UNIVERSITY OF UTAH ENGINEERING NATIONAL ADVISORY COUNCIL
MAY 13, 2011 MEETING MINUTES

SPECIAL MEETING NOTE: THE FALL 2011 ENAC MEETING WILL BE HELD ON FRIDAY OCTOBER 21 AT PIXAR ANIMATION STUDIO IN EMERYVILLE, CA, FOLLOWED BY THE OPPORTUNITY TO ATTEND THE UTAH vs. CAL GAME IN SAN FRANCISCO ON SATURDAY OCTOBER 22. ADDITIONAL DETAILS WILL FOLLOW.


New Members:  Ted Jacobsen opened the meeting and announced four new ENAC members.

Keyvan Esfarjani is Executive Officer of IM Flash Technologies in Lehi where is he responsible for co-leading the joint venture between Intel Corporation and Micron Technology. Prior to joining IM Flash, he was a director in the Intel Technology Manufacturing organization. Keyvan received his bachelor’s and master’s degrees in Industrial Engineering from Purdue, and an Executive Management degree from Stanford. IM Flash has begun using a new manufacturing process to produce much smaller flash memory chips, allowing makers of mobile phones, cameras or tablet computers to pack more features into the same space. The innovation puts IM Flash Technologies at the top of an industry enveloped in fierce competition to put more memory into smaller spaces.

Paul Mayfield is the new Director of Program Management for Windows Intune where he will lead the engineering on one of Microsoft’s eight flagship products. Paul completed a degree in computer science at the University of Utah in 1997. He worked at Microsoft in Redmond, Washington in progressively more responsible positions until he was selected to help open the Microsoft operation in Lehi, Utah three years ago as Product Unit Manager. Paul has been serving as a member of the College’s Industry Advisory Board and the School of Computing Industry Board.

Lon Perry is president of Quartzdyne, a local company founded by another ENAC member, Bob Wiggins that designs and manufactures “down-hole” instrumentation for the oil and gas industry. Bob will be phasing out his role on ENAC, while Lon takes over. Prior to leading Quartzdyne, Lon was VP of sales and marketing at the company, where nearly a third of the staff are scientists, engineers and technicians. Long holds BS and MS degrees in mechanical engineering, plus and MBA, all from the University of Utah.

Kenneth Galloway is Dean of Engineering at Vanderbilt University; he will be introduced more formally at a future meeting. Kenneth F. Galloway is Dean of the School of Engineering and a Professor of Electrical Engineering at Vanderbilt University. An alumnus of Vanderbilt University, Dr. Galloway earned his doctorate from the University of South Carolina and went on to hold professional appointments at Indiana University, NAVSEA-Crane, the National Institute of Standards and Technology, the University of Maryland, and the University of Arizona before coming to Vanderbilt as Dean in 1996. Dr. Galloway’s research and teaching activities are in solid-state devices, semiconductor technology, and radiation
effects in electronics. He has published numerous technical papers in these areas (>250) and has conducted research for many U.S. Department of Defense organizations (U.S. Navy, U.S. Air Force, Defense Threat Reduction Agency, DARPA, etc.). For his work, Dr. Galloway has been elected a Fellow of the Institute of Electrical and Electronics Engineers (IEEE), the American Association for the Advancement of Science (AAAS), and the American Physical Society (APS). He has served as General Chairman of the IEEE Nuclear and Space Radiation Effects Conference (NSREC) and General Chairman of the IEEE International Electron Devices Meeting (IEDM). In 2002, he received the IEEE Nuclear and Plasma Sciences Society Radiation Effects Award, and in 2007, he received the IEEE Nuclear and Plasma Sciences Society Richard F. Shea Distinguished Member Award. Dr. Galloway served as Vice President for Meetings of the IEEE Electron Devices Society (2000-2005), as Chair of the American Society of Engineering Education (ASEE) Engineering Deans Council (EDC) Public Policy Committee (2005-2007), and as a member of the ASEE EDC Executive Board (2006-2010). He served as a member of the U.S. Air Force Scientific Advisory Board (2003-2007). He is currently Chair of the ASEE Engineering Deans Council (2009-2011) and a member of the RADECS Advisory Committee.

