American Society for Engineering Education
Pacific Southwest Section
April 2004 Conference

“PREPARING FUTURE ENGINEERS”

AND

An Audience with Archbishop Desmond Tutu

Hosted by:

University of the Pacific
School of Engineering and Computer Science

April 1 and 2, 2004
ASEE/PSW CONFERENCE 2004
Preparing Future Engineers

Thursday, April 1, 2004

8:00-9:00  Breakfast and Registration
Location: Presidents’ Room

9:00-9:15  Conference Opening
Location: Raymond Great Hall

Welcoming Remarks: Rahim Khoie, Professor of Electrical and Computer Engineering
Ravi Jain, Dean of School of Engineering and Computer Science
Philip Gilbertson, Provost
University of the Pacific

9:15-10:15  Panel Discussion I: Vision for the Future of Engineering
Location: Raymond Great Hall
Moderator: TBA
Panelist: Bruce Wooley, Chair of Electrical Engineering, Stanford University
Panelist: Roger Howe, Professor and Former Chair of Electrical Engineering, University of California, Berkeley
Panelist: Jeff Wright, Dean of School of Engineering, University of California, Merced
Panelist: Dave Fletcher, Professor and Former Associate Dean of Engineering, University of the Pacific

10:15-10:30  Coffee Break

10:30-11:15  Session I: Developing Team-Work Skills in Engineers
Location: Raymond Great Hall
Chair: William Wells, University of Nevada, Las Vegas

Milica Markovic, California State University, Sacramento “INTEGRATION OF TEAM-WORK IN UNDERGRADUATE ELECTRICAL ENGINEERING CLASSROOM”

Clark Savage Turner, Daniel Stearns, Tim Kearns, John Dalbey, California Polytechnic State University, San Luis Obispo, “LEARNING SOFTWARE ENGINEERING BY DOING: PROGRESS REPORT ON A CAPSTONE SEQUENCE INVOLVING STUDENT MANAGED TEAMS”

Jeff Burmeister, Abel Fernandez, University of the Pacific, Stockton, California, “DYNAMIC STATICS: PRELIMINARY COOPERATIVE LEARNING FINDINGS”

11:15-12:00  Panel Discussion II: Co-op and Internships in Engineering Education
Location: Raymond Great Hall
Moderator: Tod Banister, University of the Pacific
Panelist: Marty Florian, Cisco Systems
Panelist: Christine Lindow, MWH Americans, Inc.
Panelist:  Paul Sensibaugh, Mountain House Community Services District

12:00-1:15  Lunch  
Location: Presidents’ Room

1:15-2:00  Session II: Preparing Future Engineers in High School  
Location: Raymond Great Hall  
Chair: Celeste Baine, Engineering Education Service Center, Eugene, OR

Sung Hu, San Francisco State University, San Francisco, “PREPARING HIGH SCHOOL STUDENTS FOR ENGINEERING”

Marc Collard, Jessica Utts, Rebecca Ambrose, Pam Castori, Suzanne Galloway and Dan Chang, University of California, Davis, “GENDER-BASED TRENDS IN ADVANCED MATH AND SCIENCE ENROLLMENT: WHERE HAVE ALL THE YOUNG MEN GONE?”

Irving Kett, California State University, Los Angeles, Los Angeles, “A HISTORY OF SCIENCE AND TECHNOLOGY COURSE FOR ENGINEERING STUDENTS”

2:00-3:00  Session III: Innovation in Engineering Education I  
Location: Raymond Great Hall  
Chair: Elizabeth Eschenbach, California State University, Humboldt

Guido Lopez and Vishal Kumar, Northeastern University, Boston, Massachusetts, “INTEGRATED COMPACT DISC MODULES FOR LABORATORY INSTRUCTION OF MECHANICAL ENGINEERING MAJORS”

