

CLEMSON UNIVERSITY

Doctoral Hooding Ceremony

AUGUST 9, 2018



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DOCTORAL HOODING CEREMONY

THURSDAY, AUGUST 9, 2018

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 Benjamin R. Stephens

REFLECTION

Lieutenant Colonel Christopher W. Kiss, USA

Doctoral Student

Planning, Design, and the Built Environment

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 18

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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Harold D. Kingsmore.....Clemson, SC
Thomas B. McTeer, Jr.Columbia, SC
Allen P. Wood..... Florence, SC

DEANS

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Dean of Undergraduate Studies

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

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Dean of the College of Agriculture, Forestry
and Life Sciences

Richard E. Goodstein
Dean of the College of Architecture, Arts
and Humanities

Leslie Hossfeld
Dean of the College of Behavioral, Social and
Health Sciences

Wendy York
Dean of the College of Business

George J. Petersen
Dean of the College of Education

Anand K. Gramopadhye
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and Applied Sciences

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Dean of the College of Science

Christopher Cox
Dean of University Libraries

ADMINISTRATIVE OFFICERS

James P. Clements
President

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Vice President and Chief of Staff

Robert H. Jones
Executive Vice President for Academic Affairs and Provost

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Vice President for Research

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Vice President for University Relations

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Executive Secretary to the Board of Trustees

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Vice President of Development and Alumni Relations

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Vice President and Chief Information Officer

Lee A. Gill
Chief Diversity Officer and
Special Assistant to the President for Inclusive Excellence

W.C. Hood, Jr.
General Counsel

Emily Watrous
Chief Human Resources Officer

Dan Radakovich, Jr.
Director of Athletics

THE GRADUATE SCHOOL

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

William G. Ferrell
Associate Dean

David S. Fleming
Associate Dean

Brian N. Dominy
Associate Dean

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

GRADUATE STUDENT GOVERNMENT

Bryce Conti, President

Cody Woods, Vice President

Senthil Raj Ramesh, VP for Greenville Council

ASSOCIATE DEANS AND DEPARTMENT CHAIRS

COLLEGE OF AGRICULTURE, FORESTRY & LIFE SCIENCES

Paula Agudelo, interim
Associate Dean for Research & Graduate Studies
Jean Bertrand
Associate Dean for Undergraduate Studies

Charles V. Privette, III Agricultural Sciences
James R. Strickland Animal & Veterinary Sciences
E. Jeffery Rhodelamel Food, Nutrition, &
Packaging Sciences
Greg K. Yarrow Forestry & Environmental Conservation
Matthew Turnbull & Jeffrey Adelberg, interims Plant &
Environmental Sciences

COLLEGE OF ARCHITECTURE, ARTS & HUMANITIES

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

Katherine L. Schwensen School of Architecture
Valerie A. Zimany, interim Art
John A. Gaber City Planning & Real Estate
Development
N. Mike Jackson Construction Science & Management
Susanna M. Ashton English
James M. Burns History
Salvador A. Oropesa Languages
Becky K. Becker Performing Arts
Richard A. Amesbury Philosophy & Religion

COLLEGE OF BEHAVIORAL, SOCIAL & HEALTH SCIENCES

Eric R. Muth
Associate Dean for Research & Graduate Studies
Denise M. Anderson
Associate Dean for Undergraduate Studies
Kathy N. Headley
Senior Associate Dean of the Division of Collaborative
Academic Services

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

COLLEGE OF BUSINESS

Gregory M. Pickett
Senior Associate Dean & Director of MBA Programs
Carl W. Hollingsworth, interim
Associate Dean for Academic Affairs

Sally K. Widener School of Accountancy
Scott L. Baier Economics
Angela G. Morgan Finance

COLLEGE OF BUSINESS, *continued*

Charles “Chip” Tonkin Graphic Communications
“Sri” V. Sridharan Management
Jesse N. Moore, interim Marketing

COLLEGE OF EDUCATION

Kathy N. Headley
Senior Associate Dean of the Division of Collaborative
Academic Services
Jeff C. Marshall, interim
Associate Dean of Academic Affairs & Research
Michelle P. Cook, interim
Associate Dean for Undergraduate Programs

Debi M. Switzer Education & Human Development
Roy Jones, interim Educational & Organizational
Leadership Development
Cynthia Deaton, interim Teaching & Learning

