

**The Georgia Institute of Technology
College of Engineering
2006-2007 Highlights**

PROGRAMS

COE

- U.S. News & World Report undergraduate program rankings: COE 5th, AE 2nd, BME 3rd, CE 5th, Computer E 6th, EE 6th, ME 6th, EE 8th, ME 9th, ChE 11th.
- U.S. News & World Report graduate program rankings: COE 4th, AE 6th, BME 3rd, CE 4th, ChE 14th, Computer E 6th, EE 7th, Environmental 7th, ISyE 1st, Materials 9th, Mechanical 7th.
- The Dean's Office conducted successful 5-year reviews for ME and ISyE.
- Staff Appreciation Luncheon (October 2007); COE Engineering Awards (November 2007).
- Laurence Jacobs, CE, joined the dean's office as Associate Dean for Academic Affairs.

AE

- AE has initiated a Graduate Certificate in Risk and Safety under a CRISS program.
- AE supported a GT proposal to establish an international campus in India. AE would have the lead in Government and Aerospace Systems, under a more general Integrated Systems Engineering (ISE) program.
- AE supported a GT-developed Professional MS program in Systems Engineering (PMSyE) led by Dr. Carlee Bishop of GTRI.

BME

- ~~GT/Emory/PKU Initiative~~—Plans are underway for the development of the GT/Emory/PKU Joint Venture graduate program. A workshop with BME faculty was held in Beijing in December, 2006. BME hosted a workshop/planning meeting with Peking University BME faculty in Atlanta on August 26-28, 2007.

ChBE

- ExxonMobil Foundation made a \$1 million commitment ~~to ChBE~~ to fund the ExxonMobil Georgia Tech-Spelman College Program in Chemical & Biomolecular Engineering.
- ChBE held the first AirProducts Undergraduate Research Symposium.
- ChBE held a memorial service for prominent alum Garry Betty, '79, and presented the first Garry Betty Scholarship for International Studies

CEE

- GT Savannah CEE faculty combined with the GT Atlanta Campus.
- CEE professors taught Professional Education Short Courses through the Distance Learning and Professional Education: ADA Basic Building Blocks, Civil Engineering Refresher, Enhanced In-Situ Testing for Geotechnical Analyses and Foundation Design, Fundamentals of Engineering, Geotechnical Foundation Systems, Hydrologic Engineering for Dam Design, Seismic Site Characterization and Geotechnical Earthquake Hazards, and Structural Dynamics and Earthquake Engineering.

ECE

- The Wallace H. Coulter Foundation established a \$1 million fellowship program that covers the next five years and will support up to 10 academically qualified Chinese master's level students at Shanghai Jiao Tong University (SJTU) who are pursuing the dual master's degree program established between the School of ECE at Georgia Tech and SJTU.
- June 2007, officials from Georgia Tech and the Indian state of Andhra Pradesh signed a memorandum of understanding agreeing to set up campuses in Hyderabad and Visakhapatnam.
- ECE faculty members offered 30 professional education courses and conferences through the Georgia Tech Distance Learning and Professional Education Office.
- Rich Templeton, president and CEO of Texas Instruments, spoke at the seventh James R. Carreker Distinguished Lecture on October 11, 2006.

GTSav

- Quadrupled undergraduate enrollment; increased the graduate student enrollment; introduced a new undergraduate course; worked on preparing for ABET accreditation in 2008; improved the laboratory experience for the undergraduates; and hosted visitors from the Technical University of Eindhoven and the Indian Institute of Technology.
- Developing a Strategic Engineering Program and launched a search to recruit 4 new faculty members.
- ~~Held it~~The first annual graduate recognition and awards ceremony ~~was held~~ in May 2007. 30 graduates were recognized for completing their degree requirements and several students were recognized for their academic and professional contributions with scholarships.
- Established a Chapter of the Order of the Engineer organization. Most of the new graduates and a few former graduates participated in the Order of the Engineer ring ceremony.

ISyE

- Developed an undergraduate program “track” system that allows undergraduates the ability to specialize in an area of concentration. The tracks include: Economic Decision Analysis, Manufacturing Systems, Operations Research and Statistics, Quality Engineering, and Supply Chain Logistics.
- EMIL initiated its fifth consecutive class in January 2007, welcoming first time participants from Brazil, Chile, France, Kuwait, and the UK. New corporate sponsors include: Coca-Cola, GE, AGILITY Logistics, YRC Logistics, and Johnson & Johnson.
- Fall 2007, ISyE started a dual-degree masters program with Shanghai Jiao Tong University in China. Students in the program can earn a MS in Industrial Engineering or a MS in Operations Research.
- Fall 2006, ISyE started an undergraduate dual degree program with Monterrey Tech (ITESM) in Mexico that allows engineering students attending ITESM to transfer to ~~Georgia Tech-GT~~ during their third year. Upon completion, students earn an engineering degree from ITESM and an IE degree from GT.
- Quantitative and Computational Finance (QCF, a multidisciplinary master’s program sponsored jointly by the College of Management, ISyE, and the School of Mathematics) was moved to ISyE from Mathematics.
- ISyE’s Workforce Communication program received an alumni gift to establish an endowment supporting its Communications Lab. This program currently supports all students enrolled in Senior Design (260), one section of students enrolled in Introduction to Statistics (60), and is expanding to support students in a third ISyE core course.

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ME

- Approximately 50% of ME undergraduate students participate in coop and internship programs.
- 108 ME students (102 ME, 6 NRE) students participated in various study-abroad programs.
- Georgia Tech Lorraine program established the GT-CNRS UMI laboratory; began construction on new research laboratories; secured more than \$7 million in research funding, equipment grants, and infrastructure; and is working in close collaboration with the French Embassy in Washington, D.C. to create a Franco-American Doctoral College.

PTFE

- PTFE Career Day had 261 attendees.
- As part of the PTFE Carpet Industry Fund programming, two workshops ‘Color Science’ and ‘Characterization of the Nylons’ were held in Dalton, GA, in conjunction with Dalton State College.
- PTFE Mentoring Program, led by Dr. Mary Lynn Realf, had 29 mentor/mentee teams.
- PTFE had a 10% increase in total enrollment over that of the past year.
- Professor Alan Windle of the University of Cambridge delivered the inaugural set of lectures in the Brumley D. Pritchett Lecture Series.

FACULTY INITIATIVES AND ACCOMPLISHMENTS

AE

- The search committee for faculty in the Space field, chaired by Prof. R. Braun conducted 11 interviews in the period from Sept. 1, '06 to Aug. 31, '07. Of 3 offers made, one was successful.
- Ryan Russell accepted an appointment as Assistant Professor in Aug. 1, '07.
- The search committee for a faculty member expert in Cognitive Engineering, chaired by Prof. A. Pritchett, conducted 3 interviews from Sept. 1, '06 to Aug. 31, '07. No offers have been made.
- Krish Ahuja has assumed full-time responsibility for GTRI-Ireland.
- R. Braun - Fellow, American Institute of Aeronautics and Astronautics.
- J.P. Clarke - Gilbreth Lecturer, National Academy of Engineering.
- W. Haddad - 2007 Florida Tech Outstanding Achievement Award.
- A. Pritchett - American Institute of Aeronautics and Astronautics Lawrence Sperry Award for 2007
- M. Walker, II - Air Force Office of Scientific Research (AFOSR) Young Investigator Research Program Award.
- P.K. Yeung - Fellow, American Physical Society.
- NASA Group Achievement Awards: Heavy Lift Rotorcraft Systems Integration - R. Loewy, D. Schrage; NASA/ARMY UH-60A Airloads Program - L. Sankar, M. Smith.

BME

- Steve Potter - Epilepsy Research Foundation Award.
- Hanjoong Jo - Emory Dept. of Medicine 2007 Outstanding Research Citation Award.
- Shuming Nie - Heinrich Emanuel Merck Award 2007 for Analytical Chemistry.
- Lena Ting - 2007 Arthur C. Guyton Award for Excellence in Integrative Physiology from the American Physiological Society.
- Yadong Wang - AHA National Scientist Development Grant on tissue engineering of small arteries.
- Gang Bao - NIH Nanomedicine Development Center Winner of the GBP 'Deal of the Year' Award in the Public Sector.
- Paul Benkeser & Stephen DeWeerth - Elected to AIMBE's College of Fellows.
- Ravi Bellamkonda - Named Georgia Cancer Coalition Scholar for 2006-2007.
- Cheng Zhu - Recognized for his work in cellular and molecular biomechanics.