Mostafa Ghandehari, Hadi Razavi, the University of Texas at Arlington, “A GEOMETRICAL PROBLEM IN ENGINEERING MECHANICS”

Robert J. Kamisky, Aashish S. Dalal, University of California, Davis, “ADVANCED VEHICLE RESEARCH AT THE UNIVERSITY OF CALIFORNIA, DAVIS”

Russ Abbot and Adel Sharif, California State University, Los Angeles, “TECHNOLOGY MEDIATED INSTRUCTION, A PRO-TECHNOLOGIST NIGHTMARE”

3:00-3:15  Coffee Break

3:15-4:00  Session VI: Industry Speaks with One Voice: A Message to Colleges and Universities  
Location: Raymond Great Hall  
Speakers: Ray Haynes, Isadore Davis, Joe O’Brien, Hewlett-Packard Company, Palo Alto, California

4:00-4:45  Session V: Need for Change in Engineering Education  
Location: Raymond Great Hall  
Chair: Tom Kanneman, University of San Diego

Said Shakerin, University of the Pacific, “IS ESTIMATION GETTING ENOUGH ATTENTION IN ENGINEERING EDUCATION?”
William R. Wells, University of Nevada, Las Vegas, ``TEACHING THE ART OF APPROXIMATION TO ENGINEERING STUDENTS''

Steven De Hass, California State University, Sacramento, ``IN DEPTH LEARNING''

5:00-6:00 Social Hour
Location: Presidents’ Room

6:00-7:15 A Public Speech by Archbishop Desmond Tutu
Location: Alex Spanos Center

7:30-8:00 Reception for Archbishop Desmond Tutu
Location: Raymond Great Hall

8:00-9:30 ASEE PSW Banquet
Location: Presidents’ Room

Friday, April 2, 2004

8:00-9:00 Breakfast and Registration
Location: Presidents’ Room

9:00-10:00 Session VI: Use of Technical Software in Engineering Education
Location: Raymond Great Hall
Chair: Julie Kenrow, University of the Pacific

Derek R. Maxwell, Thomas A. Kanneman, Kathleen A. Kramer, University of San Diego, ``USE OF THE DIGILENT XCRP AND D2XL TO IMPROVE STUDENT LABORATORY EXPERIENCES IN DIGITAL DESIGN''

Richard Turpin, University of the Pacific, ``TOP-DOWN INSTRUCTION, BOTTOM-UP LEARNING IN A MICROCONTROLLER LAB''

John Oldenburg, California State University, Sacramento, ``USING NATIONAL INSTRUMENTS LABVIEW SOFTWARE IN AN INTRODUCTORY ELECTRONIC COURSE – MOSFET TRANSISTOR PARAMETER ESTIMATION AND BIAS CIRCUIT DESIGN''

James Zhang and Kenneth Burbank, Western Carolina University, Cullowhee, North Carolina, ``BRIDGING THE GAP BETWEEN THEORY AND PRACTICE – AN EXAMPLE OF TEACHING COMMUNICATIONS COURSE USING MATLAB''

10:00-10:15 Coffee Break

10:15-11:00 Session VII: Innovation in Engineering Education
Location: Raymond Great Hall
Chair: S.K. Ramesh, California State University, Sacramento

Speaker: Tokunbo Ogunfunmi, Santa Clara University, ``CURRICULUM INNOVATIONS IN DIGITAL SIGNAL PROCESSING EDUCATION''

Speaker: Ashland Brown, University of the Pacific, ``TEACHING FINITE ELEMENTS USING THE KOLB LEARNING CYCLE''

Speaker: Michael Golanbari, University of the Pacific, ``THE POTENTIAL ROLE OF ENGINEERING FACULTY WITH INDUSTRIAL EXPERIENCE IN DEVELOPING SOFT SKILLS IN ELECTRICAL AND COMPUTER ENGINEERING EDUCATION''
11:00-12:00 Lunch
Location: Presidents’ Room

END OF CONFERENCE