Message from the Dean

E N G I N E E R I N G A T I L L I N O I S

Welcome

For most of us, summer allows for a change of routine, and time to finish up some projects while preparing for the future. You have probably noticed ongoing repairs and improvements to several buildings on our campus. In addition, work on the Micro and Nanotechnology Laboratory is now complete and we are planning for a dedication in the spring. The NPRE department has begun its move to Talbot Lab, which will continue through the rest of this year. And we are preparing for the upcoming ABET review visits at the end of September which will involve all faculty and administrators.

I am fortunate to be able to carry the message about the excitement and the excellence that is "Engineering at Illinois" to our constituents around the world. I continue to meet with leaders from other universities worldwide, as well as industry officials and others who wish to work with us. Most recently, I had the pleasure of visiting with over 200 alumni who gathered in Seattle.

Through this newsletter, I will keep you abreast of what is going on in the college, administrative activities, and how we are interfacing with the campus and the world at-large. As we prepare for a new academic year, I want to extend a warm welcome to our "new faces" on the faculty and administration. I wish you all success and satisfaction during this academic year.

Ilesanmi Adesida
Dean and Willett Professor

From the Provost's Retreat

There was a retreat of the Council of Deans with the Provost held on July 2-3, 2007. Key issues in the campus strategic plan were discussed, and a few of these include:

1. Diversity—creating a climate and culture that values diversity and inclusiveness, obtaining expertise, training, recruitment and retention of a more diverse faculty and student body, and increasing scholarship on diversity.
2. Building a more entrepreneurial culture—developing new external funding opportunities or finding creative ways to utilize current resources. This was part of the discussion on overcoming fiscal challenges and realigning financial models and strategies.
3. Creating new paradigms for undergraduate education—updating curriculum, programs of study within majors and interdisciplinary majors, and the new informatics minor.

These issues are addressed in our college strategic plan (as highlighted below) and will affect future directions and decisions.

Our Strategic Plan

During the spring semester, leaders across campus have been engaged in a significant strategic planning effort, with the purpose of setting goals and their accompanying metrics for the university, colleges, and institutes, and individual units.

By many measures—from the accomplishments of our students, faculty, and alumni, to funded research and national rankings—the College of Engineering leads by example, both on campus, and globally. But as competition for the best faculty, the most capable students, and research funding stiffens, it is increasingly apparent that we must continue to build on our strengths while reducing weaknesses.

As leaders, we are responsible for shaping the future of engineering education and research, and the goals of the college's strategic plan—which is directly tied to the university's strategic plan—reflect that. The primary goals for the college include:

- Lead in the establishment of successful campus-wide interdisciplinary research initiatives in informatics, sustainable energy, transportation, water, and biosciences.
- Increase diversity of faculty and students.
- Transform undergraduate engineering education for the 21st century.
- Strengthen existing relationships and develop new strategic partnerships with industry and in local, state, national and global arenas.
- Bring the Department of Bioengineering to preeminence while advancing the disciplinary excellence in all of our departments.

Each of these broad goals is tied to specific metrics which are necessary for evaluating individual initiatives and tracking progress.

In future installments of this newsletter, we will discuss each of these goals, their specific metrics, and some of the initiatives being undertaken to accomplish these goals.

Administrative Update

Edgar J. Martinez, formerly the assistant dean for research and entrepreneurship at Purdue University, has joined the college as the associate dean for strategic initiatives. He will work with Bruce Vojak, associate dean for external affairs, and Normand Paquin, assistant dean for strategic initiatives, to improve the college's visibility with state and federal agencies to expand and broaden research collaborations. He will also coordinate engineering strategic initiatives with the Office of the Vice Chancellor for Research and with the Office of the Provost.

Jennifer A. Lewis, the Hans Thurnauer Professor of Materials Science and Engineering and Willett Faculty Scholar of Engineering, was recently appointed director of the Frederick Seitz Materials Research Laboratory (MRL). An Illinois alumnus, Lewis received a BS in ceramic engineering. She earned an ScD from MIT and returned to join the Illinois faculty in 1990. She currently holds the titles of professor of materials science and engineering and of chemical and biomolecular engineering, and is a faculty affiliate with the Beckman Institute.

Jong-Shi Pang is the new head the Department of Industrial and Enterprise Systems Engineering. He comes to Illinois from Rensselaer Polytechnic Institute where he served as the Margaret A. Darrin Distinguished Professor in Applied Mathematics and professor of decision sciences and engineering systems. Prior to that, he was a professor of mathematical sciences at Johns Hopkins University. His research includes the broad areas of equilibrium modeling, ranging from basic mathematical formulations and their properties, to computation and algorithm analysis, including applications in engineering and economics.

Another Illinois alumnus, **J. Craig Dutton**, returns to the college as the new head of the Department of Aerospace Engineering. Dutton earned his PhD from the University of Illinois at Urbana-Champaign in 1979, and served on the College of Engineering faculty before moving to the University of Texas at Arlington, where he served as a professor of aerospace engineering and chair of the Department of Mechanical and Aerospace Engineering. His current research interests are centered on laser-diagnostic measurements of high-speed separated and mixing flows and shock wave/boundary layer interactions. Pending approval of the Board of Trustees, his appointment will become effective September 1.

Michael Heath, the Fulton Watson Copp Chair in Computer Science, will serve as interim head of the Department of Computer Science. He replaces Marc Snir, who was recently named interim director of the Illinois Informatics Initiative (I3). Heath will continue as director of the Computational Science and Engineering (CSE) program and the Center for Simulation of Advanced Rockets (CSAR).

Engineer of the Future Workshop

All College of Engineering faculty, staff, and graduate students are invited to participate in a special workshop on engineering, technology, and culture. The workshop will be held in the NCSA Auditorium from 7:30 a.m. (registration) to 12:30 p.m.

Our featured speaker, William Wulf, an Illinois alumnus and former president of the National Academy of Engineering, will talk about, "Educating the Engineer of 2020." Joining Wulf on the podium will be Sherra E. Kerns, vice president for innovation and research at Olin College, and an ASEE past president who also serves on the ABET Engineering Accreditation Commission Executive Committee. Her presentation is entitled, "Designing Engineers—Ideas on Excellence and Engagement."

I encourage you to join us as we consider the future of engineering and engineering education. Sponsored by the College of Engineering, ETSI, and John Deere. RSVP to https://webtools.uiuc.edu/formBuilder/Secure?id=4101162

College readies for ABET review visits

All engineering (including CS) degree programs, with the exception of the new Bioengineering degree program, will undergo the ABET review on September 23-25. The external ABET review committee will have approximately 20 members who will meet with faculty and students during their visit.

The ABET review has been valuable as a self-examination of our internal undergraduate education process. The review consists of self-study reports by each degree program (developed by department degree representatives through AY0607 and submitted to ABET in July 2007) followed by the ABET review committee in September. All who are interested are encouraged to contact their department's undergraduate office for a copy of their "self-study" report.

ABET will examine our programs to ensure quality control of our graduation requirements for each program, an emphasis of the "a through k" education objectives, and the development of a system for continuous improvement of our degree programs.

We encourage all faculty and appropriate staff to learn more about ABET at www.abet.org. We will publicize additional information as the review meeting approaches.

Faculty "New Faces

Craig Dutton, AE
Daniel Kuchma, CEE
William Gropp, CS
Julia Hockenmaier, CS
Lynford Goddard, ECE
Olgica Milenkovic, ECE
Gabriel Popescu, ECE
Jong-Shi Pang, IESE
Sanjiv Sinha, MechSE
Kimani Toussaint, MechSE
Mark Neubauer, Physics