

CLEMSON UNIVERSITY

Doctoral Hooding Ceremony

AUGUST 10, 2017



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DOCTORAL HOODING CEREMONY

THURSDAY, AUGUST 10, 2017

3:00 PM

BROOKS CENTER FOR THE PERFORMING ARTS

ORDER OF CEREMONIES

PROCESSIONAL

(Please stand for the processional and the National Anthem)

NATIONAL ANTHEM

OPENING OF CEREMONY

University Marshal Robert J. Kosinski

REFLECTION

Frankie O. Felder

Senior Associate Dean of the Graduate School

WELCOME AND INTRODUCTIONS

Associate Provost and Dean of the Graduate School

Jason W. Osborne

and

Executive Vice President for Academic Affairs and Provost

Robert H. Jones

CONFERRING OF DEGREES, DELIVERY OF DIPLOMAS, AND HOODING

President James P. Clements

ALMA MATER

RECESSIONAL

Music by the Clemson University Brass Quintet

Selections and credits on page 19

Today's ceremony is being streamed live with captioning at tv.clemson.edu/live.

The recording will be posted at tv.clemson.edu/live/archive when available.

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Dean of Undergraduate Studies

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Associate Provost and
Dean of the Graduate School

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Humanities

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George J. Petersen
Dean of the College of Education

Anand K. Gramopadhye
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Dean of University Libraries

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Vice President for Public Service and Agriculture

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Vice President for Student Affairs

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Vice President for University Relations

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Executive Secretary to the Board of Trustees

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Special Assistant to the President for Inclusive Excellence

W.C. Hood, Jr.
General Counsel

Michelle T. Piekutowski
Chief Human Resources Officer

Dan Radakovich, Jr.
Director of Athletics

Theresa M. Singletary
Director of Operations

THE GRADUATE SCHOOL

Jason W. Osborne
Associate Provost and Dean of the Graduate School

Frankie O. Felder
Senior Associate Dean

William G. Ferrell
Associate Dean

David S. Fleming
Associate Dean

Tia N. Dumas
Assistant Dean for Professional Development and
Inclusive Excellence

GRADUATE STUDENT GOVERNMENT

Courtney Allen, President
Aury Kangelos, Vice President

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COLLEGE OF AGRICULTURE, FORESTRY AND LIFE SCIENCES

Joseph D. Culin
Associate Dean for Research and Graduate Studies
Jean Bertrand
Associate Dean for Academic Affairs

Charles Privette, interim.....Agricultural Sciences
James R. Strickland.....Animal and Veterinary Sciences
E. Jeffery Rhodehamel.....Food, Nutrition, and
Packaging Sciences
Greg K. Yarrow.....Forestry and Environmental Conservation
Greg Reighard, interim.....Plant and Environmental Sciences

COLLEGE OF ARCHITECTURE, ARTS AND HUMANITIES

Constancio K. Nakuma
Senior Associate Dean for Academic Affairs
James H. Spencer
Associate Dean for Research and Graduate Studies

Katherine L. Schwensen.....School of Architecture
Valerie A. Zimany, interim.....Art
N. Mike Jackson.....Construction Science and Management
Lee J. Morrissey.....English
James M. Burns.....History
Salvador A. Oropesa.....Languages
David J. Hartmann.....Performing Arts
Richard A. Amesbury.....Philosophy and Religion
John A. Gaber.....City Planning and Real Estate
Development

COLLEGE OF BUSINESS

Gregory M. Pickett
Senior Associate Dean and Director of MBA Programs
Douglas “Kinly” Sturkie
Associate Dean for Academic Affairs
Eric R. Muth
Interim Associate Dean for Research

Jeffrey J. McMillan.....School of Accountancy
Scott L. Baier.....Economics
Angela G. Morgan.....Finance
Charles “Chip” Tonkin.....Graphic Communications
“Sri” V. Sridharan.....Management
Jesse N. Moore, interim.....Marketing

COLLEGE OF ENGINEERING, COMPUTING AND APPLIED SCIENCES

Douglas E. Hirt
Associate Dean for Research and Graduate Studies
Bradley J. Putman
Interim Associate Dean of Undergraduate Studies

Eileen T. Kraemer.....School of Computing
Zoran S. Filipi.....Automotive Engineering
Martine LaBerge.....Bioengineering

David A. Bruce, interim.....Chemical and Biomolecular
Engineering
James R. Martin.....Civil Engineering
Daniel L. Noneaker.....Electrical and Computer
Engineering
Cindy M. Lee.....Engineering and Science Education
David L. Freedman.....Environmental Engineering and
Earth Sciences
R. Joe Watkins.....General Engineering
J. Cole Smith.....Industrial Engineering
Rajendra “Raj” Bordia.....Materials Science and Engineering
Richard Figliola, interim.....Mechanical Engineering

COLLEGE OF BEHAVIORAL, SOCIAL AND HEALTH SCIENCES

Eric R. Muth
Associate Dean for Research and Graduate Studies
Denise M. Anderson
Associate Dean for Undergraduate Studies

Kathleen L. Valentine.....School of Nursing
Bryan E. Denham.....Communication Studies
Francis A. McGuire, interim.....Parks, Recreation and
Tourism Management
Jeffrey S. Peake.....Political Science
Patrick H. Raymark.....Psychology
Ronald W. Gimbel.....Public Health Sciences
Katherine E. Weisensee, interim.....Sociology, Anthropology
and Criminal Justice
Mark A. Small.....Youth, Family and Community Studies

