Strategic Plan
School of Civil and Environmental Engineering
Georgia Institute of Technology
July 15, 1999

Vision

The School of Civil and Environmental Engineering will be a world leader in serving society's needs through the integration of education, research, and technology transfer in the civil and environmental engineering profession.

Mission

The mission of the School of CEE is:

- To educate present and future generations of civil and environmental engineers
- To provide life-long learning opportunities for our graduates and for practicing civil and environmental engineers
- To conduct research and develop technology that contributes to a sustainable society
- To provide leadership and service to the nation, State of Georgia, and to the engineering profession

Objectives

The strategic objectives that will guide the School's activities and decisions in achieving its vision are:

- Pursue academic excellence in our educational programs, research and scholarship.
- Promote, recognize, and reward a community of scholarship and learning that encourages interdisciplinary exploration, creativity, entrepreneurial initiative, and ethical professional behavior
- Provide a stimulating educational experience for our students that will lead to success in the profession, recognizing that both a depth and breadth of knowledge will be necessary to achieve this success
- Develop innovative and effective approaches to the educational process and to the delivery of educational programs
- Develop, demonstrate, and deliver new knowledge and technologies to address societal needs, improve the quality of life, and meet sustainable development objectives
- Commit to self-assessment and continuous quality improvements

Actions

The School has experienced significant growth and improvement over the past five years. With new faculty, improved facilities, and high quality students, the School is poised to be one of the premier civil and environmental engineering programs in the country and world. The following actions will allow us to build upon the institution-building activities over the past five years and to take advantage of our tremendous strengths. These actions, which are designed to achieve the School's objectives, are categorized into five strategic areas—students, research, faculty development, structure/organization, and partnerships.
Students

- Create a diverse education, research and professional development environment for both undergraduate and graduate students which supportively encourages academic excellence, and provides exposure to the depth and breadth of knowledge important for professional success
- Continually assess the effectiveness of our semester-based academic programs and modify the curriculum and course material where necessary
- Develop a comprehensive school-wide recruitment plan that aggressively identifies opportunities and targets students locally, nationally and internationally from all backgrounds
- Provide students with access and exposure to advanced computer and information technologies as part of their educational experience
- Augment the existing instructional environment through curriculum-wide integration of computer based analysis and simulation to complement traditional educational methods
- Reassess and enhance an advising and mentoring program for students that will assist in academic and career decision making
- Empower the student body (through its ASCE chapter, Chi Epsilon, and newly established organizations) to contribute and improve the operation and visibility of CEE programs
- Create faculty committee for student awards to expand recognition both internally and externally of academic excellence at all levels

Research

- Promote research excellence by sustaining and building upon existing research strengths in the School
- Develop cross-cutting programs in the following areas: infrastructure design/rehabilitation/management, information systems and simulation tools, innovative materials, advanced technology/sensors, and sustainable technology/development
- Expand and diversify our resource base to included funded research from federal and state agencies, private foundations, and domestic/international corporations
- Encourage the development of public/private partnerships
- Develop a strategy for technology transfer from research to practice.

Faculty Development

- Continue to recruit outstanding and diverse faculty members who will contribute to our community of scholarship
- Establish a mentoring program for faculty of all academic ranks. Reward those who dedicate the time for such mentoring. Provide continuous feedback to junior faculty on performance and progress (e.g., annual P&T committee review of junior faculty progress)
- Establish named/chaired professorships at all academic ranks as intellectual leaders/mentors
- Provide time within the academic year for focused activities which enhance faculty research, teaching, or service (e.g. internal leaves)
- Provide opportunities for faculty to become involved with civil and environmental engineering practice, and to become registered professional engineers; as well, provide opportunities for industry/government participation in School programs
- Support the Institute’s efforts to establish family leave policies and day care opportunities

Structure/Organization

- Establish an organizational structure (e.g. a matrix organization) within the School that supports research thrusts and facilitates interaction among traditional groups
- Establish a management structure that encourages faculty input and involvement on issues affecting the School (e.g., develop rotating positions with specified terms for program coordination)
- Provide the technical and administrative support in areas such as electronics/sensors, computer systems, and project management required for effective technology-oriented instruction and research.
- Establish a continuous assessment process that includes external reviews to provide feedback on research and academic programs.

Partnerships

- Continue to work with the Advisory Board to develop effective strategies to remain connected to alumni of the School, and implement these strategies.
- Establish strategic partnerships with academic units on campus, other
universities/colleges, industry/government, and in the international arena

- Develop industry partners programs
- Seek multidisciplinary research and academic opportunities in which the School can play a leadership role in furthering our vision
- Support Institute and College programs for community involvement (e.g., K-12 programs)

**Metrics**

The following metrics and methods will be used to measure progress in achieving our objectives:

**School Measures**

- Student enrollment: 600 undergraduates (minimum goal); 300 graduates (minimum goal); target of 1,000 total students
- Ph.D. graduates: 20-25 per year (goal)
- Ph.D. graduate program: 35%-40% of graduate program (goal)
- Biennial benchmarking of peer institutions (which includes 20 different measures)
- Assessment methods outlined in ABET report
- # of funded students / % of graduate student body
- Assessment by external reviewers

**Student Measures**

- SAT/GPA of entering undergraduate students
- GRE/GPA of graduating students
- % passing FE exam
- GRE/GPA of incoming graduate students
- # student fellowships from Institute and national organizations
- Assessment of undergraduate and graduate student placement and career paths

**Faculty Measures**

- Faculty teaching loads
- Faculty publication record compared to faculty at peer institutions
- Distribution of course evaluations as compared to Institute and College
- Faculty fellows in professional societies

**Implementation**

Faculty committees will be established in each of the five action areas described above and charged with developing strategies to implement the proposed actions