COMMENCEMENT EXERCISES

Georgia Institute of Technology

Georgia Institute of Technology
204th Commencement
August 13, 1999
Alexander Memorial Coliseum

Welcome to the 204th Commencement of the Georgia Institute of Technology. The entire Tech community extends cordial greetings to parents, spouses, relatives, and friends gathered here for this significant event.

For approximately 800 undergraduate and graduate students, today's ceremony recognizes their academic achievements at Georgia Tech and inaugurates a new era in their careers.

Commencement Program
Summer Quarter 1999
August 13, 1999
9:00 a.m.
Alexander Memorial Coliseum

PROCESSIONAL	Georgia Tech Brass Ensemble, coordinated by Mr. Bucky Johnson and Mr. Ron Mendola, Department of Music
MASTER OF CEREMONIES	Dr. Wayne Clough, president
REFLECTION	Mr. Carlton O. Parker, director, YMCA
NATIONAL ANTHEM	Georgia Tech Brass Ensemble
COMMENCEMENT ADDRESS	Dr. James C. Powers Regents' Professor, School of Chemistry and Biochemistry
INTRODUCTION OF ACADEMIC DEANS	Dr. Michael Thomas, provost and vice president for Academic Affairs
PRESENTATION OF UNDERGRADUATE DEGREE CANDIDATES	College of Computing Dean Peter Freeman Ivan Allen College Dean Sue Rosser College of Architecture Dean Thomas D. Galloway DuPree College of Management Dean Terry Blum College of Sciences Associate Dean Anderson Smith College of Engineering Dean Jean-Lou Chameau
CONFERRING OF DEGREES	Dr. Clough

PRESENTATION OF MASTER'S DEGREE CANDIDATES	Dr. Charles Liotta, vice provost for Research and dean of Graduate Studies
CONFERRING OF DEGREES	Dr. Clough
PRESENTATION OF DOCTORAL DEGREE CANDIDATES	Dr. Liotta
CONFERRING OF DEGREES	Dr. Clough
INDUCTION INTO THE ALUMNI ASSOCIATION	Mr. N. Allen Robertson, Class of 1969, president, Georgia Tech Alumni Association
ALMA MATER	Georgia Tech Chorale Dr. William Caldwell, director
FACULTY RECESSIONAL	Georgia Tech Brass Ensemble
"RAMBLIN' WRECK"	Graduates and Audience

Honors Qualifications:
"Honor designations are for undergraduates at Georgia Tech, who have met the minimum residency hours requirement of 100 hours, as well as the minimum GPA."

To achieve honor, the minimum GPA is 3.15.
To achieve high honor, the minimum GPA is 3.35.
To achieve highest honor, the minimum GPA is 3.55.

You are requested to refrain from loud expressions of pleasure for individual graduates. Such expressions detract from the recognition due the next graduate in line. Your cooperation is respectfully requested.

Baccalaureate Degrees

College of Computing

Bachelor of Science in Computer Science

Highest Honor
David Manley Garrett
David Hayes Johnson
Kenton Michael Lyons
Adam J. Tegen
Lene Geraldine Wee

High Honor
Nathan Ramon Jackson
Donald Bowman Johnson Jr.

Honor
Stephen Patrick Sandiford

Jeffrey J. Barrett
Ken André Browne
Ryan Joseph Chapple
Robert Jason Egger
Ayman M. Elsaedi
Michael Ferraro
Spencer Ho
John Patrick Lindsey
Yuriy Malenky
Benjamin Beebe McDonald IV
Viet N. Nguyen
Harita Patel
Jason Joseph Pedone
Himanshu V. Rathod
Sunmeet Saluja
William J. Scott III
Tyrone Javard Stewart
Andrew Kurt Summers
John Thai
Brian F. Trembley
Jason Alan Turnage
Robert Glennon Windmeyer II

Bachelor of Science in Computer Science
Cooperative Plan

Highest Honor
Kimberly Rae Barron

High Honor
Jeremy Matthew Johnson

Joel Robert Eaton
William Woodruff Jennings
Michael Jerome Kachline
Shane Patrick Long
John Quinten Sindell Jr.

Ivan Allen College

Bachelor of Science in History, Technology, and Society

High Honor
Michelle Leigh Holbrook

Michelle Beth Walker

Bachelor of Science in Science, Technology, and Culture

Jonathan Wolff Hughes

Bachelor of Science in International Affairs

High Honor
Jessica Kristin Rider

Honor
Andrew Benjamin Gaffney

John Michel Grantham
Jeremy James Johnson
James Duff Morris
Alexander Shkirenko
Olga Lucia Uchima

Bachelor of Science in Economics

Eda Uyar

College of Architecture

Bachelor of Science

High Honor
Michael Patrick Piper

Micah Stan Hall
Jeffrey Paul Hamilton
Theodore James Hitch
Stacie Allison Shirley
Stephen Paul West

Bachelor of Science in Building Construction

Honor
Janet L. Fuessel Horst

David Brian Fulford
Yong Hun Kim
Michael Ching-Lun Lo

Bachelor of Science in Industrial Design

Highest Honor
Benjamin Dale Trapp

High Honor
Young-Yun Jerry Kim
Montida Sowsawat

Honor
Shayla Nichole Johnson

Stephen Mitchell Raidbard
Laura LeAnn Slate

Bachelor of Science in Industrial Design
Cooperative Plan

Emmy Kathryn Northrup

DuPree College of Management

Bachelor of Science in Management

Highest Honor
Lisa Ruth Cutlip
Haynes Hawkins Killen
Alison Massa
Timothy Christopher Smith
Lauren Isbell Tilson

High Honor
Andrew Jacob Gaasch
Scott Matthew Steinberg

Honor
Catherine Anne Carroll
Garman Grayson Honaman
Amanda Beth Sabo
Farrah Anne Shoop
Haley Elizabeth Speer
Kerry Anne Willett

Joshua Todd Allen
Lisa Thuy Binion
Rolanda Arlette Bowden
Kelly Anne Briggs
Bryan Wesley Buckner
Schneika Shuwan Center
Matthew Everett Cozad
Ronald Ray Crawford II
Wendy Elizabeth Cullens
John Vestal Edgemon
Erin Marie Flaherty
Brian Alan Frost
Matthew Stephen Gubba
Michael David Hostetler
Donna Lorene Jackson
Chet Kho
Vanhpinh Lee
Kiyotito Mantrell Leverette
Alunda Michelle Marks
Andrew William Morrison
William Stephens Nix
Kent Bradley Osborn
Christopher Jason Perry
Lawrence Mark Podoshen
Debra Marie Polk
Stephen Mitchell Raidbard
Preethi R. Reddy-Veluri
Richard Leland Thieme
Xenia Bustrillos Uy
Christopher Paul Van Zant
Cynthia Miller Wahl
Christopher Alan Woodward
Lauren Leigh Wynn

Bachelor of Science in Management
Cooperative Plan

Highest Honor
Jennifer Lynn Steele
Molly L. White

Jeffrey Rush Cressman
Frank Mason Eldridge Jr.
Brian Michael Lane
Valori Lynnelle Skipper

