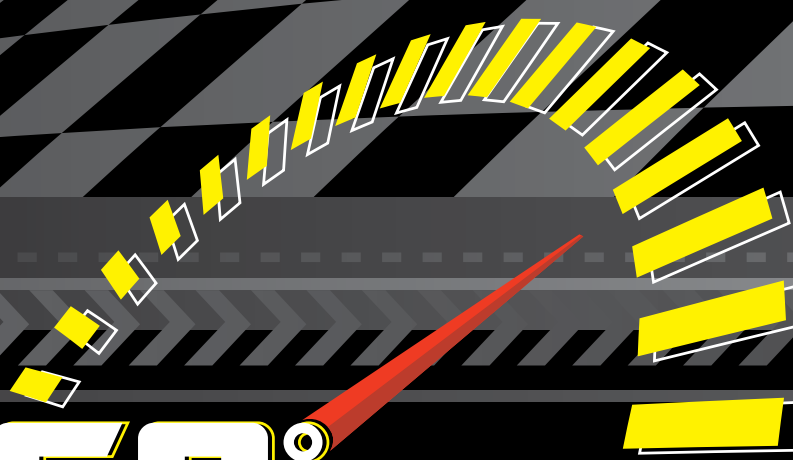


JOIN THE AMERICAN SOCIETY FOR ENGINEERING EDUCATION IN



360^o of Engineering Education

121st Annual Conference & Exposition

JUNE 15-18, 2014
Indianapolis, Indiana

The ASEE Annual Conference and Exposition is the only conference dedicated to all disciplines of engineering and engineering technology education. As the premier event of its kind, the ASEE Annual Conference and Exposition fosters an exchange of ideas, enhances teaching methods and curricula, and provides unparalleled networking opportunities for engineering and technology education stakeholders, including deans, faculty members, researchers, and industry and government professionals.

The conference features more than 400 technical sessions, with peer-reviewed papers spanning all disciplines of engineering education; distinguished lectures such as the main plenary; award receptions and banquets; the “Greet the Stars” orientation for new ASEE members and first-time conference attendees; and the ASEE Division Mixer. The Exhibit Hall is also home to several exciting events, including the “Focus on Exhibits” Welcome Reception, Brunch, Summertime Social, and Luncheon. We look forward to welcoming you to Indianapolis!

Conference at a Glance

For detailed session information visit www.asee.org/osl.

SATURDAY

K-12 Workshop 8am - 5pm	Int'l Forum 8am - 6:30pm
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SUNDAY

Registration Open 8am - 7pm		
Exhibit Hall 6pm - 7:30pm		
	Division Business Meetings 8:45am - 10:15am	
AM Workshop 9am - Noon	Division Business Meetings 10:30am - Noon	ASEE Board of Directors Meeting 10am - 3pm
	Division Business Meetings 12:30pm - 2pm	
PM Workshop 1pm - 4pm	Division Business Meetings 12:30pm - 2pm	
	PIC I-V Meetings 3:15pm - 4pm	Greet the Stars - First-Timers' Orientation 3:15pm - 4:15pm
Division Mixer 4:30pm - 5:45pm		
Exhibit Hall Welcome Reception 6pm - 7:30pm		

MONDAY

Registration Open 7am - 5pm
Exhibit Hall 10:30am - 5pm
Technical Session & Business Meeting 7am - 8:30am
Main Plenary I 8:45am - 10:15am
Exhibit Hall Brunch & NSF Poster Session 10:30am - Noon
Technical Session & Business Meeting 12:30pm - 2pm
Technical Session & Business Meeting 2:15pm - 3:45pm
Exhibit Hall Summertime Social 3:45pm - 4:15pm
ASEE Annual Award Recognition Ceremony 4:30pm - 6pm
Division Social Events (Optional)



TUESDAY

Registration Open 8am - 5pm

Exhibit Hall 8:45am - 2pm

Technical Session
& Business
Meeting
7am - 8:30am

CMC Industry
Day Breakfast
7am - 8:30am

Technical Session
& Business
Meeting
8:45am - 10:15am

CMC Industry
Day Technical
Session
8:45am - 10:15am

Main Plenary II -
Best Paper Recognition & CMC
Industry Speaker 10:30am - 12:15pm

Exhibit Hall Farewell Lunch,
Division Poster Sessions
12:30pm - 2pm

Technical Session
& Business
Meeting
2:15pm - 3:45pm

CMC Industry
Day Technical
Session
2:15pm - 3:45pm

Technical Session
& Business
Meeting
4pm - 5:30pm

CMC Industry
Day Technical
Session
4pm - 5:30pm

Division Technical
Ses. & Business
Meet. - 5:45pm -
7:15pm

Institutional
Council Recep-
tion & Dinner (by
Invitation Only)

Division
Social Events
(Optional)

WEDNESDAY

Registration Open 8am - Noon

Technical Session & Business
Meeting 7am - 8:30am

Technical Session & Business
Meeting 8:45am - 10:15am

Distinguished Lectures -
6 Concurrent
10:30am - Noon

Technical Session & Business
Meeting 12:30pm - 2pm

Technical Session & Business
Meeting 2:15pm - 3:45pm

Technical Session & Business
Meeting 4pm - 5:30pm

President's Farewell Reception -
Open to All Attendees
6pm - 7:30pm

Conference Highlights

> 11TH ANNUAL ASEE WORKSHOP ON K-12 ENGINEERING EDUCATION

Date: Saturday, June 14, 2014

Location: Indiana Convention Center

Time: 8:00 a.m. - 5:00 p.m.