CEE

- 6 CEE alumni were honored at the 2006 College of Engineering Alumni Awards: James W. Bowyer, Raymond A. Jones, Jr., Thomas D. Gambino, S. Brent Reid, Lesley S. Keck, and Shaugn A. McReynolds.
- Francesco Fedele, Haiying Huang, Thorsten Stoesser joined CEE.
- Bruce Ellingwood was named the Raymond Allen Jones Chair.
- Frank Löffler was named the Carlton Wilder Associate Professor in Environmental Engineering.
- Peter Webster gave the Charney Lecture (keynote address) to an audience approximately 10,000 scientists at the American Geophysical Union spring meeting May 21, 2007 in Acapulco, Mexico.
- Mulalo Doyoyo has been elected a Fellow of the Royal Society for the encouragement of the Arts, Manufactures and Commerce (RSA) in the United Kingdom.
- Reginald DesRoches received the Walter L. Huber Civil Engineering Research Prize from the American Society of Civil Engineers and the ANAK Award.
- Donald W. White has received the 2007 Richard S. Fountain.
- Laurence Jacobs and Jin-Yeon Kim received the Sigma Xi Faculty Best Paper Award.
- ~~Jin-Yeon Kim received the Sigma Xi Faculty Best Paper Award.~~
- Armistead (Ted) Russell received the Georgia Tech Outstanding Doctoral Thesis Advisor Award.
- Peter J. Webster received the Georgia Tech Outstanding Faculty Research Author Award.
- Jaehong Kim received the CETL/BP Junior Faculty Teaching Excellence Award.

ChBE

- Charles Liotta returned to the Institute for Sustainable Technology and Development.
- The history of ChBE's 100 years was published in spring 2007.

- Pradeep Agrawal was named Associate Chair for Undergraduate Studies.
- Sven Behrens joined the faculty as an Associate Professor.
- Lakeshia Taite joined the faculty as an Assistant Professor.
- Ronald R. Chance joined the faculty as a Professor of the Practice with a joint appointment in the ChBE and Chemistry & Biochemistry.
- Elsa Reichmanis, Bell Labs Fellow and Director of the Materials Research Department at Bell Labs, Lucent Technologies, delivered the annual ConocoPhillips/"C. J." Pete Silas Program in Ethics and Leadership lecture.
- Nathan S. Lewis, the George L. Argyros Professor of Chemistry at the California Institute of Technology, presented the 22nd Annual Ashton Cary Lecture.
- Andreas Bommarius and Mark Prausnitz led a group of students on a tour of pharmaceutical manufacturing facilities in Puerto Rico.
- Christopher Jones and Andreas Bommarius gave invited lectures at the Gordon Conference on Catalysis at Colby-Sawyer College in New London, NH.
- Paul Kohl was named the Hercules Inc./Thomas L. Gossage Chair.
- Jay Lee gave an invited lecture at the International Symposium on Advanced Control of Chemical Processes (ADCHEM) conference in Gramado, Brazil.
- Hang Lu received a DuPont Young Professor award.
- Carson Meredith received a \$50,000 Honda Initiation.
- Athanasios Nenes presented one of only six invited platform lectures at the Annual Mexican Chemical Society Symposium.
- Mark Prausnitz was appointed to the Scientific Advisory Board of Transport Pharmaceuticals; served as an expert witness for the plaintiff in the case of Gingher v. Alza Corporation et al., in the Superior Court of the State of California for the County of San Mateo; and, was awarded the Institute Outstanding Undergraduate Research Mentor Award.
- Cliff Henderson is one of 11 faculty and staff members who currently serve on the Undergraduate Research Advisory Group (URAG).
- Sven Behrens received a Camille and Henry Dreyfus New Faculty Award.
- Mark Prausnitz was appointed to the Advisory Board of the Society for Biological Engineering (AIChE).
- Chris Jones organized and ChBE hosted "KorosFest," an all-day tribute to Bill Koros.
- Hang Lu received a Young Faculty Award by the DARPA Microsystems Technology Office.
- Rachel Chen's article "Engineering the E. coli UDP-Glucose Synthesis Pathway for Oligosaccharide Synthesis," published in Biotechnology Progress, was featured on the ACS Publications website as a 2006 Most-Cited Article based on citation data obtained from Thomson ISI.
- Jim Frederick was selected as a Technical Association of the Pulp and Paper Industry (TAPPI) Fellow.
- Cliff Henderson served as co-chair for the annual Advances in Resist Materials and Processing Technology Conference at the SPIE Advanced Lithography Symposium. Henderson also gave an invited seminar at the Second Annual NSF Joint US-China Workshop on Chemical Engineering.

ECE

- **Eight** ECE alumni were honored at the 2006 College of Engineering alumni awards: David L. Burgess, J. Mark Elder, Holmes J. Hawkins, Linda J. Jordan, W. Wayt King, Carlos A. Muniz, Mark C. Smith, and Slim S. Souissi.
- Joseph L.A. Hughes was named senior associate chair of ECE.
- Promoted and/or tenured effective July 1, 2006: John R. Barry, W. Alan Doolittle, Magnus Egerstedt, Faramarz Fekri, Chuanyi Ji, and Doug William. Promoted and/or tenured effective July 1, 2007: Oliver Brand, David S. Citrin, Deepak Divan, A. Bruno Frazier, Aaron D. Lanterman, Ye (Geoffrey) Li, Sung Kyu Lim, Stephen E. Ralph, George F. Riley, and Gabriel Rincón-Mora.
- New Hires: Maysam Ghovanloo, (ON Semiconductor Junior Professor), Justin K. Romberg and Pamela T. Bhatti. Ying Zhang (GTS).
- Russell D. Dupuis was awarded the 2007 IEEE Edison Medal.
- John B. Peatman was awarded the 2006 IEEE Undergraduate Teaching Award.
- Abhijit Chatterjee and Joseph L.A. Hughes were named IEEE Fellows, effective January 1, 2007.
- Bernard Kippelen was named a Fellow of the Optical Society of America.

- Gary Gimmetstad was elected a Fellow of the International Society for Optical Engineering.
- Hsien-Hsin Sean Lee received a 2007 National Science Foundation CAREER Award.
- Biiing-Hwang (Fred) Juang was named as a member of Academia Sinica.
- Chin-Hui Lee received the Signal Processing 2006 Technical Achievement Award.
- Gary S. May received the 2006 American Association for the Advancement of Science Mentor Award.
- James D. Meindl was named an Eminent Member of Eta Kappa Nu.
- Rao R. Tummala received the David Feldman Outstanding Contributions Award.
- Ali Adibi received the 2007 SPIE Technology Achievement Award.
- Kevin T. Kornegay received the 2006 IBM Faculty Award.
- Linda M. Wills was named a 2006-07 Hesburgh Teaching Fellow.
- Ajeet Rohatgi received the GT Outstanding Achievement in Research Program Development Award.
- John A. Buck received the GT Class of 1940 W. Roane Beard Outstanding Teacher Award.
- John D. Cressler received the GT Outstanding Faculty Leadership for the Development of Graduate Research Assistants Award.
- Bonnie Heck Ferri was named as a 2006-07GT University Leadership Program Fellow.
- Joy Laskar was a co-recipient of the GT Outstanding Faculty Research Author Award.
- James H. McClellan received the GT Outstanding Service Award.
- A. Bruno Frazier received the GT Outstanding Professional Education Award.
- Gregory D. Durgin received the Class of 1940 W. Howard Ector Outstanding Teacher Award.
- W. Marshall Leach, Jr. received the Richard M. Bass/Eta Kappa Nu Outstanding Teacher Award.
- Jeffrey A. Davis received the Richard M. Bass/Eta Kappa Nu Outstanding Teacher Award and the ECE Outreach Award.
- Sudhakar Yalamanchili received the ECE Distinguished Mentor Award.
- Sung Kyu Lim received the ECE Outstanding Junior Faculty Member Award.