COLLEGE OF ENGINEERING, COMPUTING & APPLIED SCIENCES

Douglas E. Hirt
Associate Dean for Research & Graduate Studies
Bradley J. Putman
Associate Dean for Undergraduate Studies

Zoran S. Filipi Automotive Engineering
Martine LaBerge Bioengineering
David A. Bruce Chemical & Biomolecular
Engineering
Ron Andrus, interim Civil Engineering
Larry F. Hodges, interim School of Computing
Daniel L. Noneaker Electrical & Computer Engineering
Cindy M. Lee Engineering & Science Education
David L. Freedman Environmental Engineering &
Earth Sciences
R. Joe Watkins General Engineering
J. Cole Smith Industrial Engineering
Rajendra “Raj” Bordia Materials Science & Engineering
Richard Figliola, interim Mechanical Engineering

COLLEGE OF SCIENCE

Julia Frugoli
Associate Dean for Inclusive Excellence & Graduate Education
Calvin Williams
Associate Dean for Undergraduate Excellence
& Community Engagement
Apparao Rao
Associate Dean for Discovery

Robert S. Cohen Biological Sciences
William T. Pennington Chemistry
William R. Marcotte, Jr. Genetics & Biochemistry
Christopher L. Cox Mathematical Sciences
Chad Sosolik, interim Physics & Astronomy

Special Thanks to Graduate Program Directors & Staff

Although there are too many to list, the graduate program coordinators, administrative contacts, & student services coordinators for each graduate degree program are essential to the success of graduate education at Clemson University. We thank each and every one of you.

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 approximately 5,000 graduate students and is committed to continued growth at both the master's and doctoral levels.

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

Entomology

Sofia Isabel Muñoz Tobar Quito, Ecuador
B.S., Pontificia Universidad Católica del Ecuador; M.A., University of Kansas
Dissertation: Diversification and Speciation Patterns of Ground Beetles (Coleoptera, Carabidae) and Rove Beetles (Coleoptera, Staphylinidae, Pselaphinae) in the Highlands of Ecuador
Advisor: Dr. Michael Caterino

Food Technology

Mengmeng Zhao Tianjin, China
B.E., M.E., Tianjin University of Science and Technology
Dissertation: Development of a Database-Driven Management System for Retail Food Packaging Eye Tracking Studies
Advisor: Dr. Rupert Hurley
Mengmeng won the 2016 Package of the Year Award for Students from the Association for Dressings and Sauces.

Forest Resources

Gavin Douglas Blosser Dillwyn, VA
B.S., North Carolina State University; M.S., California State University
Dissertation: Assessment of Aboveground Net Primary Productivity and Carbon Pools, Detrital Biomass, Community Structure, and Species Composition Across a Floodplain Forest of the Congaree River
Advisor: Dr. William Conner

Plant and Environmental Sciences

Nathan W. Redding Greenville, SC
B.S., Wofford College; M.S., Clemson University
Dissertation: Exploring Interspecific Interactions of Reniform Nematode (*Rotylenchulus reniformis*) and Host Roots
Advisors: Dr. Paula Agudelo and Dr. Christina Wells

Dhanuska Bandara Wijesinghe Kandy, Sri Lanka
B.S., M.Ph., University of Peradeniya
Dissertation: Geospatial Tools to Inform Land Use Change Decisions: From Local Installation to Watershed Scale
Advisors: Dr. Dara Park and Dr. Daniel Hitchcock
Dhanuska has three pending journal articles based on his dissertation research, and plans to work in the field of GIS and soil science.

Phillip Bryson Williams..... Neeses, SC
B.A., Clemson University; M.S., Auburn University
Dissertation: Development of a Sensor-Based, Variable-Rate Fertigation Technique for
Overhead Irrigation Systems
Advisor: Dr. Ahmad Khalilian

Wildlife and Fisheries Biology

Ciera Marie Baird Pittston, PA
B.S., Keystone College; M.S., Clemson University
Dissertation: Cyanobacterial Toxins: Managing Human-Health and Ecological Risks from
Microcystins in Surface and Drinking Waters
Advisor: Dr. John Rodgers, Jr.
Ciera has 20 peer-reviewed publications and was named the 2018 Outstanding Graduate
Research Assistant in the College of Agriculture, Forestry and Life Sciences.