Presented by Dassault Systèmes

Join us for an enlightening day of professional learning. Now in its 11th year, the K-12 workshop showcases innovative products and methods for K-12 engineering instruction, providing educators with powerful tools to encourage their students to develop “engineering habits of mind.” Attendees will also gain depth and breadth of understanding of the engineering practices as articulated within the latest Next Generation Science Standards.

What to expect:

- A results-oriented, interactive, daylong program of professional learning for K-12 teachers
- A wide array of quality sessions for elementary through high school-level teaching
- Engaging, fun, hands-on activities to share with students
- Ideas for promoting engineering habits of mind within lessons
- Increased awareness of engineering careers in today's world
- Free takeaway materials for your classroom
- Networking and opportunities for future collaboration
- A certificate of completion at the end of the workshop (helpful when applying for CPE/CPD credits)
- Light refreshments
- Attendee bags

> 3RD ANNUAL ASEE INTERNATIONAL FORUM

Date: Saturday, June 14, 2014

Location: Indiana Convention Center

Time: 8:00 a.m. - 6:30 p.m.

The third annual International Forum will be held on June 14, convening engineering professionals from around the globe, working in academia and industry, to share novel engineering education initiatives, experiences, and best practices. This is the premier event for non-U.S. and Canadian engineering education faculty members to interact with their colleagues on issues related to preparing the new “global engineer,” accreditation, curriculum and faculty development, and more. The event is coordinated in collaboration with sister societies devoted to engineering education.

> U504 - GREET THE STARS (FIRST-TIMERS' ORIENTATION)

Date: Sunday, June 15, 2014

Location: JW Marriott Hotel

Time: 3:15 p.m. - 4:00 p.m.

Calling all first-time ASEE conference participants! Not sure how to navigate the event? Overwhelmed by the myriad sessions? Want to know how to get the best from your experience?

This session is facilitated by the current and past vice presidents for member affairs and other board members, and will offer suggestions for successful participation in ASEE.

> U604 - ASEE DIVISION MIXER

Date: Sunday, June 15, 2014

Location: Indiana Convention Center

Time: 4:15 p.m. - 5:45 p.m.

One of our most popular events!

The Division Mixer kicks off the conference with music, drinks, food, and colleagues. This event is both a networking opportunity and a chance for divisions to showcase and promote themselves to prospective members. Tables staffed by participating divisions may feature contests and prize giveaways.

This event is complimentary for all attendees.

> U706 - FOCUS ON EXHIBITS: WELCOME RECEPTION

Date: Sunday, June 15, 2014

Location: Indiana Convention Center

Time: 6:00 p.m. - 7:30 p.m.

Sponsored by Maplesoft

Join your colleagues at the Grand Opening of the Exhibit Hall, immediately following the Division Mixer (above). Our Exhibit Hall is packed with exciting products, solutions, and technologies, with new and exciting content year after year. Roam the expansive space while enjoying refreshments, catching up with old friends, and making new ones.

This event is complimentary for all attendees.



> M204 - MAIN PLENARY I

Date: Monday, June 16, 2014

Location: Indiana Convention Center

Time: 8:45 a.m. - 10:15 a.m.



MITCHELL E. DANIELS JR.
President of Purdue University

Mitch Daniels Jr., president of Purdue University and former two-term governor, will deliver the opening keynote address at the Main Plenary. A strong supporter of engineering education, he has said that “even if we were to somehow outrun the market’s need for engineering talent, we will be a far stronger country if the engineering mentality takes a more prominent place in our national conversations.”

Daniels became president of Purdue in January 2013 after leaving the statehouse. A graduate of Princeton and Georgetown University Law Center, he worked in the White House during Ronald Reagan’s presidency and later served as director of the Office of Management and Budget under President George W. Bush. Last year, he joined engineering students in a music video that went viral.

> M306B - FOCUS ON EXHIBITS: BRUNCH

Date: Monday, June 16, 2014

Location: Indiana Convention Center

Time: 10:30 a.m. - 12:00 p.m.

Sponsored by Quanser

Our exhibitors welcome you back for food and drink to start the day. Whether it’s NASCAR, a 3-D printer, or quality textbooks for your classes, you’ll likely find something interesting in the hall.

This event is complimentary for all attendees.

