



THE GEORGIA INSTITUTE OF TECHNOLOGY
**THE NINETY-SEVENTH
COMMENCEMENT**

December 6, 1972 • 10:00 A.M. • Alexander Memorial Coliseum

FALL COMMENCEMENT PROGRAM

PROCESSIONAL "Pomp and Circumstance"—Elgar

MASTER OF CEREMONIES Dr. Joseph M. Pettit
President

INVOCATION The Reverend Phillip C. Cato
Episcopal Chaplain, Georgia Institute of Technology

COMMENCEMENT ADDRESS Dr. Walter L. Bloom
Associate Vice President for Academic Affairs

PRESENTATION OF UNDERGRADUATE
DEGREE CANDIDATES Dr. Vernon Crawford
Vice President for Academic Affairs

PRESENTATION OF MASTER'S
DEGREE CANDIDATES Dr. Sam C. Webb
Dean, Graduate Studies and Research

PRESENTATION OF DOCTOR'S
DEGREE CANDIDATES Dr. Sam C. Webb

COMMISSIONING RECOGNITION CEREMONY Captain R. I. McFarland
United States Navy

INDUCTION INTO ALUMNI
ASSOCIATION Mr. J. Frank Stovall, Jr., Class of 1941
President, Georgia Tech National Alumni Association

ALMA MATER Members of Georgia Tech Glee Club

BENEDICTION The Reverend Phillip C. Cato

RECESSIONAL "Coronation March"—Meyerbeer

BACHELOR OF SCIENCE IN APPLIED BIOLOGY

Barry Candler McHan
William Reed Rhodes

Clifford A. Rinchart, Jr.

BACHELOR OF SCIENCE IN APPLIED PSYCHOLOGY

Robert Owen Rushton

BACHELOR OF ENGINEERING SCIENCE

Douglas Kenneth Vogt (Honor)

BACHELOR OF SCIENCE IN APPLIED MATHEMATICS

Elaine Marjorie Hubbard
Joseph Anderson McDaniel

Leslie Earl Prigmore
Kam Chi Yu

BACHELOR OF INDUSTRIAL ENGINEERING

Po King Woo (Honor)

Andrew Howard Aymes
Larry Allen Bearden
Jon Sander Block
Maurice Holladay Brown
Joseph Michael Brucella
Charles David Chambless
Joseph Broaddus Cofer
Raymond Carl Cole, Jr.
Ted Allen Cyr
Raymond Anthony Giuliani, Jr.
Lee Diane Gostin
Bruce Edwards Grasso
Jose Antonio Herrero
Eddie Charles Hollins
Virginia Ruth Kluge
John Harold Kress

Chalton Jerome Lane, Jr.
Henry Horace Long
Elmer Douglas Lucas
Jaime José Malla Frankenberg
Paul Louis Martin
Ronald Murray Ovetsky
Charles Fermery Peebles
James Davidson Philbrick, Jr.
Tench Hannon Phillips, III
Eric Winn Roberts
Joseph Philip Rogers
Manuel Emilio Román, Jr.
Michael Andrew Schlacter
Stephen Arthur Speicher
George Keith Starnes
Miles Kollock Thoroman

BACHELOR OF INDUSTRIAL ENGINEERING (Cooperative Plan)

Andrew Clifford Barfoot
Birchell Ray Helton, II
Kirk William Keene

David Blaine LeCroy
Elbert Nicholas Perkins

BACHELOR OF SCIENCE IN PHYSICS

William David Kennedy
Martha Ann McDaniel
Samuel Thomas McTeer, Jr.

