Community and Technical Colleges

Three Ohio community colleges have collaborated to create a new AS program in the interdisciplinary field of computational science. We will introduce this field and the program.

**BOOTH # 405**

Oklahoma State University Okmulgee
Oklahoma Nanotechnology Education Initiative (ONEI)

ONEI addresses workforce challenges by integrating micro- and nanotechnology concepts into Career and Technology Education’s career majors and by developing a two-year associate degree that will advance industries’ use of micro-technology and nanotechnology.

**BOOTH # 406**

Carnegie Institution of Washington
DC Biotech: Improving Opportunities for Urban Minority Students

DCBiotech mentors and connects DCPS teachers and students with regional biotechnology workplaces to widen high school student career horizons, and improve diversity in the professions.

**BOOTH # 407**

San Juan College
Rural Education Advanced Learning in Geographic Information Science and Technology (REAL GIST)

REAL GIST is a project to implement geospatial education and training in a rural area experiencing rapid population growth and booming energy development. Our showcase will highlight our core curriculum, teacher training workshops, and the use of ArcGIS Server technology as a teaching tool.

**BOOTH # 408**

Iowa Lakes Community College
Biotechnology Curriculum Development and Dissemination Project

This project provided the financial support to bring university, community college, and high school instructors together to integrate industry priorities into new and existing biotechnology curriculum. The development process and instructor training opportunities will be shared. Building partnerships between academic entities and sharing best practices continues to be a cornerstone for the great impact this project has had on student outcomes by increasing science reasoning and critical thinking skills.
SHOWCASE ABSTRACTS

FRIDAY, OCTOBER 31 (CONT.)

BOOTH # 409
Pennsylvania State System of Higher Education
Advanced Manufacturing: Establishing Foundations for Education and Career Pathways from Middle School through College

This project develops career pathways (middle school through college) that address Pennsylvania’s High Priority Occupations by implementing STEM-related experiential learning activities that include # F1 in Schools, BotsIQ, Adventures in Technology, Gateway to Technology, and Summer Camps.

BOOTH # 410
Ivy Tech State College at Bloomington
Life Sciences Technical Training in Southern Indiana

This project has developed and implemented comprehensive biotechnology workforce education programs to meet the specific needs in our local biotechnology industry.

BOOTH # 411
College of Southern Idaho
Linking Academic Information Technology to Workplaces in Rural Idaho

This project has provided summer internships and professional development for college and high school instructors in a rural 12,000 square mile area in Idaho. Business focus group materials and student, staff, and business surveys will be distributed.

BOOTH # 412
Hobart and William Smith Colleges
The Finger Lakes GIT Ahead Project: Creating Career Paths for Geospatial Technology Professionals Through Teacher Enhancement and Student Engagement

The GIT Ahead project focuses on workforce preparation in geospatial information technology (GIT) fields through science teacher professional development, educational software development, and provision of internships, job shadowing, and career preparation experiences for high school students in urban and rural schools.

BOOTH # 501
Education Connection
Connecticut Pathways to Innovation

The Connecticut Pathways to Innovation project is a three-year, multi-phased educational opportunity for underserved and underrepresented students to develop workforce skills in the area of 21st century emerging technologies such as biotechnology, computer programming digital media, e-commerce, and nanotechnology.

BOOTH # 502
Oklahoma City Community College
Biotechnology/Bioinformatics Teacher Discovery!

This project provides professional development in biotechnology for in-service and preservice teachers and follows up with classroom support including equipment and materials for high-quality biotechnology activities. The project has worked with more than 175 teachers and provided thousands of student lab experiences throughout Oklahoma.

BOOTH # 503
Cabrillo College
Math and Science Curriculum for the Digital Bridge Academy

The Digital Bridge Academy (DBA) effectively bridges underprepared students, mainly from ethnic minorities, into regular community college courses by giving them the opportunity to pass through a transformative learning environment in an integrated and accelerated one semester full-time academic program.

BOOTH # 504
American River College
Applied Biotechnology and Bioinformatics Training for High School Teachers

The project goal is to train high school teachers in bioinformatics and assist them with developing and implementing curriculum in their science courses. In its second year, the project is training over 50 teachers, has resulted in more than 20 curriculum packages, and continues to provide computers and additional support.
BOOTH # 505
Idaho State University

Partnering with Idaho National Laboratory and Partners for Prosperity, ISU has established the Energy Systems Technology & Education Center (ESTEC). With both an instructional and industrial focus, ESTEC integrates education, training, and applied industrial research. NSF funding is assisting with curriculum and competency model development as well as increasing teacher and student participation in opportunities related to energy and electricity generation.

