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Chair: Wendy C. Newstetter, Georgia Institute of Technology

Time and place: Sunday, October 29, 3:30 pm - 5:00 pm

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SPECIAL SESSION - VALUING DIVERSITY AS IT HAPPENS: EXPLORING LABORATORY INTERACTIONS WHERE MORE IS GOING ON THAN SCIENCE

Karen R Malone, Wendy C. Newstetter and Gilda Barabino

Session S4B: Panel Session - Engineering Workforce Development in San Diego County

Chair: David Hayhurst, San Diego State University

Time and place: Sunday, October 29, 3:30 pm - 5:00 pm

Executive I

PANEL SESSION - ENGINEERING WORKFORCE DEVELOPMENT IN SAN DIEGO COUNTY

Richard Blais, David Hayhurst, Pete Garcia, Julie Meier Wright and Duane Crum

Session S4C: Teaching Engineering to K-12 Students I

Chair: Donna Llewellyn, Georgia Institute of Technology

Time and place: Sunday, October 29, 3:30 pm - 5:00 pm

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WORK IN PROGRESS: LIFE AFTER NATIONAL SCIENCE FOUNDATION FELLOWSHIPS: THE IMPLICATIONS FOR A GRADUATE STUDENTS PROFESSIONAL ENDEAVORS

Kelly J. Obarski and Suzanne W. Soled

INCENTIVISING STUDENTS TO PURSUE COMPUTER SCIENCE PROGRAMMES

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A STUDY IN LAB-BASED APPROACH TO TEACH IMAGE PROCESSING IN HIGH SCHOOL

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Session S4D: Developing Student Leadership Skills

Chair: Jeff Froyd, Texas A&M University

Time and place: Sunday, October 29, 3:30 pm - 5:00 pm

Seabreeze I

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WORK IN PROGRESS: AN ENGINEERING STUDENT LEADERSHIP PROGRAM FOR THE FUTURE

Diane Rover, Krishna Athreya, Sarah Walter and Loren Zachary

Session S4E: First Year Courses and Programs II

Chair: Dan Budny, University of Pittsburgh

Time and place: Sunday, October 29, 3:30 pm - 5:00 pm

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CREATING THE CONTEXT FOR LEARNING ENGINEERING: A SEMINAR FOR FRESHMEN

Charles R. Standridge, Mary E. Kundrat and Claudia S. Pedreros-Oviedo

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Chair: Fernando Naveda, Rochester Institute of Technology
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Chair: Yi-Min Huang, University of Washington

Time and place: Monday, October 30, 10:00 am - 11:30 am Executive 2AB

**Session M1H: Developing Professional Skills via Writing**

Chair: Susan Burkett, National Science Foundation

Time and place: Monday, October 30, 10:00 am - 11:30 am Executive 3A

**Session M1J: Exhibitor Showcase**

Time and place: Monday, October 30, 10:00 am - 11:30 am Executive 3B
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Chair: Sandra Courter, University of Wisconsin  Madison
Time and place: Monday, October 30, 1:15 pm - 2:45 pm  Marina 6

SPECIAL SESSION - LEARNING THROUGH DIVERSITY: RESOURCES AND EXPERIENCES TO BUILD AWARENESS AND PRACTICAL RESPONSES

Sandra Courter and Greg Moses


Chair: Lisa R. Lattuca, The Pennsylvania State University
Time and place: Monday, October 30, 1:15 pm - 2:45 pm  Executive I

PANEL SESSION - ENGINEERING CHANGE: FINDINGS FROM A STUDY OF THE IMPACT OF EC2000

Lisa R. Lattuca, Patrick T. Terenzini and J. Fredericks Volkwein

Session M2C: Engineering K-12: Teacher Development

Chair: Teri Reed Rhoads, Purdue University
Time and place: Monday, October 30, 1:15 pm - 2:45 pm  Spinnaker

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Suzanne W. Soled, Michelle L. Daniels, Sarah I. Pumphrey and Sharon M. Bachman

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Andrew Kline, Betsy M Aller, Carol Crumbaugh, Paul Vellom and Edmund Tsang

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Grisselle Centeno, Souheil Zekri and Wandaliz Torres-Garcia

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Kurt Becker and Rod Custer

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Douglas Gorham

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Patricia A. Carlson and Dale S. Bremmer

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Chair: Russ Meier, Milwaukee School of Engineering
Time and place: Monday, October 30, 1:15 pm - 2:45 pm  Seabreeze I

CURRICULA ENHANCEMENT AND THEMATIC LEARNING VIA UNDERGRADUATE DESIGN PROJECTS

Thomas E. Salem, Ryan Rakvic, Robert Voigt and Samara Firebaugh

MICROCOMPUTER FUNDAMENTALS FOR EMBEDDED SYSTEMS EDUCATION

William A. Stapleton

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Wei-Fan Chen and Wen-Hsiung Wu

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Ladimer S. Nagurney

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Chair: John Fernandez, Texas A&M University-Corpus Christi
Time and place: Monday, October 30, 1:15 pm - 2:45 pm

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P.K. Imbrie and Joe Lin

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Chair: Ann Sobel, Miami University - Ohio

Time and place: Monday, October 30, 1:15 pm - 2:45 pm

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Stephen T Frezza and Wayne E Anderson

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Chair: Patrick Keleher, Central Queensland University