College of Sciences

Bachelor of Science in Applied Biology

Suzanne Elizabeth Aguilar
Robert Lawrence Betts
Forrest Wayne Harper
Don Ketmayura
Willa Xu Qiang
Malav Shah
Matthew Craig Szlemko

Bachelor of Science in Applied Psychology

Highest Honor
Michael Alan Peterman

High Honor
Timothy Aaron Marriott

Jessica Dawn Austin
Jessica Clements Bell Dart

Bachelor of Science in Applied Mathematics

Michael Patrick Spears

Bachelor of Science in Physics

Clinton David Nolan III
Marty Eugene Stroud

Bachelor of Science in Chemistry

High Honor
Todd Charles Meier

Stephanie Marie Grizzle
Lopa Dilip Kataria
Luke Bennett Roberson

College of Engineering

Bachelor of Computer Engineering

High Honor
Aaron Francis Bourgeois

Honor
Robert Brock Buggy
Kao Luen Lee

Z. William Bakal
Richard Allan Brown
Brian E. Chau
Richard Cameron Craddock
Dennis Demecillo Delima
Gennady Dyalovsky
Dina Hassan Elshazly
William Roman Geza
Waltrell LaTrice Lee
Jeffrey John Peeler
Sergei Smychkovich

Bachelor of Computer Engineering
Cooperative Plan

Honor
Jonathan Michael Newton
David Allen Reynolds Jr.

Bachelor of Nuclear Engineering

Jason Allen Andrews

Bachelor of Industrial Engineering

Highest Honor
Magdalena Marie Babyak
Amy Christine Hatcher
Kelly Lynn Hull
Jaime Brian Noonan
Christina Marie Robinson

High Honor
Sara Brock Brumberg
Byron Byron-Exarcos
Bruno Carvajal
Jo Ellen Cox
Jeffery Scott Davis
Jennifer Brianne Devens
Charles Kevin Grigsby
Joshua Thomas Irby
Jessica Kristin Rider
Herman Sasmita
Colleen Mary Varley

Honor
Margaret Lynn Beilsmith
Amanda Jeannine Bowers
Gabriel Antonio Hood
Ravi Navin Parikh
Soon Hyung Park

Lorenzo Benucci
Mary Carol Blalock
Christine Marie Blythe
Christopher Milan Brown
Scott Clark Camp
Richard W. Collins
Mario Frederico H. Diotto

Robert Louis Franzmathes
John Kenneth Fuller
Paul Nelson Goebel
Erasmo Carlos Gonzalez
Sonya Sherese Gordon
Chelsey L. Grimes
Stephen Douglas Holt II
Timothy Ross Huston
Karen Marie Isenhour
Gaurav Jain
Zaneta Denise Johnson
Kevin Bradley Kessler
Byron Leonard Knight
Francis Anthony Krieger IV
Mary Elizabeth Lawson
Paulo Andres Londoño
William Rouven Magnus
Bryan Robert Mattern
Angela Leigh McKay
Todd Michael McKnight
Ricardo Arturo Mejia
Stewart Gavin Meny
Christopher Mercurio
John Stephen Moore
Alan Nguyen
Jared Quailan Norflis
Hyon Sin Pak
Kathryn Elizabeth Pierce
Kalyani Prasad
Peter C. Quan
Brent Richard Raymond
Lori Lynn Rhodes
Anna Golden Elizabeth Scott
Christina Marie Shamas
Niclas Kurt Skrifvars
Gregory Kyle Smith
Jason Brady Stoen
Lauren Nicole Tabor
Susan Lynne Tomasco
Muhammad Babar Toor
Christopher Joseph Tulley
Alan Richard Wade
Heather René Wilson

Bachelor of Industrial Engineering

Cooperative Plan

Highest Honor
Eric Ronald Mesimer

High Honor
David Byron Brown
Hetal Praful Patel
Stephanie Claire Rankin

Honor
Erin Leigh Fagart

Bradley James Agers
Kenneth James Bartlett
Sarah Lynn Buxe
Shane William Dark
Darcy L. Delano
Jessica Lynn Haney
John Dolen Hedrick III
Kelley Victoria Hutchins
Carla Sharese Johnson
Peter Kim
Douglas William Lemon
James P. O'Connell
Kurt Gregory Racine
David Timothy Ruff
Chadwick Keith Terry
Luke Travis Thompson
Christopher Charles Truax
Joshua William Yates
Anthony Sungmyn You

Bachelor of Aerospace Engineering

Joshua I. Buehler
David Jason Hodges
William L. Moore

Bachelor of Aerospace Engineering
Cooperative Plan

High Honor
James Winborn Gregory

Carsley Lane Matthews

Bachelor of Chemical Engineering

Highest Honor
Christy Leigh Carter
Michael David Dickey
Dara Kimberly Strickland
Kay Sun
Rodrigo Esquivel Teixeira
Matthew John Urbanawiz

High Honor
Saad Umer Rashid Bhatti
Sasha Patrick Block
Rasha Wafik Guirguis
Destiny Joan Hause
Drew Jude Martinez

Honor
Gregory John Ladzinske
Brandon Eugene Todd

John Roger Alexander
Sandra Patricia Alvarado
Brian Michael Arkwood
Valerie J. Armstrong
Charles Ellis Clark
Bridgitte Michelle Cox
Sangita Heman Dodani
Farshad Ghannadian
Carl Ross Hlavenka
Tiffany Marshalle Lee Hunter
LaShanda Teresa James
Brian Edman Larson
Ayanna Malene Ragin
Alec Evan Rubin
Mark Joseph Sackash Jr.
John Anthony Sasser
Jennifer Lynn Stoudt
Sean Michael Taylor
Chialin Wang
Ernest Monroe Watkins III

Bachelor of Chemical Engineering
Cooperative Plan

Highest Honor
Nuri Jonathon Dimler
Steven M. Kiefer
Chen Yang

Honor
Nicholas John Almeter
Christopher Joseph Field
Christopher Harold Griner
Brian Robert Wiley

Michael Phillip LaPrade
Michael Joseph Medlock
William Burnsed Tinley Jr.
Birkin Philander Weith

Bachelor of Science in Polymer and Textile Chemistry
Cooperative Plan

High Honor
Christopher Alan Vaughan

Bachelor of Textile Engineering

Highest Honor
Kristy Michelle Killeen

High Honor
Toni Rae Millikan

Andrew Jordan Robinson
Sung Kuk Yang
Woon Young Yeo

Bachelor of Textile Engineering
Cooperative Plan

Jonathan Mark McElhannon

Bachelor of Civil Engineering

Highest Honor
Byron Earl Brown
Jonathan Lee Burgess
Honor Marie Hutton
Robert Darrin Kines

Honor
Alan Edward Bowling
Steven Wayne Dingler

Raymond Chad Bechthold
Chandria Lynnette Brown
Daniel Ramage Dennison
Brian Christopher Eubanks
Christopher Roy Freeman
Joey Todd Githens
Mary Bridget Joyce
Cedric Termaine McKitt
Kevin Christopher McTier
Sean Kelly Mullen
Marissa Lee Muschott
Carey Leanne Neeley
J. Brandon Pitts
Adam Leonard Price
Keith Darrel Quarles Jr.
Robert William Rolfes
Tyler Bramlett Sims
Gregory Darras Sportsman
Glenn William Stewart