COLLEGE OF ARCHITECTURE, ARTS AND HUMANITIES
DOCTOR OF PHILOSOPHY

Planning, Design, and the Built Environment

Jessica Fernandez Marietta, GA
B.S., M.L.A., Auburn University
Dissertation: Blurring Boundaries: A Study of Town, Gown, and the Built Environment
Advisor: Dr. Matthew Powers

Deborah M. Wingler Pendleton, SC
B.S., M.S.D., Northern Arizona University
Dissertation: Examining Child and Parent Anxiety During the Ambulatory Surgical Process:
A Comparison of Using the Induction Room vs. the Operating Room for Anesthetic
Induction
Advisor: Dr. Anjali Joseph
Deborah was awarded the 2018 Frankie O. Felder Graduate Student Award of Excellence, and
was the recipient of three grant awards for her dissertation research.

Rhetorics, Communication, and Information Design

Daniel M. Frank Fresno, CA
B.A., M.A., California State University
Dissertation: Microworld Writing: Making Spaces for Collaboration, Construction, Creativity,
and Community in the Composition Classroom
Advisor: Dr. Cynthia Haynes

Samuel Jackson Fuller..... Greenville, SC
B.A., University of South Carolina; M.A., Clemson University
Dissertation: Modding the Apocalypse: (Re)Making Videogames as Post-Structuralist Free Play
Advisor: Dr. Jan Holmevik

Stephen J. QuigleyIndianapolis, IN
B.S., Indiana University; M.F.A., University of Southern Maine
Dissertation: The Clemson Ghost Tour: Disrupting Rhetorical Stagnation
Advisor: Dr. Cynthia Haynes
Stephen received a Humanities Hub Grant, a Douglass Award for Teaching Excellence, a
Clemson Geopaths Fellowship, and has four peer-reviewed publications.

Nathan D. Riggs.....Lancaster, OH
B.S.S., Ohio University; M.F.A., Bowling Green State University
Dissertation: Persuasive Intelligence: On the Construction of Rhetor-Ethical Cognitive
Machines
Advisor: Dr. Steven Katz

COLLEGE OF BEHAVIORAL, SOCIAL AND HEALTH SCIENCES
DOCTOR OF PHILOSOPHY

Human Factors Psychology

Drea Kevin Fekety Clearwater, FL
B.S., University of Central Florida; M.S., Clemson University
Dissertation: Using Motion Perception to Improve the Nighttime Conspicuity of Bicyclists at
Street Crossings
Advisor: Dr. Richard Tyrrell

Drew Morgan LinkBostic, NC
B.A., University of North Carolina; M.S., Clemson University; M.S., Appalachian State
University
Dissertation: Applications of Adaptive Decision Making Under Risk in Health Contexts
Advisor: Dr. Leo Gugerty

Drew Michael Morris..... Aberdeen, SD
B.S., University of South Dakota; M.S., Clemson University
Dissertation: Evidence for a Perceptual Recalibration of Self-Control During Thermal Stress
Advisor: Dr. June Pilcher

Industrial/Organizational Psychology

Pamela Rose Farago Wharton, NJ
B.S., Georgetown University; M.A., Montclair State University
Dissertation: Caring for Caregivers: Mentoring and Its Effects on Affective and Behavioral
Outcomes
Advisor: Dr. Marissa Shuffler

Jamie Marie Fynes.....McDonald, OH
B.A., Walsh University; M.S., University of Tennessee
Dissertation: Now That I'm Gone, Let Me Tell You How I Feel: Former Employees' Perceptions
of Employer Image and Organizational Attraction
Advisor: Dr. Patrick Rosopa

William S. Kramer Boynton Beach, FL
B.S., University of Florida; M.S., University of Central Florida
Dissertation: Traversing the Digital Frontier: Culture’s Impact on Faultline Emergence in
Virtual Teams
Advisor: Dr. Marissa Shuffler

International Family and Community Studies

Melody Jo Harper Lynchburg, VA
B.S., Samford University; M.S.W., University of Alabama; M.A., Union University
Dissertation: Equipping Culturally Competent Students: The Development of Cultural
Intelligence in the Classroom and Beyond
Advisor: Dr. Mark Small

Parks, Recreation and Tourism Management

Zeynep A. GedikogluClemson, SC
B.A., M.A., Koç University
Dissertation: Exploring Destination Image Themes on Twitter, Before, During, and After
Terror Attacks in Paris: An Application of Agenda Setting Theory
Advisors: Dr. Sheila Backman and Dr. Joseph Mazer
Zeynep has two peer-reviewed publications, has been recognized and certified by domestic and
international academic conferences including UNESCO, and plans to work in academia in
the U.S.

