2009 Engineering Technology Education Bibliography

Compiled by

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Introduction

The 2009 bibliography lists books, articles, and proceedings papers related to engineering technology education under the following headings: administration, aerospace/aviation, architectural, assessment, biomedical/biotechnology, civil, computers, curriculum, distance education, diversity, electrical/electronics, faculty development, industrial, industry/government/employers, information technology instructional technology, international, laboratories, liberal studies, manufacturing, mechanical, teaching methodology, tech prep/STEM, technical communication, and technical graphics. Five categories—instructional technology, liberal studies, teaching methodology, technical communication, and technical graphics—include listings reflecting general technical education concerns.

Entries are listed according to area of primary emphasis, and items that apply to two or more academic disciplines are entered under the area of major interest. For example, ECET-related items are included under “Electrical/Electronic”; mechatronics papers are listed under “Mechanical.” We apologize for any entries that may have been missed or inadvertently placed in the wrong category.

Contributors

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Abbreviations

ACP


CIEC Proceedings of the 2009 Conference for Industry and Education Collaboration, February 4-6, 2009, Orlando, Florida. Proceedings are available on CD.


GSW  Proceedings of the ASEE 2009 Gulf-Southwest Section Conference, March 18-20, 2009, Waco, Texas. Proceedings are available on CD.


Administration


Balogh, Jeno et al. “Facilitating Academic Partnerships Using Low Cost Web-Based Video Conferencing.” GCEE.


Barger Marilyn et al. “Evaluating an NSF ATE Center Using Baldrige Criteria.” ACP.

Bertoline, Gary, and Mark Schuver. “Center for Professional Studies in Engineering Technology.” ACP.


Clark, W. Andrew, and Craig A. Turner. “Market Simulation Programming as a Culminating Experience for Students Interested in Entrepreneurship and Pursuing an M.S. in Engineering Technology.” ACP.

DeLong, Brian, and Kumar Yelamarthi. “Freshman Retention in an Engineering and Technology Department.” ACP.
Dyrenfurth, Michael et al. “ROI: Return on Investment as a Factor in Designing Graduate Research Projects for Mutual Benefit.” *ACP*.

Gumaer, John. “Do’s and Don’ts for Recruiting Engineering or Technology Faculty.” *ACP*.


Hoole, Samuel Ratnajeevan. “Adjunct and Other Hiring Practices at US Universities.” *NE*.

Irwin, John, and Nasser Alaraje. “ABET Accreditation: Resolving a Weakness or Concern.” *ACP*.


Khan, Hamid. “A Product Mix Model of Linear Programming for University’s Optimal Enrollment Management.” *CIEC*.

Khan, Hamid. “System Simulation Model for University’s Strategic Market Growth and Enhanced Competitiveness.” *CIEC*.

Mahajan, Mayuri et al. “Experience of the Graduate Students in the Capstone Course.” *GSW*.

Murray, Susan et al. “What New Faculty Need to Know.” *ACP*.

Mutter, Bruce. “Operating a Center for Applied Research and Technology (CART).” *ACP*.

Ocon, Ralph. “Workplace Bullies: A Rising Workplace Concern and Detriment to Career Success.” *ACP*.

Richter, Donald et al. “The Development of a Formal Research Study on Correlating Student Attendance with Student Success.” *ACP*.


Spang, David, and Vladimir Genis. “Institutional-Level Reform of an Engineering Technology Program.” *ACP*.


Weir, Erin, Edie Schmidt, and Jonathan Davis. “College of Technology Graduate Student Orientation Packet.” *ACP*.

### Aerospace/Aviation


Grossfield, Andrew. “Visual Analysis and the Composition of Functions.” *ACP.*

Johnson, Mary, and Sergey Dubikovsky. “Lean Six Sigma Principles in Capstone Aeronautical Engineering Technology Courses.” *ACP.*


**Architectural**

Davis, Daniel. “Connecting the Academy with the Profession in Architectural Engineering Technology Education.” *CIEC.*

Frank, Mary Ann et al. “Virtual-Reality Technology and the Teaching of Architectural Lighting.” *ACP.*

Haque, Mohammed, and Reniz Moosa. “Virtual Walk Through of a Building Foundation System Using Game Technology.” *ACP.*

Keshawarz, M. et al. “Modern and Traditional Architecture Education in Herat.” *ACP.*