Bachelor of Civil Engineering
Cooperative Plan

High Honor
Breton Andrew Peterson

Honor
John Joseph Galasso
Melissa Sue Wheeler

Bachelor of Electrical Engineering

Highest Honor
Gregor Altvater
James William Joyner
Aditya Shah

High Honor
Adnan Ahmad Farooqui
William Todd Harrison
Jang-Hyung Lee
Robert Dean Mims

Honor
Jason Edward Clark
Andres Alejandro Giles
Michael Bernard LaPadula
Kimberly Nicole Tate

Michael Paul Ashton
Joshua Marc Auzins
Chae Hun Chung
Lawrence Bernard Compton Jr.
Robbie Lynn Crabtree
Minarul Islam Delwar
Brian Christopher Downing
Imoru Futa
Kevin Seth Jackson
Lorraine Jonassen
Floyd Antonio Keels
Ying-Chieh Ko
Reginald Laney
Clarence Levy III
Jason Michael Loomis
Royal Pusol Madison
James Kyle Ogden
Mohammad Shahedur Rahim
Zachary Andrew Reed
Ramon James Richards
Dhaval Arvindbhai Shah
William LaShae Slater
James Hunt Yancey Jr.
Bassam Nazem Youssef

Bachelor of Electrical Engineering

Cooperative Plan

Highest Honor
Stephanie Lynn Brown
Christopher Alden Rake
David Wayne Sibley Jr.

Honor
Benjamin Richard Thombs
Trenton Andrew Ward
Kenneth Shih Wei

Sarah Butler Davis
Geremy Jason Freifeld
Brian Louis Kasprzyk

Bachelor of Mechanical Engineering

Highest Honor
Mandy Dianne Barnes
Jesse Martin Bentley
Christopher Jason Blair
Vuchuong T. Do
Brian Matthew Smith
Carrie Rebecca Smith

Honor
Kai S. Fong
Jason Peter Musheno
Leslie K. Nguyen
Lindsay Rule Upton

Wesley Heath Barnes
Scott Thomas Bryant
Natedra Arnette Davis
James Peter Folger
Edwin Martin Gaddis Jr.
Andrea Liane Greene
Melissa Latrice Hall
Victor Lee Hamley
Justin R. Hardy
Eric Michael Howard
Liwei Hsu
Brandon J. Lacov
Nathan Alan Lord
Theodore Utley McCrobie III
William L. Moore
Matthew Scott Musheno
Damon Brince Padgett
Rafe Thomas Patterson
Harold N. Pattillo Jr.
Wesley Eugene Porter III
Shannon Lawrence Price
Josh J. Trifiletti
Jin Seog Yang

Bachelor of Mechanical Engineering

Cooperative Plan

Highest Honor
James Lowell Knapp
Brandon David Short

High Honor
Nathan Daniel Gallant
Michael Logan Wernz

Honor
Eric Andrew Curtis
James Gregory Chinik
Robert Thomas Colbert II
Jeffrey William Craycraft
Christopher Thomas Dayton
David Shane Garmon
Derek Robert Gould
Brian Michael Hoffman
William Neil Johnson
James S. MacLean III
Douglas Johnstone Matthews
Rahul Murty
Daniel Thomas Robinson
Charles Edward Wright II

Master's Degrees

Master of Science

Shilpa J. Abbitt
Civil Engineering

Farqed Khalid Al-Nuaimy
Electrical Engineering

Cenk Argon
Electrical Engineering

Andrew Clifford Barfoot
Electrical Engineering

Brian Kerttula Beachkofski
Aerospace Engineering

Raheem Abdul Beyah
Electrical Engineering

Erik Sven Billings
Environmental Engineering

Barbara Maria Brouckaert
Civil Engineering

Joseph Anthony Capobianco III
Aerospace Engineering

Susan Melinda Chandler
Electrical Engineering

Ashok Chandrasekhar
Mechanical Engineering

Chao-Ming Chen
Industrial Engineering

Liang Chen
Aerospace Engineering

Russell W. Davis
Electrical Engineering

Frederic Rene Dolo
Management

Katherine Johnson Evans
Earth and Atmospheric Sciences

Pierre-Yves Charles Luc Gontier
Management

Mahmut Gönül
Textile Chemistry

Richard Ora Gregory II
Aerospace Engineering

Lynette Marie Halbert
Civil Engineering

Steven Andrew Harfenist
Electrical Engineering

Valerie Marguerite Hognon
Management

Timothy George Jones
Civil Engineering

Jennifer Ellen Kesler
Civil Engineering

Kiran S. Krishnapur
Mechanical Engineering

Anand Lakshminarayanan
Environmental Engineering

Catherine Laurent-Atthalin
Management

Chao Liu
Earth and Atmospheric Sciences

Scott Daniel McDermott
Mechanical Engineering

Young A. Min
Aerospace Engineering

Ozgur Misman
Electrical Engineering

Elliot Moore II
Electrical Engineering

Steven Kent Moyer
Electrical Engineering

Eric Michael Olson
Electrical Engineering

Jin Yong Park
Engineering Science and Mechanics

Hong Peng
Earth and Atmospheric Sciences

Nikolle S. Reyes
Applied Biology

Melissa Diane Rhyne
Civil Engineering

Jochen Friedolin Rick
Electrical Engineering

Lenward Thurman Seals III
Electrical Engineering

Smit Sharma
Civil Engineering

Zang-Ho Shon
Earth and Atmospheric Sciences

Juan Derrick Smith
Electrical Engineering

Corey Scott Turner
Electrical Engineering

Manjula N. Variyam
Mechanical Engineering

Burr Michael Vogel
Civil Engineering

Konstantin S. Voin
Electrical Engineering

Hongjuan Wang
Aerospace Engineering

Kim Ann Wolfe
Civil Engineering

Zhijie Xiong
Electrical Engineering

Samuel Itier Zurita Rodríguez
Electrical Engineering

Master of Science in Computer Science

Christoph Martin Gauger
Guohui Gong
Gregory John Hankins
Jan Hannemann

Vijaykumar Krishnaswamy
Bastian Leibe
Wuttipong Lertaneksin
Matthew James Moyer
Fakir Syed Nooruddin
Roberto Carlos Olivares Villanueva
Aparna Pappu
Manoj Philip
William McLeod Rivera
Damon Gregory Robertson
Wasinee Rungsarityotin
James Madison Seymour
Gordon Tindall Shippey

Master of Science in International Affairs

Rong Gao
Eugene Parker
Hong Sun Wills

Master of Science in Information Design and Technology

Mark Douglas Dennard
Benjamin Fisher Hall
Mildred Caren Paul Moore
Sunil Navin Shah
Sherry Gail Strickland
Claudia Alexandra Yi Leon