> M506A - FOCUS ON EXHIBITS: SUMMERTIME SOCIAL

Date: Monday, June 16, 2014

Location: Indiana Convention Center

Time: 3:45 p.m. - 4:15 p.m.

Nothing says summer in the Midwest like a refresh-

ing glass of sweet, cold lemonade. Escape the hot June temps and see what’s “hot” on the Exhibit Hall Floor.

This event is complimentary for all attendees.

> NEW THIS YEAR! 2014 ASEE ANNUAL AWARDS CEREMONY

Date: Monday, June 16, 2014

Location: Indiana Convention Center

Time: 4:30 p.m. - 6:00 p.m.

Sponsored by Dassault Systèmes

ASEE offers awards in a variety of areas, from best paper to teaching recognition to professional and technical honors, to a lifetime achievement award. This event showcases some of ASEE’s best and brightest.

This event is complimentary for all attendees.

> T304 - MAIN PLENARY II

Date: Tuesday, June 17, 2014

Location: Indiana Convention Center

Time: 10:30 a.m. - 12:15 p.m.

BEST PAPER AWARD RECOGNITION AND CORPORATE MEMBER COUNCIL INDUSTRY DAY KEYNOTE SPEAKER

BEST PAPER, PIC I

Gayle Ermer, Calvin College

Paper: *The Four Pillars of Manufacturing as a Tool for Evaluating Course Content in the Mechanical Concentration of a General Engineering Curriculum*

BEST PAPER, PIC II

Darshita Shah, MIT; **Jennifer French**, MIT; **Janet Rankin**, MIT; and **Lori Breslow**, MIT

Paper: *Using Video to Tie Engineering Themes to Foundational Concepts*

BEST PAPER, PIC III

Aimee Navickis-Brasch, University of Idaho; **Anne Kern**, University of Idaho; **Jillian Cadwell**, University of Idaho; **Laura Laumatia**, University of Idaho; and **Fritz Fiedler**, University of Idaho

Paper: *How Land Use Change, Changed Culture*

Conference Highlights

BEST PAPER, PIC IV

Lorelle Meadows, University of Michigan; and **Denise Sekaquaptewa**, University of Michigan
Paper: *The Influence of Gender Stereotypes on Role Adoption in Student Teams*

BEST PAPER, PIC V

Rachelle Reisberg, Northeastern University; **Joseph Raelin**, Northeastern University; **Margaret Bailey**, Rochester Institute of Technology; **Jerry Hamann**, University of Wyoming; **David Whitman**, University of Wyoming; and **Leslie Pendleton**, Virginia Tech
Paper: *The Effect of Cooperative Education and Contextual Support on the Retention of Undergraduate Engineering Students*

BEST ZONE PAPER

Dr. Jane L. Lehr, California Polytechnic State University; **Helene Finger**, California Polytechnic State University; and **Beverly Kwang**, California Polytechnic State University
Paper: *When, Why, How, Who - Lessons from First Year Female Engineering Students at Cal Poly for Efforts to Increase Recruitment*

BEST CONFERENCE PAPER

Darshita Shah, MIT; **Jennifer French**, MIT; **Janet Rankin**, MIT; and **Lori Breslow**, MIT
Paper: *Using Video to Tie Engineering Themes to Foundational Concepts*

> T406 - EXHIBIT HALL LUNCH & DIVISION POSTER SESSIONS

Date: Tuesday, June 17, 2014
Location: Indiana Convention Center
Time: 12:30 p.m. - 2:00 p.m.

ASEE Division Poster Sessions are available for perusing over lunch. And if there's a booth you've yet to explore, this closing Exhibit Hall session will be your last chance.

This event is complimentary for all attendees.

> NEW THIS YEAR! W704 - ASEE PRESIDENT'S FAREWELL RECEPTION

Date: Wednesday, June 18, 2014
Location: JW Marriott Hotel
Time: 6:00 p.m. - 7:30 p.m.

President Ken Galloway hosts a reception as his last official duty as ASEE president. Come chat with Ken, President-elect Nick Altiero, and others at this event that closes the 2014 Annual Conference. Refreshments will be served.

This ticketed event is complimentary for all registered attendees.

> DISTINGUISHED LECTURES WEDNESDAY, JUNE 18

Date: Wednesday, June 18, 2014
Location: Indiana Convention Center
Time: 10:30 a.m. - 12:00 p.m.

CYNTHIA J. ATMAN & GARY R. BERTOLINE
W365 - Inspiring Change Agents to Transform Engineering Education: Challenges and Strategies of Pioneers in an Ever-Evolving Social and Cultural Context



CYNTHIA J. ATMAN

Cynthia J. Atman is the founding director of the Center for Engineering Learning and Teaching (CELT), a professor in Human Centered Design and Engineering, and the inaugural holder of the Mitchell T. and Lella Blanche Bowie Endowed Chair at the University of Washington (UW). She is the principal investigator on the National Science Foundation (NSF) funded study "Engineering Education Pioneers and Trajectories of Impact," which will inform the content of the distinguished lecture, "Inspiring Change Agents to Transform Engineering Education: Effectuating the Strategies of the Pioneers in an Ever-Evolving Social and Cultural Context." She has been an invited distinguished lecture speaker at NSF and keynote speaker for several international, national, and regional conferences, including the 2010 Joint International IGIP-SEFI Annual Conference, the 2009 FIE Annual Conference, and the 2008 ASEE Pacific Northwest Regional Conference.