COLLEGE OF EDUCATION

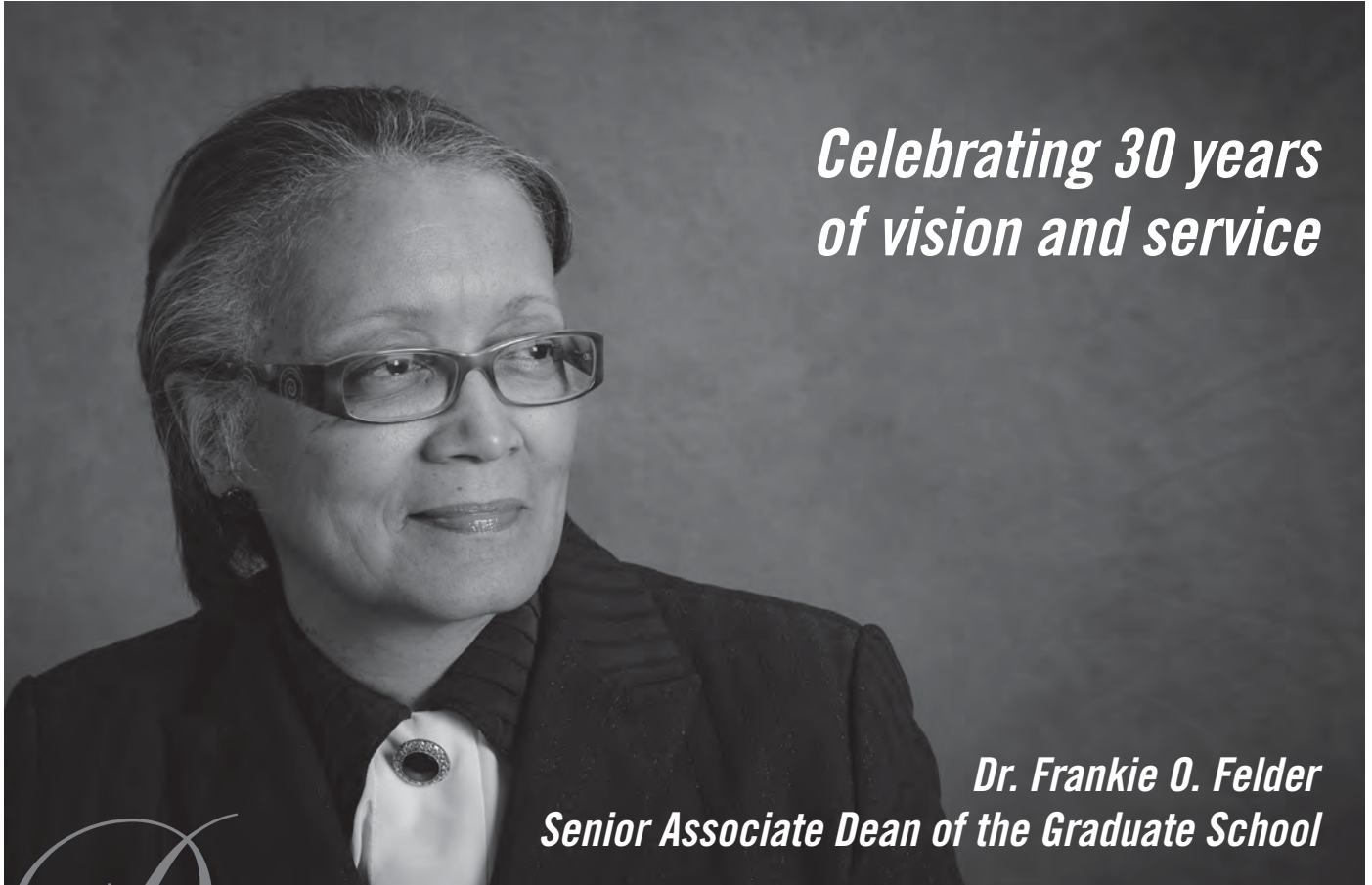
Kathy N. Headley
Senior Associate Dean of the Division of
Collaborative Academic Services
David E. Barrett
Associate Dean of Academic Affairs and Research
Michelle P. Cook
Interim Associate Dean for Undergraduate Programs

Deborah M. Switzer.....Education and Human Development
Robert C. Knoepfel.....Educational and Organizational
Leadership Development
Jeff C. Marshall.....Teaching and Learning

COLLEGE OF SCIENCE

Lesly A. Temesvari
Interim Associate Dean for Research
Brian N. Dominy
Interim Associate Dean for Academic Affairs

Robert S. Cohen.....Biological Sciences
R. Karl Dieter.....Chemistry
William R. Marcotte, Jr.Genetics and Biochemistry
Christopher L. Cox.....Mathematical Sciences
Terry M. Tritt, interim.....Physics and Astronomy



*Celebrating 30 years
of vision and service*

*Dr. Frankie O. Felder
Senior Associate Dean of the Graduate School*

DR. FRANKIE O. FELDER is retiring this month after 30 years of dedication to Clemson University and the Graduate School, first as associate dean of international services and programs, then as associate dean, and finally as senior associate dean of the Graduate School.

Her vision of what Clemson could become has been invaluable, her legacy far-reaching across the University, and her commitment to graduate education – particularly to graduate students – un-waivering. The Graduate School would like to take this opportunity to thank Dr. Felder for three decades of leadership.

A BRIEF HISTORY OF GRADUATE EDUCATION AND THE GRADUATE SCHOOL AT CLEMSON UNIVERSITY

[Clemson's faculty] would engage in original and important research, by which knowledge would be increased, whilst the immediate objects... would be the diffusion of facts on all scientific subjects. It would be vain to attempt to fix a limit to the benefits that would thus be conferred upon mankind and their effects upon society...
— THOMAS GREEN CLEMSON¹

In conceptualizing a “high seminary of learning” for South Carolina, Thomas Green Clemson knowingly set the stage for graduate education to emerge as an engine of economic development in the state. Graduate education quickly became synonymous with the application of theory to improving the practices of education and agriculture. The analysis of fertilizer, a contracted activity of the chemistry department that began in the late 1930s, would help restore depleted South Carolina soils, increase agricultural production, and spur a rapid development in opportunities for students at Clemson College to study beyond the baccalaureate degree.