Zarzcki, Andrzej. “Digital Simulations of Architectural Structures with the Use of Physically Based Dynamics.” *ACP.*

**Assessment**

Adams, John, and William Bowhers. “Use of Points of Learning to Assess Program Outcomes: Lessons Learned.” *NE.*

Ahmadian, Mohamed. “Techniques for Measuring Learning Outcomes.” *CIEC.*


Anwar, Sohail. “E-Portfolio Assessment in an Engineering Technology Undergraduate Degree Program.” *CIEC.*


Christe, Barbara, and Elaine Cooney. “Meet the ABET ‘Student Work Sample’ Requirements: Document Student Learning.” *ACP.*


Gupta, Abhijit. “Effect of Order of Administration of Performance Assessment and Traditional Assessment.” *IL/IN.*


Highly, Timothy, and Anne E. Edlin. “Discrete Mathematics Assessment Using Learning Objectives Based on Bloom’s Taxonomy.” FIE.

Kitto, Kathleen L. “The Importance of Using Pre-Course Concept Questionnaires as Assessment Tools—Discovering Student Misconceptions & Structuring Active Learning Exercises.” CIEC.

Kowalski, Susan E., Frank V. Kowalski, and Tracy Q. Gardner. “Lessons Learned When Gathering Real-Time Formative Assessment in the University Classroom Using Tablet PCs.” FIE.


Morales, Juan C. “Implementing a Robust, Yet Straightforward, Direct Assessment Process That Engages 100% of the Faculty.” ASME. Paper no. 12502.


Omar, Maher, Abdallah Shanableh, and Samer Barakat. “Another Dimension of Student Engagement–Student Satisfaction Survey.” NE.


Pariser, Bertram. “Assessment of the Amount of Time Students Study.” ACP.

Prusak, Zbigniew. “Course Learning Outcomes and Student Evaluations: Can Both Be Improved?” ACP.


Sarkae, Nripendra N., Mohan A. Ketkar, and Cajetan M. Akujuobi. “On Instruments for Closing the Loop for ABET Accreditation.” GSW.

Sarker, Nripendra, Mohan Ketkar, and Cajetan Akujuobi. “Designing Questionnaires to Obtain Opinions in Assessing Program Performance.” ACP.


Stanton, Ken. “Increasing Assessment Effectiveness in a Time of Decreasing Budgets.” FIE.

Biomedical/Biotechnology

Asgill, Austin. “Developing Biomedical Instrumentation Laboratory Exercises for Engineering Technology.” ACP.


Hahn, Mariah S. “An Engineering Approach to Teaching Biotechnology Concepts.” GSW.


Kostia, Silja, and Ossi Tonteri. “Education as a Tool to Boost Innovations in Environmental Biotechnology.” NE.

Schwartz, Joshua et al. “Toward the Integration of PSOC and Biomedical Instrumentation.” ACP.

Vanicut, M. et al. “Rendering Infusion Pumps Smart and Interoperable in Clinical Therapy.” NE.


Civil

Bandyopadhyay, Amitabha, and Jamil Lacourt. “Evaluating Existing Buildings for Green Building Standards: A Senior Project.” ACP.

Banik, Gouranga. “Course Content and Outcome of Construction Temporary Structures.” ACP.

Bora, Vardhanan V., and Mohammed E. Haque. “Design Calculator for Quick Estimation of Concrete and Reinforcement in the Flat Plate Slab.” GSW.

Choudhury, Ifte. “Study of Student Performance in a Construction Science Course Using Multiple Regression Technique.” GSW.

Cooke, Harry. “Using Computer Modeling to Increase Student Comprehension of Foundation Behavior and Capacity.” ACP.

Cottrell, David, and Chunk-Suk Cho. “Integrating Green Engineering into a Multidisciplinary Seminar Course.” ACP.

Das, Nirmal. “Just-in-Time Teaching (JITT) in Civil Engineering Technology.” ACP.

Dunn, Philip. “Creating Industrial Partnerships with Construction Management Technology Programs.” ACP.

Dunn, Philip. “Developing a Workable Construction Management Technology Senior Capstone Project at the University of Maine.” ACP.