Arthur Grady Morrison, Jr.
Candace Marie Shedden

BACHELOR OF SCIENCE IN PHYSICS (Cooperative Plan)

James Michael Duggan

BACHELOR OF SCIENCE IN BEHAVIORAL MANAGEMENT

Michael Joseph Frank
Rudy Bynum Griffin
Michael Stefan Hendley
Donald Robert Henry

Elizabeth Howard McDavid
Frank Gregory Melton
William David Suttles

BACHELOR OF SCIENCE IN BEHAVIORAL MANAGEMENT (Cooperative Plan)

James Arthur Nesmith

BACHELOR OF SCIENCE IN ECONOMICS

Douglas Alexander Austin
Douglas Larkin Edwards

Joseph Sirmans McCall

BACHELOR OF SCIENCE IN GENERAL MANAGEMENT

Stephen Justin Farrell (Honor)

Kay Elizabeth Adams
Paul Edward Anderson
Joseph Charles Antonio
Mohan Singh Bagga
Mark Edward Balmes, Jr.
Kenneth Lee Barnes
George William Barron, Jr.
Terry Eugene Barrows
Thomas David Beavin
Robert Eugene Blane
William Braddock Bourne, III
Thomas Wesley Brown
Thomas Randall Carpenter
William Henry Cobb
Peter Drake Cordrey
Glenn Sterling Costello
James Robert Cribbs
Billy Ray Cummins
William Craig Dart
Randy Allen Duckworth
Lawrence Scott Elliott
Clyde Wayne Fore
Charles Jefferson Gardner
Smylie Lee Gebhart
Charles Alan Gross
James Hugh Harrison
Robert Luther Hinkle

Marvin Dexter Hoffman, Jr.
Hollis Frank Hope, III
Lawrence Neal Howkins
Robert Walden Jobson, Jr.
Diane Jones
Marc Randall Kemper
Paul Thomas Lee
Steven Lawrence Levetan
David Warren Lott
Carl Franklin Martin
Frederick Herbert Martin, Jr.
Richard Kinsey McCrea
Philip James McGinty
John Long Morrison
Roger Craig Norden
John Tyus O'Dell
Michael C. Osborne
Gordon Johnston Price
William Henry Pridgen
Mark Eugene Robbins
John Walter Shypula
Vance Arlen Stein
Larry Gene Studdard
Joseph Philip VanLandingham, Jr.
Christopher Joel Walker
David Wylie Whitmer

BACHELOR OF SCIENCE IN INDUSTRIAL MANAGEMENT

Helena Seenchi Auyang
Charles Rex Brown
Gary Mitchell Carden
James Marshall Colson
Jeffrey Franklin Daniel
Henry Callaway Edwards, Jr.
Jerald Frederick Gillette
Richard C. Gowen
Hubert French Groseclose, III
Nathaniel Arnold Hardin, Jr.

Daniel Joiner Harrington
Ralph Everette Heatherly
Benjamin Wiley Jones
Richard Owen Lewis
Henry Morin
Walter Thomas Rawlings, Jr.
Lee Paul Steele
Stephen Craig Taylor
James Hill Terry, II
James Reid Thomas

BACHELOR OF SCIENCE IN INDUSTRIAL MANAGEMENT (Cooperative Plan)

Donald Bowman Johnson

Michael Grady Mathis

BACHELOR OF SCIENCE IN MANAGEMENT SCIENCE

Thomas Ewell Hatcher
John Winfield Hewitt
Terry Ellis Kearns

Michael Van Skillman
Michael James Wetherbee

BACHELOR OF SCIENCE IN MANAGEMENT SCIENCE (Cooperative Plan)

Steven A. Bain

BACHELOR OF AEROSPACE ENGINEERING

William Jerry Boutwell
Alan Grice Guyton
John Britt Holstun
Terry Holtz

Billy Richard Maloney
Howard Donald Ray
Mark Andrew Sciora
Berman James Watts, Jr.

BACHELOR OF AEROSPACE ENGINEERING (Cooperative Plan)

Curtis Isaiah McNeal, Jr.