Geoffrey Koome Riungu.....Meru, Kenya
B.T.T.M., M.B.A., Moi University
Dissertation: Investigating the Management of Visitor Experiences in Recreational Boating
Advisor: Dr. Jeffrey Hallo

Alysha Amber Walter..... Amboy, IL
B.S., Eastern Illinois University; M.S., Indiana University
Dissertation: Select Psychological and Physical Impacts of Therapeutic Yoga for Informal
Caregivers: A Feasibility Study
Advisor: Dr. Marieke Van Puymbroeck

COLLEGE OF BUSINESS

DOCTOR OF PHILOSOPHY

Business Administration

Yunsik Choi Central, SC
B.S., Soongsil University; M.S., Clemson University
Dissertation: Essays: Salient Factors Affecting Clinicians’ Behaviors, Performance and Patient
Satisfaction
Advisors: Dr. Lawrence Fredendall and Dr. Aleda Roth

Min Kyung Lee..... Chuncheon, Korea
B.S., Gangwon National University; M.S., Clemson University
Dissertation: Essays on the New Service Innovation in the Hospitality Sector: A Service
Operations Strategy Perspective
Advisor: Dr. Aleda Roth
Min has one peer-reviewed publication, won a Graduate Teaching Assistant Excellence award,
and has accepted a faculty position at the University of Northern Illinois.

Brandon Woohyeong Lee Daegu, Korea
B.S., Southern Illinois University
Dissertation: Essays on Operational Perspectives of Stroke Patient Care – Empirical
Investigations
Advisor: Dr. Lawrence Fredendall
Brandon received teaching excellence awards from the College of Business and the Graduate
School in 2016, and has accepted a faculty position at the University of Dayton.

Economics

Haobin Fan Shanghai, China
B.S., Jiangxi University of Finance and Economics; M.S., Shanghai Academy
Dissertation: Essays on Firm Pricing Behaviors in the U.S. Airline Industry
Advisor: Dr. Matthew Lewis

Senad Sinanović Sarajevo, Bosnia and Herzegovina
B.A., Hood College; M.A., Clemson University
Dissertation: Essays on Unemployment Duration in Germany
Advisors: Dr. Paul Wilson and Dr. Babur De los Santos
Senad has accepted a faculty position at the Ohio State University.

COLLEGE OF EDUCATION

DOCTOR OF PHILOSOPHY

Curriculum and Instruction

William David McCorkle Greenville, SC
B.A., Clemson University; B.S., Illinois State University; M.Ed., Grand Canyon University
Dissertation: The Awareness and Attitudes of Teachers towards Educational Restrictions for
Immigrant Students
Advisor: Dr. Melinda Spearman
Will has accepted a position in social studies education and educational foundations at the
College of Charleston.

Marjorie Deanna Ramey..... Pendleton, SC
B.S., Clemson University; M.A.T., College of Charleston
Dissertation: Language and Literacy in a Head Start Preschool: Understanding Practice to
Inform Theory and Improve Outcomes
Advisors: Dr. Linda Gambrell and Dr. Sandra Linder
Author of seven publications, Deanna received the Graduate Student Award of Excellence from
her college and was awarded a Clemson University Distinguished Graduate Fellowship.

Educational Leadership

Aris Lane Hall..... Jonesboro, GA

B.A., Kentucky State University; M.Ed., University of Louisville
Dissertation: HBCUs Matter: The Lived Experiences of Involved Student-Athletes Changing
the Game

Advisor: Dr. Jane Clark Lindle

Aris is a Southern Regional Education Board Dissertation Fellow who has coauthored her first
peer-reviewed publication and is planning a faculty role in higher education.