Ernest, Andrew et al. “Water-Resource Management Capacity Development: A Small-
System Technology-Transfer Model.” *ACP.*

Hanna, David. “The Development and Initial Results of a New Course in Construction Management: Power and Process Plant Construction.” *NC.*

Hildreth, John, and Bruce Gehrig. “Incorporating Equipment Simulators into a Construction-Education Curriculum.” *ACP.*

Irizarry, Javier, and Pavan Meadati. “Use of Interactive Display Technology for Construction Education Applications.” *SEE.*


Kalevela, Sylvester. “Identity Issues and the Future of Civil Engineering Technology.” *ACP.*

Koch, Daphene. “Research Grants to Build Labs: A Sample-Mechanical Building Systems Lab (MechBuild Lab).” *ACP.*

Koch, Daphene Cyr, and Joseph Orczyk. “Same Time Distance Learning.” *IL/IN.*

Lambrechts, James. “Not So Fast with the Demise of Civil Engineering Technology–It May Be Just about to Blossom!” *ACP.*

Pablo, Reynaldo M., Jr. “Learning Bridge Design and Evaluation.” *IL/IN.*


Rose, Andrew. “Incorporating Assignments to Develop Hand-Sketching Skills in the Civil Engineering Technology Curriculum.” *ACP.*

Sener, Erdogan, and Tom Isley. “Construction Equipment Fleet Management Using Telematics Technology: Research and Resultant Educational Perspectives.” *ACP.*

Varma, Virendra. “Practitioners as Adjunct Clinical Professors: Their Role in Teaching Real-World Engineering Applications in Design and Construction.” *ACP.*


Wade, Cristal et al. “Wastewater Technician Training Institute: The First Year Retrospective.” *ACP.*

Wolcutt, Scott, and Todd Dunn. “Adding Civil Engineering to a Department That Currently Is Home to Civil Engineering Technology.” *ACP.*

Ziemer, Katherine. “Educational Discovery, Development and Design; a 3D Approach to Teaching Transport Phenomena.” *NE.*

**Computers**


Azemi, Asad, and Nannette D’Imperio. “Improved Approach for Delivering an Introductory Computer Science Course.” *WIP.* *FIE.*

Bumbliss, Joseph (Joe) R. “Building a Computer Engineering Program at Wisconsin-Stout: Issues and Considerations for Embedded Systems.” *NMW.*


Crowley, Edward. “Learning Linux in a Windows Laboratory.” *GSW.*

Hassan, Muhammad. “Course Development in Digital Systems Targeting Reconfigurable Hardware.” ACP.


Jones, Kenneth et al. “Automatic Wi-Fi Monitoring and Flushing System.” GSW.


Maj, Piotr. “Teaching Future Coworkers.” GCEE.


Rajaravivarum, Veeramuthu, and Cajetan Akjuoobi. “Experiments with Computer Password Cracking and Shielding Techniques.” ACP.


Will, Jeff. “Integrating Printed Circuit Boards into a Computer Architecture Course.” IL/IN.


Yanik, Paul, George Ford, and Brian Howell. “An Introduction to Fuzzy Logic Applications for Robot Motion Planning.” SEE.

Zhou, Xuefu. “Teaching an Operating System Course to CET/EET Students.” ACP.


Curriculum

Asser, Stuart et al. “Project Enhanced Learning in the Technology Academy.” NE.

Balascio, Carmine. “Offering a Successful Engineering Technology Program at a Large Research University: Challenges and Unusual Circumstances.” ACP.


Foster, Phillip R. “Cutting Edge Senior Design: NDA-Type Projects Thrive in the Engineering Technology Environment.” *GSW*.


Gupta, Surendra et al. “ET^2 Program for Transfer Students from Two-Year Colleges.” *ACP*.


Hawks, Val, and Ronald Terry. “Teaching Leadership Principles to Undergraduate Engineering and Technology Students.” *ACP*.


Kleinke, Darrell, and Nassif Rayess. “Faces on Design: Capstone Course Gets Personal.” *NC*.

Krupczak, John et al. “Development of an Organizational Infrastructure to Facilitate the Creation of Courses on Technology and Engineering for Non-Engineers.” *WIP. FIE*.

Latif, Niaz, and Akram Hossain. “A New Breed of Interactive and Distributed Classroom Environments for Freshmen and Sophomore Technology Courses.” *ACP*.

