Seeing the FUTURE before it becomes a REALITY

Strategic Plan

College of Engineering
Engineers are makers. In a way, they have a second set of eyes. Whether constructing bridges, creating drug delivery systems or designing the next generation Internet, engineers and computer scientists “see” the future before it becomes reality.

Over the past year, I have spent ample time with faculty, staff, alumni and friends of the college, dialoguing about the University of Kentucky College of Engineering’s future. Together, we have identified strategic target areas and specific initiatives that will ensure the Commonwealth’s flagship university remains not only the top-ranked engineering college in Kentucky, but one of the top 50 ranked colleges of engineering in the nation. However, “top 50” is more than a number; it is a way of thinking and behaving that is characteristic of the elite engineering programs in the country. Our pathway to becoming top 50 consists of an ever-widening loop of educational, technological and economic success that emanates throughout the Commonwealth, the nation and the world.

This booklet details where we plan to invest our time, energy, infrastructure and financial resources in order to convert our vision into reality. I hope it gets you as excited as we are about where the college is heading.

Sincerely,

John Y. Walz
Dean
VISION Statement

The University of Kentucky College of Engineering will be internationally recognized for educating students to meet the global engineering challenges of the 21st century, for conducting pioneering research for the advancement of our society and for serving the needs of the citizens of Kentucky and the nation. We will be ranked as one of the top 50 colleges of engineering in the United States by 2020.

We will be ranked as one of the TOP 50 COLLEGES of engineering in the United States BY 2020.
Offering a first-rate faculty to students and industry is a necessary competitive edge. Our present roster is truly impressive—27 of our current faculty members have received the prestigious National Science Foundation CAREER Award; however, we cannot afford to be complacent. To become top 50, we must attract the best faculty around the globe, help them develop into outstanding researchers and educators, provide the physical and administrative infrastructure that allows them to succeed and properly recognize and reward them for their achievements.

**Initiatives**

- Attract nationally prominent faculty members in areas of strategic importance
- Attract junior faculty who are rising stars and provide them the resources to succeed
- Initiate additional faculty joint appointments with other colleges
- Improve the promotion and nomination of faculty for national awards
- Increase the support for faculty to attend training programs in research and teaching effectiveness

27 of our current faculty members have received the prestigious National Science Foundation CAREER AWARD

#1

**FACULTY RECRUITMENT, DEVELOPMENT AND RETENTION**
The college has experienced an unprecedented influx of new undergraduate students, with an 83% increase in our student body since 2007. In addition, the academic quality of our students is impressive. The trends are encouraging, but to become top 50, we will need to attract the best and brightest students from throughout the Commonwealth and the world and provide an education that will prepare them to tackle the complex and global engineering challenges faced by our society.

**Initiatives**

- Raise the number of bachelor's degrees conferred annually by the college to 600 (50% increase)
- Increase financial support to outstanding engineering students
- Significantly increase the six-year freshman graduation rate
- Increase the number of students electing to study abroad
- Increase the number of companies recruiting engineering students
- Grow opportunities for internships, co-ops and career placement

83% increase in our

STUDENT BODY

since 2007
Faculty research results in the creation of new knowledge that advances our society, and funding such research is imperative if we are to become top 50. Further, behind every great researcher stands a team of exceptional graduate students that runs experiments, analyzes data and contributes to academic publications. Therefore we must offer graduate fellowships and stimulating research opportunities that bring future stars to the UK campus.

Initiatives

- Increase the average annual research expenditures in the college to $450,000 per faculty member
- Expand the number of tenured or tenure-track faculty members from 148 to at least 166 and focus new faculty hires on the strategic areas of advanced materials and components; computational systems and hardware; energy, manufacturing, and sustainability; health and the human condition; and infrastructure systems
- Strengthen research areas in which UK is poised to become one of the top five programs in the U.S.
- Create an annual seed funding program to support faculty in the development of large, collaborative grant proposals
- Raise number of endowed graduate fellowships to attract outstanding graduate students to the college

Research and Graduate Education

Faculty Research results in the creation of new knowledge that ADVANCES our society.
If you have been inside the remarkable Davis Marksbury Building, you know how first-rate facilities foster creativity, promote collaboration and ensure safety. Forward-thinking physical infrastructure is critical for attracting the best faculty and students to our program, as well as allowing our faculty, staff and students to achieve their fullest potential. To be a top 50 college of engineering, our buildings need to reflect the high standards and passion for innovation of the people working inside them.

**Initiatives**

- Construct the third building in the Digital Village complex that will provide space for both research and modern undergraduate education laboratories
- Support ongoing maintenance of existing research and teaching laboratories
- Upgrade the physical facilities best suited to offer distance learning classes
- Renovate F. Paul Anderson Tower to provide state-of-the-art space for engineering research and education
- Establish a centralized student services center for advising and career services, as well as a staffed and fully equipped work area for student projects
The caliber of achievement among our faculty and students is astounding, yet without proper communications and marketing strategies, they will not receive the acclaim they deserve. Recognizing the accomplishments of our faculty and students nationally raises the level of prominence of our college and substantially improves our faculty and student recruiting efforts. Thus it is important that we inform the engineering academic community about the many great achievements of our faculty and students.

**Initiatives**

- Establish a Dean’s Lecture Series that will bring prominent engineering educators and researchers from academia, industry and government to campus
- Promote achievements within the college to peer institutions
- Publish two issues per year of the college’s magazine, Kentucky Engineering Journal and one shorter companion issue devoted to research
- Redesign the college website
- Create alumni programming that increases involvement and communication

#5 COMMUNICATIONS AND MARKETING

Recognizing the **ACCOMPLISHMENTS** of our faculty and students nationally raises the level of **PROMINENCE** of our college.
Our student population should reflect the diversity of the Commonwealth. Further, a diverse student body allows for a richer and broader educational experience. By increasing our international enrollment, as well as the number of students from underrepresented populations, we will widen the scope of vocational and financial opportunity throughout the world and right here in Kentucky. Of all of the objectives, this one says the most about who we want to become.

**Initiatives**
- Expand the duties of Director of Diversity in the college
- Increase focused recruiting efforts of underrepresented groups
- Inaugurate new partnership with high schools, colleges and universities with highly diverse student populations
- Introduce mentoring programs for students from underrepresented groups
- Appoint a task force to identify activities and steps that would increase the diversity of faculty and staff application pools