GTSAV

- Randal Abler co-organized a demonstration of Hi-Definition Classroom Technology for Distributed Education for University System of Georgia Chancellor Errol Davis.
- Janet Allen is ~~an~~ Associate Editor of the ASME Journal of Mechanical Design (2006- 2009) and completed her term as Chair of the ASME Design Theory and Methodology Technical Subcommittee (2005-2007).
- Ghassan Alregib served as Special Sessions Chair, International Conference on Image Processing (ICIP) and served as the General Chair of the First International Conference on Immersive Communications (IMMERSCOM), Verona, Italy, 2007. He also serves as the Chair of the Immersive Communications Technical and Business Unit (TAB) of the ICST organization and the Associate Editor of the IEEE Signal Processing Magazine, 2006-2009. Also, Alregib was invited to the NSF CI-TEAM workshop, Washington D.C.
- Muhammad Akbar received GT Savannah Outstanding Teacher Award 2006.
- Christopher F. Barnes, Interdisciplinary Research Initiative Award Fall 2006; served as Publications Chair, International Conference on Image Processing (ICIP), Atlanta.
- Seung-Kyum Choi and co-authors published their textbook *Reliability-Based Structural Design*. The book is being used as text / reference at Northwestern, Wright State, U.S. Naval Academy amongst other institutions.
- Mervyn Fathianathan was selected as Research Affiliate – International Academy for Production Engineering (CIRP).
- Francesco Fedele received a young researcher scholarship for participation to the international conference: “Euler Equations- 250 years on” Aussois, France June, 2007.
- Hermann Fritz’s work was featured on The History Channel (USA): "Mega Disasters" series, The 1883 Krakatau Volcanic Explosion and Tsunami, (60'). (Co-Production: 12/2006, aired on National TV in 2007 on September 11, 12, 15, 21 and 22).
- Hermann Fritz delivered an invited keynote lecture on "Role of Forests and Trees in Protecting Coastal Areas against Cyclones", Food and Agricultural Organization (FAO), United Nations,

Regional Technical Workshop "Coastal protection in the aftermath of the Indian Ocean tsunami: What role for forests and trees?", Khao Lak, Thailand, 2006.

- Hermann Fritz delivered an invited keynote lecture on "Les consequences du cyclone Katrina sur les cotes du golf du Mexique et les iles barrieres"(French), French Government: La Reunion face aux risques naturels, Saint-Denis, Reunion Island, French overseas territory, 2006; an invited keynote lecture on "Le tsunami du 26 Decembre 2004 dans l'ocean Indien et ses consequences"(French), French Government: La Reunion face aux risques naturels, Saint-Denis, Reunion Island, French overseas territory, 2006; an invited keynote lecture on "Landslide tsunami experiments in the NEES tsunami wave basin", NSF: NEES Tsunami Modeling and Training Workshop, Corvallis, Oregon, 2006; an invited lecture on "April 2nd 2007 Solomon Islands tsunami impact, co-seismic displacement, future tsunami risk and evacuation strategies", Solomon Islands National Broadcasting News Headline story, Gizo, Solomon Islands, 2007; co-organized conference session on "The Hurricane Protection System", Rebuilding the New Orleans Region: Infrastructure Systems and Technology Innovation Forum, New Orleans, Louisiana, 2006. He also served as co-organizer of- "Rebuilding the New Orleans Region: Infrastructure Systems and Technology Innovation Forum, New Orleans, Louisiana, 2006.
- J. David Frost gave an invited Keynote Lecture on "Microstructure Characterization" at an NSF Workshop on Mechanics of Stone Based Materials", Blacksburg, 2006; served as Chair of NCAR-60, National Conference on Advancement of Research on "Energy Rx: A Prescription for Energy Security, Policy and Research", Savannah, 2007; is serving on the external advisory board of the School of Engineering at the American University in Dubai; is serving as a member of the Advisory Council of the Savannah Economic Development Authority and is serving as member of Savannah Advisory Committee of Georgia Public Broadcasting.
- Kevin A. Haas was an invited speaker at the Georgia Conservancy Common Ground Conference on "Advancing Clean Energy Solutions for Georgia".
- Monson H. Hayes served as General Chair, International Conference on Image Processing (ICIP), Atlanta (1000 participants).
- Benjamin Klein served on the organizing committee of the Numerical Simulation of Optoelectronic Devices (NUSOD) conference, 2007.
- Farrokh Mistree and Dr. Janet Allen continue to organize the NSF/ASME Student Design Essay Competition - Winners receive funding to travel to IDETC and present their work. (1998-present).
- Farrokh Mistree completed 12 years as the Secretary-Treasurer for Pi Tau Sigma, the **MM**Mechanical Engineering Honor Society.
- Rafi Muhanna was an invited Scholar at the Collaborative Research Center 528, German National Science Foundation (DFG), Dresden University of Technology, Germany, June, 2007. He also presented a lecture on "Interval Finite Elements as a Basis for Generalized Models of Uncertainty in Engineering Analysis".
- Rafi Muhanna presented an invited keynote address at the International NSF Workshop on Finite Element Methods (FEM) and their applications to Science and Engineering and University of Texas, El-Paso, Texas, 2006; served as workshop chairman and editor of the Proceedings of the NSF Reliable Engineering Computing Workshop on "Reliable Engineering Computing", Savannah, 2006; served as guest editor for a 3-part Special Issue of Reliable Computing Journal on Reliable Engineering Computing (2006-2007); and is a member of the editorial board of the International Journal of Reliability and Safety (IJRS).
- Dirk Schaefer was elected Fellow of The Higher Education Academy (FHEA), UK, 2007; received Professional Registration as Eur. Ing. – European Engineer (FEANI, Brussels); and received Professional Registration as CEng, Chartered Engineer, UK.
- David Scott is collaborating with researchers from the U.S. Army Engineer Research and Development Center. Their work was selected for the 2006 U.S. Army Research and Development Achievement Award. He was also the first CEE professor promoted from Assistant to Associate Professor with tenure at GTS; and, he is serving as a member of the Provost's Task Force on Broadening Undergraduate Education.
- Paul A. Work was appointed Associate Chair of Civil and Environmental Engineering for GT-Savannah in March, 2007
- P. Doug Yoder gave the invited presentation at the 2007 Numerical Simulation of Optoelectronic Devices (NUSOD) conference, Sept. 24-27.

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ISyE

- Greg O. Andrews managing director of the Executive Masters in International Logistics (EMIL), August 2007.
- Chin Hoong Chor was appointed director of Degreed Education and Executive Education at TLI-Asia Pacific.
- William J. Cook, Chandler Family Chair, and Arkadi Nemirovski, John Hunter Chair, were appointed Adjunct Professors in the School of Mathematics in September 2007.
- Shijie Deng was appointed director of the Quantitative and Computational Finance (QCF) program, July 2007.
- Harvey Donaldson became the associate chair, Industry and International Programs.
- Stephen Downs, Edenfield Executive-in-Residence beginning September 2007.
- Nagi Gebraeel, assistant professor, July 2007.
- C. John Langley Jr., Professor of the Practice, SCL Institute.
- Meilong (Charles) Le, Global Logistics Scholar for the next two years to launch the MSIE dual degree program with Shanghai Jiao Tong University (SJTU) as well as working within the SCL China Logistics Research Center.
- Pete Viehweg, Edenfield Executive-in-Residence, SCL's Center for Warehousing & Distribution during the 2007-2008 academic year.
- John Bartholdi, Manhattan Associates Chair of Supply Chain Management and research director of the Supply Chain & Logistics Institute, received second place from the Material Handling Industry of America for "The Best Place for a Crossdock," co-authored with K. Gue, which ran in *Transportation Science*.
- John Bartholdi received an honorable mention award in 2006 from the College Industry Council on Material Handling Education for his book titled, "Using Bucket Brigades to Migrate from Craft Manufacturing to Assembly Lines," co-authored with D. Eisenstein, which ran in *Manufacturing and Service Operations Management*.
- William Cook, Chandler Family Chair, was an invited speaker at the symposium celebrating the 50th anniversary of the University of Waterloo and the 40th anniversary of the founding of the Department of Combinatorics & Optimization. Cook and colleagues David Applegate, Robert Bixby, and Vasek Chvatal published "The Traveling Salesman Problem: A Computational Study", by Princeton University Press.
- Jiangang Dai was awarded the Edenfield Professorship for a three-year term in 2007.
- Ozlem Ergun is a finalist in the INFORMS 2007 Junior Faculty Interest Group Paper Competition co-authored with her PhD student Richa Agarwal.
- Ozlem Ergun, Joel Sokol, and Ph.D. student Lori Houghtalen were awarded the Management Science Strategic Innovation Prize from the Association of European Operational Research Societies for their work on air cargo alliances.
- Augustine Esogbue received NASA's Space Flight Team Awareness Award in 2007; gave 6 invited key note addresses including "Operations Research: Military Origins, Problems and Applications-Transferability Imperatives for Developing Economies", presented at the 2006 Nigerian Defense Academy 1st International Conference on Military Operations Research, Kaduna, Nigeria, and "Operations Research in Defense and Security: Some U. S. Experiences", presented at the International Conference on Defense Finance and Economics, New Delhi, India, November 13-15, 2006, and was elected a Fellow of the Nigerian Academy of Engineering (NAE).
- Christina Scherrer, BSIE 1999, MSIE 2001, Ph.D. 2005, with Paul Griffin and Julie Swann was selected as a finalist for the Pierskalla Award in Health Applications.
- Jaoming Huo received the GT Sigma Xi Young Faculty Award in 2006.
- Seong-Hee Kim was selected as a 2007 recipient of a CAREER Award from the National Science Foundation in the area of Operations Research under the CMMI division.
- Seong-Hee Kim was awarded the INFORMS Simulation Society's Outstanding Publication Award.
- Paul Kvam, George Nemhauser, and Joel Sokol received substantial media attention for their NCAA Tournament prediction algorithm that included NY Times Play Magazine, ESPN.com, USAToday.com, AJC, San Jose Mercury News, Star Ledger, Atlanta Life Magazine, and KOA AM 850 (Denver) radio.