BOOTH # 506
CUNY Kingsborough Community College
Enhancing Soft and Entrepreneurial Skills Training for Two-Year College Technicians Using a Contextualized Business Simulation Program

Virtual Enterprise (VE) is a business simulation pedagogy used for imparting soft and entrepreneurial skills. Our recent work brings the program to the information technology and biotechnology disciplines. The booth will showcase elements of the pedagogy as well as the technological support tools.

BOOTH # 507
Southwestern Indian Polytechnic Institute
Engineering and Engineering Technology Success in Outreach to Native American Populations

This project offers a model recruitment, retention, and graduation program to attract students from Native American populations to engineering and engineering technology AAS degree programs. This showcase also focuses on the establishment of “Mobile Robots are STEM on a Plate” clubs in high schools as a career awareness program targeting Native American populations.

BOOTH # 509
Greenville Technical College
Virtual Simulated Inspection (ViSIns) Laboratory: Using Interactive 3D Knowledge Objects to Promote Learning for Non-Destructive Inspection in Aviation Maintenance Technology

This project demonstrates the use of interactive 3D simulators to promote learning for non-destructive inspection procedures for aircraft inspection.

BOOTH # 510
Delaware Technical & Community College
Taking Delaware’s Biotechnology Education to the Next Level

Establishing a focus on research methodologies, in the biotechnology associate degree programs at both the Stanton and Owens campus locations of Delaware Technical and Community College, is the main goal of this project.

BOOTH # 601
CUNY Borough of Manhattan Community College
Partnership in Cybersecurity and Information Assurance

The showcase will demonstrate the accomplishments of the project. These include three developed cybersecurity courses, fourteen redesigned courses, partnerships with high school and senior colleges, and collaboration with industry and governmental institutions.

BOOTH # 602
Community College of Baltimore County
Increasing the Number of Women Pursuing Careers in Computer Science and Related Fields

Over the past five years, CCBC has institutionalized the Grace Hopper Scholars Program (GHSP) to increase the number of women pursuing careers in computer science and related fields. It emphasizes support for multiple applied learning opportunities, mentoring, bridge programs, tutoring, career advice, onsite company visits, and tuition reimbursement for a nondevelopmental math or computer course.

BOOTH # 603
De Anza College
The Computer Animation and Game Development Teacher Training Center

Partnering with leading computer animation studios, interactive game companies and visiting international animators, De Anza College offers master classes, hands-on software training, curriculum workshops, career panels, and site visits for regional college and high school faculty and staff, plus a web resource with links to service providers and alternative curricula.
**SHOWCASE DEMONSTRATION SESSIONS**

**WEDNESDAY, OCTOBER 29**

The demonstration station is located in the back right corner of the Exhibit Hall.

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8:00 – 8:20 PM  
**DEMO #1: COMPUTER ASSISTED PERFORMANCE ASSESSMENT**

*Paul Horwitz, The Concord Consortium, MA*  
*John Chamberlain, CORD, TX*

Assessing ATE students can be awkward. Teachers must either use paper and pencil tests (inexpensive but a poor indicator) or look over the shoulder of every student using real equipment (accurate but expensive). This project has developed assessments that test students with simulated equipment and grade them on the uses they make of the equipment. We will give a live demonstration; present what we’ve learned; and discuss the rich potential for this approach.

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8:45 – 9:05 PM  
**DEMO #2: STUDENT PRODUCED HOW-TO MULTIMEDIA AND PODCASTS**

*Toby Horn, Carnegie Institution of Washington, DC*  
*Marlena Jones, Carnegie Institution of Washington, DC*

See the first in a series of “How-To” multimedia for conducting work in biotechnology. See what your students can learn from ours. Our students will show you how they are helping classmates everywhere conduct biotech work. Be part of our focus group to field test this approach and suggest additional topics to include in our series.

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**FRIDAY, OCTOBER 31**

10:15 – 10:35 AM  
**DEMO #1: ENGAGING STUDENTS IN REAL-WORLD INTEROPERABILITY STUDIES**

*Peter Brierley, Collin College, TX*  
*Bill Saichek, Orange Coast College, CA*

Businesses tell us that they need graduating students who know how to think critically and who know how to create solutions to business problems using multiple technologies and equipment from multiple vendors. This demo will showcase how two professors from different colleges have approached providing hands-on learning labs to help students develop these skills. The specific focus will be on creating a Voice Over IP solution with equipment from multiple vendors. Handouts will be provided so that attendees can implement similar labs at their home colleges.