Master of Science in Technology and Science Policy

Michael Wesley Hughes

Master of Architecture

Ana Maria Leon Crespo

Master of City Planning

Ferdouse Ara Haque Oneza
Brenan C. Stearns
Young Suh

Master of Science in Management

Daniel Faath
Hui Sun
Martin John Tower

Master of Science in Earth and Atmospheric Sciences

Kevin James Davis
Ruth Amy Kurian

Master of Science in Psychology

Katherine E. Sukel

Master of Science in Applied Biology

Miguel Benito del Mazo
James Asa High Jr.
Thomas Rowe

Master of Science in Applied Mathematics

Dmitry Michael Kreslavskiy
Afif Hennedriexon McGlamry
Elena Y. Shchekinova
Laura Jean Sheppardson

Master of Science in Physics

Anne-Katharina Jappsen

Master of Science in Chemistry

Ashley Michelle Eason
Temitope Kehinde Olubuyide

Master of Science in Health Physics

Robert Leo Beilke
Jennifer Beth Bradshaw
Robert Tracy Still

Master of Science in Health Systems

Kara Lyn Bovenizer
Sally Joell Conrad
Tracey Nicole Phillips

Master of Science in Nuclear Engineering

Michael Scott McKinley

Master of Science in Engineering Science and Mechanics

Marc Steffen Niethammer

Master of Science in Operations Research

Renee JoAnn Butler
Warren Eastman Hearnes II
Leilani Kini Kauka
Eva Dorothy Regnier
Preeti Seshadri
Jin-Hwa Song
Katherine Anna Sullivan

Master of Science in Industrial Engineering

María Lydia Aguirre González
Alper Aras
Selin Kardelen Cerav
Yi-Jui Chiang
Su-Tsung Han
Fathya F. Harmidy
Hyunsoo Hong
Wei Hua
Chien-ho Hung
Eda Kemahlioglu
Kristian Wolfgang Krueger
Andreas Lange
Juan Carlos Medina
Arwin Punutaiwat
Fernando Quintero
Harikrishnan Rajagopal
Patric B. Sailer
Jose Antonio Sanchez
Chutiwunna Sawettamal
Ryan Scott St. Clair
Yi-Lin Su
Yuqun Tang
Gabriel A.Varela
Florian Wagner
Malinda Sayoko Walters
Serhan Ziya

Master of Science in Aerospace Engineering

Nils Holger Hiller
Paul Dekle Howard
Mun Hong Lim
Tobias Mauermann
Alexander Schleicher

Master of Science in Materials Science and Engineering

Westin Ralph Bent
Robert David Bird Jr.
Justin Lewis Clark
Jennifer Lynn Jordan
James Fredrick Lane
Michael Yoshiya Nishimoto

Master of Science in Chemical Engineering

Chhaya Agrawal
Jeremiah Raphael Tabb

Master of Science in Environmental Engineering

Seth Andrew Gentzler
Amir Hakami
John Gregory Hope
Charles Andrew Ramsburg
Youlboong Sung

Master of Science in Civil Engineering

Elizabeth Wagner Acly
Deana Marie Addison
Patrick Ethan Cargill
Jason Thomas Carr
Josepha Dolores Celes
Christopher James Chelette
José A. Chinea-Amadeo
Andrew Brian Crigler
Joel David Davis
Luke Howell Davis
Georgene Malone Geary
Angshuman Guin
Tariq Omer Khan
Daniel Lange Kuemmerle
Pamela Little
Rafael Monzon
Christopher Rank Mroczka
Anastasia Hanifah Muliana
John J. Murray, Jr.
Nydia Enid Ortega
Angelica Maria Palomino
Joonam Park
Entifadh Kamal Qanbar
Layla Mostafa Raad
Christopher George Reutlinger
Bianca Melissa Roberts
James Andrew Schneider
Brendan Richard Sheppard
Frederic Michael Shmurak
David Eric Smith
Joshua Michael Taylor
Amy Lynn Weddington
Clifton Brock Woodson
Tamara Elizabeth Zettler

Master of Science in Electrical and Computer Engineering

Mubashir Alam
Jijo Balakrishnan
Laurent M. Bonetto
William Wodding Bonifant Jr.
Chason Allan Carroll
Carol LaTasha Clark
Vondell Lazippy Coleman
Emily Loadholt Eaton
Matthew Austin Eshleman
Elizabeth Chesnutt Gibson
Alain Guelat
Tsai Chi Huang
Paul Jacob Krakow
Edward John Leary III
Babak Matinpour
William Kelly Norton Jr.
Benjamin Scott Prothro

Meng Hoe Pua
Gregory Eugene Ruhl
Meredith Ann Schelp
Syed Saood Hasan Shah
Eric Daniel Southers
Jeffrey W. Spires
Todd A. Toporski
Tamara Lee Tubbs
Yiannis Vacondios
Mathieu Will

Master of Science in Mechanical Engineering

Marcy Antonoff Wolf
Brad Michael Beadle
Robert Newsome Burgess
Shelley L. Chen
Anh Xuan-Hung Dang
William David Daughtrey
Ty Grant Dawson
Alexander Conan Dutko
Brett Jamerson Fennell
Christopher Glenn Franck
Phillip Allan Harp
Jeremy Paul Harvey
Raymond Charles Heising
Amy Elizabeth Herrmann
Sundiata Kwesi Jangha
Donald Koo
Phillip Christopher Masengill
Donald John McCullough
Brian Anthony McDonald
Marcus Neil McLean
Anthony P. Meehan
Frank Joseph Patrinostro
Gregory James Petriccione
Brian Shawn Prasse
Marcelo Xavier Ribadeneira
Bret Alan Rodeheaver
Griffith Blocker Russell
Carmen Michelle Schooley
Christopher John Seeton
Bradley William Snow
Jiann-Ming Su
Lawrence Joseph Tognetti
Andrew Edwardo Walker
Cody Lee Watson
Wyatt Allen Watson
Miyako Watanabe Wilson

Doctoral Degrees

Doctor of Philosophy
Algorithms, Combinatorics & Optimization

Petr Hlinêný
Thesis: Planar Covers of Graphs: Negami's Conjecture
Advisor: Dr. R. Thomas

Diego Klabjan
Thesis: Topics in Airline Crew Scheduling in Large Scale Optimization
Advisor: Dr. G. Nemhauser

Doctor of Philosophy
Computer Science

Khaled Subhi Ali
Thesis: Multiagent Telerobotics: Matching Systems to Tasks
Advisor: Dr. R. Arkin

Samrat Bhattacharjee
Thesis: Active Networks: Architectures, Composition, and Applications
Advisor: Dr. E. Zegura

Douglas Andrew Bowman
Thesis: Interaction Techniques for Common Tasks in Immersive Virtual Environments: Design, Evaluation, and Application
Advisor: Dr. L. Hodges

Todd William Griffith
Thesis: A Computational Theory Generative of Modeling in Scientific Reasoning
Advisor: Dr. A. Goel

Robin Hillary Kravets
Thesis: Cooperative Solutions to the Dynamic Management of Communication Resources
Advisor: Dr. K. Schwan

Marcel Catalin Rosu
Thesis: DVCM: The Distributed Virtual Communciation Machine-base Architecture
Advisor: Dr. K. Schwan