Meyer, Janet, Stephen Hundley, and H. Oner Yurtseven. “The First Year Experience.” *ACP.*


Mutter, Bruce. “Development of a Web-Based Course on Miner Safety Training.” *ACP.*

Nakayama, Shoji. “A Systematic Approach to Validate Safety, Health and Environmental Management Curriculum through Academic Advisory Committee.” *ACP.*

Naumanen, Minnamari, and Markku Tukiainen. “Guided Participation in ICT-Education for Seniors: Motivation and Social Support.” *FIE.*

Nelson, Brent, Jamal Wilson, and Jeannette Yen. “A Study of Biologically-Inspired Design as a Context for Enhancing Student Innovation.” *FIE.*

Newman, Jerry. “I Have This Calculator; I’m Not Supposed to Have to Think.” *SEE.*

Okudan, Gül et al. “Validation of a Design Pedagogy Framework Using Qualitative Analysis.” *ACP.*

Patterson, John, and George Ford. “Basic Impacts of Hurricanes for Technology Faculty in the United States.” *SEE.*

Patterson, John, and George Ford. “The Damaging Impacts of Hurricanes upon Coastal Structures.” *SEE.*


Potts, Laramie V., Michael Kader, and David Ludliner. “A Model for Hybrid Learning in Engineering and Engineering Technology Education Using Open Source.” *NE.*


Tasneem, Sarah, and Marsha Davis. “A Cluster Course for First Year Students.” *NE.*


Weese, John. “Benefits from Offerings to Nonengineering or ET Majors.” *ACP.*

Wright, Geoffrey et al. “Increasing the Innovation Ability and Aptitude of Technology and Engineering Students through Focused Collaborative, Crossdisciplinary Design-Thinking Boot Camps.” *ACP.*

Yang, Bill et al. “Intentional Learning in Core Engineering and Engineering Technology Education.” *ACP.*

Yousuf, Asad, Mohamad Mustafa, and Lin Shinemin. “An Integrated, Project-Based Course in Mathematics and Engineering Technology.” *ACP.*

Zhan, Wei, Rainer Fink, and Alex Fang. “Teaching Statistics to Engineering Technology Students.” *ACP.*

**Distance Education**

Chen, Yung-Sheng, and Jer-Wei Rau. “Digital School Desk.” *WIP. FIE.*
Dasigi, Venu, and Han Reichgelt. “Issues with Online STEM Education–Assessment and Accreditation.” SEE.


Edinbarough, Immanuel, and Jesus Martinez. “Web-Based Control for Mechatronics Laboratory Experiments.” ACP.

Hackworth, John, Carol Considine, and Vernon Lewis. “A Comparison of Instructional Delivery Methods Based on Student-Evaluation Data.” ACP.

Lesko, Charles J., and John L. Picard. “Enhancing the Distance Learning Experience: Designing Virtual Classroom and Laboratory Environments.” SEE.

Malik, Manish. “Benefitting from Electronically-Blurred Boundaries between Students and Academics in Problem-Based Learning.” FIE.


Mehrabian, Ali et al. “Faculty Experiences with Crafting On-Line Exams in Engineering and Technology.” ACP.

Peterson, Harry, and William Peterson. “Converting Face-to-Face Classes to Web-Based On-Line College Courses.” ACP.

Pomales-Garcia, Cristina, Yili Liu, and Angel D. Lopez. “Student Perceptions on the Importance of Distance Learning Module Design Dimensions.” FIE.


Sherion, Jackson, and Andrew Jackson. “Documented Differences in Student Preferences Regarding Assignment Due Dates in Distance-Education (DE) Courses.” ACP.

Sridhara, B. “Teaching Engineering Technology Courses Using Desire2Learn (D2L).” ACP.

Sulbaran, Tulio, and Andrew Strezhoff. “Delivery of Multimedia Education Content in Collaborative Virtual Reality Environments.” SEE.

Diversity

Dell, Elizabeth et al. “Enhancements to a Retention Program for Women Engineering Technology Students by the Addition of a Social-Support Network and Community-Building Activities.” ACP.

Ford, Ashlee N. “Girl Scout STEM Workshop: Experience with 6th-10th Grade Girls in Rural Oklahoma.” NMW.

Hundley, Stephen et al. “Troubled, Emotionally-Challenged, and Difficult Students.” ACP.


Kukreti, Anant et al. “A NSF-Supported S-STEM Scholarship Program for Recruitment and Retention of Underrepresented Ethnic and Women Students in Engineering.” ACP.


