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Current Activities

In 2002, Don P. Giddens became the dean of the College of Engineering at the Georgia Institute of Technology, a position he now holds. Georgia Tech is one of the largest colleges of engineering in the U.S. with over 420 academic faculty members and approximately 11,000 students, and granted over 2400 engineering degrees in 2006, not including computer science degrees. The average SAT score of freshmen entering engineering in 2006 was 1270. The college has a robust and highly multidisciplinary research program and was ranked 2nd in engineering R&D by the National Science Foundation in 2005. Georgia Tech emphasizes diversity in all its programs, and according to the Engineering Workforce Commission is ranked 1st in undergraduate and 1st in doctoral engineering degrees, 1st in undergraduate engineering degrees awarded to women, 1st in doctoral degrees awarded to Hispanics, and 2nd and 3rd in undergraduate and in graduate degrees, respectively, awarded to African-Americans. Nine of the academic graduate programs in the College of Engineering are ranked in the top 10 nationally, while the college itself is ranked 4th.

As dean, Giddens has led a strategic planning and implementation process based on three transforming themes: leadership in engineering education; research in areas of global significance; and a discovery-to-application philosophy. Underpinning these themes are the core values of quality and rigor, collegiality, and belief in the strength of diversity in our human resources. Dean Giddens is committed to a global outreach for Georgia Tech. Georgia Tech has had a campus in Metz, France for a decade, offering graduate degrees in selected areas of engineering and also undergraduate study programs for Atlanta based students. He has been the institutional lead in developing a plan for a joint College of Engineering between Tech and Peking University in Beijing. Although the planning is still in progress, the concept he is promoting with his counterpart dean at PKU is that there would be truly joint programs, including engineering degrees in selected fields, beginning with graduate degrees and later extending to bachelors degrees. The joint college would have similarities to the Coulter Department of Biomedical Engineering at Georgia Tech and Emory, which was developed by Giddens in 1997. Dean Giddens has also promoted dual masters degrees in electrical engineering and systems engineering with Shanghai Jiao-Tong University that have been approved by the Board of Regents. These programs include both Chinese and American students, and successful completion results in a master's degree from each institution. The Georgia Tech programs in China, while based on engineering, serve as platforms for other programs and interactions, including study abroad opportunities for undergraduate students. Dean Giddens is currently working with the Georgia Tech Research Institute on initiatives in research, education and economic development in Ireland.

Dean Giddens has a long history of interdisciplinary research and educational activities that are based on a foundation of strong disciplines; in fact, this has been a hallmark of his career, and a core belief follows the axiom, “there’s no limit to what you can accomplish if you don’t care who gets credit.” Currently, he is working with other deans at Georgia Tech and Emory University to promote a new Georgia Tech Health Systems Institute that takes a systems engineering approach to health care and collaborates with the Emory Healthcare System and Children’s Healthcare of Atlanta; the Emory-Georgia Tech Predictive Health Institute, an initiative that focuses on the scientific basis of health, rather than on treating chronic disease, and includes clinical and health policy components; a Global Safe Water initiative, a collaboration between the School of Civil and Environmental Engineering at Tech and the School of Public Policy at Emory; and an Integrated Biological Systems Institute, involving the Colleges of Science, Computing and Engineering at Tech.

Another component of the College of Engineering strategic plan relates to enhancing translation of academic research to the private sector. Dean Giddens is on the Board of Directors for Georgia Advanced Technology Ventures and Emtech Bio, each being a non-profit organization that serves as economic development arms of Georgia Tech. He is secretary of the Board of Directors of the Georgia Tech Research Corporation, the non-profit contracting arm of the Institute.

Giddens has a core belief that solid financial and business practices are critical, not only to daily and tactical operations but also to the strategic goals of an institution. His office has recently engaged in an overhaul of systems for tracking and predicting financial and facilities resources and for projecting their needs so that they can be focused on enabling long range objectives and rewarding and incentivizing faculty. He has experience as a dean at an institution with a centralized financial and budgeting system, Georgia Tech, and at a highly decentralized university, Johns Hopkins.

Dean Giddens is active professionally, both within his own area of scholarship and as an engineering educator. He has been president of the American Institute for Medical and Biological Engineering and is currently Chair of the Engineering Deans Council of the American Society of Engineering Education. He serves on advisory boards for engineering programs at Stanford, Cornell and Duke Universities, and is on the National Advisory Council of the National Institute of Biomedical Imaging and Bioengineering of the National Institutes of Health. He is also chairing a committee of the National Academy of Engineering that is guiding a project on the “Public Understanding of Engineering,” one objective of which is to help attract more women and under represented minorities into engineering.

Past Experience

After joining the Georgia Tech faculty in 1968 following two years in the aerospace industry, Dr. Giddens began his administrative and academic leadership activities in 1985 when he assumed the role of co-director of the Bioengineering Center at Georgia Tech. Under his leadership, this interdisciplinary center became the vehicle for the early foundation of Tech’s bioengineering research and education. Giddens worked to create the Emory-Georgia Tech Biomedical Technology Research Center, a partnership with the Emory School of Medicine, and developed a

very successful and innovative seed grant program which required co-investigators from Emory and Georgia Tech as the technique for stimulating interdisciplinary research.

In 1988, Giddens became the director of the School of Aerospace Engineering (A.E.) at Georgia Tech, and successfully restructured its operations to eliminate a chronic deficit spending situation, while recruiting new faculty (including Tech's first African-American faculty member in A.E.) and helping advance the school to a #3 position in the *U.S. News and World Report* graduate rankings.