Atman is a recipient of multiple honors and awards, including the NSF Young Investigators Award; the David B. Thorud Leadership Award, which is given to a UW faculty or staff member for demonstrating leadership, innovation, and teamwork; and the ASEE Chester F. Carlson Award for Innovation in Engineering Education. She



is also an American Association for the Advancement of Science Fellow and ASEE Fellow. Her work as director of the Center for the Advancement of Engineering Education (CAEE) led to publication of a seminal work, *Enabling Engineering Student Success: The Final Report for the Center for the Advancement of Engineering Education*, and more than 125 articles, posters, and presentations.

Atman also has a distinguished service record in engineering education. She has been an associate editor of the *Journal of Engineering Education*, chair of the National Academy of Engineering (NAE) Committee to establish the NAE Center for the Advancement of Scholarship on Engineering Education, and an advisory board member of *Advances in Engineering Education* and the Engineer of the Future 2.0: Summit on Transforming Engineering Education. She received her B.S. and M.S. in industrial engineering and industrial and systems engineering (both magna cum laude) from West Virginia University and Ohio State University, respectively. She earned her doctorate in engineering and public policy from Carnegie Mellon University.

computer-aided design and engineering design graphics. His research interests are in scientific visualization, interactive immersive environments, distributed and grid computing, workforce education, and STEM education.



CHRISTINE CUNNINGHAM
W347 - Are You Ready for the Next Generation? How a New Approach to K-12 Education Will Develop College-ready Students With Engineering Habits of Mind

Christine Cunningham is an educational researcher who works to make engineering and science more relevant, accessible, and understandable, especially for underserved and underrepresented populations. A vice president at the Museum of Science, Boston since 2003, she founded and directs Engineering is Elementary™, a groundbreaking project that integrates engineering concepts into elementary curricula and teacher professional development. To date, EiE has served four million children nationwide and 53,000 educators. Cunningham previously served as director of engineering education research at the Tufts University Center for Engineering Educational Outreach, where her work focused on integrating engineering with science, technology, and math in professional development for K-12 teachers. She also directed the Women's Experiences in College Engineering (WECE) project, the first national, longitudinal, large-scale study of the factors that support young women pursuing engineering degrees. Cunningham holds B.A. and M.A. degrees in biology from Yale and a Ph.D. in science education from Cornell University.

Cunningham received the ASEE K-12 and Precollege Division Outstanding Leadership Award in 2005. She was a founding member of the division and served as the first K-12 and Precollege Division program chair. She served as division chair in 2008. On the national stage, she has been named a "Leader to Watch" by the International Technology and Engineering Educators Association and has served on the National Academy of Engineering's Committee on K-12 Education Standards. The curriculum project that will inform the presentation was recognized this year with a STEM Innovation Award from the Silicon Valley Education Foundation.



GARY R. BERTOLINE

Gary R. Bertoline is dean of the College of Technology and a distinguished professor of computer graphics technology and computer and information technology at Purdue University. He earned his Ph.D. at Ohio State University and was on the faculty in the College of Engineering for three years before coming to Purdue in 1990. From 1995 through 2002, Bertoline served as department head of computer graphics technology at Purdue. He served for five years as the associate dean for graduate programs in the College of Technology.

Bertoline led the development of the Envision Center for Data Perceptualization at Purdue and served as its director for five years. He also had a major role in the build-out of Purdue's campus cyberinfrastructure while serving as associate vice president and director of the Rosen Center for Advanced Computing (RCAC), which he co-founded. He recently co-founded the Indiana Next Generation Manufacturing Competitiveness Center (IN-MaC) and the Polytechnic Institute at Purdue University.

He has authored more than 100 papers in journals and trade publications on engineering and computer graphics, computer-aided design, and visualization research and has authored or co-authored eight books in the areas of

Conference Highlights



PEGGY McINTOSH
W325 - A Bell Labs Daughter Speaks
About Equity in Engineering Educa-
tion

