Strategic Plan

School of Electrical and Computer Engineering

Georgia Tech | **College of Engineering**

As the largest of nine schools and departments in the College of Engineering and the largest individual school at Georgia Tech, the School of ECE has a critical role in helping the Institute achieve its vision "to define the technological research university of the 21st century and educate the leaders of a technologically driven world." It is in the context of this strategic plan that ECE will work to advance the vision of Georgia Tech.

Gary S. May
Steve W. Chaddick School Chair

Over the next five years, the following seven objectives will guide ECE:

- Technical- and leadership-based curriculum
- Top student recruitment
- Interdisciplinary research
- Faculty recruitment, development, and retention
- Commercialization
- Global expansion
- Enhanced visibility
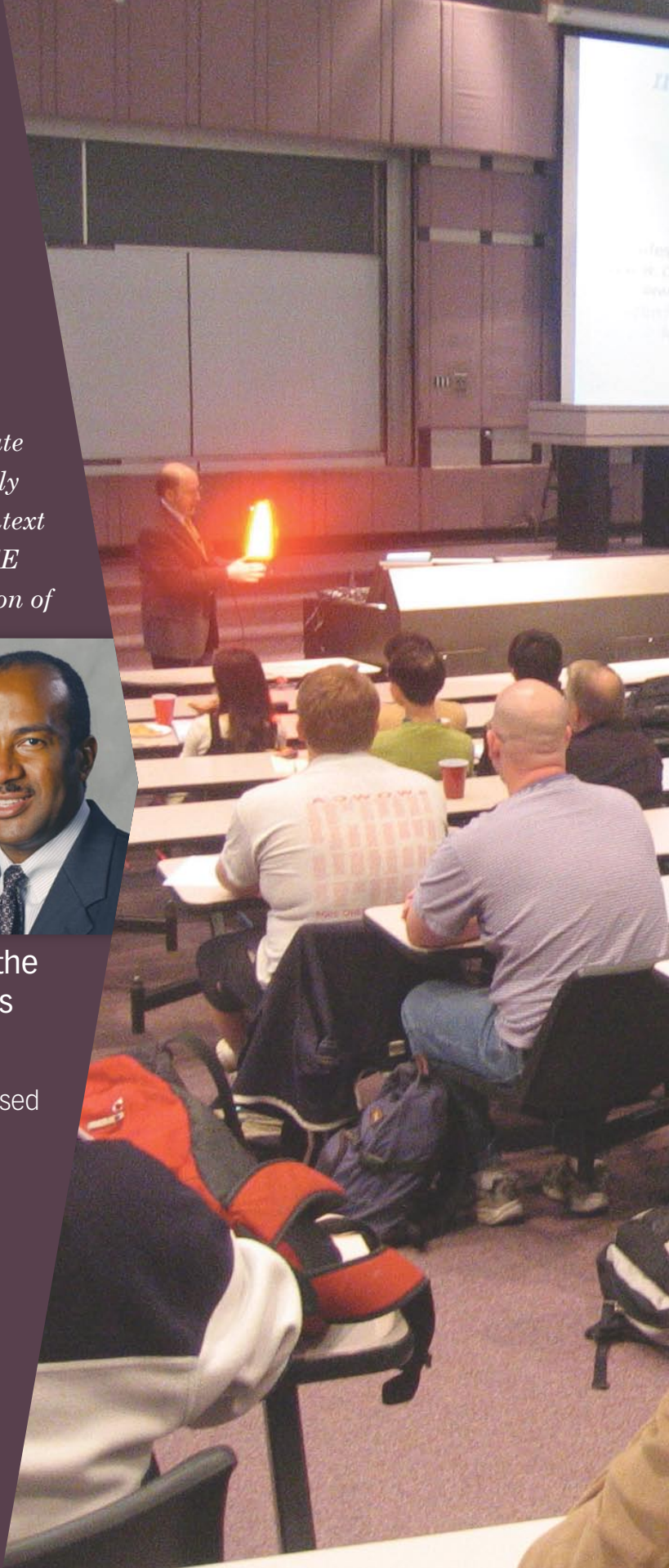
1

ECE will maintain a rigorous curriculum that develops both technical and leadership skills and remains relevant in our rapidly changing world.

Teaching excellence is an important component of our culture.
– Create a reward structure to promote teaching excellence for all faculty and teaching assistants.
– Ensure that our teaching assistants are used effectively.
– Secure additional funding for teaching assistantship support.