- Eva Lee in collaboration with Memorial Sloan-Kettering Cancer Center, received the 2007 INFORMS Franz Edelman award for their entry entitled "Operations Research Advances Cancer Therapeutics."
- Jye-Chyi (JC) Lu was inducted as a Fellow of the American Statistical Association in 2007.
- Leon McGinnis, Eugene C. Gwaltney Chair in Manufacturing Systems, was honored by North Carolina State University's Fitts Department of Industrial and Systems Engineering as part of its inaugural class of distinguished alumni.
- Post Doctoral Fellow Sunil Nakrani was named a finalist in the United Kingdom's Distinguished Dissertation Competition, a national competition in computing sciences.
- George L. Nemhauser, A. Russell Chandler III Chair, was honored at the Optimization Research Symposium.
- Arkadi Nemirovski, John Hunter Chair, was a key invited speaker at the 6th International Congress for Industrial and Applied Mathematics.
- Arkadi Nemirovski, Shabbir Ahmed, and Anton Kleywegt were invited plenary/semi-plenary speakers at the 11th Conference on Stochastic Programming.
- William B. Rouse completed his latest book entitled *People and Organizations: Explorations of Human-Centered Design* (John Wiley, published June 2007).
- Martin Savelsbergh was awarded the Schneider Professorship for a three-year term.
- Joel Sokol received GT's Apple Award and the GT Women in Engineering Faculty Award for Excellence in Teaching.
- Craig A. Tovey was formally approved by Oxford University to serve as co-advisor to Post Doctoral Fellow Sunil Nakrani.
- Chelsea C. White III served as keynote speaker at the 2nd International Conference on Transportation Logistics (T-LOG 2007).
- Jeff Wu, Coca-Cola Chair in Engineering Statistics, published "A Modern Theory of Factorial Designs" (Springer Monograph Series 2006.) and was appointed (2007-2010) as an Honorary Chair Professor at National Tsinghua University in Hsinchu, Taiwan.

ME

- Yves Berthelot was named Vice Provost for GTL.
- New faculty members: Kyriaki Kalaitzidou ,(Asst. Prof.) Nazinin Bassiri-Gharb, Sang Cho (associate professor MP), Suman Das (associate professor), Chaitanya Deo (NRE), Michael Leamy, Bojan Petrovic (professor NRE), Olivier Pierron, Erica Ryherd, Karin Sabra, and Wilfred van Rooijen (NRE).
- Tim Lieuwen, AE, received a joint appointment in ME.
- Robert Guldberg, Richard Neu, and Zhuomin Zhang were promoted to the rank of full professor.
- New appointees for 2008-2013 Woodruff School Faculty Fellows Program are Levent Degertekin, Andres Fedorov, and Sam Graham.
- Said Abdel-Khalik was appointed by the U.S. Nuclear Regulatory Commission to the Advisory Committee on Reactor Safeguards.
- Bert Bras received the Georgia Tech Class of 1934 Outstanding Interdisciplinary Activity Award.
- Nice Declercq won the Early Career Award from the International Commission for Acoustics.
- Andrei Fedorov received the 2007 Bergles-Rohsenow Young Investigator Award from the Heat Transfer Division of ASME.
- Jerry Ginsberg received the Per Bruel Gold Medal from the Noise Control and Acoustics Division of the ASME.
- Laurence Jacobs and Jianmin Qu received a Faculty Best Paper Award from the Georgia Tech Chapter of Sigma Xi.
- Yogendra Joshi received the Outstanding Contributions in Thermal Management Award from the Electronics and Photonics Division of the ASME.
- Kok-Meng Lee received a U.S. patent for his invention, Automated Fee-Gripping Systems.
- Dave McDowell received the 2008 Khan International Medal.
- Chris Paredis received a Georgia Tech CETL/BP Junior Faculty Teaching Excellence Award and an SAE Ralph R. Teetor Education Award.
- Jeffrey Streater was awarded the Faculty Mentoring Award by the College of Engineering's Women in Engineering Program.

- Charles Ume received the Sustained Research Award from the GT Chapter of Sigma Xi.

MSE

- Brent Carter received a Georgia Centers of Innovation award with Bob Snyder as the Co-PI.
- Ken Gall was promoted to Full Professor. Gall also received the TMS Hardy Award.
- Meilin Liu, Charles Compson (grad student) and Laxmidhar Besra (Visiting Scholar) received the NASA Tech Brief Award.
- Rick Neu and Dave McDowell, along with two former Ph.D. students Mahesh Shenoy and Ali Gordon, received the 2006 ASME Orr Best Paper Award for the paper.
- Jonathon Simons was appointed CEO and President of the Prostate Cancer Foundation in Los Angeles, the world's largest philanthropic source of support for prostate cancer research.
- Robert Snyder was invited to be a Member of the Scientific Committee of the University of Trento, Italy. Snyder was also selected as the recipient of the TMS 2008 Educator Award.
- Rao Tummala received the 2007 IEEE David Feldman Award for his contributions in numerous leadership roles and their global impact.
- Z.L. Wang was elected Fellow of the American Association for the Advancement of Science for seminal contributions to the discovery, synthesis, understanding and applications of novel one-dimensional nanomaterials. Wang's Nanogenerators, was selected by the editors of *R&D Magazine* and MICRO/NANO Newsletter as one of the most innovative products of 2007 in their Inaugural MICRO/NANO 25 Competition. His presentation "Nanogenerators Working Principle and Potential Applications" was selected among the Top 5 Hot Talks/Cool Papers at the 2006 Fall MRS Meeting, out of 5000 oral presentations.
- C.P. Wong received the 2007 Sigma Xi Monie A. Ferst Award for his contributions to the motivation and encouragement of research through education. Wong also received the 2007 Pan Education Foundation (Taiwan's Industrial Technology Research Institutes) Outstanding Research Award on High Performance and Low-cost Semiconductor Electronic Packaging.

PTFE

- Youjiang Wang served as co-chair of 'Fiber Recycling 2007', an international symposium in Kyoto, Japan.
- Meisha Shofner received ORAU's Ralph E Powe Junior Faculty Enhancement Award.
- Mohan Srinivasarao was elected Fellow of the American Physical.
- Mary Lynn Realff received an award from NSF.
- Haskell Beckham received an Invitation Fellowship for Research in Japan from the Japan Society for the Promotion of Science (JSPS).
- Sundareasan Jayaraman was selected as one of the top 5 finalists in the Modern Marvels Invent Now® Challenge, a national competition jointly with his research associate, Sungmee Park.
- Dong Yao serves as technical chair of the Micro/Nano Molding Special Interest Group of the Society of Plastics Engineers.

GRADUATE STUDENTS

AE

- Vertical Flight Foundation Awards: Eric Beyer, Ryan Letniak, Ryan Cash, Eric Lynch, Robert Haynes, Robert Scott, Yuan Liu, Jongki Moon.
- AIAA Orville and Wilbur Wright Graduate Award: Patrick Biltgen, Karen Feigh.
- American Society for Composite Scholars: Xinyuan Tau, Samer Tawfik.
- National Science Foundation Fellowship: Jarret Lafleur.
- AIAA W.Z. Sadeh Student Award in Space Engineering and Space Sciences: John Christian.
- NASA Group Achievement Award: Heavy Lift Rotorcraft Systems Integration, Troy Shank.
- Best Paper Awards: Ian Clark, Mike Grant, Taewoo Nam, Chris Tanner, John Theisinger, Grant Wells.