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11:00 – 11:20 AM  
**DEMO #2: NO-LIMITS COMPUTING**

*Phillip Davis, GeoTech Center, TX*  
*Vince DiNoto, GeoTech Center, TX*

Colleges are challenged to provide the most advanced software technology for their students on shoe-string budgets. Most educational settings are limited by a severe shortage of money and people to support complex software applications, like Geographical Information Systems. Recent advances in virtualization and remote communication software can help bridge the gap. This session will demonstrate the use of remote connect software to enable such use across the Internet.
ATE STUDENT/ALUMNI PARTICIPATION

AACC AND NSF WISH TO CONGRATULATE THE FOLLOWING ATE STUDENTS AND RECENT ALUMNI SELECTED TO ATTEND THE 2008 ATE CONFERENCE

Abiodun Adeola Ajayi, Community College of Baltimore County
Jessica Alicdan, Southwestern College
Joel Alvarado, Moraine Valley Community College
Lilliana Amador, Southwestern College
Peter M. Andrien, Riverside Community College
Adam T. Babcock, Stark State College of Technology
Rachell Baldeon, Florida State University
Tommie Joel Carr, Gadsden State Community College
Evin Carrasquillo, Moraine Valley Community College
Stephen Chary, University of Hartford
Kayla Cummings, Robeson Community College
Cynthia Damerow, Central New Mexico Community College
Joseph Deering, Stark State College of Technology
Philip S. Di Filippo, California University of Pennsylvania
Cesar Duque, Robeson Community College
Aisha Eskandari, Wake Technical Community College
Myra Espinoza-Chavez, Ohlone College
Mary Grace Esteban, City College of San Francisco
Greisy Estrella, Bronx Community College
Stephan Estrin, Riverside Community College
Jason Fletcher, El Centro College
Terry M. Gartman, Century College
Will Graff, Saddleback College
F. Ben Grieger, Lane Community College
David Haddad, Great Bay Community College
Katrice Jabbert, Great Bay Community College
David J. Krouse, Millersville University
Katherine Lewis, Robeson Community College
Robert Lodes, City College of San Francisco

Shea Alan Lucas, Riverside Community College
Bryan MacLellan, Three Rivers Community College
Michael Brandon Maksin, Florence-Darlington Technical College
Norton Troy Martza, Southwestern Indian Polytechnic Institute
William P. Maruo III, Three Rivers Community College
Sheree Matthews, Trenholm State Technical College
Brett McCormick, Collin County Community College
Jared McDonald, New Mexico State University
Patrick Neff, University of North Texas
William D. Nitsch, Three Rivers Community College
R. Brent Parsons, Wake Technical Community College
Vittorio Pascal, Bristol Community College
Nicolas James Perez, Del Mar College
Michael Poitras, Bristol Community College
Martim Gustavo Quayat, Dakota County Technical College
Trey Reed, Florence-Darlington Technical College
Steven Anthony Rolfe, Three Rivers Community College
Anthony J. Ross III, Central New Mexico Community College
Tyler Schultd, Saddleback College
Brandon Sheppard, Del Mar College
Jordyn Smith, Normandale Community College
Edward Thomas, Bronx Community College
Jared Whitson, Nashville State Technical Community College
Lani Willmar, Riverside Community College
Steven Worthing, Springfield Technical Community College
Albert Yates, City College of San Francisco
ATE STUDENT SHOWCASE

THURSDAY, OCTOBER 30

ATE STUDENTS

<table>
<thead>
<tr>
<th>5:15 PM – 6:30 PM</th>
<th>Exhibit Hall</th>
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<tr>
<td><strong>BOOTH #</strong></td>
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<td>101</td>
<td>Community College of Baltimore County (Abiodun Ajayi)</td>
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<td>Southwestern College (Jessica Alicdan and Lilianna Amador)</td>
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<td>Moraine Valley Community College (Joel Alvarado and Evin Carrasquillo)</td>
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<td>104</td>
<td>Riverside Community College (Peter Andrien, Stephan Estrin, Shea Lucas, and Lani Willmar)</td>
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<td>105</td>
<td>Stark State College of Technology (Adam Babcock and Joe Deering)</td>
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<td>106</td>
<td>National Science Foundation (Rachell Baldeon and Jared McDonald)</td>
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<td>201</td>
<td>Gadsden State Community College (Tommie Carr)</td>
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<td>202</td>
<td>University of Hartford (Stephen Charry, Robert Dinan, Maria Quadri, Shalane Reagan)</td>
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<td>303</td>
<td>Millersville University (David Krouse)</td>
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REGISTRATION
Registration is located in the West Conference Foyer of the Omni Shoreham Hotel. You must be fully registered to receive a name badge, conference program, and other materials.