Graduate coursework initially responded to the needs of veterans and to the interests of teachers wanting to improve their classroom skills, but also — from its inception — attracted international students' attention. On June 3, 1924, Patrick Hobson of Sandy Springs, South Carolina, earned the first master's degree awarded at Clemson. He used his degree in vocational education to serve as a high school principal and later as superintendent of schools in York County, South Carolina and Mitchell County, North Carolina. The third graduate degree, a master's in textile industrial education awarded to Ko-Chia Li from Mukden, China, on June 1, 1926, initiated an enrollment trend that has catapulted China to its present status as the number-one sending country for international graduate students at Clemson. Mr. Li returned to China and taught as a professor of textile engineering at Peking University, and served as head of the construction department in LiaoBei Province.

From 1938 until 1945, all aspects of graduate education (courses, programs, policies, procedures, admission, and graduation) developed under the auspices of the Committee on Graduate Instruction, chaired by F. H. H. Calhoun, Dean of the School of Chemistry and Geology. Twice during these years the University's attempts to formalize graduate education were thwarted because of the challenges to the Committee to maintain the necessary standards of quality. Clemson faculty recognized early that to establish a graduate program that enabled Clemson alumni to enroll would require strengthening the undergraduate curriculum and courses to prevent knowledge gaps “between the two.”²

On March 14, 1945, President Poole received the Committee's resolution requesting the appointment of a Dean of the Graduate School. It had been ascertained by that time that 19 courses could be offered immediately by the schools of agriculture, chemistry, engineering, textiles, and arts and sciences. On July 27, 1946, the Board of Trustees approved the Committee's proposed graduate program of study and, that fall, formally admitted the first class of students into “the Graduate School.” However, it would not be until June 15, 1951 that Herbert J. Webb, Chair of the Department of Chemistry and Toxicology, was appointed as the first Dean of the Graduate School.

Masterfully stewarded by President Poole himself and modeled initially after several prestigious southern institutions, Clemson's graduate programs grew cautiously but steadily, introducing the first doctoral degree, in plant pathology, in 1955. Today the Graduate School proudly enrolls 5,021 graduate students and — including this graduation — has awarded 37,731 master's degrees, 535 education specialist degrees, and 4,762 doctoral degrees.

1. Holmes, A., and G. R. Sherrill. *Thomas Green Clemson: His Life and Work*. 1937, p. 129.

2. Clemson University Library System archives. *Minutes of the Committee on Graduate Instruction*, 1945-1953, p. 7.

DOCTORAL HOODING

The doctoral hood is a symbolic honor of distinction bestowed upon scholars who have attained the highest level of formal education available in the world, representing a typical range of five to seven years of study beyond the bachelor's degree. Clemson's 46-inch-long doctoral hood is draped over the shoulders by the faculty member who, as chair of the advisory committee, has formally mentored and guided the student's successful research and education journey.

CANDIDATES FOR THE DOCTORAL DEGREE

Jason W. Osborne, Dean, Graduate School

COLLEGE OF AGRICULTURE, FORESTRY AND LIFE SCIENCES

DOCTOR OF PHILOSOPHY

Forest Resources

Roxanne Yvonne Stiglitz.....Manning, SC

B.S., Francis Marion University; M.S., Clemson University
Dissertation: Application of Low-cost Color Sensor Technology in Soil Data Collection
and Soil Science Education

Advisor: Dr. Elena Mikhailova

Roxanne has seven peer-reviewed publications and plans to work in higher education.

Plant and Environmental Sciences

Amith Sadananda Maroli..... Kannur, India

B.S., M.S., Manipal University; M.Phil., Central University of Kerala
Dissertation: Elucidating the Cellular Physiology Associated with the Herbicide
(Glyphosate) Resistance and Tolerance in Agricultural Weeds Using Metabolomics
Approach

Advisor: Dr. Nishanth Tharayil

Amith has six peer-reviewed publications and has accepted a postdoctoral position in Dr.
Nishanth Tharayil's lab at Clemson.

COLLEGE OF ARCHITECTURE, ARTS AND HUMANITIES

DOCTOR OF PHILOSOPHY

Planning, Design, and the Built Environment

Nixon Wonoto..... Jakarta Barat, Indonesia

B. Arch, University of Pelita Harapan; M.S., Georgia Institute of Technology
Dissertation: Integrating Parametric Structural Analysis and Optimization in the
Architectural Schematic Design Phase

Advisor: Dr. Vincent Y. Blouin

Rhetorics, Communication, and Information Design

Joshua Paul Herron.....Powdersville, SC

B.S., North Greenville University; M.S., University of North Carolina
Dissertation: Moving Composition: Writing in a Mobile World

Advisor: Dr. Jan R. Holmevik

Josh is the associate dean in the Center for Innovation and Digital Learning at Anderson
University (South Carolina).

COLLEGE OF BEHAVIORAL, SOCIAL AND HEALTH SCIENCES

DOCTOR OF PHILOSOPHY

Healthcare Genetics

Annamalar Priyadharshini Jeyasehar.....Fremont, CA

B.S.N., MGR University; M.S., Clemson University

Dissertation: Triple Negative Breast Cancer: Incidence Rates; Phenotype, Demographic,
and Treatment Characteristics; Model for Risk Prediction Among Women of Color

Advisor: Dr. Julia A. Eggert

Human Factors Psychology

Brian M. Day.....Bloomfield Hills, MI

B.A., Denison University; M.S., Illinois State University

Dissertation: Examining the Effects of Altered Avatars on Perception-Action in Virtual
Reality

Advisor: Dr. Christopher C. Pagano

Brian has five peer-reviewed publications, was named the Department of Psychology's
Outstanding Doctoral Student in 2017, and has accepted a faculty position at Butler
University.