BACHELOR OF CERAMIC ENGINEERING

Donald Gene Fillers

Michael Terrance Luster

BACHELOR OF SCIENCE IN BUILDING CONSTRUCTION

David William Drews
John Powell Mansfield

Charles Kazuo Morehead

BACHELOR OF SCIENCE IN INDUSTRIAL DESIGN

Arthur William Wright, III

BACHELOR OF ARCHITECTURE

Lee Robert Cook
Todd Dennis Corbet
Ronald Arthur Dent
Selma Christina Lennartsson
Charles Strong Longley, Jr.
William Reese McNeel
Jerry Dean Monarch

Cassius Merrill Moter, III
Michael Keith Noe
Michael James O'Keefe
William Johnson Stanley, III
Camille Marie Wells
Ernest Neal Willis
Norman Bruce Yelin

BACHELOR OF SCIENCE IN CHEMISTRY

Patrick Martin Brown

William Andrew Schwanke

BACHELOR OF CHEMICAL ENGINEERING

Robert Allan Awde, Jr.
Leonard Emil Costello
Larry Lee Gibbs
Jan William Gripp
Larry Samuel Keith

Robert Kirk Steely
William David Turner
Lynn Root Wallingford
Kenneth Neil Weiss

BACHELOR OF SCIENCE IN TEXTILES

Earl Stanley Bean, Jr.
James William Bean
Charles Edwin Cheney
Jonathan Clark Gaston
Joseph Costley Hallsworth

John Edwin Owens
Henry Lawrence Patrick, Jr.
Milton Sadler Rainey, III
James Paul Snyder
Thomas Elliott White

BACHELOR OF CIVIL ENGINEERING

Keith Durand Beaty
Thomas Billings
Mark Carroll Boner
Andrew Darwin Bussey
Charles Glen Campbell
Paul Dupree Davis, Jr.

Julian Jack Gates, Jr.
Joseph Rolfe Hooten, III
Edward Stanley Kowynia
Susan Maria Oravec
Galen Charles Striemer

BACHELOR OF CIVIL ENGINEERING (Cooperative Plan)

Jeffrey Benton Coffey
Arthur Lee Hoff, Jr.

George Baldwin Nathan

BACHELOR OF ELECTRICAL ENGINEERING

William Bryant Wilder, Jr. (High Honor)

Mark Eric Benson
Glenn Walker Camp
James William Chamberlin
Thomas Chiles Clark
Bernard Drew, Jr.
Roy Alvin Elsea
Phillip Anthony Hall
Jackson Curtis Hawkins
James Thomas Hawkins
Robert Andrews Heath
Richard George Holden
James David Huff

John Klive Kalter
Charles William Kisabeth
E. John Occhipinti
David Littlejohn Odom
Harrell M. Perlman
Gary Carlton Pool
Brian Clyde Savory
Ladislav Schvacho
Robert Love Sloan, Jr.
Jack Cutts Smith, Jr.
Ronald Russell Wise
Angel Rafael Zabala Sarjeant

BACHELOR OF ELECTRICAL ENGINEERING (Cooperative Plan)

Thomas Henry Perry (High Honor)

William Judson Glenn
Charles Everett Harvey

Steven Wayne Littrell
Ronald Raymond Schuster

BACHELOR OF MECHANICAL ENGINEERING

Anthony Bede Dahmus (High Honor)

Larry Joseph Bridges
Ralph Sherman Bryant
Stephen Carl Clark
Robert Frank Clayton
Willard Matthew Dorsey
Carl Wayne Drake
John Fauerbach
Warren Samuel Flenniken, Jr.
Gary Lynn Gates
Floyd Martin Gent
Walter Binion Grimes

Kenneth Maurice Groover
Stanhope Felix Hopkins, Jr.
Roger Irvin Lawson
Paul Marshall Laxson
John Nicholas Morgan
Ronald Joseph Parise
Diego Francisco Porras
George William Rogers
Francis McDaniel Shead
Damon Carlton Smith
Ignacio A. Villamil

BACHELOR OF MECHANICAL ENGINEERING (Cooperative Plan)