Peggy McIntosh is associate director of the Wellesley Centers for Women at Wellesley College in Massachusetts. She is founder and co-director of the United States S.E.E.D. (Seeking Educational Equity and Diversity) Project on Inclusive Curriculum. She consults widely in the United States and throughout the world with college and school faculty who are creating more gender-fair and multicultural curricula. In 1988, she published the ground breaking article “White Privilege and Male Privilege: A Personal Account of Coming to See Correspondences Through Work on Women’s Studies.” This analysis and its shorter form, “White Privilege: Unpacking the Invisible Knapsack” (1989), have been instrumental in putting the dimension of privilege into discussions of gender, race, and sexuality in the United States. She is author of 38 other articles. McIntosh, whose father spent his professional career as an engineer at Bell Labs, graduated summa cum laude from Radcliffe College and received her M.A. and Ph.D. from Harvard University. She has taught at the Brearley School, Harvard, Trinity College (Washington, D.C.), the University of Denver, the University of Durham (England), and Wellesley. She is co-founder of the Rocky Mountain Women’s Institute and has been consulting editor for *Sage: A Scholarly Journal on Black Women*. As Distinguished Asia Scholar of the United Board for Christian Higher Education in Asia, McIntosh consulted with women on 22 Asian campuses on the development of women’s studies and programs to bring materials from women’s studies into the main curriculum. In addition to having four honorary degrees, she is the recipient of the Klingenstein Award for Distinguished Educational Leadership from Columbia Teachers College and a Medal of Honor from the National Center for Race Amity, based in Massachusetts.



CARL MITCHAM
W438 - Learning From China

Carl Mitcham is professor of liberal arts and international studies, director of the Hennebach Program in the Humanities, and co-director of the Ethics Across Campus program at the Colorado School of Mines. His disciplinary background is in philosophy, with an emphasis on philosophy and the ethics of science, technology, and engineering. His scholarly publications have been as much interdisciplinary as disciplinary, especially in working to bring the philosophy of technology into the interdisciplinary field of science, technology, and society (STS) studies.

Among his publications are *Thinking Through Technology: The Path Between Engineering and Philosophy* (1994), *Encyclopedia of Science, Technology, and Ethics* (four volumes, 2005), *Oxford Handbook of Interdisciplinarity* (2010, with Robert Frodeman and Julie Thompson Klein), *Ethics and Science: An Introduction* (2012, with Adam Briggles), and *Gongcheng yu zhaxue: Lishide, zhaxuede, he pipande shijiao [Engineering and Philosophy: Historical-philosophical and Critical Perspectives]* (2013).

Mitcham holds affiliate appointments at the European Graduate School, Saas-Fee, Switzerland; the Center for Science and Technology Policy Research, University of Colorado, Boulder; the Consortium for Science, Policy, and Outcomes, Arizona State University; the Center for the Study of Interdisciplinarity, University of North Texas; Faculty of Social Science and Humanities, Dalian University of Technology, China; and the Filosofía, Ciencia y Valores program, Universidad del País Vasco.





This year's conference and exposition feature an exciting schedule of activities in the Exhibit Hall, including refreshment breaks, product demonstrations, and interactive attractions.

> EXPOSITION HOURS

Sunday, June 15	6:00 p.m. to 7:30 p.m.
Monday, June 16	10:30 a.m. to 5:00 p.m.
Tuesday, June 17	8:45 a.m. to 2:00 p.m.

> FOCUS ON EXHIBITS EVENTS

"Focus on Exhibits" events are exclusive; no sessions or other events will be held during these times. This allows attendees to visit the Exhibit Hall floor and provides an excellent networking opportunity in a dynamic atmosphere. The 2014 ASEE Annual Conference will feature more than four hours of "Focus on Exhibits" events, all of which include complimentary food and drinks.

See the Conference Highlights section above for details about important events in the hall. Also of note, our popular **Two-year College Model Design Competition** will take place Monday from 10:30 a.m. – 2:30 p.m.

The annual ASEE Model Design Competition, sponsored by the Two-year College Division (TYCD), will be held on Monday, June 16. Student teams of freshman and sophomore engineering and engineering technology students will design and build a robot to collect colored golf balls and deposit them in a box in the center of the eight-by-eight-foot track. Additionally, student teams will participate in an Exhibition Session, where they will display their robot on a table and discuss their design with competition judges, students, and conference attendees. The Exhibition Session will be held from 8 a.m. to 11 a.m. on Monday, June 16 in the Exhibit Hall. Robot testing will begin at 1 p.m. in the Exhibit Hall.

ASEE is pleased to again partner with the Accreditation Board for Engineering and Technology (ABET). Below is a listing of ABET Sessions being offered at the ASEE Annual Conference.

> U264A - SUNDAY WORKSHOP: ABET FUNDAMENTALS OF PROGRAM ASSESSMENT WORKSHOP

Workshop - Sponsored Sessions

Date: Sunday, June 15, 2014

Location: Indiana Convention Center

Time: 9:00 a.m. to 4:00 p.m.

Ticketed event: \$175 advance registration and \$185 on-site registration

ABET Program Assessment Workshop (seven hours); includes lunch.

The ABET Program Assessment Workshop is designed to help faculty and administrators develop their program assessment skills with a one-day workshop. Participants will have the opportunity to broaden their understanding of the continuous quality improvement of student learning through the design of assessment processes, development of measurable student outcomes, and application of data collection and data reporting methods. This workshop is interactive, and those attending will work in small groups applying the concepts learned throughout the day. Participants will receive a workshop booklet containing all slides and reference materials.