Phillip Weiss Jasper..... Bethesda, MD

B.S., M.S., Clemson University

Dissertation: Identifying and Quantifying the Zone of Indifference

Advisor: Dr. Eric R. Muth

Phillip has a peer-reviewed publication and was a 3-Minute Thesis finalist in 2016. He
has accepted an engineering and scientific consulting position at Exponent in Phoenix,
Arizona.

Industrial and Organizational Psychology

Kandice N. Goguen..... Anderson, SC

B.S., University of Connecticut; M.S., Clemson University

Dissertation: Flexible and Fit: Examining the Relationship Between Flexible Work
Arrangements and Employee Health

Advisor: Dr. Thomas W. Britt

Parks, Recreation and Tourism Management

Li-Hsin ChenKaohsiung City, Taiwan

B.Ed., National Taichung University of Education; M.Ed., National Pingtung University

Dissertation: Exploring the Key Determinants of Bicycle Share Program Use in a Leisure
Context

Advisor: Dr. Charles Chancellor

Li-Hsin received the Parks, Recreation and Tourism Management Department's teaching
excellence award in 2017, and has accepted a faculty position at Tamkang University in
Taiwan.

Gina L. Depper Walnut Creek, CA
B.A., University of California; M.Sc., University College London
Dissertation: The Transmission of Environmental Values from Sources of Influence to
Young Adults: Toward an Understanding of the Process Leading to Environmental
Values Internalization
Advisor: Dr. Brett A. Wright
Gina received the Francis A. McGuire Graduate Student Teaching Award and the Richard
and Sandra Conover Fellowship. She plans to take a postdoctoral position at Clemson
University.

Ryan Joseph Gagnon Spokane, WA
B.A., Eastern Washington University; M.A., Washington State University
Dissertation: The Role of Implementation in Leisure, Experiential Education and
Recreation
Advisor: Dr. Barry A. Garst
Ryan has 16 peer-reviewed publications and three book chapters. He received his college's
doctoral candidate research award this year, and has accepted a faculty position at Clemson.

Policy Studies

Fidelis Obinnamaka Okonkwo Port Harcourt, Nigeria
B.A., M.P.P., Michigan State University
Dissertation: Selected Topics on Corruption: An Interdisciplinary Approach
Advisor: Dr. Lori A. Dickes

Thomas Capell Walker III Lexington, KY
B.A., Randolph-Macon College; M.P.A., Seattle University
Dissertation: Understanding Federalism and U.S. Fluoridation Policy: The Policy
Landscape of U.S. Fluoridation Policy
Advisor: Dr. Lori A. Dickes

COLLEGE OF BUSINESS

DOCTOR OF PHILOSOPHY

Business Administration

Nikhil Ramkrishna Bandodkar Lexington, SC
B.E., University of Mumbai; M.S., Florida State University
Dissertation: Essays on Information Technology and Value Creation: Corporate
Governance, Software Firm Acquisitions, and Entrepreneurial Signaling
Advisor: Dr. Varun Grover

Niratcha Tungtisanont Bangkok, Thailand
B.A., M.S., University of Arizona
Dissertation: Essays on Flood Disaster Relief Recovery Practices and Policy: Applying the
Lens of Service Operations Strategy
Advisor: Dr. Aleda M. Roth
Niratcha has accepted a tenure-track faculty position at the University of Maryland at
College Park.

Economics

César Emilio Castellón Chicas..... Matagalpa, Nicaragua

M.Sc., Clemson University

Dissertation: Three Essays on the Effect of Representation on Governance

Advisor: Dr. Howard N. Bodenhorn

César has a peer-reviewed publication, was nominated by the Economics Department for the 2016 Graduate Teaching Assistance Excellence Award, and plans to work in the banking sector.

Huili Li..... Huangshi, China

B.A., Shanghai Normal University; M.A., East China Normal University

Dissertation: Economic Growth in the Caribbean and Other Topics

Advisor: Dr. Gerald P. Dwyer

COLLEGE OF EDUCATION

DOCTOR OF PHILOSOPHY

Curriculum and Instruction

Ercan DedeArtvin, Turkey

M.S., Karadeniz Technical University

Dissertation: Turkish Pre-service Secondary Mathematics Teachers: An Examination of TPACK, Affect, and Their Relationship

Advisor: Dr. Andrew M. Tyminski

John D. McElroy..... Lexington, SC

B.A., San Diego Christian College; M.Ed., Roberts Wesleyan College

Dissertation: Look Who's Talking: A Multi-Case Study of In-Service English Language Arts Teachers' Conceptions and Uses of Discussion in the Secondary Classroom

Advisor: Dr. Mindy Spearman

Educational Leadership

Xiaoyan JiangShandong, China

B.A., Shanghai International Studies University; M.B.A., Anderson University

Dissertation: Understanding Teacher Effectiveness with Complexity and Network Theories

Advisors: Dr. Russell A. Marion and Dr. Robert C. Knoeppel

Literacy, Language and Culture

Erin Leslie McClure.....Charlotte NC

B.A., Wake Forest University; M.Ed., Queens University

Dissertation: Exploring the Nature of Teacher-Student Reading Conferences during Independent Reading Time

Advisor: Dr. Linda B. Gambrell

COLLEGE OF ENGINEERING, COMPUTING AND APPLIED SCIENCES

DOCTOR OF PHILOSOPHY

Automotive Engineering

Zhiyuan DuGreenville, SC

B.S., Dalian University of Technology; M.S., University of Florida
Dissertation: The Hierarchical Control Method for Coordinating a Group of Connected
Vehicles on Urban Roads
Advisor: Dr. Pierluigi Pisu

Konstantinos SiokosAthens, Greece

M.S., National Technical University of Athen
Dissertation: Low-Pressure EGR in Spark-Ignition Engines: Combustion Effects, System
Optimization, Transients & Estimation Algorithms
Advisor: Dr. Robert G. Prucka and Dr. Zoran Filipi
Konstantinos has seven peer-reviewed publications. He is a Greek national swimming
champion and has represented Team Greenville to become South Carolina State and
Sectional champion.