**Electrical/Electronics**


Alaraje, Nasser. “The Electrical Engineering Technology Program Educational Objectives (PEOs): Are They Measurable and How?” ACP.


Albu, Alexandra Branzan, and Kaveh Malakuti. “Problem-Based Learning in Digital Signal Processing.” WIP. FIE.


Al Kalaani, Youakim. “An Effective Approach to Assess Teaching Industrial Electronics.” ACP.

Allen, Gail, Sunil Devarapalli, and Chinna Tavva. “A Continuous FFT Function Developed with LabVIEW-RF Tools.” NMW.


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Batarseh, Feras, Issa Batarseh, and Michael Haralambous. “Quiz Me–An Interactive Learning Tool with Application to Electrical Circuits.” GCEE.

Blanton, William. “FIR Filters For Technologists, Scientists, and Other Non-Ph.D.s.” ACP.


Cherner, Yakov, Amir Karim, and Ahmed Khan. “Hybrid and Virtual Laboratories for Telecommunications.” NE.


Evans, William T. “Using PLCs to Train Engineers and Engineering Technologists.” NC.

Everly, James. “Frequency Response of RF Transceiver Filters Using Low-Cost Vector Network Analysis.” ACP.

Fang, Alex, and Wei Zhan. “Nondestructive Testing (NDT) Course Renovation for the Power Engineering Technology Program.” ACP.

Farook, Omar et al. “Voice-Video Interactive Robot Design.” ACP.


Frenzel, Louis. “How Should Electronics Technology Be Taught Today: A Fresh Look at the Top Down Approach for Associate Degree Programs.” ACP.


Furbeck, Rachel, and Jeffrey J. Richardson. “Going Green through Capstone Senior Design: Creating an Energy Saving System.” The Technology Interface 10, no. 1 (Fall 2009). http://technologyinterface.nmsu.edu/Fall09/.

Galloway, Joshua, and Daren Wilcox. “Honors Undergraduate Research: Autonomous Robot for Remote Detection of UXO.” SEE.


Goulart, Ana E. “A Project on Combining Laboratory and Simulation Experiments on Voice Over IP.” GSW.

University." *ACP.*


Guvench, Mustafa. “MOSIS Fabricated CMOS Operational Amplifiers for Class Projects in an Analog I.C. Design Course.” *ACP.*

Hartman, Harley, and Peter Idowu. “Visual Learning for AC Circuits and Machines.” *ACP.*


Hill, Richard Charles. “The Effective Use of Simulation in the Introductory Controls Curriculum.” *NC.*

Hossain, Akram, and Vijay Mahajan. “Remotely Reconfigurable Secure Wireless Mesh Network for Bidirectional Data Communications.” *ACP.*


Jenkins, L. Brent. “Circuit Analysis Don’ts: Instilling Error-Avoidance Skills While Teaching Proper Techniques.” *ACP.*

Johnson, Timothy, Shankar Krishnan, and Ross Kaplan. “Designing a Cost-Effective Hybrid Interface for a Smart Sensor Using Existing 12C Hardware on a Texas Instrument MSP430 Microprocessor.” *GCEE.*


Ketkar, Mohan. “Development of Mixed Signals Course for Electrical Engineering Technology Program.” *GSW.*

Koh, Min-Sung, Esteban Rodriguez-Marek, and Claudio Talarico. “Development of Course-Assessment Metrics to Measure Program Outcomes against ABET Criteria in a Digital Circuits Class.” *ACP.*


Lee, Shiyoun. “Application of the PID Control to the Programmable Logic Controller Course.” *ACP.*

Lee, Shiyoun. “Integration of Motion-Control Teaching Components into the Programmable Logic Controller Course.” *ACP.*


Luo, HongLi. “The Development of a Multimedia Networking Course for an Electrical and Computer Engineering Technology Program.” ACP.


Mehrubeoglu, Mehrube, Farrokh Attarzadeh, and Deniz Gurkan. “Comparative Evaluation of Laboratory Teaching in an AC Circuit Analysis Course.” FIE.


Mullett, Gary et al. “A Novel Interdisciplinary Sensor Networks Laboratory.” ACP.

Nitterright, Frederick, and Ronald Krahe. “Development of a Solid Modeling Course for Electrical and Computer Engineering Technology Students (ECET).” ACP.

Omer, Mohamed, and Peter Idowu. “A Software Visualization for Power Systems Analysis.” ACP.