Francisco Jose Torres Rojas
Thesis: Scalable Approximation to Causality and Consistency of Distributed Objects
Advisor: Dr. M. Ahamad

Doctor of Philosophy
Architecture

Osman Ataman
Thesis: Media Effect in Architectural Design Studies
Advisor: Dr. C. Eastman

Doctor of Philosophy
Management

Melissa Bunnell Frye
Thesis: Essays on the Effectiveness of Corporate Governance Mechanisms in Initial Public Offerings
Advisor: Dr. A. Khorana

Jamie Tyrone Pleasant
Thesis: A Model of Consumer Behavior for Understanding Purchase Intent of Subcultures: The Ethnic Consumer Purchase Intent Model (ECPIM)
Advisor: Dr. N. Malhotra

Dailun H. Shi
Thesis: Job Scheduling and Workforce Allocation in Flow Shops with Pertial Resource Flexibility
Advisor: Dr. R. Daniels

Doctor of Philosophy
Earth & Atmospheric Sciences

Xiuqi Chen
Thesis: On the Characteristics of Coda Scatters for Shallow Earthquakes
Advisor: Dr. W. Long

Shawn Peter Urbanski
Thesis: A Laboratory Investigation of the Atmospheric Oxidation of Dimethyl Sulfide
Advisor: Dr. P. Wine

Doctor of Philosophy
Applied Biology

Patricia Lynn Wallace Shewmaker
Thesis: Enhanced Biodegradation of Phenolic Compounds and Cellular Fatty Acid Analysis of Bacteria using Infrared Pyrolysis/Gas Chromatography-Mass Spectrmetry
Advisor: Dr. G. Holzer

Doctor of Philosophy
Applied Mathematics

Barrett Hamilton Walls
Thesis: Coloring Girth Restricted Graphs on Surfaces
Advisor: Dr. R. Thomas

Doctor of Philosophy
Psychology

Stuart Alan Tross
Thesis: The Effect of Interviewee Coaching on the Structured Experience-Based Interview Process and Outcomes
Advisor: Dr. T. Maurer

Doctor of Philosophy
Physics

Brian Eugene Salisbury
Thesis: Mass Spectroscopic Characterization of Small Nanoclusters
Advisor: Dr. R. Whetten

Doctor of Philosophy
Chemistry

Kikue Sugiyama Burnham
Thesis: Photoriggers for a Liquid Crystal-based Optical Switch
Advisor: Dr. G. Schuster

Daniel Martin Connor
Thesis: Design and Synthesis of New PET Comonomers
Advisor: Dr. D. Collard

Jun Feng
Thesis: A Kinetic Investigation of Recombinant Peptidylglycine Monoxygenase
Advisor: Dr. S. May

Jie Li
Thesis: Design and Synthesis of Organic Chiroptical Switches
Advisor: Dr. G. Schuster

Reginald Bernard Little
Thesis: The Synthesis and Characterization of Some II-VI Semiconductor Quantum Dots, Quantum Shells and Quantum Wells
Advisor: Dr. M. El-Sayed

Tina Marie Masciangioli
Thesis: Structural and Dynamic Studies of Bacteriorhodopsin and Its Variants
Advisor: Dr. M. El-Sayed

Greta Ann Olsen
Thesis: Characterization and Modification of Fluorogenic Substrate Coated Particles for Use as Enzyme Probes
Advisor: Dr. K. Hughes

Sherry Michele Owen
Thesis: Production and Characterization of Recombinant HTLV-I Reverse Transcriptase
Advisor: Dr. R. Ikeda

Jianping Wang
Thesis: Time-Resolved Spectroscopic Studies of the Dynamic Processes in Bacteriorhodopsin
Advisor: Dr. M. El-Sayed

Doctor of Philosophy
Materials Science & Engineering

Tao Chen
Thesis: The Mechanical and Oxidation Behavior of Nanocrystalline NiAl Synthesized via Shock Consolidation of Mechanically Alloyed Powders of Ni and Al
Advisor: Dr. J. Hampikian

Doctor of Philosophy
Industrial Engineering

Todd William Easton
Thesis: On Partial Completion Problems
Advisor: Dr. R. Parker

Warren Eastman Hearnes II
Thesis: Near-Optimal Intelligent Control for Continuous Set-Point Regulator Problems via Approximate Dynamic Programming
Advisor: Dr. A. Esogbue

Douglas Joseph Thomas
Thesis: Committed Delivery and Pricing Strategies for Supply Chain Management
Advisor: Dr. S. Hackman

Doctor of Philosophy
Aerospace Engineering

Raghavendran Mahalingam
Thesis: Structure of the Near Wake of a Rotor in Forward Flight and Its Effect on Surface Interactions
Advisor: Dr. N. Komerath

Junxiao Wu
Thesis: Numerical Studies of Near-Field Plume-Vortex Interactions
Advisor: Dr. S. Menon

Hong Xin
Thesis: Development and Validation of a Geralized Ground Effect
Advisor: Dr. J. Prasad

Doctor of Philosophy
Chemical Engineering

Jeffrey Christopher Givand
Thesis: The Effect of Relative Solubility on Crystal Purity
Advisor: Dr. R. Rousseau

Stewart A. McNaull
Thesis: Analysis of Sickle Erythrocyte Adherence to Endothelium in confined Flow Channels
Advisor: Dr. T. Wick

Doctor of Philosophy
Environmental Engineering

Marjorie Timmerman York Richman
Thesis: Particle and Biomass Detachment During Biological Filter Backwashing: Impact of Water Chemistry and Backwash Method
Advisor: Dr. A. Amirtharajah

Tammy Palmer Taylor
Thesis: Characterization and Surfactant Enhanced Remediation of Organic Contaminants in Saturated Porous Media
Advisor: Dr. K. Pennell

Doctor of Philosophy
Civil Engineering

Dike N. Ahanotu
Thesis: Heavy Duty Vehicle Weight and Horsepower Distribution: Measurements of Class-Specific Temporal and Spatial Variability
Advisor: Dr. R. Guensler

Katherine Anne Klein
Thesis: Electromagnetic Properties of High Specific Surface Minerals
Advisor: Dr. J. Santamarina

Daniel Gattner Linzell
Thesis: Studies of a Full-Scale Horizontally Curved Steel I-Girder Bridge System under Self-Weight
Advisor: Dr. R. Leon

Annie R. Pearce
Thesis: Sustainability and the Built Environment: A Metric and Process for Prioritizing Improvement Options
Advisor: Dr. J. Vanegas

Craig Arnold Roberts
Thesis: Modeling the Relationship between Microscopic and Macroscopic Travel Activity on Freeways: Bridging the Gap between Existing Travel Demand Models and Emerging Mobile Emission Models
Advisor: Dr. S. Washington

Doctor of Philosophy
Electrical Engineering

Richard Todd Causey
Thesis: Blind Multiuser Detection Based on Second-Order Statistics
Advisor: Dr. J. Barry

Mohammad Chaichimansour
Thesis: Electro-optical Characterization of ACTFEL Devices
Advisor: Dr. C. Summers