Sheila Finley Hilton..... Anderson, SC

B.A., M.A., Clemson University
Dissertation: Selected South Carolina School Leaders' Experiences in Addressing
Cyberbullying

Advisor: Dr. Jane Clark Lindle

Charles R. Knepfle Central, SC

B.S., M.B.A., Miami University
Dissertation: Using Multinomial Regression to Examine the Mediating Effect of Parental
Knowledge About College Tuition on Postsecondary Attendance Expectations

Advisor: Dr. Robert Knoeppel

Robert Benjamin Simon.....Atlanta, GA

B.I.S., Arizona State University; M.A., University of St. Thomas
Dissertation: Understanding Faculty Laggards' Adoption of Administrative Technologies:
A Phenomenological Study

Advisor: Dr. Michelle Boettcher

Misty B. Soles.....Clemson, SC

B.A., M.A., Clemson University; J.D., University of Georgia
Dissertation: Dreams and Plans: A Case Study of the Football Facilities of the University
of Georgia

Advisor: Dr. Robert Knoeppel

Misty is a lecturer in the Athletic Leadership program in the Clemson University College of
Education.

Seth Daniel Young.....Easley, SC

B.S., M.A., Clemson University
Dissertation: School Leaders' Levels of Political Engagement with the Policy Environments
Surrounding Their Professional Roles

Advisor: Dr. Hans Klar

COLLEGE OF ENGINEERING, COMPUTING AND APPLIED SCIENCES

DOCTOR OF PHILOSOPHY

Automotive Engineering

Jeffery Ryan Anderson..... Anderson, SC

B.S., Louisiana Tech University; M.S., Clemson University

Dissertation: A Controls-Oriented Approach For Modeling Professional Drivers During
Ultra-High Performance Maneuvers

Advisor: Dr. Beshah Ayalew

Jeffery has eight peer-reviewed publications and will continue his career at Michelin Americas
Research Center as a designer for original equipment ultra-high-performance tires.

Rohit Vishvanath Koli..... Thane, India

B.E., Mumbai University; M.S., Clemson University

Dissertation: Model Predictive Control of Modern High-Degree-of-Freedom Turbocharged
Spark Ignited Engines with External Cooled EGR

Advisor: Dr. Robert Prucka

Ryan N. O'Donnell.....South Portland, ME

B.A., Clark University

Dissertation: Experimental and Analytical Techniques for Evaluating the Impact of Thermal
Barrier Coatings on Low Temperature Combustion

Advisor: Dr. Zoran Filipi

Jamie Daniel Skovron.....London, United Kingdom

B.S., University of Central Florida

Dissertation: Slip-Stick Contact Conditions for the Thermo-Mechanically Coupled Flow Drill
Screw Process

Advisor: Dr. Laine Mears

Jamie has two journal publications, a patent application, and internships at Boeing, EJOT, and
Audi. He has accepted a position as product development manager at EJOT in Detroit.

Bioengineering

Jia Jia..... Huzhou, China

B.S., Beijing Normal University

Dissertation: Peptide-Functionalized Hydrogel Microarray Development and Its Application
in Therapeutic Angiogenesis

Advisor: Dr. Ying Mei

Vaideesh Parasaram..... Madanapalle, India

B.E., Birla Institute of Technology and Science, Pilani; M.S., Clemson University

Dissertation: Targeted Delivery of Drug Loaded Albumin Nanoparticles to Emphysematous
Lungs to Preserve Elastin and Mitigate Matrix Metalloproteinase Activity

Advisor: Dr. Narendra Vyavahare

Vaideesh has four peer-reviewed publications and two patents.

Dylan Jack Richards..... Charleston, SC

B.S., Furman University

Dissertation: Development of Biomimetic Models of Human Cardiac Tissue

Advisor: Dr. Ying Mei

Kyle G. SnethenGreenville, SC
B.S., University of Central Florida
Dissertation: Computational Modeling of Nonlinear Behavior in Orthopaedics
Advisor: Dr. Melinda Harman
Kyle’s work has received international recognition, winning Simulia Project of the Year in 2017 and a Young Scientist award from the Orthopaedic Research Society in 2018.

Chemical Engineering

Anuradha GundamarajuHyderabad, India
B.Tech., M.Tech., Jawaharlal Nehru Technological University
Dissertation: First Principles-Based Microkinetic Modeling of Ethanol from Syngas on Bimetallic Co-Pd Catalysts
Advisor: Dr. David Bruce

Civil Engineering

Awe Abdulqader AjaajClemson, SC
B.S., University of Anbar; M.S., Ministry of Higher Education & Scientific Research – University of Technology
Dissertation: Hydrologic Evaluation of Surface and Subsurface Water in Highly Managed Watershed with Limited Observations
Advisors: Dr. Ashok Mishra and Dr. Abdul Khan