Design and project opportunities will be incorporated into additional courses.
– Identify appropriately scaled projects for inclusion in multiple courses.
– Complement traditional lecture content with open-ended and/or problem-based content.
– Place these problem-based courses throughout the curriculum, with particular focus early in the curriculum to engage newer students.

By participating in our international education opportunities, students will be well prepared to work in a global economy.

The ECE Academic Affairs Office and appropriate ECE standing committees will develop and implement a process for periodic curriculum review.

2

ECE will proactively recruit the *best of the best* **graduate students.**

We define best *students as a diverse group of individuals with great intellectual capacity, a passion for learning, a commitment to society, and a capability for leadership and collaboration.*

Develop and implement a process to identify and retain our best undergraduates.

Develop and implement an aggressive recruiting program targeted at attracting a diverse group of the top graduate students from around the world.

Acquire competitive support for graduate students through the Capital Campaign.

3 **ECE will continue its role as a leader in interdisciplinary research, seeking sustainable solutions for issues of global significance.**

Our culture encourages and nurtures interdisciplinary innovation.
- Promote active involvement in interdisciplinary programs.
  - Highlight multidisciplinary degrees that already exist; develop and implement more certificate programs.
  - Partner to make interdisciplinary research at Georgia Tech more visible.
- Create new venues for creative interdisciplinary interactions between schools within the College of Engineering and in other colleges.
- Reward faculty for participation in interdisciplinary programs and research.

We will enable innovative "out of the box" new research directions.
- Maintain awareness of global issues that may be addressed by electrical or computer engineering solutions.
- Partner with industry to identify actual problem topics of interest and use these topics as design experiences in our classes.
- Work to obtain seed funding and gifts from industry for high-risk "out of the box" interdisciplinary research projects.
- Continue to secure funding for centers across schools and colleges.

4 ECE will excel in the recruitment, development, and retention of outstanding, diverse faculty members.

Recruit, retain, and promote a diverse community of exceptional faculty scholars.

Develop a targeted mentorship program for junior faculty.

Create and implement programs for promoting mid-career retention and success for our faculty.

Develop faculty professional and institutional leadership skills.

5 **ECE will aggressively transfer knowledge into products and processes that will benefit the State of Georgia, the nation, and the world.**

Faculty and students will be made aware of the commercialization infrastructure and resources available at Georgia Tech.

Opportunities to create seed funding for pre-commercialization activities will be identified.

Consulting and distance learning activities will be used as a bridge to industry.

6

ECE will continue to support Georgia Tech's goal of becoming a global university. Develop specific value propositions and missions related to existing and future campus expansions.

Each non-Atlanta activity will have a specific mission statement that clearly articulates the program's purpose and incorporates general factors such as financial self-sustainability, stakeholder demand, economic development opportunities, and impact on the ECE brand.

Each non-Atlanta activity will be regularly assessed against criteria specific to that operation. Ongoing improvements will be made in these programs to maintain the excellence of the Georgia Tech brand.

Existing and potential campus locations will be assessed against these criteria and their individual missions.

Strategies will be created to ensure that policies and processes remain seamless to students and faculty, irrespective of location.

7

ECE will ensure that our image supports the achievement of our vision and reflects our desired stature.

World-class headquarters will be built for ECE through the expansion and renewal of the Van Leer Building, with support provided by the Capital Campaign.

A marketing campaign and supporting collateral materials will be developed to effectively convey our desired image and our successes to all of our diverse stakeholders.

ECE faculty and staff will endeavor to increase the placement of our Ph.D. students at leading institutions around the world.

The ECE community will continue to develop and strengthen relationships with our alumni.

Georgia Tech | **College of Engineering**

Our Vision: To lead in the creation and development of intellectual and human capital in electrical and computer engineering and their applications in order to foster the technological, economic, and social enrichment of the State of Georgia, the nation, and the world.

Our Mission: To be one of the very best programs of electrical and computer engineering education, research, and its transfer to the community at large;

To be recognized as a place that encourages excellence and diversity in thought and endeavor;

To provide degree and professional education programs that produce graduates who are well prepared to enter and assume leadership roles in the profession; and

To provide research and intellectual resources that address problems facing the industry and the world, while advancing the boundaries of disciplinary and multidisciplinary research and its applications.

The faculty, staff, and students at the School of Electrical and Computer Engineering are firmly committed to making Georgia Tech the strongest educational and research enterprise in the nation. Our achievements are the culmination of many years of hard work and dedication, and they are harbingers of greatness to come. We invite you to learn more about our many accomplishments and to join us in our ongoing quest for excellence.

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