Myung Cheon Choi
Thesis: Traffic Flow Management for RSVP/ ATM Edge Devices
Advisor: Dr. H. Owen

Jeffrey Alan Davis
Thesis: A Hierarchy of Interconnect Limits and Opportunities for Gigascale Integration (GSI)
Advisor: Dr. J. Meindl

David Morris Jackson
Thesis: Calibration of Millimeter-Wave Radiometers with Application to Clear-Air Remote Sensing of the Atmosphere
Advisor: Dr. A. Gasiewski

Christopher Andrew Lanciani
Thesis: Compressed-Domain Processing of MPEG Audio Signals
Advisor: Dr. R. Schafer

Jeffrey Robert Piepmeier
Thesis: Remote Sensing of Ocean Surface Wind Vectors by Passive Microwave Polarimetry
Advisor: Dr. A. Gasiewski

Jeffery Ray Price
Thesis: A Framework for Adaptive Image Interpolation
Advisor: Dr. M. Hayes

Xinghai Tang
Thesis: Intrinsic and Extrinsic Parameter Fluctuation Limits on Gigascale Integrations (GSI)
Advisor: Dr. J. Meindl

Pramodchandran N. Variyam
Thesis: Efficient Testing Techniques for Analog and Mixed-Signal Circuits
Advisor: Dr. A. Chatterjee

Karim N. Wassef
Thesis: Nonlinear Transient Finite Element Analysis of Conductive and Ferromagnetic Regions using a Surface Admittance Boundary Condition
Advisor: Dr. A. Peterson

Doctor of Philosophy
Nuclear & Radiological Engineering

Michelle Lynn Pitts
Thesis: Design and Analysis of Subcritical Experiments Using Fresh Fuel Assemblies
Advisor: Dr. F. Rahnema

Anita Loretta Turner
Thesis: A Physiologically Based Pharmacokinetic Model for Lactational Transfer of Na(131)I
Advisor: Dr. S. Fong

Doctor of Philosophy
Mechanical Engineering

Valerie P. Bennett
Thesis: A Microscale Study of Small Crack Propagation in Multiaxial Fatigue
Advisor: Dr. D. McDowell

George Cox Butler
Thesis: Incorporation of Dislocation Substructure into Crystal Plasticity Theory
Advisor: Dr. D. McDowell

Wei Chen
Thesis: Nonlinear Constitutive Behavior and Fracture of Ferroelectric Materials
Advisor: Dr. C. Lynch

Samuel Graham Jr.
Thesis: The Effective Thermal Conductivity of Damaged Composites
Advisor: Dr. D. McDowell

Comas Lamar Haynes
Thesis: Simulation of Tubular Solid Oxide Fuel Cell Behavior for Their Effective Integration Into Gas Turbine Cycles
Advisor: Dr. W. Wepfer

Jenelle Armstrong Piepmeier
Thesis: A Dynamic Quasi-Newton Method for Model Independent Visual Serving
Advisor: Dr. H. Lipkin

G. Wayne Clough, Ph.D.

President
Georgia Institute of Technology

In September 1994, Dr. G. Wayne Clough became the tenth President of the Georgia Institute of Technology and the first alumnus to serve as president. Dr. Clough received his B.S. and M.S. in civil engineering from Georgia Tech in 1964 and 1965 respectively. He received his Ph.D. in 1969 from the University of California, Berkeley.

Dr. Clough has been a member of the faculty at Duke University, Stanford University, Virginia Tech, and the University of Washington. He was head of the Department of Civil Engineering at Virginia Tech from 1983-1990, then served as dean of Virginia Tech's College of Engineering for three years. In 1993, he became the Provost and vice president for Academic Affairs at the University of Washington, a position he held until he returned to his alma mater.

Under his leadership as president, Georgia Tech has served as the Olympic Village for the 1996 Centennial Olympics and launched its second Capital Campaign, raising $408 million to date. Research expenditures have increased for four consecutive years from $212 million to $255 million, a required computer initiative for all students was implemented, and enrollments increased from 13,000 to 14,000. Plans are under way to implement a statewide Georgia Tech regional engineering program.

Dr. Clough is the recipient of a number of national awards and honors for teaching and research, including a total of seven from the American Society of Civil Engineers. He is one of a handful of civil engineers to have been twice awarded civil engineering's oldest recognition, the Norman Medal, the first in 1982 and most recently in 1996. Other recognitions by the American Society of

Civil Engineers include the 1991 State of the Art Award and the 1994 Karl Terzaghi Lectureship. He received the George Westinghouse Award from the American Society of Engineering Education in 1986 for outstanding teaching. In 1990, he was elected to the National Academy of Engineering.

Active in national and local professional and volunteer service work, Dr. Clough's current service includes the Executive Committee of the National Council on Competitiveness, the Malcolm Baldrige National Quality Award Board of Directors, and the Board of Trustees of the Institute of Paper Science and Technology. He is a member of the Rotary Club of Atlanta, the Executive Committee of Central Atlanta Progress, the Board of Directors of the Metro Atlanta Chamber of Commerce, and a trustee of Georgia Research Alliance. He also serves on the Board of Advisors for the Noro-Moseley Partners, the southeast's largest venture capital fund. In 1999, *Georgia Trend* magazine named Dr. Clough one of the 100 Most Powerful and Influential People in Georgia.

Dr. Clough's research interests lie in geotechnical engineering, including studies of earthquakes, numerical analysis, soil-structure interaction, in-situ testing, and underground openings. He has consulted with more than 70 firms and government agencies, and has published over 120 papers and reports, and six book chapters.

James C. Powers, Ph.D.

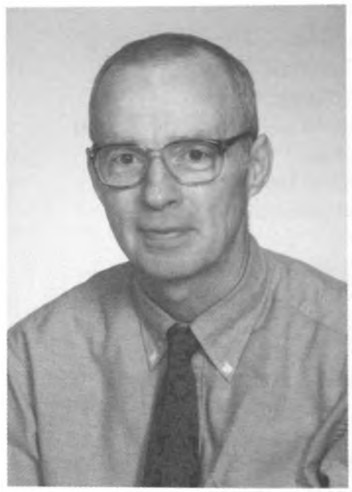
Commencement Speaker

Dr. James C. Powers is a Regents' Professor in the Georgia Institute of Technology's School of Chemistry and Biochemistry. He received a B.S. in chemistry from Wayne State University and a Ph.D. in organic chemistry from the Massachusetts Institute of Technology.

Early in his career Powers became fascinated with enzymes, the body's natural catalysts. His research has focused on the design and synthesis of protease inhibitors for use in the treatment of diseases such as emphysema, arthritis and stroke. Proteases are protein-degrading enzymes that "chop" proteins into small fragments. His research strives to understand proteases and how they can be inhibited, so the inhibitors then can be applied to treat illnesses.

Dubbed the "founding father" of biochemistry at Georgia Tech, Dr. Powers joined Tech in 1970 as the Institute's first biochemist.

Dr. Powers has published some 140 articles in refereed journals, authored numerous book chapters and reviews, and obtained more than 28 patents. He received the Georgia Tech Sigma Xi sustained research award in 1990. This year he received Georgia Tech's Distinguished Professor award for his achievements in the classroom and as a researcher. The award is the most prestigious award bestowed upon Tech faculty members.