Vahidreza Mahmoudabadi Arani Tehran, Iran
B.S., University of Science and Technology of Iran; M.S., International Institute of Earthquake Engineering and Seismology
Dissertation: Coupled Hydrological-Geotechnical Model for Determining Bearing Capacity and Elastic Settlement of Foundations
Advisor: Dr. Nadarajah Ravichandran

Barnabas BwambaleKasese, Uganda
B.Sc., M.Sc., Makerere University
Dissertation: Reducing Uncertainty in the Assessment of Aging Effects on Soil Liquefaction
Advisor: Dr. Ronald Andrus
Barnabas received the 2016 Outstanding Graduate Laboratory Assistant award, 2017 Aniket Shrikhande Memorial Annual Graduate Fellowship, and 2018 Glenn Department of Civil Engineering Teaching Fellowship.

Behrooz DanishKabul, Afghanistan
B.S., Kabul University; M.S., Clemson University
Dissertation: Investigation of Bonding Between Open Graded Friction Courses and Underlying Asphalt Pavement Layers
Advisor: Dr. Bradley Putman

Alireza Shams Esfandabadi..... Central, SC
B.S., University of Isfahan; M.A., Shiraz University; M.S., Kansas State University
Dissertation: Highway Cross Slope Measurement Using Airborne and Mobile LiDAR
Advisor: Dr. Wayne Sarasua
Alireza has three peer-reviewed publications and was named the Glenn Department of Civil Engineering Teaching Fellow in spring 2017.

Wenxin Liu Nanjing, China
B.S., Nanjing Technological University
Dissertation: A Geostatistical Approach Toward Shear Wave Velocity Modeling and
Uncertainty Quantification in Seismic Hazard
Advisors: Dr. Qiushi Chen and Dr. C. Hsein Juang
Wenxin won her department's Outstanding Graduate Lab Assistant award for the
2017–2018 academic year and plans to work in her hometown.

Md Mizanur RahmanMeherpur, Bangladesh
B.S., Bangladesh University of Engineering and Technology; M.S., Clemson University
Dissertation: Connected and Autonomous Vehicles Applications Development and Evaluation
for Transportation Cyber Physical Systems
Advisors: Dr. Mashrur Chowdhury and Dr. James Martin

Mengfen Shen..... Longyan, China
B.S., M.S., Hefei University of Technology
Dissertation: Probabilistic Assessment of Soil Liquefaction Potential and Mitigation
Advisors: Dr. Qiushi Chen and Dr. C. Hsein Juang

Computer Science

Ethan Travis McGeeGreenville, SC
B.S., Bob Jones University; M.S., Clemson University
Dissertation: A Decision Support System for Selecting Between Designs for Dynamic Software
Product Lines
Advisors: Dr. John McGregor and Dr. Brian Malloy
Ethan has eight peer-reviewed publications and has accepted a software engineer position with
AFS Logistics, LLC in Greenville, SC.

Electrical Engineering

Upasana Bhattacharyya..... Kolkata, India
B.Tech., West Bengal University of Technology
Dissertation: Estimating the Location of a Nuclear Source with Multiple Drones in an Urban
Environment
Advisor: Dr. Carl Baum

Soaram Kim Pohang, Korea
B.S., M.S., Inje University
Dissertation: Graphene/P(VDF-TrFE) Heterojunction Based Wearable Sensors with Integrated
Piezoelectric Energy Harvester
Advisor: Dr. Goutam Koley

Shriram Srinivasarangan RangarajanChennai, India
B.E., Anna University; M.S., Syracuse University; M.S., University of Western Ontario
Dissertation: Efficacy of Smart PV Inverter as a Strategic Mitigator of Network Harmonic
Resonance and a Suppressor of Temporary OverVoltage Phenomenon in Distribution
Systems
Advisor: Dr. Randolph Collins
Shriram won the Best Paper Award at the Institute of Electrical and Electronics Engineers' 49th
North American Power Symposium in 2017.