BME

- Kate Williams, a PhD candidate, was featured in the article, "Bringing Science to Life" by Thomas K. Grose for the U.S. News & World Report.
- Ge Zhao, PhD candidate was nominated by the Surface Characterization and Modification SIG (Special Interest Group) as an outstanding contribution to the Society for Biomaterials 2007 Annual Meeting and was awarded First Place in the International Association for Dental Research, Implantology Research Groups Young Investigator Prize in the 85th General Session & Exhibition of the IADR. This is the largest monetary student award given by the IADR.
- Matthew Rhyner, PhD won the TIGON Tops 2007 Business Plan Competition.

CEE

- 6 NSF Fellowships were awarded (Amos, Fletcher, Foley, Hurt, Jacobs, and Speicher).
- 12 President's Fellowships were awarded (Aaron, Coleman, Corsale, Crane, Goldman, Hurt, Ivey, Jacobs, Kmack, Lewis, Padgett, and Speicher).
- Jorge Pachon was awarded the Anima Ghosh Fellowship.
- Mshadoni Smith was awarded the Eisenhower Fellowship.
- Dawn Reinhold was awarded an EPA Fellowship.
- Douglas Cortes was awarded the Gene Boyd-Vulcan Materials Fellowship.
- Anna Buseman-Williams was awarded the GEM Master Fellowship.
- J. Alfredo Fernandez was awarded the Geo Engineering Fellowship.
- Sivaraman Balachandran, Miranda Lowe, and Miyashita Yu were awarded the Georgia Power Fellowship in Environmental Engineering.
- Benjamin Kosab was awarded the GTIF Fellowship.
- Kritsakorn Luangvilai was awarded the Professor James Ting-Shun Wang Fellowship.
- Brett Vogt and Richard Kmack were awarded the Ira H. Hardin Fellowship.
- Christian Braneon was awarded the NASA Jenkins Fellowship.
- Monique Hite was awarded the NC&AT&T Fellowship.
- Jonathan Hurff was awarded the T. Danny and Victoria H. Tai Fellowship.
- Chris Lytle was awarded the Uzun and Case Engineers Fellowship for Excellence in Structural Engineering.
- Matthew Evans was awarded the Van Reenan Fellowship.
- Michael Scott was awarded the Walter P. Moore Fellowship.
- Matthew Evan received the Bill Schultz Graduate Teaching Assistant Award.
- Didem Okutman Tas received the CEE Best Ph.D. Thesis Award.
- Tudor Bodea and Gayle Hagler received the CEE Jean-Lou Chameau Research Excellence Award.

ChBE

- Graduate Students Charlene Rincon and Eduardo Vazquez served as peer counselors for the Hispanic Scholarship Fund (HSF).
- Jun Sato, has been awarded a Sigma Xi 2006 Best Ph.D. Thesis award.
- Janna Billy-Blum received a 2006 NSF Graduate Research Fellowship.
- Harvinder Gill (BME) won the Best Doctoral Paper Award in the SAIC Student Paper Contest.
- Charlene Rincon received a prestigious National Institutes of Health (NIH) Ruth Kirschstein National Training Fellowship.
- Lingbo Zhu received the 2006 Intel Best Student Paper Award.
- Rentian Xiong was selected to participate in the International Research and Education in Engineering (IREE) Program, which was recently established by the National Science Foundation (NSF) to provide supplemental funding to current NSF awardees in support of international travel.
- Mariefel Valenzuela received a Sigma Xi 2006 Best M.S. Thesis award.
- Luz Padro received the NASA Earth System Science Fellowship, which provides a three-year stipend plus tuition.

- Richard Moore received a DOE Graduate Student Fellowship for his work on understanding atmospheric cloud droplet nucleation.
- Brett Brotherson received recognition as a runner-up in the poster session at the 2007 GT Graduate Student Symposium for the College of Engineering division.
- Laurent Nassif and George Dumont won first place in the oral presentations at the 2007 GT Graduate Student Symposium for the College of Engineering division.
- Michelle Kassner received second place in the Sustainability Poster Session hosted by The Institute for Sustainable Technology and Development at Georgia Tech, which was held in conjunction with a visit from former Vice President Al Gore.
- The Association of Chemical Engineering Graduate Students (AChEGS) hosted the 19th Annual Graduate Student Symposium – from first to third place, award recipients for oral presentations were Megan Donaldson, Brett Brotherson, and Mike Beck, and for poster presentations the winners were PJ Dumont, Yeny Hudiono, and Kevin Gallagher.

ECE

- Yuan Li received an IEEE Microwave Theory and Techniques Society (MTT-S) Graduate Fellowship at the 2007 IEEE MTT-S International Microwave Symposium.
- Karthikeyan Sundaresan received a Best Dissertation Award from the Georgia Tech chapter of Sigma Xi. Dr. Sundaresan was advised by Raghupathy Sivakumar and now works with NEC Labs in Princeton, N.J.
- Hal Hollis received a Center for the Enhancement of Teaching and Learning/BP Outstanding Teaching Assistant Award.
- Ryan Pirkel received the Outstanding Service to Georgia's Community Award.
- Qing Li and Chenchi Luo received the Colonel Oscar P. Cleaver Awards for making the highest scores on the ECE Ph.D. preliminary exam during 2006-07.
- Mohammed Sinnokrot received the ECE Graduate Teaching Assistant Excellence Award.
- Mehmet Can Vuran and Chao Ray Hsieh received the ECE Graduate Research Assistant Excellence Awards.
- Wei Qiao, Yamille del Valle, and Jean Carlos Hernandez Mejia received first, second, and third place student poster prizes, respectively, at the recent annual general meeting of the IEEE Power Engineering Society (PES), held in Montreal, Canada.
- Amin Rida and Li Yang won the Best Student Paper Award at the 2007 IEEE Antenna and Propagation Society Symposium, out of a field of 1,500 papers.

GTSav

- Justin Hodges was awarded President's Fellowship by GT. He previously received a President's Undergraduate Research Award (PURA) in Fall 2006.
- Junlin Li received travel grant from MILCOM 2006 and MILCOM 2007.
- Matthias Messer received a 2007 NSF/ASME International Design Engineering Technical Conferences, Las Vegas, Nevada, Travel Grant Award.
- Catherine McGillivray, PhD candidate in CE, received the Association of Drill Shaft Contractors (ADSC) Student Fellowship.
- Dihong Tian received the CSIP Research Award (Fall 2006).
- Chenjie Wang received a Woodruff International Student Fellowship.

ISyE

- Claudia Antonini was awarded second place in the 2006 IIE Pritsker Dissertation Award.
- Richa Agarwal was the runner-up in INFORMS 2007 Computing Society Student Paper Competition and received an Honorable Mention in the SAIC 2007 Georgia Tech Student Paper Competition.
- Thirthankar Dasgupta accepted a tenure track assistant professorship from the Harvard Statistics Department in 2007.
- Ozgun Caliskan Demirag was a finalist in the 2006 INFORMS Manufacturing and Service Operations Management (MSOM) student paper competition.

- Ozgun Caliskan Demirag and Divya Mangotra were awarded the General Motors Manufacturing Scholarship.
- The teaching case by Matt Drake, MSIE 2005, Ph.D 2006 was selected as one of four finalists for the Seventh Annual INFORMS Case Competition.
- Daniel Mello Faissol received the NASA Harriet G. Jenkins Fellowship.
- Lori Houghtalen was awarded the Management Science Strategic Innovation Prize from the Association of European Operational Research Societies.
- Yaxin Liu won the 2005-2006 Outstanding Dissertation Award in the College of Computing at Georgia Tech.
- Andreea Popescu was a finalist for the George B. Dantzig Dissertation Award.
- Juan Pablo Vielma won the Optimization Society Student Paper Prize from INFORMS.

ME

- Students receiving ARCS money were: Donovan Gerty, Charlotte Kotas, Anne-Marie Lerner, Shelby Highsmith, Tim Koehler, and Matt Kontz. New scholars are Janine Johnson and Khalid Sorensen.