> M106C - ABET 101: WHAT YOU NEED TO KNOW ABOUT ABET ACCREDITATION

Technical - ASEE Headquarters

Date: Monday, June 16, 2014

Location: Indiana Convention Center

Time: 7:00 a.m. to 8:30 a.m.

If you are new to ABET accreditation, this is the session for you. Questions about accreditation criteria and procedures, who writes them, who serves as evaluators and how are they assigned to your program, who makes final accreditation decisions and how, uses and misuses of assessment tools in the ABET process, to whom ABET matters (and why), and what programs are accredited are

among topics addressed. Come ready with your questions and feedback for senior ABET representatives.

> M506D - ABET 201: WHAT'S NEW IN ABET ACCREDITATION?

Technical - ASEE Headquarters

Date: Monday, June 16, 2014

Indiana Convention Center

2:15 p.m. to 3:45 p.m.

In both October 2012 and October 2013, the ABET Board of Directors voted to change elements of ABET Accreditation Criteria and the Accreditation Policy and Procedure Manual (APPM). This session will highlight the motivation for those changes and the manner in which the four ABET Accreditation Commissions are proceeding with implementation. There will be ample opportunity for those in attendance to ask questions.

> T506A - ABET 301: HOW TO BECOME AN ABET PROGRAM EVALUATOR

Technical - ASEE Headquarters

Date: Tuesday, June 17, 2014

Location: Indiana Convention Center

Time: 2:15 p.m. to 3:45 p.m.

Each year, more than 2,000 academic administrators and faculty, industry officials, and technical professionals work together to ensure quality in technical education worldwide by serving as ABET program evaluators and making initial accreditation recommendations. This session provides information for prospective ABET volunteers and covers: 1) the nature of program evaluator work; 2) ABET's need for new volunteers; 3) the program evaluator "life cycle"; 4) what's in it for you; 5) threshold requirements for service and the program evaluator selection process; and 6) training requirements.



> **T606• - BET 401: EDUCATIONAL INNOVATION AND ABET-ACCREDITED PROGRAMS**

Technical - ASEE Headquarters

Date: Tuesday, June 17, 2014

Location: Indiana Convention Center

Time: 4:00 p.m. to 5:30 p.m.

ABET recognizes that the environment in which students learn and the empowering situations to which they are exposed support the premise that how we teach is just as important as what we teach. In this session, panelists from higher education, industry, and ABET senior staff will explore specific initiatives from ABET-accredited programs that are relevant, rigorous, and innovative. ABET, the world leader in technical education accreditation, supports and recognizes these innovative initiatives to ensure a technically and professionally skilled global workforce.

Corporate Member Council Industry Day

> CATALYZING COLLABORATION BETWEEN INDUSTRY AND ACADEMIA

TUESDAY, JUNE 17, 2014

Active and engaging learning and development opportunities have always been attractive to students, universities and corporations. Universities are always looking for an opportunity to connect with industry partners to provide key funding for research and development as well as provide a connection for the students to leverage upon graduation. Industry partners are consistently trying to collaborate with academic universities in order to provide much needed hands on experience to prospective employees.

Industry-sponsored capstone programs are designed with the curriculum of the school in mind while taking into consideration the needs of the industry partners. These capstone programs provide much needed experiential education to the student population as well as provide the industry an opportunity to maintain their talent pipeline for the future.

In the past, the Corporate Members Council has predominantly highlighted the best practices and lessons learned of partnerships between academia and industry. This year, the CMC is proud to refocus the discussion to include the voice of the true customer of these engineering education partnerships: the student. The first session will highlight highly successful international capstone programs. University representatives, industry partners and student leaders who have completed this global clinic program will lead an in-depth discussion that will allow participants the opportunity to learn how to build their own international capstone programs.

The second session will provide an opportunity to engage in an interactive panel discussion with award winning universities, their industry partners and students that will provide a unique 360 perspective on the best practices and lessons learned from nationally recognized capstone design programs.

The third session will focus on bridging the gap between academia and industry. A research team from the University of Toronto will provide key research expertise integrated into an interactive discussion exploring the different perspectives on engineering leadership and the skills and traits that contribute to a successful engineering career.

Taken as a whole, this series of sessions aims to catalyze dialogue and collaboration between industry and academia. It highlights key capstone design programs and provides participants an opportunity to engage in interactive discussions with university and industry representatives, current students and engineering research teams.



> **T121 - CIP/CMC ANNUAL NETWORKING BREAKFAST**

7:00 a.m. - 8:30 a.m.

Free ticketed event

All ASEE corporate members, along with members of the College Industry Partnerships Division and Corporate Member Council, are invited to a joint networking breakfast! Connect with colleagues and friends, and hear about CIPD and CMC accomplishments.