Jianan Sun.....Siping, China

B.S., Changchun University of Technology; M.B.A., Clemson University
Dissertation: External Economic Costs of Intelligent Urban Transportation Systems:
A Method to Evaluate the Externalities of Comparative Technology Adoption Pathways
in the Urban Mobility Service Sector
Advisor: Dr. David L. Bodde and Dr. Laine Mears
Jianan is an engineer, entrepreneur, and world traveler. She published in her first peer-
reviewed journal article while in Paris, and participated in BMW's Summer School in
Munich.

Zhe Wang..... Linfen, China

B.S., Nanchang University; M.S., Beijing Institute of Technology
Dissertation: Observer Based Cylinder Charge Estimation for Spark-ignition Engines
Advisor: Dr. Robert G. Prucka

Zeren Xu..... Huade, China

B.S., M.S., Chongqing University
Dissertation: Friction Stir Back Extrusion of Aluminium Alloys for Automotive
Applications
Advisor: Dr. Fadi K. Abu-Farha

Xiaoyan YuQingdao, China

B.S., Dalian University of Technology
Dissertation: Design, Synthesis and Sustainable Applications of Animal Protein-based
Thermoset Polymers and Covalent Organic Frameworks
Advisor: Dr. Srikanth Pilla

Ting Zheng..... Zhengzhou, China

B.S., M.S., East China University of Science and Technology
Dissertation: Proteinaceous Resin and Hydrophilic Encapsulation: A Self-Healing-
Related Study
Advisor: Dr. Srikanth Pilla

Bioengineering

Yu TanShenyang, China

B.S., Tianjin University

Dissertation: Nanowired Human Cardiac Spheroids for Cardiac Regenerative Medicine

Advisor: Dr. Ying Mei

Yu has 11 publications and a patent. He received the China Government Award for Outstanding Students Abroad in 2016 and has accepted a postdoctoral position at Johns Hopkins University.

Zhonghai Wang.....Cangxian, China

B.S., Tianjin University

Dissertation: Real-time Observation of Dynamic Sarcomeric Addition in an In Vivo-like Cardiomyocyte Culture Model

Advisor: Dr. Zhi Gao

Anthony has seven peer-reviewed publications.

Chemical Engineering

Joseph Michael Mannion Spartanburg, SC

B.S., Clemson University

Dissertation: Improved Sample Loading for Plutonium Analysis by Thermal Ionization Mass Spectrometry and Alpha Spectroscopy

Advisor: Dr. Scott M. Husson

Joseph has five peer-reviewed publications and has been offered a postdoctoral research position at Oak Ridge National Laboratory.

Civil Engineering

Andrew West BrownlowPowdersville, SC

B.S., Clemson University

Dissertation: Evaluation and Uncertainty Quantification of V_{S30} Models Using a Bayesian Framework for Better Prediction of Seismic Site Conditions

Advisor: Dr. Qiushi Chen and Dr. Charng-hsein Juang

Andrew received a GAANN fellowship sponsored by the U.S. Department of Education, and an EAPSI grant from the National Science Foundation to support his studies.

Mengzhe Gu..... Wuxi, China

B.S., Southeast University; M.S., University of Pittsburgh

Dissertation: Strength and Serviceability Performances of Southern Yellow Pine Cross-Laminated Timber (CLT) and CLT-Glulam Composite Beam

Advisor: Dr. Weichiang Pang

Shakira Renee Hobbs Baltimore, MD

B.S., University of Maryland; M.S., Arizona State University

Dissertation: Strategic Sustainability Assessment of Enhanced Anaerobic Digestion of Food and Bioplastic Waste for Municipalities

Advisor: Dr. Amy E. Landis

Shakira has four peer-reviewed publications, served as a leader conducting research in Sittee River, Belize, and has accepted a postdoctoral position at the University of Virginia.

-
- Parishad Rahbari..... Karaj, Iran
 B.S., K.N. Toosi University of Technology; M.S., Sharif University of Technology
 Dissertation: Robust Geotechnical Design Optimization of Retaining Walls and Levees
 Advisor: Dr. Nadarajah Ravichandran
- Hassan Rashidian Dezfouli..... Tehran, Iran
 B.S., Isfahan University of Technology; M.S., Sharif University of Technolog
 Dissertation: Characterization and Evaluation of Ground Glass Fiber as a Cementitious
 Component in Portland Cement and Geopolymer Concrete Mixtures
 Advisor: Dr. Prasada R. Rangaraju
- Kitiluk Thanomboonchai Bangkok, Thailand
 B.S., Kasetsart University; M.S., Thammasert University; M.S., Clemson University
 Dissertation: Sustainable Solar Energy Development in Thailand
 Advisor: Dr. Amy E. Landis
- Anoop V. Valiya VeettilClemson, SC
 B.Tech., Kerala Agricultural University; M.Tech., Indian Institute of Technology
 Dissertation: Quantitative Assessment of Water Security Using a Hydrological Modeling
 Framework
 Advisor: Dr. Ashok Mishra
- Chaofeng Wang Weihai, China
 B.S., M.S., Central South University
 Dissertation: Multiscale Regional Liquefaction Hazard Assessment and Mapping
 Advisor: Dr. Qiushi Chen
 Chaofeng has 13 peer-reviewed publications, was first-place winner in the 2015 Clemson
 Pitch Smackdown, and was awarded the Aniket Shrikhande Memorial Fellowship in 2016.
- Jin WangInner Mongolia, China
 B.S., Tongji University
 Dissertation: 3D Tornado Wind Field Model and Risk Assessment of Tornado Damage
 Advisors: Dr. Weichiang Pang and Dr. Shuyang Cao
- Sepideh Yazdekhashti.....Isfahan, Iran
 B.S., Isfahan University of Technology; M.Sc., University of Tehran
 Dissertation: Feasibility Evaluation of a Vibration-Based Leak Detection Technique for
 Sustainable Water Distribution Pipeline System Monitoring
 Advisors: Dr. Kalyan R. Piratla and Dr. Sez Atamturktur
- Ershad Ziaei GhehnaviehIsfahan, Iran
 B.S., M.Sc., Sharif University of Technology
 Dissertation: Seismic Analysis of Light-Frame Wood Building with a Soft-Story Deficiency
 Advisor: Dr. Weichiang Pang
 Ershad came to Clemson to research the impact of earthquakes on vulnerable buildings,
 an important natural hazard in his country of origin and some parts of the U.S.