PTFE

- Murari Gupta, a PTFE PhD student won the student paper competition at the AATCC Conference and Exhibition in Charleston, SC.
- Dr Hyunyoung Ok, Dr. Chuck Carr's PhD student and graduate from PTFE, joined the faculty at the University of Texas at Austin as an assistant professor in the Department of Human Ecology in the College of Natural Sciences.
- Students of Dr. Vladimir Tsukruk won the poster award at the Materials Research Society (MRS) meeting in San Francisco. Students involved were Srikanth Singamaneni and SeHoon Chang.
- Jing Liu, Dr. Satish Kumar's PhD Student, won first place in the National Textile Center Student Paper Competition.

UNDERGRADUATE STUDENTS

BME

- Alex Stroh, Vijal Patel, and Shreya Shukla - Inaugural recipients of the Michael Birnbaum Scholars Award.
- Ramsey Al-Hakim awarded Georgia Tech's 2007 Phi Kappa Phi award.
- Inn Inn Chen was awarded the Marshall Scholarship.
- Inn Inn Chen and Yixiao Zou were awarded The Barry M. Goldwater Scholarship.
- Angela Gill was awarded The Helen E. Grenga Outstanding Woman Engineer Award.
- Inn Inn Chen was selected from among ~ 600 students and named to the third team of USA Today's All-USA College Academic Team.
- Ross Marklein chosen as one of four students to represent Georgia Tech at the 2nd Annual ACC Undergraduate Research Conference.
- Shreya Shukla was awarded an Oral Presentation Award for the Cell and Developmental Biological Sciences discipline at the Annual Biomedical Research Conference for Minority Students (ABRCMS).
- Shalini Bumb was awarded 2nd place in the Undergraduate Collegiate category of the 2006 National Society of Women Engineers Collegiate Poster Competition.

CEE

- Andrew Todd Miller received the CEE Outstanding Sophomore Award.
- Natalie Darraugh received the CEE Buck Stith Outstanding Junior Award.
- William Alexander Berry received the School Chair's Outstanding Senior Award.
- Sarah Fredrich and Emily Nilsson received the F. Everett Williams Scholarship.
- Aragaw Akalu, Yoseph Gebremariam and Sebastian Guerrero received the G. Ben Turnipseed Scholarship.

- Warren Wade received the George S. Mooney Scholarship.
- Michael Neal received the James Maughon Scholarship.
- Jeremiah Kimbell received the John Webb Spratlin Scholarship.
- Jesse Bush , Robert Moser, Eugene Smith, Rachel Tatum received the Jordan Jones and Goulding Scholarship.
- Dustin Sadler received the Kathy and Carl E. Hofstadter Scholarship.
- Melody Butler, Daranhara Hun and Emily Nilsson received the Louis and Viola T. Dozier Scholarship.
- Daeyoun Bae and Emily Nilsson received the Philip D. Jory Memorial Scholarship.
- Sara Fredrich, Carlos George Perez and Mary Lim received the Samuel P. Bratton Scholarship.
- Maria Geonczy, Sebastian Guerrero and Joseph Maxwell received the Thomas S. Lucas Memorial Scholarship.
- Jennifer Weizenecker received the William McCoy Sangster Scholarship.
- Anthony Reass received the The Carolyn and John Wylder Scholarship.
- Nathan Blong received the Kimley-Horn Award.
- John O'Har received the Greenberg Farrow Scholarship.
- Yunita Tjong Fu received the CSX Diversity Scholarship.
- Amy Griswold, Robert Holland, Daniel O'Shaughnessy and Natalie Darraugh received the Development Consultants Group Outstanding Student Award.
- Tracy Lynn Shandor received the ASCE Award.
- Jessica Baker received the Chi Epsilon Award.

ChBE

- Rachna Kamath won first prize in the poster competition at the Georgia Tech Undergraduate Research Opportunities Program (UROP) Spring Poster Session.
- Chris Luders and Cintia Nojima served on the 2006-2007 Student Advisory Board for Undergraduate Research (SABUR).
- From first to third place, the winners of the first ChBE AirProducts Undergraduate Student Symposium were: Haris McKinley, Ashley Fritz, and Mayumi Kiyono.
- ChBE's AIChE Student Chapter was named an Outstanding Student Chapter for the 15th consecutive year.
- Matt Pavlovich received the first Garry Betty Scholarship for International Studies.

ECE

- For the second year in a row, the Beta Mu Chapter of Eta Kappa Nu has been named a recipient of the Outstanding Chapter Award.
- Trang Thai received an IEEE Microwave Theory and Techniques Society (MTT-S) Undergraduate/Pre-Graduate Scholarship Award at the 2007 International Microwave Symposium.
- Ofer Winkler was named the top scholar for the Georgia Tech men's swimming and diving team. He also received both the Atlantic Coast Conference Scholar-Athlete Award and Academic All-America Honors from *ESPN the Magazine*.
- Fifteen ECE undergraduate female students received corporate-sponsored scholarships at the 2007 Women in Engineering Excellence Awards Banquet.
- Jacob Huang and Chad Kersey received the Henry Ford II Scholar Award.
- Philip Brown received the J.E. McDaniel Award.
- R. Reeve Ingle and Andrew McDowell received Georgia Tech Faculty Women's Club Scholarships.
- Oliver Barrett and R. Reeve Ingle received the James G. and Mary G. Wohlford Scholarships.
- Jagdish Ramakrishnan received the Outstanding ECE Sophomore Award.
- Jose Vidal, Jr. received the ECE Junior Scholar Award.
- Trang Thai received the ECE Undergraduate Research Award.
- Ryan Hutchinson received the Most Outstanding ECE Senior Co-op Award.

- Satya Bhan received the ECE Faculty Award.
- Niranjan Ganeshkumar received the Outstanding Electrical Engineering Senior Award.
- Eric Fontaine received the Outstanding Computer Engineering Senior Award.
- Joshua A. Beavers, Blake Brannon, Philip Brown, Yew Ching Chen, Louis Howe, Scott McCans, Christopher A. Poen, and Chin Huang Yong received ECE Senior Scholar Awards.

ISyE

- Stanislava Grozdeva was awarded the Institute of Industrial Engineers (IIE) Award in May 2007.
- Kristine Johnson received the Kurt Salmon Associates Scholarship in May 2007.
- Lauren Mills was honored with the Paul T. Eaton Memorial Award in May 2007.
- Vaibhav Shah was honored with the Alpha Pi Mu Outstanding Senior Award in May 2007.
- The CAT Logistics Scholarship award recipients were Niquella Brown, Roberto Castro, Joy Frazier, Kristine Johnson, and Michael Kelly in May 2007.

GTSav

- Amy Anderson, Summer Research Grant from Georgia Tech's QEP for Undergrad Research to model LED structures.
- Jonathan Bankston, Alexander Ruderman and Andrew Scripture inducted into Pi Tau Sigma, Mechanical Engineering Honor Society.
- Greg Duperon, received first place prize for his oral presentation entitled "10 keV X-Ray Irradiation effects in 0.35 Micron CMOS Technology" at the SURE closing program on July 28, 2006 (later presented at the GT Graduate Research Symposium in March, 2007).
- Greg Duperon, highest GPA amongst students graduating with BE in ECE, Summer, 2007.
- Ed Morgan, a retired Savannah businessman, transferred his patent for a hybrid diesel engine to Georgia Tech on December 4, 2007. This gift was motivated by a study conducted by a team of GTS undergraduate students (Alex Ruderman, Andrew Scripture, Thomas Beal, Jonathan Bankston and Robert LaFond).

ME

- 47 (43 Atlanta, 4 Savannah) students were inducted into Pi Tau Sigma in fall 2006.
- Kristi Mehaffey, Undergraduate Academic Advisor, received the GT Outstanding Undergraduate Academic Advising Award (Faculty Advisor Award).
- Patrick Chang received the Pi Tau Sigma Outstanding Junior Award.
- Eric Deutsch received the Woodruff School Outstanding Scholar Award.
- Alfred Frith won the School Chair's Award.
- Sead Dzebo, Sanjeev Heda, and Carla Uribe each received a Samuel P. Eschenbach Memorial Award.
- Joshua Inouye, Joshua Mackanic, Ryan Kane, Jeffrey Schlosser, and Damien Valenti each won a Richard K. Whitehead Memorial Award.
- Justin Janacek and Mark Kaidos each won a James G. and Mary G. Wohlford Scholarship.
- Orion King won an Alvin M. Ferst Leadership and Entrepreneur Scholarship.
- Adam Lord received the Pi Tau Sigma Outstanding Sophomore Award.
- Brad Moulton received the CETL/Frank Bogle Nontraditional Student Award.
- Anthony Pergola won the Pi Tau Sigma Outstanding Senior Award.
- Kyle Reno received a Henry Ford II Scholar Award.