Opening Presentation: The opening presentation was given Jonathan Oomrigar, Global VP of Oracle’s High Tech Business Unit. His ability to manage in an exploding marketplace led him to Oracle, where he managed business development for manufacturing applications. Prior to Oracle, Jonathan’s technical background and the desire to work in Asia led him to HP. Prior to HP; he worked at Texas Instruments in the advanced project group. Jonathan received his B.S. at the University of Utah, and pursued his master’s at Georgia Tech.

Jonathan’s presentation is attached. He focused on the need for agility, visibility and efficiency as key to success in a highly competitive global business. Oracle’s business model is based on strong partnerships with service as the most important differentiator. He also stressed the importance of a truly global perspective for today’s engineering graduates.

College Update and Tours: Dean Rich Brown presented college highlights from the past six months. His presentation is attached to this message. He also described the construction progress of the James L. Sorenson Molecular Biotechnology (USTAR) Building, and introduced plans for the renovation of the Kennecott Building. Tours of these facilities followed, along with a tour of the newly completed Floyd and Jeri Civil Engineering Building.

ENAC Action Item Report: Following lunch, Rich Brown reported on the college response to ENAC recommendations from prior meetings. Specifically:

- The college has worked conscientiously to identify and recruit new members.
- Opportunities for off-cycle engagement were identified and ENAC members participated in this year’s graduate student recruitment efforts.
- A faculty recognition committee met and an active NAE nomination effort is now underway.
- Student leaders are now engaged in strategic planning at the college and departmental level, and student concerns are being identified and addressed.
- A new faculty orientation program has been developed with a high degree of success and positive feedback from the faculty. In addition to HR issues, the session focuses on expectations for promotion and tenure, teaching excellence, and the elements of a successful research program.
- The college has intensified PR and marketing efforts and stepped up the number of media releases at the national level. Efforts will be made to capitalize on the PAC 12 status.
School of Computing Departmental Presentation: School of Computing Director Al Davis presented an overview of the School’s faculty, research areas and programs. He identified current strengths in the program, along with the challenges of keeping up with growth and the need to add faculty in strategic areas. The School is also focused on developing strategies to attract more women to the program which continues to be a national concern.

Faculty Development Panel Discussion: Ed Catmull, Brett Helm and Randy Sylvester served as panelists for a discussion on the impact of faculty mentoring on student success. Fourteen new engineering faculty members were invited to participate.

Randy Sylvester described his admiration for Professor Thomas Stockham who was skilled at adapting his teaching style to fit student needs for visual vs. analytic presentation of materials. Randy recalled the importance of Tom’s humility and lack of arrogance in working with students despite his preeminence. According to Randy, Tom treated students “like raw material with great potential.”

Ed Catmull recalled feeling very intimidated when he first came to the graduate program. At that time, there were five brand new faculty members who were not exactly at the top of their form yet as instructors. He recalled that students often have difficulty believing faculty advice, even when they are hearing truth. Although he never took a class from Dave Evans, he noted that Dave accepted people with an unusual skill set and created an environment where an eclectic mix of smart people were encouraged to explore new ideas without being unduly constrained by faculty oversight. There were high expectations for creative and unusual ideas. He stressed the importance of the academic culture and personal relationships.

Brett Helm stressed the importance of recognizing the uniqueness of individual students, and the enthusiasm of the teacher. He recalled taking classes in subjects he had little interest in because the faculty member was charismatic and excited about the work. He encouraged the new faculty to be open and approachable to students, and to help students get to the finish line which can be difficult when students have families and other commitments. He felt that projects and internships were an invaluable part of an engineering education and that students needed to learn how to do things in a leaner and more efficient way.