Walter Bruce Longino, Jr.
Roy Elliott Riser

Wayne Carven Yancey

MASTER OF SCIENCE

Francis Bernard Alt (Industrial Engineering)
Terrell G. Covington (Industrial Engineering)
Wayne Bratton Davis (Industrial Management)
Michael Anthony Guccione (Civil Engineering)
Oscar Harvey Horne (Textiles)
Sik-Pang Huang (Aerospace Engineering)
Claude Keyes Hudson (Industrial Engineering)
Henry Ely Mouchahoir (City Planning)
Ronald Edwin Rezek (Industrial Engineering)
Margret Ann Saywell (Textiles)
Elizabeth Stansell Tice (Industrial Engineering)
Gordon Ward Waring (Civil Engineering)

MASTER OF SCIENCE IN INFORMATION AND COMPUTER SCIENCE

Saurindra Mohan Basu
Dyches Villines Boddiford
Robert Lee Bridger, III
Fa-Shan Frank Chu
Stuart Marc Cohen
Gregory Newton Collins
Neal Stanley Coulter
Lionel Earl Deimel, Jr.
Thomas Vincent Gayle

Stephen Ripley Landis
Craig James Mundie
Vir Adarsh Kumar Nanda
Steven Foster Powell
Charles Richard Powers
Wayne Thomas Roberts
Billy J. Speights
Vinodkumar M. Vashi

MASTER OF SCIENCE IN NUCLEAR ENGINEERING

Jerome Joseph Erpenbach, Jr.
Naveen Prakash Mathur
Andrejs Simanis

Lee Henry Thonus
David Joseph Tripler

MASTER OF SCIENCE IN PSYCHOLOGY

Albert Perry Schwartz

MASTER OF SCIENCE IN ENGINEERING MECHANICS

Carl Douglas Benson

MASTER OF SCIENCE IN OPERATIONS RESEARCH

Robert Lee Ettenger
John Herbert Rutter
Daniel Jay Speck

Dennis Kay Taillie
Antonio Jose Villegas-Chapellin
Jimmy Yew-Hang Yeung

MASTER OF SCIENCE IN INDUSTRIAL ENGINEERING

Mangi Lal Agarwal
James Randall Altman
Robert Keith Broyles
Jorge Iván Calderon-Santana

Arturo Casasa Tassinari
Reinaldo Castillo Vargas
Aurelio Jose Guzman Parraga

MASTER OF SCIENCE IN PHYSICS

John Wayne Audas
Helmut Auweter

William Eugene Baird, Jr.

MASTER OF SCIENCE IN INDUSTRIAL MANAGEMENT

Johnny Clyde Evers, II
Tarcisio Borges-Freire
Kerry Lance Hayes
John Alexander Price

Danny Earl Schuder
Joseph Harrell Whelchel
Darrell Lee Wickman

MASTER OF SCIENCE IN AEROSPACE ENGINEERING

Satish Samant

Som Parkash Singh Virk

MASTER OF SCIENCE IN CERAMIC ENGINEERING

Chi-Chin Jen

Arthur Vernon Petty, Jr.

MASTER OF ARCHITECTURE

Harry Earl Baxley, Jr.

MASTER OF CITY PLANNING

Edmund Howe Armentrout
William R. Ballou
James William Curtis, II
James Montgomery Jackson
Ronald Leslie Lane
Larry Wayne Minor

William Simon Newman, III
Jerry Lee Paul
Albert John Serrao
Jackson Edward Sullivan, Jr.
Clarence Willard Vann
James B. Williams

MASTER OF SCIENCE IN CHEMISTRY

Walter Jack Howard
James Thomas Tippet

Larry Wayne Wheeler

MASTER OF SCIENCE IN CHEMICAL ENGINEERING

George Francis Boscoe
David W. Moore

Carl Walker Sandlin

MASTER OF SCIENCE IN TEXTILES

Chane Boonsong

I-Pei Kao

MASTER OF SCIENCE IN TEXTILE ENGINEERING

Eugene V. Rushing, Jr.

MASTER OF SCIENCE IN SANITARY ENGINEERING

Robert Paul Alford
Charles Gregory Breland, Jr.