Engineering and Science Education

Aubrie Lynn Pfirman South Williamsport, PA

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

Dissertation: Exploring Underrepresented Doctoral Students' Conceptualizations of the Student-Advisor Relationship in Chemistry

Advisor: Dr. Eliza Gallagher

Environmental Engineering and Science

Jennifer Christine Wong Pleasanton, CA

B.S., University of California Berkeley

Dissertation: Plutonium in the Presence of Natural Organic Ligands: Sorption Kinetics, Surface Complex Stability, and Subsurface Transport

Advisor: Dr. Brian Powell

Human Centered Computing

Tania Roy Kolkata, India

B.Tech., West Bengal University of Technology; M.S., Clemson University

Dissertation: SecondLook – A Prototype Mobile Phone Intervention for Digital Dating Abuse

Advisor: Dr. Larry Hodges

Tania has eight peer-reviewed publications, was presented the department's Outstanding PhD Student Award in 2016, and has accepted a faculty position at the New College of Florida.

Industrial Engineering

Zahra Azadi Eilam, Iran

B.S., M.S., K. N. Toosi University

Dissertation: Stochastic Optimization Models for Perishable Products

Advisor: Dr. Sandra Eksioglu

Zahra was named the Janine Anthony Bowen Graduate Fellow for outstanding academic performance and has accepted a faculty position at the University of Miami.

Robert Mark Curry II Hot Springs, AR

B.S., University of Arkansas; M.S., University of Florida

Dissertation: Mathematical Models and Algorithms for Network Flow Problems Arising in Wireless Sensor Network Applications

Advisor: Dr. J. Cole Smith

Rob has two peer-reviewed publications, was named his department's Outstanding Research Assistant, and has accepted a faculty position at the United States Naval Academy.

Mowen Lu Harbin, China

B.S., Nanjing University of Aeronautics and Astronautics; M.S., University of Florida

Dissertation: Optimization Methods in Electric Power Systems: Global Solutions for Optimal Power Flow and Algorithms for Resilient Design Under Geomagnetic Disturbances

Advisors: Dr. Sandra Eksioglu and Dr. Scott Mason

Site Wang Jinzhou, China

B.S., Beijing Institute of Technology; M.S., Clemson University

Dissertation: Electrical Infrastructure Adaptation for a Changing Climate

Advisor: Dr. Scott Mason

Materials Science and Engineering

Pavel Aprelev Philadelphia, PA

B.S., Union College

Dissertation: Materials Science of Blood Clot Formation in Insects: Experimental Methods for a Multiscale In-Situ Investigation

Advisor: Dr. Konstantin Kornev

Benjamin David Fellows Albuquerque, NM

B.S., University of New Mexico

Dissertation: Synthesis, Biofunctionalization, and Application of Magnetic Nanomaterials

Advisor: Dr. Olin Mefford

Chengqi Zhang Tangshan, China

B.E., Northwestern Polytechnical University

Dissertation: Wetting of Bio-Inspired Complexly-Shaped Fibers and Channels

Advisor: Dr. Konstantin Kornev

Mechanical Engineering

Abdraouf Khalifa Abusoua Tripoli, Libya

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

Dissertation: Some Interesting Effects of High-Frequency Non-Resonant Harmonic Excitations on the Slow Response of Duffing Oscillators

Advisor: Dr. Mohammed Daqaq

Qi Liu Xi'an, China

B.S., Xi'an Jiaotong University

Dissertation: Modeling and Performance Analysis of a Sloshing Ferrofluid Based Electromagnetic Energy Harvester

Advisor: Dr. Gang Li

Qian Mao Wuhan, China

B.S., Wuhan Institute of Technology

Dissertation: A Molecular Dynamics Study of the Cellulose-Graphene Oxide Nanocomposites: The Interface Effects

Advisor: Dr. Huijuan Zhao

Qian has one peer-reviewed publication.

Senbagaraman Sudarsanam Coimbatore, India

B.Tech, Amrita Vishwa Vidyapeetham; M.S., Clemson University

Dissertation: Particle Manipulation in Viscous Flows: Singularity Models and Phase Space Boundaries

Advisor: Dr. Phanindra Tallapragada

COLLEGE OF SCIENCE

DOCTOR OF PHILOSOPHY

Biological Sciences

Ojas NatarajanMumbai, India

B.Sc., M.Sc., Mumbai University

Dissertation: Investigation of Molecular Mechanisms Involved in Retardation of
Immunosenescence in *Caenorhabditis elegans* by Royal Jelly

Advisors: Dr. Yuqing Dong and Dr. Min Cao

Ojas was recognized as the Outstanding Graduate in Learning by the College of Science
in 2018.