Giddens assumed the deanship of the G.W.C. Whiting School of Engineering at the Johns Hopkins University in 1992. During the time Dr. Giddens was dean at Johns Hopkins, he placed the highest priority on faculty and student recruitment and on obtaining the resources to achieve growth and sustain quality (Hopkins runs as an "each tub on its own bottom" institution, including five-year budget planning). The number of full time tenure track faculty members in the Whiting School was 86 when he arrived and was at 110 at the time of his departure. Dean Giddens began several new initiatives at Hopkins. Among them were: a research initiation seed grant program between the Whiting School and the Applied Physics Laboratory of the University, in order to stimulate new collaborative research between these two divisions; a grant program to encourage innovation in teaching; a research initiation program for untenured faculty; an Inaugural Professorial Lecture Series which honors promotion to professor with a public lecture and reception; new minority and women's graduate fellowships; a new procedure for teaching effectiveness evaluation; and emphasis on faculty recruitment from under represented groups.

Dean Giddens' administrative leadership led to dramatic improvements in Hopkins Engineering. In the 1997 rankings provided by *U.S. News and World Report*, graduate engineering at Hopkins was ranked 17th overall (up from 40th in 1993) and 13th in academic reputation (up from 18th in 1993) among engineering programs in the United States. In the first ranking of undergraduate engineering programs, Hopkins also ranked 17th. Because of these and other accomplishments, the University named the Inaugural Professorial Lectures in his honor, with an endowment to insure its perpetuation, and inducted him as an Honorary Alumnus of the Johns Hopkins University.

Dr. Giddens returned to Atlanta on July 1, 1997 to join the faculties at Georgia Tech and the Emory University School of Medicine to pursue his interests in teaching and research. He chaired a joint Georgia Tech/Emory faculty committee that led to the creation of a new and unique Department of Biomedical Engineering that is a joint venture of the two institutions, one private and one public. Following approval of the Department by the Board of Regents of the University System of Georgia and the Emory University Board of Trustees, Dr. Giddens was asked to be the initial department chair. He led the efforts to create a new Ph.D. degree in Biomedical Engineering that is awarded jointly by Georgia Tech and Emory and, subsequently, worked with faculty to develop a new B.S. degree in Biomedical Engineering. These new degree programs were developed through incorporating learning science principles in the curricula and have gained widespread national recognition in biomedical engineering education. In 2007, the programs matriculated approximately 800 undergraduate students and over 200 graduate students, a remarkable growth. Giddens was the Principal Investigator for a \$16M grant from the

Whitaker Foundation, and he also was responsible for raising another \$30M in other private gifts, including a \$25M gift from the Wallace H. Coulter Foundation. The joint department is now named the Wallace H. Coulter Department of Biomedical Engineering at Georgia Tech and Emory, and it is currently ranked in the top three graduate BME departments in the U.S.

Throughout his career, Professor Giddens has maintained a teaching and research program in the area of biofluid dynamics, especially blood flow in arteries. He is author or co-author of over 100 publications and over 200 presentations, and is invited frequently to speak on his own research and on his perspectives of the field. He has graduated over 25 Ph.D. students, including three in 2007, and currently is the thesis advisor for four doctoral students and a post doctoral fellow. His research resulted in his election to the National Academy of Engineering (1999), and he is a Fellow in the American Society of Mechanical Engineers, and a Founding Fellow of both the American Institute for Medical and Biological Engineering and the Biomedical Engineering Society. He has served on numerous advisory groups and panels, including the Space Studies Board of the National Research Council

In his various roles as academic administrator, Giddens has worked to develop people and help them advance their careers. He looks for promising leadership talent in the faculty and introduces them to leadership opportunities, often with an eye toward developing their potential as his replacement. He holds Faculty Appreciation Evening functions for the College of Engineering periodically and has inaugurated a very popular Annual Staff Appreciation Day held on the campus each fall semester. As an educator, Dean Giddens has emphasized the important role of the university in helping students develop successful careers and lives. Most students are in the university at a very formative time of life, and faculty, staff and administration are usually extremely influential in the intellectual and personal growth of students. While academics form the core of this growth, the university must also be concerned with the “whole” student. Dean Giddens has stressed faculty and administrative support of, and participation in, extracurricular opportunities that benefit students, both undergraduate and graduate. By way of example, Giddens taught whitewater canoeing to students for over 15 years at Georgia Tech in the Outdoor Recreation Program and raced competitively at the national level. He also frequently attends campus events held at the Ferst Center for the Performing Arts and has a box at Georgia Tech football games, to which he invites alumni, faculty and staff. Giddens enjoys collegiate athletics, and he served as the Chair of U.S. Canoe/Kayak Team (now U.S.A. Canoe/Kayak) from 1992-1996, where he was responsible for hiring coaches and developing training programs as the U.S. prepared for the 1996 Olympic Games in Atlanta. He also served on the Slalom Committee of the International Canoe Federation, the governing body under the IOC for canoe/kayak, from 1996-2000; served as chief judge at the 1999 Canoe/Kayak Slalom World Championships; and worked with the ICF in preparation for the Sydney Olympics in 2000. In his “spare” time, Giddens takes pleasure in outdoor activities, exercising, reading, the Atlanta Symphony, and writing short stories as a hobby.