Philip Reid Karr, III
Gary Lee Sweenhart

MASTER OF SCIENCE IN CIVIL ENGINEERING

Jaime Eduardo Ayala
Dennis Ray Duke
Walter Gordon Birdsong
Charles Mayo Jackson
Joaquin Rafael Landaeta Perez
Gabriel Puyana Otero
Jorge Manuel Redondo

Robert William Reineke
Gene Clark Riddle
Johnny William Robertson, Jr.
Shailendra
Gordon Hornbrook Terwillegar
Rex John Wallin
Thomas Christopher Wilson

MASTER OF SCIENCE IN ELECTRICAL ENGINEERING

Nicholas Athanassiou
John Joseph Bell
Harry Bernard Brown, III
Ronald David Hildreth
Frank Joseph Lynch

John Charles Perry
Peter U. Schulthess
James William Toy
Stephen Wayne Vogt
Peter Wolfensberger

MASTER OF SCIENCE IN MECHANICAL ENGINEERING

Dennis Percy Carlson
William Darwin Clark
Patrick Emanuel Cooper
Francisco Javier Corral-Aristi
James Arthur Davis
William Albert Horn, Jr.
Heng Wai Hsu

Yoo Kim
Allan James Lake
Jean Claude Moureau
Michael O. Schliessmann
Randy Stephen Swartz
Baparao Uppaluri

DOCTOR OF PHILOSOPHY (Information and Computer Science)

Margaret Elizabeth Dexter

Thesis: *A study of Information Control in Computer-aided Instruction*

Joseph Robert Horgan

Thesis: *Abstract Computers and Degrees of Unsolvability*

Edgar Marvin Pass

Thesis: *An Adaptive Microscheduler for a Multiprogrammed Computer System*

DOCTOR OF PHILOSOPHY (Nuclear Engineering)

John Alden Auxier

Thesis: *Influence of Natural Terrestrial Sources on the Total Radiation Dose to Man*

Henry Lee Fisher, Jr.

Thesis: *Electron Spin Resonance Determination of the Efficiency of Free Radical Production in Biological Membranes by Various Types of Ionizing Radiation*

Jerry Bernard Fussell

Thesis: *Synthetic Tree Model—A Formal Methodology for Fault Tree Construction*

James Alan Lake

Thesis: *Measurement of Steady-State, Space Dependent Thermal Neutron Spectra in Beryllium*

Milton Eccles McLain, Jr.

Thesis: *Release of Fission Xenon From High Surface Area Uranium Targets*

Saradamandiram Mohan

Thesis: *L_1, L_2 Subshell Fluorescence Yields and Coster-Kronig Transition Probabilities in the Middle Z Region*

DOCTOR OF PHILOSOPHY (Engineering Mechanics)

Ronald Burett Fost

Thesis: *Finite Element Applications in the Dynamic Theory of Finite Elasticity*

DOCTOR OF PHILOSOPHY (Industrial Engineering)

Peter Edward Chesbrough

Thesis: *Spare Parts Provisioning for Rotatable, Fleet-Operated Components*

Seiichi Fujita

Thesis: *The Invariance Properties of Linear Multivariable Control Systems*

Tee Hansford Hiatt

Thesis: *Fiscal Controls for Hospital Departments*

DOCTOR OF PHILOSOPHY (Physics)

Charles Thomas Brown

Thesis: *An Experimental Study of Certain Neutral Cosmic Ray Interactions*

James Daniel Phillips

Thesis: *L-Shell Auger Energies and Intensities in 3d Transition Metals*

Sam Allen Scales

Thesis: *The Heisenberg Paramagnet*

Spotswood Douglas Stoddard, Jr.