Computer Engineering

Yu FuAnshan, China
B.S., East China University of Science and Technology
Dissertation: Using Botnet Technologies to Counteract Network Traffic Analysis
Advisor: Dr. Richard R. Brooks

Computer Science

Le Liu Xian, China
B.S., Chongqing University; M.S., Clemson University
Dissertation: Effective Visualizations of the Uncertainty in Hurricane Forecasts
Advisor: Dr. Donld H. House
Le has three peer-reviewed publications and has accepted a postdoctoral position at the University of Miami.

Dhaval Khushal ParmarMumbai, India
B.Eng., University of Mumbai
Dissertation: Evaluating the Effects of Immersive Embodied Interaction on Cognition in Virtual Reality
Advisor: Dr. Sabarish V. Babu
Dhaval has 11 peer-reviewed publications and one invited book chapter, was named the Computer Science department's Outstanding Ph.D. Student this year, and plans to work in the virtual reality industry.

Electrical Engineering

Qi Chen Suwanee, GA
B.S., University of Waterloo
Dissertation: Water-Tree Modelling and Detection for Underground Cables
Advisors: Dr. Elham B. Makram and Dr. Daniel L. Noneaker
Qi is currently working for Primetal Technology, LLC as a system design and drive commissioning engineer.

Baokai Cheng Wuhan, China
B.S., M.S., Tsinghua University
Dissertation: Coaxial Cable Sensors Based on Fabry-Perot Interferometers and Their Applications in Distributed Sensing
Advisor: Dr. Hai Xiao

Yan Cui Weishan, China
B.S., Changchun University of Science and Technology; M.S., Southeast University
Dissertation: Radio-Frequency Sensors for Detection and Analysis of Chemical and Biological Substances
Advisor: Dr. Pingshan Wang

Jia Li Xian, China
B.S., Northeastern Polytechnical University
Dissertation: DFIG Based Wind Turbine System For Clemson Micro-grid
Advisor: Dr. Richard E. Groff
Jia plans to continue his work in power electronics and motor drives.

Engineering and Science Education

Justine Marie Chasmar Chapin, SC

B.S., M.S., Clemson University

Dissertation: Connections between Future Time Perspectives and Self-Regulated Learning for Mid-Year Engineering Students: A Multiple Case Study

Advisor: Dr. Lisa C. Benson

Justine has three conference proceedings, including a Best Paper, and serves on the board of a national tutoring organization. She has taken a faculty position at Goucher College.

Environmental Engineering and Science

Wilson Beita Sandí Heredia, Costa Rica

B.S., University of Costa Rica; M.S., Clemson University

Dissertation: A Mixed Cation and Anion Exchange Resin System for the Simultaneous Removal of N-Nitrosodimethylamine and Trihalomethanes Precursors from Water

Advisor: Dr. Tanju Karanfil

Wilson has published in *Water Research* and *Environmental Science & Technology*. He was the 2017 Linvil G. Rich Fellowship Recipient, and has a faculty position at the University of Costa Rica.

Erin Tse-Tsaan Partlan Daly City, CA

B.S., Harvey Mudd College; M.S., Clemson University

Dissertation: Superfine Powdered Activated Carbon (S-PAC) Coupled with Microfiltration for the Removal of Trace Organics in Drinking Water Treatment

Advisor: Dr. David A. Ladner

Rong Yu XuZhou, China

B.S., Peking University; M.S., Clemson University

Dissertation: Laboratory Evaluation of Natural and Enhanced Remediation of Chlorinated Ethenes in Fractured Sandstone

Advisor: Dr. David L. Freedman

Industrial Engineering

Anas Alsayed Alghazi Al Madina, Saudi Arabia

B.S., M.S., King Fahd University of Petroleum and Minerals; M.S., University of Florida

Dissertation: Balancing and Sequencing of Mixed Model Assembly Lines

Advisor: Dr. Mary E. Kurz

Anas has three peer-reviewed publications and has taken a faculty position at King Fahd University of Petroleum and Minerals.

Sreenath Chalil Madathil Kannur, India

B.Tech., Federal Institute of Science and Technology; M.S., Clemson University

Dissertation: Modeling and Analysis of Remote, Off-grid Microgrids

Advisor: Dr. Scott J. Mason

Sreenath interned at Los Alamos National Lab. He won the Material Handling Education Foundation scholarship (2016), and has accepted a position at Binghamton University.

Leonardo LozanoBogota, Colombia
B.S., University of Los Andes; M.S., University of Florida
Dissertation: Exact Algorithms for Mixed-Integer Multilevel Programming Problems
Advisor: Dr. Cole Smith
Leonardo has three peer-reviewed publications and another article currently under review.
He has accepted a faculty position at the University of Cincinnati.