PTFE

- The Phi Psi Theta Chapter sponsored by PTFE received the Best All-Around Chapter Award at the 100th National Phi Psi Convention in Philadelphia.
- The Society of Plastics Engineers awarded scholarships to Justin Deadwyler, Matthew Black, and Pratapkumar Nagarajan from the Thermoforming Division of the SPE.
- Matthew Black was awarded the PTFE Senior Scholar Award at the GT Spring Awards Banquet.
- Lisa Porter was honored as the AATCC Graduate of the Year at the GT Spring Awards Banquet.

FACILITIES

AE

- A new Space Robotics test facility has been set up in the Montgomery Knight Building with funds won by Panagiotis Tsiotras in the form of a DURIP (Defense University Research Instrumentation Program).
- Mitchell Walker's High-Power Electric Propulsion Laboratory (HPEPL) has come on line.

BME

- The 1400 sf instructional Biomedical Engineering Building Undergraduate Design Laboratory serves as the home for BME's introductory and capstone design courses, BMED 2300 and 4600/4601 and for BMED 3161 and 3500 students for their team-based design project work.

ECE

- Over 30 ECE faculty and staff moved to the Klaus Advanced Computing Building in December 2006.
- The Marcus Nanotechnology Research Center Building is currently under construction (slated for October 2008).
- A feasibility study is in progress to renew the Van Leer Building.

ISyE

- Instituted a 24x7 phone based emergency response/assistance system.
- Instituted a 24x7 automated core-systems monitoring system to page IT staff anytime a service or server starts to fail or under-perform.
- Replaced the mail and spam/virus control services for better performance, features and user control at all levels.
- Replaced central file servers providing in excess of 12TB central storage; replaced the authentication infrastructure with a more flexible system that will minimize the number of different passwords for users.
- Upgraded all data backup systems adding a disk to disk backup layer.
- ~~Replaced the authentication infrastructure with a more flexible system that will minimize the number of different passwords for users.~~
- Expanded the distributed supercomputing infrastructure and enhanced the development platform associated with utilizing this infrastructure.
- Installed new card access reader on Groseclose elevator for better security.
- Installed new ceiling mounted projectors in four IE conference rooms.
- Renovated space vacated by Tennenbaum Institute for new IE Chaired professor and PhD. lounge area.
- Built out research lab space for new Nagi Gebraeel in MARC building.
- Moved graduate computer lab and server room to new locations.
- Replaced old and worn furniture in several offices and conference rooms; repainted.
- Cut doorway in block wall to tie IT group together.

GTSav

- Enhanced auxiliary services for students with the renovation of a new student center including dining, media, and gaming areas.

PTFE

- PTFE research and teaching facilities in the Old Civil Engineering Building are being relocated to Bunger-Henry in connection with the Georgia Tech renovation of Old CE.

RESEARCH

AE

- NASA Best Paper Awards: Alek Gavrilovski, Robert Haynes, Amanda Verges, Masayuki Yano.

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- NASA Institute for Advanced Concepts (NIAC) Student Fellows Prize: Jonathan Sharma.
- Sponsorship of aeronautics research has been revised, terminating URETI's and instituting highly competitive "NRA" (NASA Research Announcement) "ROA's" (Research Opportunities in Aeronautics). AE faculty have won 11 such contracts with total funding of \$3.982 million.
- AE faculty members active in our Center of Excellence in Rotorcraft Technology (CERT) have won 6 contracts from the Center for Rotorcraft Innovation (CRI) with a total funding of \$421K, over and above basic CERT funding from the NRTC (National Rotorcraft Technology Center).

BME

- Niren Murthy and Dr. Robert Taylor are the first researchers to create a nanoparticle capable of detecting and imaging trace amounts of hydrogen peroxide in animals. The research is published in the October issue of Nature Materials and was funded by the National Science Foundation (NSF) and the National Institutes of Health (NIH).
- Lena Ting has created a computer simulation that sheds new light on how the nervous system reinvents its communication with muscles after sensory loss. The research is published in the October issue of Nature Neuroscience.
- Todd McDevitt discovereds embryonic stem cells thrive when shaken. The research was published in the September issue of the journal Stem Cells.
- Charlie Kemp's studies on the field of on health care robotics and engineering robots to perform tasks that the elderly or the disabled can't perform was featured in the September issue of The Sunday Paper.
- Ajit Yoganathan's research focuses on the development of artificial heart valves and the use of novel instrumentation such as Doppler ultrasound and magnetic resonance imaging to non-invasively study blood flow patterns in the heart as featured in Podcast 30, Regenerative Medicine, McGowan Institute.
- Todd McDevitt's paper entitled, "Rotary suspension culture enhances the efficiency, yield and homogeneity of embryoid body differentiation," published in the journal Stem Cells.
- Michael Davis' abstract "Encapsulation of a small molecule p38 inhibitor for cardiac regeneration" was selected as one of the three finalists for the oral presentation at the 4th Annual Symposium of the American Heart Association Council on Basic Cardiovascular Sciences - Cardiovascular Repair and Regeneration: Structural and Molecular Approaches in the Cellular Era.
- Shuming Nie's and May Wang's research focuses on new clinical protocols detailing how to prepare, process and quantify tiny particles that will arm laboratory physicians with the information they need to track biomarkers in cells and tissues
- Steve Potter and colleagues have used Petri dishes with patterned glass surfaces to grow "minibrains" of rat neurons capable of communicating and controlling external computers and robots, in some cases thousands of miles away.
- François Sainfort and Children's Healthcare of Atlanta have established the Center for Pediatric Outcomes and Quality (CPOQ), a collaborative research endeavor with a goal to apply science, engineering, technology and clinical expertise to improve healthcare for children by addressing both treatment and prevention.
- Ajit Yoganathan, et al, developed technology known as image-based surgical planning that will help pediatric cardiac surgeons design and test a customized surgical procedure before they ever pick up a scalpel.
- Yadong Wang integrates dopamine, a type of neurotransmitter, into a polymer to stimulate nerve tissues to send out new connections.
- National Institutes of Health (NIH) has awarded Gang Bao, Emory University and Medical College of Georgia (MCG) a grant to partner on a Nanomedicine Development Center that will focus on DNA damage repair.

CEE

- CEE Faculty submitted over one hundred and forty-nine (149) proposals, totaling \$39 million.
- CEE faculty were awarded eighty-seven (87) projects, totaling nearly \$10 million.
- "Walking Tall" new pedestrian planning guidebook helps communities assess their walkability and choose pedestrian projects. (Adjo Amekudzi with Karen Dixon at Oregon State University and Karlene Barron at GDOT.)

- “Deadly Wave” Researchers learn from analyses of rare tsunami earthquake that devastated Java in summer 2006. (Hermann Fritz and Andrew Newman in EAS)
- “Validation and Vision” Long-term vehicle emissions monitoring validates inspection program and offers insights that may help direct research and policy. (Michael Rodgers, Director of Continuous Atlanta Fleet Evaluation – with shared appointment in CEE and GTRI.)
- “Environmental Fate” Industrial nanomaterials appear vulnerable to dispersal in natural environment (Jaehong Kim, Hoon Hyung, and Joseph Hughes)
- Water Initiative in collaboration with [Emory University is being spearheaded by School Chair Joseph Hughes, is a collaboration with Emory University.](#)
- International Water Institute in partnership with the University of Pretoria, in South Africa, can create a lasting mechanism for delivering interdisciplinary graduate education and help to address water challenges in Africa and elsewhere. (Aris Georgakakos)

ChBE

- Mark Allen, et al, built the [first 1st](#) silicon-compatible device capable of converting mechanical energy.
- Rachel Chen published [eight 8](#) articles and a book chapter documenting her group’s success in metabolic engineering, cellular membrane engineering, and renewable feedstock.
- Rachel Chen’s research group discovered a unique enzyme system that allows a complete hydrolysis of corn fibers without pretreatment, liberating useful molecules and monosaccharide.
- Yulin Deng’s research on paper recycling was cited in *Scientific American*.
- Dennis Hess’ work on carbon nanotubes with MSE Professor C. P. Wong, ChBE graduate student Lingbo Zhu, and Chemistry graduate student Yangyang Sun, was reported by *EE Times*
- Chris Jones received \$2.1 million in renewed funding from the Department of Energy for three more years for his “Focused Program in Catalysis by Immobilized Organometallics.
- Athanasios Nenes’ research group flew two cloud condensation nuclei instruments aboard two separate aircrafts as part of a large field campaign called Texas-AQS (Texas Air Quality Study).
- Dan Tedder disclosed two inventions for recovering fuel-grade ethanol from fermentation beers.
- Jeong-Woo Lee, a post-doc who works [in Prof. in](#) Mark Prausnitz’s [laboratories](#), won the 2006 CRS-3M Outstanding Inhalation or Transdermal Drug Delivery award from the Controlled Release Society.
- Mark Prausnitz received a U.S. patent on “Microneedle Drug Delivery Device” with co-inventors Dr. Mark Allen and Inder-Jeet Gujral.
- Larry Forney invented a patented novel UV reactor licensed to Air Products Inc. that uses the application of Taylor-Couette flow in the disinfection process for optically dense fluids such as fruit juices and blood plasma.
- Chris Jones and his research group published a paper in the Journal of the American Chemical Society.