Christie L. SampsonClarkston, MI

B.S., Michigan State University; M.S., Clemson University

Dissertation: Living with Giants: Human-Elephant Conflict and Poaching in Myanmar

Advisors: Dr. David Tonkyn and Dr. Saara DeWalt

Christie is cofounder of the “What’s in Our Waters” Science Outreach Program, a fellow at the
Smithsonian Institution, and a 2015 Eurasia Foundation Emerging Fellow.

Chemistry

Jaime Melissa MurphyGreenville, SC

B.S., University of South Carolina

Dissertation: Complexation of Copper and Iron by Biologically Relevant Sulfur- and
Selenium-Containing Small Molecules

Advisor: Dr. Julia Brumaghim

Jaime has accepted an assistant professor position at Harding University in Searcy, AR.

Ashleigh Kirstin Smith Sockwell Pinson, AL

B.S., University of Alabama

Dissertation: Multidentate Ligand Design for the F-Elements

Advisors: Dr. Modi Wetzler and Dr. Brian Powell

Ashleigh has accepted a postdoctoral associate position at Florida International University with
the Applied Research Center.

Sidath Indeera Wijesinghe Kandy, Sri Lanka

Dissertation: Structure and Dynamics of Soft Materials in Confined Geometry: Molecular
Dynamics Simulation Insight

Advisor: Dr. Dvora Perahia

Mathematical Sciences

Yinggu BaoShangqiu, China

B.S., University of Science and Technology of China; M.S., Clemson University

Dissertation: Analysis of Time Series Data Embedded in an Experiment Design

Advisors: Dr. William Bridges and Dr. Brook Russell

Yinggu plans to work in pharmaceutical product development.

Prabhashi Wickramasingha Withana Gamage Narawatta, Sri Lanka
B.S., University of Peradeniya; M.S., Clemson University
Dissertation: Flexible Models for Analyzing Specially-Structured Survival Data
Advisor: Dr. Christopher McMahan
Prabhashi has two published papers and one pending, won the South Carolina chapter of the American Statistical Association's outstanding student presentation award in 2017, and has accepted a tenure-track faculty position at James Madison University.

Amy Christine Grady..... Greensboro, NC
B.S., Appalachian State University; M.S., Clemson University
Dissertation: Generalizations of Permutation Statistics to Words and Labeled Forests
Advisor: Dr. Svetlana Poznanović

Yisu Jia Beijing, China
B.S., Stony Brook University; M.S., Clemson University
Dissertation: Some Models for Count Time Series
Advisor: Dr. Robert Lund

Huixi Li..... Handan, China
B.S., M.S., University of Science and Technology of China
Dissertation: On Some Conjectures in Additive Number Theory
Advisor: Dr. Jim Brown

Tianhui Wei..... Qufu, China
B.S., Qufu Normal University; M.S., Donghua University
Dissertation: Variable Selection for Complex Data with Sparsity: An Application in GWAS
Advisor: Dr. William Bridges
Tianhui has accepted a data scientist position at Lowe's Companies, Inc.

Mengying Xiao Chengdu, China
B.S., M.S., Capital Normal University
Dissertation: Efficient and Accurate Splitting Methods for Flow Problems
Advisor: Dr. Leo Rebholz
Mengying has several peer-reviewed publications and was named the 2018 Outstanding Graduate in Discovery in the College of Science.

Microbiology

Sukhpreet Kaur..... Punjab, India
M.S., Guru Nanak Dev University
Dissertation: Bacterial Diversity and Ecology of Two Cryptoendolithic Habitats in the Grand Staircase Escalante National Monument, Utah, USA
Advisor: Dr. Harry Kurtz, Jr.
Sukhpreet has two peer-reviewed publications and received the Catherine G. Nettles Cutter, PhD '92 Graduate Assistant Endowment scholarship in 2017.

Maryam Saffarian Abbas Zadeh Ahvaz, Iran
B.S., M.S., Shahid Chamran University of Ahvaz
Dissertation: Bacteria-Mediated Delivery of *mazF* mRNA into Cancer Cells for Induction of Apoptosis
Advisor: Dr. Tzuen-Rong Jeremy Tzeng

Physics

Achyut J. Raghavendra.....Bangalore, India

B.E., Visvesvaraya Technological University

Dissertation: Physiological and Environmental Impacts of Nanomaterials – Biomolecular
Coronae

Advisor: Dr. Ramakrishna Podila

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 processions

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

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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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