Dotan Israel Shvorin..... Kibbutz Eyal, Israel
B.S., Ruppin Academic Center; M.S., Clemson University
Dissertation: Understanding the Relationship between Performance Characteristics, Shot
Selection and Decision-making in the Game of Tennis
Advisor: Dr. Kevin M. Taaffe
Dotan led the Alpha Pi Mu honor society, established the INFORMS student chapter, and
won the Creative Inquiry Graduate Student Mentor award in 2017.

Melissa Isabel Zelaya-Floyd..... Tegucigalpa, Honduras
B.S., M.S., Clemson University
Dissertation: Exploring the Role of Simulation and Visualization Tools in Improving
Learning Outcomes in Support of Technology Programs
Advisor: Dr. Anand K. Gramopadhye

Materials Science and Engineering

Kathleen Marie DavisColumbus, MS
B.S., University of Southern Mississippi
Dissertation: Radioanalytical Methods for Characterization of the Surface Modification of
Nanoparticles
Advisor: Dr. Olin T. Mefford

Mechanical Engineering

Anthony Paul Garland.....Greenville, SC
B.S., Bob Jones University; M.S., Clemson University
Dissertation: Optimal Design of Gradient Materials and Bi-Level Optimization of Topology
Using Targets (BOTT)
Advisor: Dr. Georges M. Fadel

Neelakantan Padmanabhan.....Salem, India
B.Tech., Amrita Vishwa Vidhapeetham; M.S., Clemson University
Dissertation: On High Pressure Real Gas Turbulent Mixing Jets
Advisor: Dr. Richard S. Miller

COLLEGE OF SCIENCE

DOCTOR OF PHILOSOPHY

Biochemistry and Molecular Biology

Thanh Ngoc Dang Baton Rouge, LA
B.S., Louisiana State University
Dissertation: Acetate Metabolism: The Physiological Role of ADP-forming Acetyl-CoA
Synthetase and Acetate Kinase in *Entamoeba histolytica*
Advisor: Dr. Cheryl J. Ingram-Smith

Chemistry

Dipak Aryal..... Palpa, Nepal

M.S., Tribhuvan University

Dissertation: Computational Insight into Structured Ionic Co-polymers from Molecule to Membrane

Advisor: Dr. Dvora Perahia

Dipak has five peer-reviewed first-author publications, three second-author publications, and a book chapter. He currently does postdoctoral work at the University of Texas-Austin.

Teeranan Nongnual Nakhon Si Thammarat, Thailand

B.Sc., Prince of Songkla University; M.Sc., Kasetsart University

Dissertation: Fast Tracking of Single Conjugated Polymer Nanoparticles with High Spatial Resolution

Advisor: Dr. Jason D. McNeill

Cameron Andrew Parrish.....Elkin, NC

B.S., Campbell University

Dissertation: New Advances in Perfluoroalkoxyl Co- and Terpolymers with Tetrafluoroethylene

Advisor: Dr. Joseph S. Thrasher

Siyang Qing Shanghai, China

B.E., Nanjing University of Technology

Dissertation: Syntheses and Applications of Trifluoromethyl- and Pentafluorosulfanyl-Containing Organic Molecules

Advisor: Dr. Joseph S. Thrasher

Xiaoyan Yang.....Jingzhou, China

B.S., Central China Normal University; M.S., University of Chinese Academy of Sciences

Dissertation: Synthesis and Structure-Property Relationship of Phosphonium Polymers

Advisor: Dr. Rhett C. Smith

Gemma has accepted a postdoctoral position with Clemson's Glenn Department of Civil Engineering to work on the Clemson University: Learning Teams and Innovation Ventures for Adaptable Training in Engineering program.

Genetics

Jacquelyn Marie Evans.....Fort Mill, SC

B.S., Clemson University

Dissertation: Identification of Genetic Variants Underlying Simple and Complex Canine Myopathies

Advisor: Dr. Leigh A. Clark

Jacquelyn has four publications and was named the College of Science Outstanding Graduate Researcher. She has accepted a postdoctoral position at the National Institutes of Health.

Mathematical Sciences

Ryan R. Grove.....Portage, PA

B.S., M.S., Indiana University of Pennsylvania

Dissertation: Discretizations & Efficient Linear Solvers for Problems Related to Fluid Flow

Advisor: Dr. Timo J. Heister

-
- Fiona May KnollGreenville, SC
 B.S., Bob Jones University; M.S., Clemson University
 Dissertation: Johnson-Lindenstrauss Transformations
 Advisor: Dr. Xuhong Gao
- Yan LiuWeifang, China
 B.S., Sun Yat-sen University; M.S., University of Chinese Academy of Sciences
 Dissertation: Latent Data Modeling with Biostatistical Applications
 Advisors: Dr. Christopher S. McMahan and Dr. Colin M. Gallagher
 Yan has five peer-reviewed publications and received the Excellence in Graduate Research award from the Department of Mathematics. He has accepted a faculty position at the University of Nevada, Reno.
- Muhammad Mohebujjaman.....Bajitpur, Bangladesh
 B.S., University of Dhaka; M.S., University of Dhaka; M.S., Clemson University
 Dissertation: Efficient Numerical Methods for Magnetohydrodynamic Flow
 Advisor: Dr. Leo G. Rebholz
- Emily Marie Nystrom.....Maple Grove, MN
 B.S., Bob Jones University; M.S., Clemson University
 Dissertation: Correlated and Interacting Predictor Omission for Linear and Logistic Regression Models
 Advisor: Dr. Julia L. Sharp
 Emily was awarded a Science, Mathematics, and Research for Transformation (SMART) Scholarship in 2016.
- Javier Ruiz RamirezAguascalientes, Mexico
 B.S., M.S., Autonomous University of Aguascalientes
 Dissertation: Time-dependent Stokes-Darcy Flow with Deposition
 Advisor: Dr. Vincent J. Ervin
 Javier won an Outstanding Research award in 2017, has nine peer-reviewed publications, and will pursue cancer-related research at the University of Houston.
- Yanbo XiaChengdu, China
 B.S., University of Science and Technology of China; M.S., Clemson University
 Dissertation: Parsimonious Space-Time Temperature Series Modeling
 Advisor: Dr. Robert B. Lund
- Tao Yang.....Clemson, SC
 B.S., Beijing University of Posts and Telecommunications; M.S., Georgia Southern University
 Dissertation: Adaptive Robust Methodology for Parameter Estimation and Variable Selection
 Advisor: Dr. Colin M. Gallagher