In the classroom, students testify to Dr. Powers' engaging lecture style, sense of humor and ability to present complex material in an understandable manner — not to mention his ability to inspire others to pursue careers in science.

Dr. Powers' commitment to students extends beyond the classroom. An avid runner and experienced rock climber and mountaineer, the 61-year-old has led many student expeditions and backpacking trips. A dedicated "highpointer," he has climbed the highest peak in 48 states, leaving the highest and lowest points — Alaska and Florida — as future challenges.

The Mace

In academic ceremonies, the mace is an ornamental staff carried as a symbol of authority. The office of the mace bearer, though purely ornamental, dates back to medieval England when special occasions required the use of a bodyguard. In colonial America, the mace became a symbol of office when used in conjunction with academic regalia.

The Georgia Tech mace carried in today's ceremony was designed by Cabell Heyward, a former research scientist in the College of Architecture, and was first used in April 1988 at the presidential inauguration of John P. Crecine. The mace was made possible by a gift from the Georgia Tech Student Foundation and the Class of 1934.

The primary focus of the mace is its three brass rods, which demonstrate the principle of "tensegrity," a concept of structure combining tension and integrity developed by R. Buckminster Fuller in 1927. The integrity, of wholeness, of the mace is maintained by each of the rods being held in place by the tension of the steel wire; the rods do not touch one another oat any point.

The brass rods symbolize the three primary components of Georgia Tech's mission: education, research, and service. The gold color of the brass and the white color of the steel wire represent Georgia Tech's colors. The mace also incorporates three silver metallic seals, which are reproductions of the official seal of the state of Georgia, the original seal of Georgia Tech, and the current seal of the Institute.

The mace was fabricated by Mr. Heyward and Arthur Schoenfeld, who are both formerly from the Center for Rehabilitation Technology in the College of Architecture, in conjuction with Atlanta jeweler Robert Nagle.

College of Computing

The College of Computing is a leader in integrating computer science with other disciplines to address problems in communication, education, and health. Through its interdisciplinary charter, the College has forged relationships with nearly every unit at Georgia Tech and several universities around the world. The College also has two centers for interdisciplinary research: The Broadband Telecommunications Center and The Graphics, Visualization, and Usability Center (ranked #1 in the country).

As of fall 1998, undergraduate enrollment totaled approximately 1,185 and graduate enrollment totaled approximately 235.

Prominent alumni from the school include Craig Mundie ('71, '72), senior vice president, Microsoft; Jim Allchin ('83), senior vice president, Microsoft; Jody Dyer ('71), director, Encore; James Folsom ('70, '72), CEO, Placeware; Edith M. Martin ('76, '80), chief financial officer, Eastman Kodak; and Githesh Ramamurthy, ('83), president, CCC Information Services Inc.

Ivan Allen College

The Ivan Allen College, created in 1989, represents a unique configuration of academic disciplines, including the humanities and the social sciences, designed to work within the technology emphasis of the Georgia Tech environment. The six Schools within the College include Economics; History, Technology, and Society; International Affairs; Literature, Communication, and Culture; Modern Languages; and Public Policy. The College now has approximately 100 faculty members, 457 undergraduate students, and 141 graduate students.

In addition to promoting active research in a wide range of areas, the College also has earned a well deserved reputation for excellence in teaching. One of the ongoing initiatives that cuts across the College is the increasing application of computers in the classroom. The College has been an innovative leader in information technology.

Many Ivan Allen College graduates have become respected professional and national leaders.

College of Architecture

The School of Architecture became the College of Architecture in 1975. In the fall of 1998, 583 undergraduate and 236 graduate students were enrolled in the various academic programs of the College: architecture, building construction, city planning, and industrial design. The College also includes the Department of Music and the Division of Fine Arts.

Some of the College's more prominent alumni include George Heery ('50), former chairman of the board, Heery International Inc., and designer of the Coca-Cola Building; John Portman ('50), John Portman and Associates, designer of Peachtree Center, the Hyatt Regency-Atlanta, the Marriott Marquis, and the Westin Peachtree Plaza; Hugh A. Stubbins Jr., ('33), chairman and CEO, The Stubbins Associates Inc., designer of the Citicorp building in New York City and the Ronald Reagan Presidential Library; and John A. Busby ('56), Jova Daniels Busby, Architects, and past president of the American Institute of Architects.

Research programs in the College of Architecture include the Center for Rehabilitation Technology, the Construction Research Center, and the Center for Geographic Information Systems.

DuPree College of Management

The DuPree College of Management is dedicated to creating the business and professional leaders of tomorrow. The College was established at Georgia Tech in 1913 and has been accredited by AACSB - The International Association for Management Education since 1921. The College has three centers for interdisciplinary research: The DuPree Center for Entrepreneurship, which fosters entrepreneurial activity among Georgia Tech students and faculty and the business community; The Center for International Business Education and Research (CIBER), which serves as a catalyst for integrating and advancing a number of diverse activities relating to international business education and research; and The Center for International Quality and Change Leadership, which focuses on education and research on continuous quality improvement and total quality.

Current enrollment in the College includes: 950 undergraduates, 178 graduate students, 92 students in the Executive Master's Program in the Management of Technology, and 28 Ph.D. students.

Prominent alumni of the College include: Thomas E. DuPree Jr., chairman and chief executive officer, Avado Brands, Inc.; James R. Lientz, president and chief executive officer, NationsBank of Georgia; Charles W. Brady, chairman of Invesco Capital Management; James P. Poole, president of Employer-Employee Security Plans Co.; and Julian LeCraw, president of Julian LeCraw & Company.

College of Sciences

Established from the College of Sciences and Liberal Studies, the College provides programs in the natural, mathematical, and behavioral sciences. The specialized

academic programs in the Schools of Biology, Chemistry and Biochemistry, Earth and Atmospheric Sciences, Mathematics, Physics, and Psychology attract students who have strong interest in science and mathematics and are interested in relating their educational experience to social, governmental, industrial, and postgraduate fields.

Some high-profile graduates of the College are Ashworth Stull (Chem '37), inventor of "White Glue" that became known as Elmer's Glue; Glen P. Robinson Jr., (Phys '48 and '50), founder of Scientific-Atlanta and owner of patents on solar energy and antenna systems and energy; Kary B. Mullis (Chem '66), inventor of polymerase chain reactions and Nobel Prize recipient; Gilbert F. Amelio (Phys '65, '67, '68), former chairman and chief executive officer, Apple Computer; and Nancy "Jan" Davis (Biol '75), astronaut.

College of Engineering

Eighteen eighty-eight marked the opening of the Institute and the establishment of the School of Mechanical Engineering. As of fall 1998, the College of Engineering, now incorporating nine degree-granting schools, had a total enrollment of 8,452.

