**American Society for
Engineering Education
Pacific Southwest Section
Spring 2002 Conference**

Engineering Education at Crossroads

Hosted by

**College of Engineering & Computer Science
California State University, Fresno**

April 8 and 9, 2002

University Student Union

2002 ASEE/PSW CONFERENCE

"Engineering Education at Crossroads"

<u>**Monday, April 8, 2002**</u>

8:00-9:00 AM   **Registration**
Location: University Student Union Room 314

9:00-10:15 AM   **Plenary Session**
Location: University Student Union (Rm 312)

<u>**Welcome**</u>: J. Michael Ortiz, Provost, *California State University, Fresno*

<u>**Keynote Address**</u>:
Speaker: Karl E. Longley, Topic: ***Engineering Education at Crossroads***
Dean, College of Engineering and Computer Science, *California State University, Fresno*

Panel and Discussion: Engineering Education at Crossroads
Moderator: Karl Longley, Dean , *(California State University, Fresno)*
 Panelist: Ray Haynes *(TRW)*
 Panelist: Paul Rainey *(California State Polytechnic University, SLO)*
 Panelist: Diane Schwartz *(California State University, Northridge)*
 Panelist: Lee Sneller *(Getting You There)*

10:15-10:30 AM   <u>**Break**</u> (Room 314, University Student Union)

10:30-12:00 AM   <u>**Session I**</u>

Session IA: ABET Accreditation-Panel and Discussion
Moderator: Derek Dunn-Rankin *(University of California, Irvine)*
Location: Room 309 University Student Union
 Panelist: Marie Dahleh *(University of California, Santa Barbara)*
 Panelist: Mel Mendelson *(Loyola Marymount University)*
 Panelist: Crist Khachikian *(California State University, Los Angeles)*
 Panelist: Uei-Jiun Fan *(California State University, Pomona)*
 Panelist: Julia Gelfand *(University of California, Irvine)*

Session IB: Computer-Aided Instruction
Location: Room 317 University Student Union
Moderator: S. K. Ramesh (*California State University, Sacramento*)
  Speaker: S. Baksi (w/M.K. Das)   Topic: Learning Engineering Through Simulation
  (California State University, Long Beach)
  Speaker: Paul Blowers   Topic: Use of Interactive Web-Based Examples in Engineering Courses
  (University of Arizona)
  Speaker: Kal Toth   Topic: Simulating Software Product Evolution in the Classroom
  (Oregon State University)
  Speaker: Tom Kanneman   Topic: Application of Simulation as a Tool for Practical Engineering Design
  (University of San Diego)

12:00-1:15 PM   <u>**Luncheon**</u>
Location: University Residence Dining Hall

1:30-3:00 PM   <u>**Session II**</u>

Session IIA: Distance Learning
Location: Room 312, University Student Union
Moderator: Walt Loscutoff (*California State University, Fresno*)
  Speaker: Charles Feldhaus   Topic: The IDEALS Model; Teaching Strategies for Instructors Using Two-Way Interactive Distance
  (Indiana University Purdue   Learning Systems
  University Indianapolis)
  Speaker: Mihir Das   Topic: MSEM: An Innovative Graduate Program Via the Internet
  (California State University, Long Beach)
  Speaker: Riadh Munjy   Topic: Lessons Learned From Teaching an Engineering Course on the Web
  (California State University, Fresno)

Session IIB: How to Interest (and Retain) Women in Engineering
Location: Room 309, University Student Union
Moderator: Marci Ryan-Alapati *(MentorNet)*
  Panelist: Amy Maki *(MentorNet)*
  Panelist: Karin Mack *(University of California, Davis)*
  Panelist: Mary Anderson-Rowland *(Arizona State University)*

Session IIC: An Innovative Approach to Engineering Graphics-Blending 2D and 3D

Using AutoCAD 2002
Location: Room 317, University Student Union
Instructor: Mihir Das *(California State University, Long Beach)*

3:00-3:15 PM   **Break** (Room 314, University Student Union)

3:15-5:00 PM   **Session III**

Session IIIA: Industry Role in Engineering Education-Panel and Discussion
Location: Room 309, University Student Union
Moderator: Walter Mizuno *(California State University, Fresno)*
  Panelist: Don Fantz *(PG&E)*
  Panelist: Ray Haynes *(TRW)*
  Panelist: Lee Sneller *(Getting You There)*
  Panelist: Dan Walsh *(California Polytechnic State University: San Luis Obispo)*

Session IIIB: Engineering Students as Learners
Location: Room 317, University Student Union
Moderator: Tom Yarbrough *(Fresno City College)*
  Speaker: Shashi Nambisan   Topic: Enhancing Team Efforts and Communication Skills: An Illustration in a Civil Engineering