Thesis: *Cooperative Effects in the Density Expansion of the Boltzmann Equation*

Foch Tsai

Thesis: *Emission of Microwave Radiation by Gases*

David Hale Wycherley

Thesis: *No thesis topic has been turned in as of this date*

DOCTOR OF PHILOSOPHY (Aerospace Engineering)

Guerry Clark Backer

Thesis: *Static and Dynamic Behavior of Tensioned Doubly-Connected Plates*

William Rex Lawrence

Thesis: *Deposition of Dilute Aerosols from Turbulent Gas Flows in the Presence of Electrical Forces*

**DOCTOR OF PHILOSOPHY
(Chemistry)**

- Frank Richard Dobbs
Thesis: *The Composition of Complex Metal Hydrides in Ether Solvents*
- John Lafayette Hardwick
Thesis: *The Magnetic Rotation Spectrum of Sulfur Dioxide in the 3000Å Region*
- Robert Howard Hill, Jr.
Thesis: *The Chemistry of Endo-Triazolines*
- Paul Fredric Ingwolson
Thesis: *Part I: The Total Synthesis of (\pm) - spirovetivene. Part II: The Total Synthesis of (\pm) - cyclocolorone*
- Ming Ko
Thesis: *Substituent Effect on Photochemical Rearrangements of Cross-Conjugated Cyclohexadienones Related to Indanone*
- Ching Sheng Lee
Thesis: *Activity Coefficients of Binary Solutions by Brillouin Scattering*
- Thomas Howard Longfield
Thesis: *The Reaction of Cesium with Aromatic Hydrocarbons*
- Chi Shen
Thesis: *Synthesis and Properties of Cyclopropyl Fused Bicyclo-(2.2.2) - octane Derivatives*
- Steven Jay Steindel
Thesis: *Studies in the Structure and Synthesis of Some Natural Products*

**DOCTOR OF PHILOSOPHY
(Chemical Engineering)**

- Bhaven Chakravarti
Thesis: *Short-Range Order and the Initial Development of Long-Range Order in Ni₃Mo.*
- Richard Ruonn-Ching Chu
Thesis: *Radiation-Induced Particulates from Organic Vapors*
- Carl Bernard Drees
Thesis: *A New Process for the Production of Low Impurity Phosphoric Acid*
- Ju-Fu Shiau
Thesis: *Gas-Liquid Phase Equilibria in the Hydrogen-Carbon Tetrafluoride and Hydrogen-Chlorotrifluoromethane Systems at Low Temperatures and 20-120 atm.*

**DOCTOR OF PHILOSOPHY
(Civil Engineering)**

- Clyde Nelson Holland
Thesis: *An Investigation of the Strength-Deformation Characteristics of Two Soils Tested Under High Confining Pressures in the Triaxial Cell*
- William Campbell Little
Thesis: *The Role of Sediment Gradation on Channel Armoring*

**DOCTOR OF PHILOSOPHY
(Electrical Engineering)**

- John Burton Allen
Thesis: *Estimation of Laser Flowmeter Signals*

Somkuan Bruminhent

Thesis: *An Investigation of Gain-tuned Active Filters*

Dale Wayne Covington

Thesis: *Electrical Conduction in Nondegenerate, Nonsymmetrical, Epitaxial Semiconducting Films*

William Mulherin O'Dowd, Jr.

Thesis: *A New Finite Difference Solution to the Fokker - Planck Equation with Applications to Phase-Locked Loops*

Roger Paul Woodward

Thesis: *Auger Spectroscopy for the Study of Surface Contamination in Semiconductor Devices*

DOCTOR OF PHILOSOPHY (Mechanical Engineering)

Jerry Russell Dunn

Thesis: *Combined Heat and Vapor Transport Mechanisms in an Impregnated Porous Ceramic*

The above list of names was required by the printer several days prior to commencement to allow production of this program. The status of some candidates may have changed since that time. Some will not have completed all requirements for their degrees, and some will have achieved or lost honors status.

The listing of a name in this program in no way implies an obligation on the part of the Georgia Institute of Technology to award a given degree or a given honors status. For official purposes a final, correct list of graduates will be retained by the Office of the Registrar, Georgia Institute of Technology.

GEORGIA TECH 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.