Hours of operation:
   Wednesday, October 29, 10:00 a.m. – 7:30 p.m.
   Thursday, October 30, 7:30 a.m. – 6:00 p.m.
   Friday, October 31, 7:15 a.m. – 12:00 p.m.

BADGE IDENTIFICATION
Each person who registers for the ATE Conference must wear their name badge for entry into sessions, meal events, receptions, and the exhibit hall.

BUSINESS CENTER
The business center at the Omni Shoreham is located next to the West Registration Desk and Foyer. Hours: Monday – Friday, 8:00 a.m.—4:30 p.m.; closed Saturday and Sunday. Access is available with room key after hours; however, all printing and copying charges are available only with a credit card. Please note that AACC does not maintain any photocopying equipment.

INTERNET CAFE
The cafe is located in the Executive Room across the foyer from the West Registration desk.

Hours of operation:
   Wednesday, October 29, 10:00 a.m. – 7:30 p.m.
   Thursday, October 30, 7:30 a.m. – 6:00 p.m.
   Friday, October 31, 7:15 a.m. – 10:00 a.m.

ACCESSIBILITY INFORMATION
All meeting rooms can be accessed through the elevators in the West area of the hotel with the exception of the Regency and Ambassador Ballrooms. A wheelchair lift is located next to the Ambassador Ballroom main entrance and can be taken down to the Regency level for entry to both Ambassador and Regency Ballrooms. Restrooms with wheelchair access are located on both Level 1B and 2B (inside of the Health Club.)

EMERGENCY PROCEDURES
Dial "0" on any house phone and ask for Security. Explain the situation giving the operator your exact location and follow directions given. If the fire alarm should sound, wait for verbal instructions. Please check for exits nearest your location and do not use the elevators in case of a fire emergency.

SMOKING POLICY
Smoking is allowed only in designated sleeping rooms in the hotel. There is no smoking in the hotel common areas.

MESSAGES
There is a message board located next to the registration area for participant use.

TICKETS
Tickets will be collected at the pre-conference workshops that require them. If available, additional tickets can be purchased at conference registration. Once on site, the costs of unused tickets can not be refunded. However, AACC will assist with matching a buyer for unused tickets, if possible. Please see the staff at the conference registration desk.
Within walking distance of the Omni Shoreham Hotel

**AFGHAN GRILL**
2309 Calvert Street  (202) 234-5095
Serving unique Afghan cuisine for over 25 years. Open for lunch & dinner daily, 11am-11pm.

**CAFÉ INTERNATIONAL**
2633 Connecticut Avenue  (202) 265-8333
Coffee house & deli with breakfast & lunch fare and computer access for a nominal fee.

**CAFÉ PARADISO**
2649 Connecticut Avenue  (202) 265-8955
Excellent Northern & Southern Italian dishes. Serving lunch & dinner seven days a week.

**CHIPOLTE**
2600 Connecticut Avenue  (202) 299-9111
Casual Mexican Grill, offering freshly made burritos, fajitas, & tacos for lunch & dinner seven days a week.

**FUSION’S ALLEY**
2608 Connecticut Avenue  (202) 588-7466
Featuring a wide variety of authentic Asian fare in a comfortable, casual setting, seven days a week.

**JANDARA THAI**
2651 Connecticut Avenue  (202) 387-8876
Serving excellent authentic Thai cuisine. Specialties include crispy whole flounder, grilled rockfish & soft shell crab.

**LEBANESE TAVERNA**
2640 Connecticut Avenue  (202) 483-7420
Known for “family friendly” & “consistently excellent” authentic Middle Eastern fare, as stated in Zagat’s restaurant guide.

**LITTLE INDIA**
2623 Connecticut Avenue  (202) 232-5030
Exotic Indian cuisine, featuring many vegetarian entrees, as well as lunch buffet seven days a week.

**MEDATERRA**
2614 Connecticut Avenue  (202) 797-0400
Offering Mediterranean-American cuisine with an Egyptian flare in a modern art deco setting.