Time and place: Monday, October 30, 1:15 pm - 2:45 pm

WHERE DO STUDENTS LEARN ABOUT ENGINEERING DESIGN?
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Waddah Akili

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Peter O. Orono and Stephen Ekwaro-Osire
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Chair: Adrian Rusu, Rowan University

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Chair: Stephanie G. Adams, University of Nebraska-Lincoln

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Chair: Mohsen Beheshti, California State University Dominguez Hills
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Chair: Edmundo Tovar, Universidad Politécnica de Madrid

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Chair: Fanny Klett, Fraunhofer Institute Digital Media Technology
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Chair: Larry Shuman, University of Pittsburgh
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Madhumita Bhattacharya, Eva Heinrich and Ramesh Rayudu

WORK IN PROGRESS: USING E-PORTFOLIO TO DEFINE, TEACH, AND ASSESS ABET PROFESSIONAL SKILLS
Lisa McNair, Marie Paretti, Mara Knott and Mary Leigh Wolfe

THE IMPACT OF AFFECTIVE AND RELATIONAL FACTORS ON CLASSROOM EXPERIENCE AND CAREER OUTLOOK AMONG FIRST-YEAR ENGINEERING UNDERGRADUATES
Linda Angela Lee, Lisa E. Hansen and Denise M. Wilson

Session T2A: Special Session - What is Rigorous Research in Engineering Education?

Chair: Ruth A. Streveler, Purdue University
Time and place: Tuesday, October 31, 10:15 am - 11:45 am

SPECIAL SESSION - WHAT IS RIGOROUS RESEARCH IN ENGINEERING EDUCATION?
Ruth A. Streveler, Ronald L. Miller and Karl A. Smith

Session T2B: Innovative Pedagogy II

Chair: Susan Kemnitzer, National Science Foundation
Time and place: Tuesday, October 31, 10:15 am - 11:45 am

CHOOSING AN OPTIMAL PEDAGOGY: A DESIGN APPROACH
Ming Huang, David Malicky and Susan Lord

A NEW FORMATIVE PEDAGOGICAL MODEL EMERGED FROM THE EXPERIENCE APPLICABLE TO ENGINEERING COURSES BASED ON CSCL
Iván M. Jorrín-Abellán, Yannis Dimitriadis, Bartolomé Rubia-Avi, Rocío Anguita-Martínez and Inés Ruiz-Requies
AN ARTS, SCIENCES AND ENGINEERING EDUCATION AND RESEARCH INITIATIVE FOR EXPERIENTIAL MEDIA

Thanassisis Rikakis, Andreas Spanias, Hari Sundaram and Jiping He
WORK IN PROGRESS: AN INTELLIGENT TUTORING SYSTEM FOR FORENSIC BIOLOGY

Brian P. Butz, Susan M. Miller, Michael Duarte, Bryan Wlodarczyk and Robert A Cooper
WORK IN PROGRESS: PROBLEM-BASED LEARNING AND ASSESSMENT OF COMPETENCE IN AN ENGINEERING BIOMATERIALS COURSE

Jevan Furmanski, Sheryl R. Kane, Shikha Gupta and Lisa A. Pruitt
WORK IN PROGRESS: ADAPTING THE TREISMAN MODEL TO COMPUTER SCIENCE

Donald Chinn and Kristofer Martin

Session T2D: Peer Review

Chair: Dave Voltmer, Rose-Hulman Institute of Technology
Time and place: Tuesday, October 31, 10:15 am - 11:45 am Seabreeze I
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USING PEER REVIEW TO ASSESS CODING STANDARDS A CASE STUDY

Xiaosong Li
USING TEAMS, PEER- AND SELF EVALUATION IN BLENDED LEARNING CLASSES

Michael Derntl, Renate Motschnig-Pitrik and Kathrin Figl
USING STUDENT-STUDENT FEEDBACK TO IMPROVE TERM PROJECTS AND PROJECT PRESENTATIONS

Sivakumar S. Krishnan
WORK IN PROGRESS: SELF EVALUATION THROUGH MONITORED PEER REVIEW USING THE MOODLE PLATFORM

Mário Zenha-Rela and Rafael Carvalho

Session T2E: Capstone Design II

Chair: Janis Terpenny, Virginia Polytechnic Institute and State University
Time and place: Tuesday, October 31, 10:15 am - 11:45 am Executive 4
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Manocher Djassemi
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STEAM POWER: NOVEL USE OF AN ENGINE DESIGN PROJECT TO CROSS-LINK KNOWLEDGE FROM COURSES IN BOTH MECHANICAL DESIGN AND THERMODYNAMICS

Krishan Kumar Bhatia and Eric Constans
A PARTNERSHIP FOR SENIOR DESIGN PROJECTS IN BIOMEDICAL AND MECHANICAL ENGINEERING

Karen May-Newman, Peter C. Newman, Caren Sax and Urban Miyares
SUPPORTING COLLABORATIVE PROBLEM SOLVING IN ENGINEERING DESIGN TEAMS

Scott P. Schaffer and Kimfong Lei
RFID IN A COMPUTER ENGINEERING CAPSTONE

Lynne A. Slivovsky

Session T2F: Robots in Engineering Courses

Chair: Julie Ellis, University of Southern Maine
Time and place: Tuesday, October 31, 10:15 am - 11:45 am Marina 2
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Chair: Richard Alo, The University of Houston
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   Chair: Susan Lord, University of San Diego
   Time and place: Tuesday, October 31, 1:30 pm  3:00 pm
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