> **T221 - INDUSTRY DAY: TECHNICAL SESSION - THE SECRETS OF A SUCCESSFUL GLOBAL CAPSTONE PROGRAM**

8:45 a.m. - 10:15 a.m.

This session will provide the opportunity for an in-depth discussion of the purpose, structure and execution of highly successful international capstone programs. Harvey Mudd College and Kogakuin University of Japan will describe the foundation, processes, and pitfalls of their Global Clinic programs. A representative from their industry partners and a student who recently finished the program will also join the panel. After brief presentations by the panelists, participants will break into roundtable groups, where they will discuss one of four key topics focused on providing participants with guidance and support to begin building their own international capstone programs.

*Moderated by
Paul Michael Jones and Patrick Little*

> **T304 - ASEE MAIN PLENARY II: BEST PAPER RECOGNITION AND INDUSTRY DAY SESSION: CORPORATE MEMBER COUNCIL KEYNOTE SPEAKER**

10:30 a.m. - 12:00 p.m.

> **T521 INDUSTRY DAY: TECHNICAL SESSION - BEST PRACTICES FOR SPONSORED CAPSTONE DESIGN PROGRAMS**

2:15 p.m. - 3:45 p.m.

This session will provide a key opportunity to stimulate enriching dialogue centered on Capstone Design Programs. Exemplary capstone design programs integrate students into the corporate environment by partnering with industry sponsors for the duration of the project. This panel will go beyond the scope of a traditional discussion between academia and industry by integrating the voice of the ultimate customer, the student. In addition, representatives from award-winning universities (Cal State University of Los Angeles and Olin College of Engineering) will participate along with their industry partners and strive to provide a 360-degree perspective of best practices and lessons learned on the importance and impact of sponsored capstone design programs.

*Moderated by
Paul Michael Jones and Alisha L. Sarang-Sieminski*

> **T621 - INDUSTRY DAY: TECHNICAL SESSION - BRIDGING THE GAP FROM ACADEMIA TO INDUSTRY: EDUCATING LEADER ENGINEERS**

4:00 p.m. - 5:30 p.m.

Technical skills may get you the job, but they won't get you the promotion. What are those other skills - leadership skills, soft skills, people skills - that make for a successful career? This session will challenge participants to define that suite of skills and identify the ways in which each participant can help develop these skills in future engineers. Facilitated by researchers from the University of Toronto who are currently conducting a large-scale study of practicing engineers to understand "engineering leadership," this session will be an interactive way to connect with others and explore your beliefs around professional development and engineering leadership.

> **T721 - INDUSTRY DAY: INSTITUTIONAL COUNCIL RECEPTION AND DINNER**

7:00 p.m. - 9:00 p.m.

By invitation only. Annual dinner for members of the Engineering Deans Council, Engineering Technology Council, and Corporate Member Council.

Sponsors

THANK YOU TO OUR SPONSORS FOR THEIR OUTSTANDING SUPPORT!





COMPANY	BOOTH #
ABET	2410
Agilent Technologies	1107
Alexander Street Press	919
Altair Engineering	2216
American Society of Civil Engineers (ASCE)	2215
ARM	1213
Armfield	1813-1816
ASME	2310
ASSESS	1518
Bentley Systems	911
Cambridge University Press	1818
CD-adapco	613
CELT	1420
Clarkson University	810
Clemson University	1120
Conference for Industry and Education Collaboration (CIEC)	910
CRC Press - Taylor & Francis Group	511
Cypress Semiconductor Corp.	915
Dassault Systèmes	2009
Digilent	813-914
Edibon USA LLC	715
EER Lounge	1218
Elsevier	1613
Emona Instruments	1711
EPICS	916
Famic Technologies	2010
Feedback	1516
FL-ATE	1716
Freescale	918
Frontiers in Education - University of Kansas	811
GEARS Education Systems/DEPCO	713-714
German Academic Exchange Service (DAAD)	1018
Global eTraining	2316
Heliocentris Energy Systems Inc.	1819
IEEE Xplore Digital Library	507
IET	614
Institute of International Education	1019
Intelitek, Inc.	1513
Kaplan Professional Education - Kaplan AEC Education	2118
LabArchives	2110
Laboratory for Innovative Technology & Engineering Education (LITEE)	816
Lab-Volt Systems	1313
LEGO Education North America	1913
LITEE	816
Little River	416
Lucas-Nuelle GMB	1618
Maney Publishing	2515

