



Pacific Southwest Regional ASEE Conference

Continuous Improvement in Engineering Education

Northern Arizona University, Flagstaff, AZ
Radisson Woodlands Hotel, March 27-28, 2008

Thursday Morning

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| 8:00 – 8:30 | Registration, Vendor Displays, Continental Breakfast | Lobby |
| 8:30 – 8:50 | Opening Remarks Welcome to the Conference (Debra Larson, Conference & Acting Section Chair) Welcome to NAU and CENS (Barry Lutz, Interim Dean) Welcome to Education (Linda Shadiow, Director, Office of Faculty Development) | Coconino |
| 8:50 – 9:30 | Don Carter, Director of e-Learning at NAU, <i>Three Emerging Technologies in Higher Education</i> | Coconino |
| 9:30 – 9:45 | Coffee Break & Vendor Displays | Lobby |
| 9:45– 11:45 | Concurrent Session Presentations | |
| Kaibab | Recruitment, Retention, & Related Moderator: Walt Loscutoff | Laboratory & Modeling Innovations Moderator: David Scott |
| | <ul style="list-style-type: none"> • Elizabeth Brauer, et al., <i>STEP UP: Summer Engineering Camp for High School Girls</i> • Christos Valiotis, <i>Improving Conceptual Understanding and Problem Solving Skills in Introductory Physics Courses Using the Socratic Dialogue Method</i> • Jeffrey S. Burmeister, et al., <i>What is Engineering? – a MESA Program/Johns Hopkins University Partnership</i> • John Tester, et al., <i>Assessing the Motivational Impact of Including Rapid Prototyping into a Freshman CAD Class</i> • Paul Blowers, et al., <i>A Toolbox for Integrating Information Literacy into Engineering Courses: Helping Students Help Themselves</i> | <ul style="list-style-type: none"> • Porbaha, Ali et al., <i>Development of a Friction Pendulum Bearing Base Isolation system for Earthquake Engineering Demonstration</i> • Constantin Ciocanel, et al., <i>A Problem Solving Approach in Teaching Engineering Laboratories</i> • Larry Jang, <i>Internet-based Control Systems with Demonstration of Real-time, Real-world Control Experiments</i> • Brian P. Self, et al., <i>Using Model Eliciting in Mechanical Engineering</i> • Edward J. Smaglik, <i>Integrating Traffic Engineering Field Hardware and Research Methodologies into Transportation Engineering Education</i> |
| 12:00 - 1:00 | Lunch with Speaker David N. Wormley, Immediate Past President ASEE and Dean, College of Engineering, Penn State: <i>The Challenges of Engineering Education in Rapidly Changing Times</i> | Coconino |



NORTHERN ARIZONA UNIVERSITY
Engineering Talent Pipeline – William & Flora Hewlett Foundation's Schools of the West Initiative, College of Engineering and Natural Sciences, Faculty Development Program





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Thursday Afternoon

1:15 – 3:15

Concurrent Session Presentations

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| <p>Kaibab Integrating Contemporary Issues I Moderator: John Tester</p> <ul style="list-style-type: none"> • Paul Blowers, et al., <i>Integration of Sustainability into A Chemical Engineering Senior Capstone Design Course</i> • Christine Pauken, <i>Engineering Perspectives on Biological Systems: A Course for all Engineering Students</i> • Thomas N. Duening, <i>Preparing Engineers for 2025: A Master's Program in Enterprise Systems Innovation & Management</i> • Daniel Walsh, et al., <i>The 4+1 Accelerated Masters Degree Program: An Empowering Entry Level Degree for Professional Engineers</i> • Richard Theis, <i>The Pedagogies of Sustainability and the Ideologies of Engineering Faculty: Intersections</i> | <p>Topics in Design and Projects Moderator: Chell Roberts</p> <ul style="list-style-type: none"> • Dieter Otte, <i>Optimal team composition in project-oriented Software Engineering classes</i> • Keith Curtis, <i>Training the Renaissance Engineer of 2025</i> • Jiancheng Liu, et al., <i>Enhancing Machine Design Course through Introducing Design and Analysis Projects</i> • Taufik, <i>Experience Learned: Incorporating Industry Supported Project in Power Electronics Course to Improve Learning</i> • Bryan Cooperrider, <i>The importance of Divergent Thinking in Engineering Design</i> | <p>Canyon</p> |
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| <p>3:15 – 3:30 Coffee Break & Vendors</p> <p>3:30 – 5:00 A guided tour of NAU's LEED Platinum Applied Research & Development Building (one of the three greenest buildings in the world) and Gold Engineering building. Host: Richard Bowen, Associate VP, NAU. Meet in the hotel lobby at 3:30 to depart by bus.</p> <p>6:00 – 6:30 Reception (Cash Bar)</p> <p>6:30 – 8:00 PSW ASEE Banquet:</p> <p>Awards (Moderator – John Tester) Outstanding Community College Educator Amelito Enriquez, Best Section Paper, Best Section Presentation</p> <p>Speaker - Ron Roedel, Professor of Electrical Engineering, Ira A Fulton School of Engineering, ASU: <i>The Potential Impact of the American Competes Act</i></p> | <p>Hotel Lobby</p> <p>Coconino</p> <p>Coconino</p> |
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|---------------|--|---|---------------|
| 8:00 – 8:30 | Vendor Displays and Continental Breakfast | | Kaibab |
| 8:30 – 9:15 | Ray Landis, Dean Emeritus of Engineering, Computer Science, and Technology, CSU-LA, <i>Student Development: An Alternative to Sink or Swim</i> | | Kaibab |
| 9:15 – 10:15 | Concurrent Session Presentations | | |
| Kaibab | Applications of Technologies I Moderator: Rich Phillips | Integrating Contemporary Issues II Moderator: Dieter Otte | San Francisco |
| | <ul style="list-style-type: none"> • Elizabeth Brauer, <i>WeBWoRK Development in Electric Circuits</i> • Bruno Osorno, <i>Online Teaching of Electrical Power Systems in Electrical Engineering; Experiences and Myths</i> • Reza Raeisi, <i>Applying Embedded Systems Design for Distance Learning</i> | <ul style="list-style-type: none"> • Peg Pankowski, <i>Assessment for Accreditation and Beyond</i> • William R. Peterson, <i>Academe and Industry - Where Is the Disconnect?</i> • David B. Lanning Jr., <i>Evaluation of Prerequisite Skills Testing for Solid Mechanics</i> | |
| 10:15 – 10:30 | Coffee Break and Session Discussions | | |
| 10:30 – 11:45 | Concurrent Session Presentations | | |
| Kaibab | Applications of Technologies I, ctn. | Integrating Contemporary Issues II, ctn. | San Francisco |
| | <ul style="list-style-type: none"> • Paul Blowers, <i>Application of Multimodal Software Tools to Teach Problem Solving Skills</i> • Jeff Hays, <i>Group Projects in Chemical Engineering Using a Wiki</i> • Kyu-Jung Kim, <i>Efficient Use of Computational Tools in Machine Design</i> | <ul style="list-style-type: none"> • Keith Holbert, <i>Removing an Unsupported Statement in Engineering Education Literature</i> • Kurt Colvin, <i>A Distributed Systems Engineering Curriculum</i> • Kevin Gary, et al., <i>The Software Enterprise at ASU's Polytechnic Campus</i> | |
| 11:45 – 12:00 | Closing Remarks (Debra Larson, Conference & Acting Section Chair) Conference Adjourn | | Kaibab |
| 12:45 – 3:00 | ASEE PSW Section Executive Board Meeting with Lunch (Acting Chair Debra Larson) | | Eng. Bldg |



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