THE HENRY SAMUELI SCHOOL OF ENGINEERING
FACULTY MEETING
MCDONNELL DOUGLAS ENGINEERING AUDITORIUM
11:15 AM – 1:00 PM  February 9, 2005


Also Present: Craig Behrens, Lisa Briggs, Kathy Britton, Tom Cahoon, Bob Cassidy, Imelda Etemadieh, Roberta Geier, Stacia Herold, Janice Holstein, Robin Jeffers, Vivian Kirkpatrick-Pilger, Rachel Maus, Gloria Pai, John Romine

11:15 AM  Call to Order – Faculty Chair

11:17 AM  Minutes from November 22, 2004 Approved

11:20 AM  HSSoE Slide Show on Display @ University Research Park Starbucks – Lisa Briggs, Director of Communications

11:25 AM  School Update – Dean Alexopoulos

- The UC budget is anticipated to improve next academic year by 3-4%.

- The HSSoE is currently considering several new initiatives. One initiative in the discussion stages, would create, in collaboration with the School of Humanities, a five-year International Engineering Education Program. The program, as currently proposed, would include a one year paid internship at an international engineering firm which would give students a business experience in a foreign country. UCI would be the first UC campus to introduce a program like this.

- The School is working hard to increase its role and visibility in the community by involving the campus, community leaders, and politicians in school events- notably the upcoming OCTANe event titled “Nanotechnology – Thinking BIG” on June 7, 2005.

- The search for a new Chancellor is underway and should be concluded in the next few months. It is hoped that the selected Chancellor will have an understanding of Engineering and the Sciences. An update on the Chancellor search will be presented at the Spring Faculty Meeting.

- The Annual HSSoE Research Symposium will be held May 23-24, 2005 at the Beckman Center. The program features many top speakers, including a panel on Engineering workforce issues. This Symposium will showcase HSSoE as a leading school on campus.
Biomedical Engineering

1. Micro/NanoSystems
2. Bio-computational Modeling
3. Photonics
4. Cancer
5. Cardiovascular Engineering
6. Engineering Neurosciences

Chemical Engineering and Materials Science

1. Biomaterials
2. Nanostructured Materials
3. Bio-molecular Engineering
4. Energy Systems

➢ The ChEMS Department has identified the research topics with highest potential for center funding around which faculty across campus will rally. It is coordinating with other departments to define opportunities for cluster hiring (with a focus on senior faculty) as well as hiring those individuals who can be campus leaders in the topics identified above.

Civil and Environmental Engineering

1. Civil Infrastructure Systems
   a. Geographically Distributed Systems (Water, Power, Transportation, Environmental, etc.)
2. Complexity
3. Networks
   a. Emergency Response
   b. Water Sensors and Networks, Remote Sensing, Monitoring and NDE
   c. Visualization and Simulation

➢ The CEE Department has the top Civil Infrastructure Systems program in the country.

Electrical Engineering and Computer Science

1. Device Design
   a. Bio-Devices
   b. Integration of Electronics and Photonics
2. Communications
   a. Computing
   b. Networking
   c. Device Design
   d. Security
3. Intelligent Systems
   a. Robotics
   b. Large Scale Sensors/Networks
   c. Large Scale Computing
4. Biomedical Computing
5. Biomedical Imaging
The EECS Department is small compared to EECS departments at other universities. It is currently looking into areas of the future that will require strong interaction with other departments and schools.

**Mechanical and Aerospace Engineering**

1. Energy, Propulsion, and Environment  
   a. Space/Power/Propulsion  
   b. Micropower  
2. Systems and Design (Control Theory, Robotics, etc.)  
   a. Bio-Robotics  
   b. Robotic Space Missions  
   c. Guidance/Navigation/Control  
   d. Multi-disciplinary Optimization  
3. Continuum Mechanics including Structural Mechanics  
   a. Advanced Structures, composites, nanostructured materials  
4. Micro/Nano-mechanics  
   a. MEMS, BioMEMS, Microfluidics

The MAE Department is striving to be within the top 10. Aerospace Engineering is currently 31 in rankings; Mechanical Engineering is currently 37 in rankings. Chair Papamoschou believes that growth in MAE faculty would help their department achieve a position within the top 10.

**12:25 PM**  
**Interdisciplinary Themes - Faculty**

1. Systems Biology  
2. Engineering Graduate Education (NAE)  
3. Design and Fabrication  
4. Law and Engineering  
5. Engineering Entrepreneurship  
6. Art and Engineering  
7. Data Mining  
8. Intelligent Machines  
9. Social Science and Engineering  
10. Advanced Prosthetics

Cal-IT2 is a valuable resource that promotes interdisciplinary research between all departments.

**12:35 PM**  
**The Dean’s Vision – Dean Alexopoulos**

HSSoE has recently initiated programs with other units on campuses and has enhanced communications with other schools (i.e. the International Engineering Education Program proposal w/Humanities).

The Engineering 195 Entrepreneurship Course for Scientists and Engineers will be offered again in Spring Quarter 2005.

HSSoE is discussion possible areas of collaboration with the Graduate School of Management.

Dean Alexopoulos would like the school to focus on its next phase of growth as well as the direction of hiring for new faculty.

**12:45 PM**  
**Adjourned - Faculty turn in HSSoE Faculty Research Interest Survey to Professor Martha McCartney, HSSoE Executive Committee Chair.**

Respectfully Submitted by Janice Holstein & Stacia Herold