Outstanding alumni of the College include Robert B. Ormsby ('45), president, Lockheed Corporation-Aeronautical Systems Group; astronauts John Young ('52) and Richard Truly ('59); Ronald Wayne Allen ('64), former chairman and CEO of Delta Air Lines; C. J. "Pete" Silas ('53), former chairman and CEO of Phillips Petroleum Co.; Thomas J. Malone ('63), president and CEO, Milliken and Company; Malcolm T. Stamper ('46), vice chairman of the board, Boeing Company; and former President Jimmy Carter ('46).

The College of Engineering consistently ranks among the top five engineering schools in the country in both the size and quality of its programs, and is nationally recognized for excellence in both undergraduate and graduate education.

Athletics

At Tech, academics and athletics truly do mix, and the Institute is rich in both traditions. Georgia Tech competes on the NCAA Division I level within the nine-member Atlantic Coast Conference, a league that places high emphasis on academics. Memorable alumni include Robert Tyre "Bobby" Jones, 1930 winner of golf's Grand Slam; Olympic gold medalists Antonio McKay, Derrick Adkins, and Derek Mills, track; Mark Price and John Salley, basketball; and 13 members of the National Football Foundation's College Football Hall of Fame.

Tech athletes have been led by legendary coaches such as R. L. "Bobby" Dodd, 1946-66; John W. Heisman, 1903-19; William Alexander, 1920-45; and John "Whack" Hyder, 1952-73.

Intramural sports are available to all students. More than 20 activities, ranging from crew to weight training, are offered.

Georgia Tech Research Institute

The Georgia Tech Research Institute (GTRI) is a nonprofit, client-oriented, applied research organization that is an integral part of the Georgia Institute of Technology. It was chartered by the Georgia General Assembly in 1919 and activated in 1934. GTRI plans and conducts focused programs of innovative research, education, and economic development that advance the global competitiveness of Georgia, the region, and the nation. Working closely with academic colleges and interdisciplinary centers in areas of research, education, and service, GTRI plays a vital role in helping Georgia Tech reach its goals. Specific missions include: conducting scientific, engineering, and industrial research; participating in national programs of science, technology, and preparedness; encouraging the development of Georgia's natural resources; aiding industrial and economic development; and furnishing technical advice and assistance to business and industry.

Library and Information Center

The Georgia Tech Library functions as a client-oriented information center focusing on the data and information needs of students, faculty, and staff.

The first Library of Georgia Tech was established in 1899 and consisted of a room in the Administration Building housing fewer than 2,000 volumes. Now the Library contains more than 3 million volumes; a complete collection of U.S. patents; and more than 2 million technical reports, government documents, and industrial standards.

The explosion of scientific and technical information and the advent of computing, networking, and multimedia technologies are the foundation of the evolution of the Library from a building of books to a learning and information center. The Library was the first in the nation to provide local on-line information retrieval capabilities. The Georgia Tech Electronic Library offers a variety of databases to students and faculty for research, class assignments, and personal information.

The Library has a special responsibility to preserve the history of science and technology. The rare books and medals collections are part of that important preservation effort.

Academic Regalia

The academic regalia worn by today's participants is a colorful relic dating back to the Middle Ages, when education was a function of religious organizations. The monks' habit and the cowl worn over their heads were predecessors of the modern black gowns and hoods. The mortarboard was developed from the skull caps worn during medieval days by churchmen officiating at religious services.

In 1894, American universities standardized gown styles for the three different types of degrees. Doctoral degree candidates wear the traditional black gown with full, round sleeves, velvet facings on the front, and velvet bars on the sleeves. Hoods are lined with the color of the university granting the degree. Hoods at Georgia Tech are lined in white and gold. The doctoral hood is distinguished by its blue trim, which is the color representing philosophy.

Master's degree candidates also wear the traditional black gown, with full-length square sleeves that have a crescent-shaped piece hanging from each sleeve. The master's hoods are also lined in white and gold and are distinguished on the outside by gold trim, the color of science. Recipients of the bachelor's degree at Tech wear a plain black gown and no hood.

Caps used by all Tech graduates are traditional mortarboard, and tassels are white and gold.

Academic Degrees

The Bachelor's Degree

The bachelor's degree is the oldest academic degree used by institutions of higher education in America. This degree, which represents completion of a four-year course of study at the college level, was first awarded in 1642 to the graduating class of Harvard College.

The Master's Degree

The master's degree represents the successful completion of one or two years of study beyond the baccalaureate degree. This academic honor, which dates back to the establishment of the oldest universities in Europe, usually requires a thesis and an oral examination.

The Doctoral Degree

The doctoral degree is the most advanced academic degree conferred by American institutions of learning. "Doctor," which means teacher or instructor, was used as a title in the twelfth century to denote men of great learning. It was first used as an academic title at the University of Bologna in Italy.

The Alma Mater

Music by Frank Roman
Words by I. H. Granath

Oh, sons of Tech, arise, behold!
The Banner as it reigns supreme,
For from on high the White and Gold
Waves in its triumphant gleam.
The spirit of the cheering throng
Resounds with joy revealing
A brotherhood in praise and song,
In memory of the days gone by.
Oh Scion of the Southland!
In our hearts you shall forever fly.
We cherish thoughts so dear for thee,
Oh, Alma Mater in our prayer.
We plead for you in victory,
And in the victory we share!
But when the battle seems in vain
Our spirits never falter,
We're ever one in joy or pain
And our union is a lasting bond.
Oh! May we be united
Till the victory of life is won.

The Ramblin' Wreck

I'm a Ramblin' Wreck from Georgia Tech
And a hell of an engineer
A helluva, helluva, helluva
Helluva, hell of an engineer.
Like all the jolly good fellows,
I drink my whiskey clear.
I'm a Ramblin' Wreck from Georgia Tech
And a hell of an engineer.

Oh! If I had a daughter, sir,
I'd dress her in white and gold
And put her on the campus
To cheer the brave and bold.
But if I had a son, sir
I'll tell you what he'd do—
He would yell "To Hell with Georgia"
Like his daddy used to do.

Oh! I wish I had a barrel of rum
And sugar three thousand pounds,
A college bell to put it in,
And a clapper to stir it 'round.
I'd drink to all good fellows
Who come from far and near.
I'm a Ramblin', Gamblin'
Hell of an engineer.

Commencement Committee

Office of Institute Communications and Public Affairs Staff
Mary Kay Daly, Development Office
Frank Roper, registrar
Annette Satterfield, Jo McIver, Anna Lindberg,
Barbara Howard, Winnie Tsang-Kosma, Julie Peterson and
Staff, Registrar's Office
Bill Johnson, announcer
Glenna Thomas, Graduate Studies
Kirk Reeves and Staging Staff, Plant Operations
Jack Vickery and Staff, Campus Police
Dr. Eugene Patronis, sound designer
Bucky Johnson, Ron Mendola, William Caldwell
and Christine Marks, Department of Music
Lisa Conley and Lisa Nickel, Alumni Programs
Leonard Nagel, coordinator, commencement
reception/luncheon
Student Ambassadors

White and gold ribbons on today's diplomas were hand-tied by disabled employees of the Bobby Dodd Center in Conyers, Georgia. Former Georgia Tech Coach Bobby Dodd was instrumental in securing funding for the vocational rehabilitation training facility that bears his name.