ECE

- ECE acquired \$61,554,327 in sponsored research grants and contracts and in gifts through the Georgia Tech Foundation (representing 38.6% of COE awards.)
- ECE faculty members submitted 366 proposals, totaling \$132,824,996 to various governmental agencies and industrial sources.
- Farrokh Ayazi and his collaborators are involved in an \$11 million DARPA program led by BAE Systems, Inc.
- Richard A. Hartlein was named the new director of the National Electric Energy Testing Research and Applications Center, effective January 1.
- John Papapolymerou received a DARPA award to participate in a multi-university research center that will develop a computer-aided design environment for MEMS and NEMS. The new center—to be called the Investigate Multi-physics Modeling and Performance Assessment-driven Characterization and Computation Technology Center for Advancement of MEMS/NEMS VLSI—will be led by the University of Illinois at Urbana-Champaign and involves two additional universities and a large consortium of companies.

- Cermet, Inc. negotiated an exclusive license agreement for white LED technology—developed by [ECE Associate Professor](#) W. Alan Doolittle and Gon Namkoong, a former [Georgia Tech GT](#) research engineer.
- An ECE-led team from Georgia Tech Lorraine (GTL) has received the equivalent of \$2 million for research on High Speed Quantum Networks, the largest external research grant received to date at GTL.
- Thomas G. Habetler and Ronald G. Harley are developing a closed-loop industrial plant energy evaluation and planning system with a wireless sensor network (WSN) architecture that eliminates costs of installing and maintaining communication cables.
- Magnus Egerstedt, Thomas R. Collins, and David Wooden are participating in Sting Racing in the 2007 DARPA Urban Grand Challenge.
- Jacket Micro Devices became the eighth company founded by an ECE faculty member to attain Advanced Technology Development Center graduate status at the Center's Billion Dollar Celebration. VentureLab also held its first graduation at the same event, with ECE-founded companies Asankya and Innovolt reaching this milestone.

ISyE

- 16 active projects - \$ 5,576,312 expenditures.
- 65 proposals submitted: 11 to industry contracted amount \$307,918; 45 to federal agencies contracted amount \$13,578,290; 16 to other agencies contracted amount \$2,144,864.
- 27 awarded contracts: 6 to industry, funded amount \$388,908; 18 from federal agencies, funded amount \$2,643,965 and 3 from other agencies, funded amount \$91,562.
- ISyE's Supply Chain and Logistics Institute established eight areas of focused research: China Logistics, Director: Chen Zhou; Global Transportation, Co-directors: Alan Erera and Chip White; Healthcare Logistics, Co-directors: Paul Griffin and Martin Savelsbergh; Humanitarian Relief Logistics, Co-directors: Ozlem Ergun, Pinar Keskinocak, and Julie Swann; Manufacturing Logistics, Director: Leon McGinnis; Resource Scheduling, Co-directors: Ellis Johnson and George Nemhauser; Supply Chain Strategy, Co-directors: John Langley and H. Donald Ratliff; Warehousing & Distribution, Director: John Bartholdi.
- ~~Eva K. Lee, et al, were awarded more than \$31 million dollars over a five year period by Clinical and Translational Science Awards (CTSA), a consortium funded by the National Center for Research Resources (NCRR), a part of the National Institutes of Health (NIH).~~ [Dr. Lee's](#)
- [Eva K. Lee's](#) research on "Emergency response for biodefense and infectious disease outbreak" was filmed by CDC on Georgia Tech campus in May and was satellite broadcast by CDC to nationwide public health departments on June 21 2007.
- Paul Griffin, Ray Hagtvedt, and Pinar Keskinocak are working with Children's Healthcare of Atlanta, Cook County Hospital in Chicago, and the Centers for Disease Control to design and evaluate possible approaches to reduce hospital-acquired infections including screening, isolation, and improved hygiene approaches.
- John Bartholdi and Don Ratliff are leading research within ISyE's Supply Chain and Logistics Institute (SCL) to study and improve temperature-controlled supply chains.

GTSav

- Janet Allen is co-PI on an NSF sponsored project titled "SACE-Statistics-Aided Computer Experiments" along with colleagues in ISyE.
- Ghassan Alregib received an equipment grant from HP.
- Christopher F. Barnes received funding for "Image Driven Data Mining for Katrina Hurricane Damage Assessments," from National Geospatial Intelligence Agency.
- Christopher F. Barnes received funding for "Image Analysis via Image Driven Data Mining for Image Segmentation, Classification and Attribution," from National Geospatial Intelligence Agency.
- Christopher F. Barnes received funding for "Radar Signal and Data Processing Software Working Group for Navy's CG(X)," from Navsea Surface Warfare Center.
- Christopher F. Barnes—received funding for "Software Architecture for Cobra Judy Radars," from U. S. Navy and he received funding for "Signal Processing Enhancements for Terminal High Altitude Area Defense Radar," from Missile Defense Agency.

- Hermann Fritz is co-PI on grant funded by NSF for “Reconnaissance Survey of the July 17, 2006 Central Javan Earthquake and Tsunami as well as the April 1, 2007 South Pacific Earthquake and Tsunami on the Solomon Islands” and
- Hermann Fritz is PI on a grant funded by UNESCO for “Field Survey of the 2004 Indian Ocean Tsunami on Socotra Island in Yemen and the April 1, 2007 South Pacific Earthquake and Tsunami on the Solomon Islands”.
- Kevin A. Haas served as Science Advisor for the NASA Develop team hosted at Georgia TechGT Savannah (Fall 2006, Spring 2007, Summer 2007). The project ~~title was was~~ “Analysis of regional sediment budgets using integrated NASA missions and real-time data to enhance decision support tools for coastal communities”.
- Monson Hayes and Elliot Moore received funding for “The Redesign of Distributed Learning Environments Using Tablet PC Technology,” from Microsoft Corporation.
- Monson H. Hayes received an award from the Leadership in Undergraduate Engineering Education (LUEE) program sponsored by the College of Engineering to develop the CAPTOR system for enhanced student learning using a problem centric approach based on concept maps.
- Monson H. Hayes was invited to participate in the 111 Project funded by the Chinese Government to sponsor research on “Intelligent Video” through Shanghai Jiao Tong University and a consortium of U.S. Universities.
- Benjamin Klein, received funding for “Simulation of wraparound-gate GaN nanowire FET” from National Institute of Standards and Technology.
- Benjamin Klein and P. Doug Yoder received funding for “Three dimensional electro-thermal simulation of InGaN MQW lasers” from Canon Development Americas Inc.
- Farrokh Mistree received a \$25K award from the University System of Georgia to support a Summer Engineering Camp at the Skidaway Institute of Oceanography.
- Elliot Moore received funding for a Research Experiences for Undergraduates Site from NSF.
- Dirk Schaefer received a software grant in kind for the Electrical Engineering System EPLAN P8 software package from EPLAN Software & Services.
- Paul A. Work initiated a new project supported by Georgia Dept of Natural Resources.

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ME

- \$27 million dollars in externally –funded research and grant expenditures.
- 413 active grants and contracts.
- 212 proposals were submitted to outside agencies; 116 proposals were awarded from external agencies; and 194 externally funded grants, contracts, and endowments received new funds.
- New this year is the NSF Engineering Research Center for Compact and Efficient Fluid Power, a collaboration of industry and university partners. Wayne Book is the leader of the Georgia Tech team.

PTFE

- External research funding for PTFE increased 14% over last year’s funding.
- NSF funding for PTFE increased 19% over last year’s funding.