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Perales, Troy, Joseph Morgan, and Jay Porter. “A LabVIEW FPGA Toolkit to Teach Digital Logic Design.” ACP.


Ranganathan, Prakesh, and Richard Schultz. “Using DAQ Boards to Communicate with NXT Brick in Measurement and Instrumentation Application.” ACP.


Richards, Grant, and John Denton. “A Laboratory Experience in Impedance Matching Using Transmission Line Stubs.” ACP.

Richards, Grant, and John Denton. “A Student-Selected Team-Based Capstone Project in RF Communications.” ACP.

Richardson, Jeffrey J. “Creating a Curriculum Linkage between Digital Electronics and Embedded Microcontrollers through Interconnected Development Boards.” IL/IN.

Rios-Gutierrez, Fernando. “Experiences in Transforming an Engineering Technology Capstone Senior Design Course.” ACP.

Schultz, Jordon, and Larry Villasmil. “Reconciliation of Bernoulli’s Equation in
Channel Flow: An In-Depth Empirical and Numerical Approach.” *ACP.*

Singh, Gurinder, and Lakshmi Munukutla. “Interfacing the USB Printer Interface Using Vinculum Host Controller.” *ACP.*


Spezia, Carl. “Integrated Simulation and Assessment Software for Programmable Logic Controller Laboratory Instruction.” *ACP.*

Sridharan, Sriram, and Ben Zoghi. “Control System Project: RFID-Based Access Human Transporter.” *ACP.*


Tan, Li, and Jean Jiang. “Teaching Advanced Digital Signal Processing with Multimedia Applications in Engineering Technology Programs.” *ACP.*

Thain, Walter E. “A Laboratory Component of a Switching Power Supply Course Requiring Nominal Resources.” *SEE.*

Turkmen, Ahmet. “Effective Usage of Graphing Calculators in Electrical Engineering Technology Courses.” *NMW.*

Wilson, Kati, Ana Elisa Goulart, and Wei Zhan. “A Voice Over IP Initiative to Teach Undergraduate Engineering Students the Fundamentals of Computer Communications.” *ACP.*

Wilson, Timothy A. “Assessment Based Instruction Applied to a Course and Lab in Digital Signal Processing.” *SEE.*

Yoder, Mark A. “Teaching DSP First with LabVIEW.” *GCEE.*

Zhan, Wei et al. “Current Analysis and Electrical Power System Curricular Development for the Power Engineering Technology Program.” *ACP.*

Zhang, Yuhong. “The Application of MATLAB to Teaching Communication Systems.” *ACP.*


Zhan, Wei, Rainer Fink, and Alex Fang. “Teaching Statistics to Engineering Technology Students.” *ACP.*

Zhou, Zhaoxian, and James Matthew Johnson. “LabVIEW Simulation of Induction Motors.” *SEE.*

Zoghi, Ben. “RFID-Based Intelligent Smart Cabinet for Undergraduate Laboratories.” *FIE.*


**Faculty Development**

Abidin, Zainal. “Conducting Assessment Workshop for Staff Development Program.” *INEER.*

Ahern, Terence C. “Bridging the Gap: Cognitive Scaffolding to Improve Computer Programming for Middle School Teachers.” *FIE.*


Denton, John, and Nancy Denton. “Experiences of Engineering Technology Faculty in Professional Certification Program.” *ACP*.


Lin, Shinn Rong. “Faculty Instructional Development via an Interactive Website.” *INEER*.

Ocon, Ralph. “Promoting Faculty Development Using Industry Consulting Activities.” *ACP*.

Whitman, Lawrence, Zulma Toro-Ramos, and John Watkins. “A Practical Faculty Mentoring Program.” *MW*.

**Industrial**


McLeod, Alister. “Conceptual Development of an Introductory Industrial Manufacturing Course for Freshmen and Sophomore Level Students in Industrial Technology.” *The Technology Interface* 10, no. 1 (Fall 2009). [http://technologyinterface.nmsu.edu/Fall09/](http://technologyinterface.nmsu.edu/Fall09/).


### Industry/Government/Employers

Akili, Waddah. “Project-Oriented Capstone Design in Civil Engineering: Linkages with Industry to Enhance the Practice.” *CIEC*.