Course

  (University of Nevada, Las Vegas)
  Speaker: Thaddeus Chase   Topic: Teaching Mechanical Design to Students or Helping An Unwilling Donkey Over a Narrow
Bridge
  (California State University, Fresno)
  Speaker: Helen Zong   Topic: Teaching Teamwork Techniques to Engineering Students
  (California State University, Hayward)
  Speaker: Paul Blowers   Topic: Group Selection Processes-How to Use Student Skill Self Assessment to Get Balanced Groups
  (University of Arizona)

Session IIIC: Attracting and Retaining Engineering Students
         Location: Room 312, University Student Union
Moderator: James Shackelford *(University of California, Davis)*
  Speaker: Marci Ryan   Topic: The Role of E-Mentoring in Engineering Education for Women
  (MentorNet)
  Speaker: Mary Anderson-Rowland   Topic: Why Aren't There More Women in Engineering: Can We Really do Anything?
  (Arizona State University)
  Speaker: Mark Tufenkjian   Topic: Results From a Summer Engineering Program at California State University, Los

Angeles

  (California State University, Los Angeles)
  Speaker: Vern Johnson   Topic: The Arizona Educational Assessment Plan

(University of Arizona)

6:00-7:00 PM   **<u>Social Hour</u>**
                          University Restaurant "Bistro 1540"

7:00-9:00 PM   **<u>ASEE-PSW Awards Banquet</u>**
                          Location: University Restaurant "Bistro 1540"
                          Moderator: Walt Loscutoff (*California State University, Fresno*)
                            Speaker: Joe O'Brien *(Hewlett-Packard)*   Topic: University-Industry Collaboration

7:30-8:30 AM   **Registration**
Location: Room 314 University Student Union

7:30-9:00 AM   **ASEE Executive Board Meeting**
Location: Room 309, University Student Union

8:30-10:00 AM   **Session IV**

Session IVA: Engineering Education
Location: Room 317, University Student Union
Moderator: Ramakrishna Nunna *(California State University, Fresno)*
  Speaker: Dan Walsh   Topic: An Accelerated Route to the BS+MS Engineering Degrees, The 4+1 Program
(California Polytechnic State University, San Luis Obispo)
  Speaker: Paul Blowers Topic: Breaking the Curve-Why a Straight-Scale is Appropriate in Engineering Courses
(University of Arizona)
  Speaker: D. Dal Bello   Topic: Online Courseware for Strength of Materials
(University of California, Santa Barbara)

Session IVB: Creative Concepts in Engineering Education
Location: Room 312, University Student Union
Moderator – Suresh Vadhva *(California State University, Sacramento)*
  Speaker: William Reiter   Topic: The Impact of Virtual Product Realization on Mechanical Design Education
(Oregon State University)
  Speaker: Lili He   Topic: Development of Animated Teaching/Learning Tools for Microelectronics
(California State University, San Jose)
  Speaker: Paul Lam   Topic: A Description of the First Two Years' Experience of the McNair Scholar Program at U
of
(University of Akron)   Akron
  Speaker: Fareed Nader   Topic: What's in a Name?
(California State University, Fresno)

10:00-10:15 AM   <u>**Refreshment Break**</u>
Location: University Student Union 314

10:15-12:00 PM   <u>**Session V**</u>

Session VA: Engineering Education Needs
Location: Room 312, University Student Union
Moderator: Walt Loscutoff *(California State University, Fresno)*
    Speaker: Dan Walsh   Topic: The Critical Importance of Industry Partnership in 21st Century Engineering Education
(California Polytechnic State University, San Luis Obispo)
    Speaker: Paul Blowers   Topic: A course on Freshman Survival Skills
(University of Arizona)
    Speaker: Mike Meier   Topic: Laboratories – Necessary!
(University Of California, Davis)

Session VB: Creative Concepts in Engineering Instruction
Location: Room 317, University Student Union
Moderator: Fareed Nader *(California State University, Fresno)*
    Speaker: Brent Auernheimer   Topic: Experience with Simultaneous Use of Blackboard and WebCT in a Graduate Course
(California State University, Fresno)
    Speaker: Raymond Yee   Topic: The Benefits of Engineering Design Projects For Engineering Curriculum
(San Jose State University)
    Speaker: Yahia Baghzouz   Topic: Application of Interactive Animated Software in Teaching Power Electronic Circuits
(University of Nevada, Las Vegas)

Session VC: Outcomes Assessment-Panel and Discussion
Location: Room 309, University Student Union
Moderator: Tom Kanneman *(University of San Diego)*
    Panelist: James Crossfield *(California State University, Fresno)*
    Panelist: Anthony Sebald *(University of California, San Diego)*
    Panelist: Richard Phillips *(Harvey Mudd University)*
    Panelist: Vern Johnson *(University of Arizona)*