Microbiology

David Andrew BuckleyGreenville, NC

B.S., East Carolina University

Dissertation: Survival, Recovery, and Inactivation of Human Norovirus Surrogates, Feline Calicivirus and Murine Norovirus, on Carpets

Advisors: Dr. Xiuping Jiang and Dr. Simon W. Scott

David was a NoroCORE fellow, ASTM scholarship recipient, and a visiting scientist with Procter & Gamble. He plans to remain in the National Guard and pursue a career in industry.

Yash Shaileshbhai RavalAhmedabad, India

B.S., M.S., Sri Sathya Sai Institute of Higher Learning

Dissertation: Application of Glycoconjugate Functionalized Magnetic Nanoparticles as Potent Anti-Adhesion and Anti-Bacterial Agents

Advisor: Dr. Tzuen-Rong J. Tzeng

Yash has authored ten peer-reviewed publications and has accepted a position as a research fellow at the Mayo Clinic in Rochester, Minnesota.

Physics

Bo WangWuhan, China

B.S., Huazhong University of Science & Technology

Dissertation: Understanding the Structure-Function Relationship of Dendrimers in Environmental and Biomedical Applications

Advisor: Dr. Feng Ding

Bo was awarded Outstanding Graduate Researcher by both the Department of Physics and Astronomy and the College of Science.

CLEMSON ALMA MATER

Farmer and McGarity/arr. Freeman

Where the Blue Ridge yawns its greatness,
Where the Tigers play;
Here the sons of dear old Clemson
Reign supreme always.

Chorus

Dear old Clemson, we will triumph
And with all our might,
That the Tiger's roar may echo
O'er the mountain height.

We will dream of greater conquests,
For our past is grand,
And her sons have fought and conquered
Every foreign land.

Where the mountains smile in grandeur
O'er the hill and dale.
Here the Tiger lair is nestling
Swept by storm and gale.

We are brothers strong in manhood,
For we work and strive;
And our alma mater reigneth
Ever in our lives.

CEREMONIAL MUSIC

Clemson University Brass Quintet

Prelude

Various Marches and Processionals

Processional

Pomp and Circumstance – Sir Edward Elgar

National Anthem

Words by Francis Scott Key
Music attributed to John Stafford Smith

Closing

Clemson University Alma Mater
Words by A. C. Corcoran, Class of '19
Music by Hugh H. McGarity and R. Hawkins
Arranged by J Butler

Recessional

Rondeau from "Sinfonies de Fanfares" –
Jean-Joseph Mouret

Special Thanks to Graduate Program Directors and Staff

Although there are too many to list, the graduate program coordinators, the administrative contacts, and the student services coordinators for each graduate degree program are essential to the success of graduate education at Clemson University. We hope you take great pride in seeing today's graduates walk across the stage, because this would not have been possible without you. Thank you.

Cadence Count

Clemson University Graduate School

The vast majority of our alumni are undergraduates, and for many of us, when we talk about the "Clemson Experience," we're thinking about those four (or more) years we experienced on campus working on our bachelor's degrees.

What you may not know is that 20 percent of current Clemson students are graduate students, working on master's or doctoral degrees in fields as diverse as human-centered computing, automotive engineering, and travel and tourism. While those students go to class and perform research, they also teach and run labs, work in departments across campus, and add to Clemson's reputation in the world with their transformative research.

Go to clemson.world for more information.

Here's just a snapshot of what graduate students contribute to the Clemson Experience:



11,000 hours
working as teaching assistants each week

21,800 hours
every week as research and program assistants



1 in 5
active Creative Inquiry teams is led or co-led by a graduate student.



41%
of the named inventors on patents assigned to Clemson between 2005-2015 were graduate students.

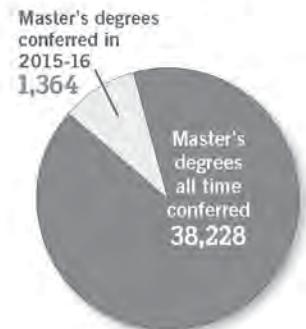
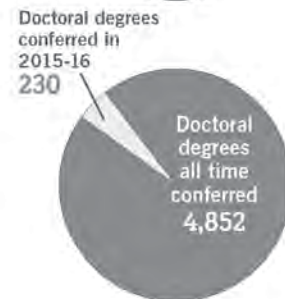
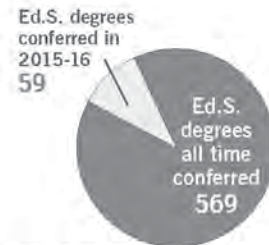


500,000+
downloads each year of graduate student theses and dissertations by researchers around the world



Graduate students also make our campus more representative of the world around us.
14% from underrepresented minorities

Degrees Conferred*



*As of Feb. 1, 2017

Candidates appearing in this program are not certified graduates. Likewise, academic honors designations are based upon performance prior to final grades. Both certification of graduation and honors designations must come from the Registrar of the University.



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