COMPANY	BOOTH #
Maplesoft	1710
MathWorks	611
McGraw-Hill	1215
Mercury Learning & Information	942
Micro-Measurements	815
Minitab	1918
Morgan and Claypool Publishers	1718
National Center for Technological Literacy at the Museum of Science, Boston	405
National Conference of Standards Laboratories International	2018
National Council of Examiners for Engineering and Surveying (NCEES)	1307
National Instruments	1607
National Science Foundation	1221
Oxford University Press	2413
Parametric Technology Corp.	607
PASCO Scientific	2007
Pearson	1411
Piazza	2412
PITSCO	2315
PPI	1810
Purdue Engineering Education	1221
Quanser Inc.	1610-1611
SAE International	1719
SDC Publications	1115
Siemens AG	1808
Society of Manufacturing Engineers	2313
Solidworks/DASI Solutions	2119
SpectraQuest, Inc.	1010
SPIE Digital Library	2307
Statics.com	719
Stratasys	1415
Studica, Inc	1807
Sun Equipment	1015
Texas Instruments	1207
Thomson Reuters	510
Tufts University	1421
University of Kansas	811
University of Minnesota	1121
US Didactic	1210-1311
USPTO	2516
Utah State University - Engineering Education	1119
Vernier Software & Technology	1915-1916
Virginia Tech	1118
Wiley	1413-1414
Wolfram Research	516
World Congress on Engineering Education	1013
Zyante	1020

Exhibition Hall Floor Plan

2-Year College Design Competition

2121	2021
2120	2020
2119 Solidworks/ DASI Solutions	2019
2118 Kaplan	2018 NCLSI

1921	1821
1920	1820
1919	1819 Heliocentris
1918 Minitab	1818 Cambridge University Press

1721	1621
1720	1620
1719 SAE International	1618 Lucas- Nuelle GmbH
1718 Morgan & Claypool	

1521	1421 Tufts University
1520	1420 CELT
1519	1419 NSF
1518 ASSESS	1418 NSF

2516 USPTO	2415
2515 Maney Publishing	
2514	2414
2513	2413 Oxford University Press
2512	2412 Piazza
2511	2411
2510	2410 ABET

2316 Global eTraining	2216 Altair
2315 PITSCO	2215 ASCE
2313 SME	2213

2013

1915 Vernier	1816 Armfield
1913 LEGO	1813 Armfield

1716 FL-ATE	1616
1715	1613 Elsevier
1713	

1516 Feedback	1415 Stratasys
1513 Intelitek	1413 Wiley

2616
2615
2610
2609
2607

2507	2407
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2311 ASME	2209
2310	
2309	
2308	2207 IEEE
2307 SPIE	

2110 LabArchives	2010 Famic Tech
2109	2009 Dassault Systemes

2007 PASCO

1810 PPI

1808 Siemens
1807 Studica

1711 Emona Instruments	1611 Quanser
1710 Maplesoft	

1607 National Instruments

1411 Pearson

ASEE Diversity Booth

Entrance



1221 Purdue School of Engineering	1121 University of Minnesota	1021	921	821	621	521	421	321	221	121	2821	2721	
	1120 Clemson University	1020 Zyante	920	820		520	420	320	220	120	2820	2720	
1218 EER Lounge	1119 Utah State University	1019 IIE	919 Alexander Street Press		618	518	419	319	219	119	2819	2719	
	1118 Virginia Tech	1018 DAAD	918 Freescale	818			418	318	218	118	2818	2718	
1215 McGraw-Hill			916 EPICS	816 LITEE	715 Edibon USA	616	516 Wolfram Research	416 Little River	316	216	116	2816	2716
	1115 SDC	1015 Sun Equipment	915 Cypress	815 Micro Measurements		615			315	215	115	2815	2715
	1013 World Congress on Engineering Education		813 Digilent		714 Depco/Gears	614 IET	413		314	213	114	2814	2714
1313 Lab-Volt	1213 ARM					613 CD Adapco			313		113	2813	2713
											112	2812	2712
1311 US Didactic	1211 US Didactic	1010 SpectraQuest	911 Bentley Systems	811 University of Kansas	611 Mathworks		511 CRC Press	411 Mastercam/CNC Software	211		111	2811	2711
1310 US Didactic	1210 US Didactic		910 CIEC	810 Clarkson University			510 Thomson Reuters	410			110	2810	2710
					607 PTC				309	209	109	2809	2709
1307 NCEES	1207 Texas Instruments	1107 Agilent Technologies	1007	807			407		308	208	107	2808	2708
									307	207		2807	2707



> REGISTRATION INFORMATION

Registration is open! Learn all the details on registration on the ASEE website at <http://www.asee.org/conferences-and-events/conferences/annual-conference/2014/registration>.

> HOUSING INFORMATION

ASEE will be using EventSphere Housing Agency.

Please Note: Hotel reservations cannot be made directly with the ASEE Conference Hotels. Please go to <http://www.asee.org/conferences-and-events/conferences/annual-conference/2014/housing>.

For more information contact ASEE at conferences@asee.org or (202) 331-3500.





2015

June 14 - 17

SEATTLE

2016

June 26 - 29

NEW ORLEANS

2017

June 25 - 28

COLUMBUS

2018

June 24 - 27

SALT LAKE CITY

2019

June 16 - 19

TAMPA

2020

June 21 - 24

MONTREAL