Bhattacharyya, Ena, Shahrina Bt M. Nordin, and Rohani Bt Salleh. “Internship Students’ Workplace Communication: Workplace Practice and University Preparation.” *CIEC*.


Buchanan, Walter W. “How Industrial Advisory Committees and Industrial Partnerships Can Be Used to Advance Your Engineering Technology Programs.” *CIEC*.

Budnik, Mark M. “An Innovative Opportunity for Industry and Education Collaboration.” *IL/IN*.


Craig, Walter O. “Industrial Advisory Board: A Partnership between Industry and Academic Department.” *CIEC*.


Dijirar, Smail, Leslie Thurogood, and Nadezda Pizika. “Industry Partnership to Develop the Talent Pool.” *CIEC*.


Jaeger, Beverly, and Ethan LaRochelle. “EWB²—Engineers without Borders: Educationally, a World of Benefits.” *ACP*.


Scott, Sophia, and Greg Boyd. “Industry and Academia Collaborate for Student Success in Industrial and Engineering Technology


Verma, Alok K. “Role of Industrial Advisory Committees in the Assessment and Continuous Improvement Process of Engineering Technology Programs.” *CIEC*.

Viswanathan, Shekar, and Howard Evans. “Harnessing Industry Collaboration in Developing Graduate-Degree Programs.” *ACP*.

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**Information Technology**


Tabas, Joseph, and William Lin. “Faculty Management in Information Technology and Its Impacts on Engineering and Technology Education.” *ACP*.

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**Instructional Technology**

Brindza, Jordan et al. “WII-LAB: Bringing Together the Nintendo Wiimote and MATLAB.” *FIE*.

Daniels, Thomas E. “Integrating Engagement and First Year Problem Solving Using Game Controller Technology.” *FIE*.


Li, Chao, G. Thomas Bellarmine, and Leon Prosper. “Enhancing Students’ Learning in Electronic Engineering Technology Courses by Using Mobile Tablet PC Technology.” *ACP*.

Maxim, Bruce R., Matthew D. Sable, and John Cristiano. “Using the Virtual World to Improve Our World.” *WIP*. *FIE*.

Parthum, Michael. “Teaching with a Tablet PC, a New Technology for the Classroom and Academic Use.” *ACP*.


Sticklin, John, Mark Urban-Lurain, and Daina Briedis. “Engagement of Millennial Students Using Web-Based Screen Movies to Replace Traditional Lecture in Lecture/Lab Courses.” *FIE*.

Varadarajan, Vivek, and Aura Ganz. “T-Buddy: Teach Buddy, a Socializing Medium to Enhance Learning.” *FIE*.

**International**


Creese, Robert, and M. Adithan. “Academic Achievement and Recognition.” *ACP*.

Dyrenfurth, Michel et al. “International Study Abroad in Engineering/Industrial Technology: Through the Eyes of Students.” *ACP*.

Joo, Wonjong, and Dongyoung Jang. “Long-Standing International Collaboration for Operating a Validated Engineering Program between National University of Technology, Korea and Northumbria University, UK.” *GCEE*.


Lyons, Harvey I. “Globalization Trends in Engineering and Engineering Technology.” *NC*.


Nagchaudhuri, Abhijit et al. “Simplified Management Zones from Analyses and Mapping of Multiple Years of Spatially Distributed Harvest Data.” *ACP*.


Ott, Sarah, and Zuhdi Aljobeh. “CREATE: Costa Rica Endeavor & Aid through Engineering: A Case Study in International Service Learning..” *IL/IN*.


Uziak, Jacek et al. “International Team Approach to Project Oriented Problem Based Learning in Design.” *GCEE*.


Zhao, Xian, Joy Colwell, and Carl Jenks. “Technology Curricula in China and the United
States: What Roles Do ‘Soft Skills’ Play?”
ACP.

Laboratories

Agarwala, Ranjeet, Andrew Jackson, and Jackson Sherion. “Effectively Deploying Distance Education (DE) Laboratory Components in an Engineering Technology Set Up.” ACP.

Attarzadeh, Farrokh et al. “NSF Grantee Presentation Results of an Innovative Approach to Learning via Peer-to-Peer Undergraduate Mentoring in Engineering Technology Laboratories.” ACP.


Clar, Richard L. et al. “Transitioning Lab-in-a-Box (LIAB) to the Community College Setting.” WIP. FIE.

Fidan, Ismail, Faruk Yildiz, and Emre Bahadir. “Remote Laboratory Collaboration.” ACP.