**MR. CHEN’S CHINESE**
2604 Connecticut Avenue  (202) 797-9668
Authentic Chinese cuisine using organic vegetables along with a health-conscious cooking style. The “price is right” as cited by the Washington Post. Delivery available.

**MURPHY’S IRISH PUB**
2609 24th Street  (202) 462-7171
Serving casual lunch & dinner entrees in a convivial setting. Also features TV sports & live Irish music nightly.

**NEW HEIGHTS**
2317 Calvert Street  (202) 234-4110
A long-time, upscale DC favorite with award-winning New American cuisine. Open for dinner Monday-Saturday.

**OPEN CITY CAFÉ**
2321 Calvert Street  (202) 332-2331
Breakfast, Lunch & Dinner in a casual, coffee-house setting. Also features a full-service bar & late-night hours.

**PESTO**
2915 Connecticut Avenue  (202) 332-8300
Serving delicious authentic Northern Italian Cuisine in a cozy, intimate setting.

**PETITS PLATS**
2653 Connecticut Avenue  (202) 518-0018
Traditional French cuisine in a very nice, relaxing setting with private upstairs dining room and a delightful Sunday Brunch.

**RAIJI**
2603 Connecticut Avenue  (202) 265-7344
Specializing in Northern & Southern Indian cuisine and tandoori specialties in a casual atmosphere.

**SAKE CLUB**
2635 Connecticut Avenue  (202) 332-2711
Upscale Japanese restaurant & bar with outstanding sushi & sake selections.

**TASTE OF INDIA**
2621 Connecticut Avenue  (202) 483-1115
Extensive selection of authentic homemade Indian dishes, as well as a reasonably-priced lunch buffet.

**TONO SUSHI**
2605 Connecticut Avenue  (202) 332-7300
Traditional Japanese cuisine with freshly prepared sushi, teriyaki & tempura dishes. Open daily for lunch & dinner.
NSF ATE PROGRAM STAFF

DEBORAH ALLEN
ATE Program Director

DAVID B. CAMPBELL
ATE Co-Lead Program Director

EUN-WOO CHANG
ATE Program Director

STEPHEN C. COOPER
ATE Program Director

LINNEA FLETCHER
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BRIAN GATES
ATE Science Assistant

ROBERT E. GIBBS
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MICHAEL R. HANEY
ATE Program Director

DAVID A. HANYCH
ATE Program Director

NABRIYA HORTON
ATE Program Director

DANIEL HOUSEHOLDER
ATE Program Director

R. CORBY HOVIS
ATE Program Director

WYN JENNINGS
ATE Program Director
MANY THANKS TO THE FOLLOWING INDIVIDUALS FOR THEIR DEDICATED ASSISTANCE IN PLANNING THE 2008 ATE CONFERENCE.

Kathleen Alfano, College of the Canyons, CA
Lynn Barnett, American Association of Community Colleges, DC
Ann Beheler, Convergence Technology Center, TX
Anthony Benoit, Three Rivers Community College, CT
David Campbell, National Science Foundation, VA
Dennis Faber, Community College of Baltimore County, MD
Tressa Gardner, Florence-Darlington Technical College, SC
Ellen Hause, American Association of Community Colleges, DC
Linda Inabinet, American Association of Community College, DC
Elaine Johnson, City College of San Francisco, CA
Mike Lesiecki, Maricopa County Community College District, AZ
Eileen Lewis, National Science Foundation, VA
Joyce Malyn Smith, Education Development Center, MA
Duncan McBride, National Science Foundation, VA
Matthias Pleil, Central New Mexico Community College, NM
Gerhard Salinger, National Science Foundation, VA
Gordon Snyder, Springfield Technical Community College, MA
Elizabeth Teles, National Science Foundation, VA
Karen Woszynaa-Birch, Connecticut College of Technology, CT

PLEASE MARK YOUR CALENDARS AS THE FOLLOWING DATES HAVE BEEN SELECTED FOR THE 2009 AND 2010 ATE PRINCIPAL INVESTIGATORS CONFERENCES. BOTH CONFERENCES WILL BE HELD AT THE OMNI SHOREHAM HOTEL IN WASHINGTON, DC.

October 21-23, 2009
Omni Shoreham Hotel, Washington, DC

October 27-29, 2010
Omni Shoreham Hotel, Washington, DC
HOTEL MAPS

(CONTINUED)