Greco, Carl, and Jim Reasoner. “Improvement in Laboratory Skills and Knowledge Achieved through Individual Student Lab Participation.” MW.

Ketkar, Mohan, and Sixia Cui. “Development of Engineering Applications of Algebra and Trigonometry Laboratory Course for Engineering Technology Students.” GSW.

Krupczak, John, Kate Disney, and Scott VanderStoep. “Using Insights from Non-Engineers to Help Develop Laboratory Projects.” WIP. FIE.

Libii, Josue. “Using Logarithms to Test the Solution of a Differential Equation in the Lab.” ACP.


Nankivell, Kim. “The Role of Virtual Laboratory Technologies in Technology Education.” ACP.

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Sturgeon, Thomas, Colin Allison, and Alan Miller. “Exploring 802.11: Real Learning in a Virtual World.” FIE.


Liberal Studies

Alfrey, Karen, and Elaine Cooney. “Developing a Rubric to Assess Critical Thinking in Assignments with an Open-Ended Component.” ACP.

Anderson, Monica et al. “Engineering Collaborations with Liberal Arts.” ACP.


Barry, Brock E., and Matthew W. Ohland. “Engineering Ethics Curriculum Incorporation Methods and Results from a Nationally Administered Standardized Examination: Background, Literature, and Research Methods.” ACP.
Beaton, Catherine. “Creative Ways to Teach Ethics and Assess Learning.” *FIE.*

Biefeldt, Angela. “Perceptions of Cheating Behaviors by Freshman Engineering Students.” *ACP.*

Blake, John. “Using Movies to Explore Elements of Technological Literacy.” *ACP.*

Brocato, John. “Two Ways of Using Case Studies to Teach Ethics.” *ACP.*

Catalano, George, and Caroline Baillie. “Engineering Based on Love.” *ACP.*

Chinchilla, Rigoberto. “Ethical and Social Consequences of Biometric Technologies in the US.” *NE.*

Clapp, William et al. “Ethics and Respect.” *CIEC.*

Dupen, Barry. “Teaching Graphical Data Presentation Techniques in an Introductory Materials Course.” *ACP.*

Dyrud, Marilyn A. “Ethics on the Side: An Integrated Approach.” *CIEC.*

Dyrud, Marilyn A. “Ethical Exotica: Small, Sticky Cases for Analysis.” *ACP.*

Everett, Louis J. “Ethical Leadership: Applied Decision & Ethical Theories—Workshop Series for Undergraduates.” *GSW.*

Freyne, Seamus, and Micah Hale. “A Preliminary Survey of Engineering Ethics Courses Nationwide.” *ACP.*

Herkert, Joseph et al. “Integrating Microethics and Macroethics in Graduate Science and Engineering Education: Developing Instructional Models.” *ACP.*

Heywood, John, William Grimson, and Russell Korte. “Teaching Philosophy to Engineering Students.” *FIE.*

Hoole, Dushyanthi, and Ratnajeevan Hoole. “The Teaching of Engineering Ethics: New Paradigms.” *NE.*


Hotta, Genji. “Proposal of Practicing Education for Engineering Ethics Using a Safety Activity.” *INEER.*


Jordan, William. “Ethical Issues Related to International Development Projects.” *ACP.*

Kanabar, Vijay. “Practice and Ethics in Project Management Education.” *NE.*

Khan, Hamid. “Measuring Learning Outcomes from the Ethics Course.” *FIE.*

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**Biography**

Marilyn Dyrud is a full professor in the Communication Department at Oregon Institute of Technology and regularly teaches classes in business and technical writing, rhetoric, and ethics; she is also part of the faculty team for the Civil Engineering Department’s integrated senior project.

She is active in ASEE as a regular presenter, moderator, and paper reviewer: she has served as her campus’ representative for 17 years, as chair of the Pacific Northwest Section, and as section newsletter editor. She was named an ASEE Fellow in 2008 and has compiled the bibliography for more than 20 years. Currently, she serves on two division boards: Engineering Technology and Engineering Ethics. In 2010, she received the McGraw Award.

In addition to ASEE, Marilyn is active in the Association for Practical and Professional Ethics and the Association for Business Communication, serving on the editorial boards of two journals, editing a teaching column for ABC’s pedagogical journal, and serving as vice-president of the western region.