

CLEMSON UNIVERSITY

Doctoral Hooding Ceremony

AUGUST 8, 2019



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DOCTORAL HOODING CEREMONY

THURSDAY, AUGUST 8, 2019

3:00 P.M.

BROOKS CENTER FOR THE PERFORMING ARTS

ORDER OF CEREMONIES

PROCESSIONAL

(Please stand as you are able for the processional and the National Anthem)

NATIONAL ANTHEM

OPENING OF CEREMONY

University Marshal James E. Cross

REFLECTION

Bishwambhar Sengupta
Doctoral Candidate
Physics

WELCOME AND INTRODUCTIONS

Interim Associate Provost and Interim Dean of the Graduate School
David S. Fleming
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.
Sign language interpreting available in the front right corner of theater.*

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Chief Human Resources Officer
Dan Radakovich, Jr.
Director of Athletics

THE GRADUATE SCHOOL

David S. Fleming, interim
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and Dean of the Graduate School

William G. Ferrell
Associate Dean

Brian N. Dominy
Associate Dean

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

GRADUATE STUDENT GOVERNMENT

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Kaitlyn Samons, Vice President
Senthil Raj Ramesh, VP for Greenville Council

ASSOCIATE DEANS AND DEPARTMENT CHAIRS

COLLEGE OF AGRICULTURE, FORESTRY & LIFE SCIENCES

Paula Agudelo
Associate Dean for Research & Graduate Studies
Jean Bertrand
Associate Dean for Undergraduate Studies
Thomas Dobbins
Associate Dean for Outreach & Engagement

Charles V. Privette, IIIAgricultural Sciences
Kristine L. Vernon, interimAnimal & Veterinary Sciences
E. Jeffery Rhodehamel Food, Nutrition, & Packaging Sciences
Greg K. YarrowForestry & Environmental Conservation
Carlyle C. BrewsterPlant & Environmental Sciences

COLLEGE OF ARCHITECTURE, ARTS & HUMANITIES

James H. Spencer
Associate Dean for Research & Graduate Studies
Lee J. Morrissey
Interim Associate Dean for Academic Affairs
& Undergraduate Studies

Katherine L. Schwensen School of Architecture
Valerie A. Zimany Art
John A. GaberCity Planning & Real Estate Development
N. Mike Jackson Construction Science & Management
Susanna M. AshtonEnglish
James M. BurnsHistory
Salvador A. Oropesa Languages
Becky K. BeckerPerforming Arts
Kelly C. Smith, interimPhilosophy & Religion

COLLEGE OF BEHAVIORAL, SOCIAL & HEALTH SCIENCES

Eric R. Muth
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Denise M. Anderson
Associate Dean for Undergraduate Studies & Faculty Affairs
Kathy N. Headley
Senior Associate Dean of the Division of Collaborative
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Kathleen L. Valentine School of Nursing
Joseph P. Mazer Jr. Communication
Wayne A. Freimund Parks, Recreation & Tourism Management
Jeffrey S. PeakePolitical 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 M.B.A. Programs
Carl W. Hollingsworth
Interim Associate Dean for Academic Affairs

Sally K. Widener School of Accountancy
Scott L. Baier Economics
Angela G. Morgan Finance
Charles “Chip” Tonkin Graphic Communications
Craig Wallace Management
Jesse N. Moore Marketing

COLLEGE OF EDUCATION

Kathy N. Headley
Senior Associate Dean of the Division of Collaborative
Academic Services
Jeff C. Marshall
Associate Dean for Research & Graduate Studies
Michelle P. Cook
Associate Dean for Undergraduate Studies
& Faculty Engagement

Debi M. Switzer Education & Human Development
Jane Clark Lindle Educational & Organizational
Leadership Development
Cynthia Deaton 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
Jesus M. de la Garza Civil Engineering
Amy W. Apon 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
Jeffrey P. Kharoufeh Industrial Engineering
Kyle Brinkman Materials Science & Engineering
Atul Kelkar 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

Saara DeWalt, interim Biological Sciences
William T. Pennington Chemistry
William R. Marcotte, Jr. Genetics & Biochemistry
Kevin James, interim School of Mathematical & Statistical Sciences
Sean Brittain Physics & Astronomy

Special Thanks to Graduate Program Directors & Staff

Although there are too many to list, the graduate program coordinators, administrative contacts, and 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 more than 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

David S. Fleming, Interim Dean of the Graduate School

COLLEGE OF AGRICULTURE, FORESTRY AND LIFE SCIENCES

DOCTOR OF PHILOSOPHY

Entomology

Anthony Martin Deczynski..... Cranford, NJ

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

Dissertation: Evolution and Host Plant Diversity of the Hairy Nightshade Flea Beetles

Epitrix Foudras (Coleoptera: Chrysomelidae: Galerucinae: Alticini)

Advisor: Dr. Michael Caterino

Suellen F. Pometto.....Anderson, SC

B.S., George Mason University; M.S., M.A.T., Clemson University

Dissertation: Self-repair and Self-cleaning of the Lepidopteran Proboscis

Advisors: Dr. Eric Benson and Dr. Peter Adler

Suellen holds master's degrees from Clemson in teaching and entomology. Since 2014, she has taught ENT 2000 at Clemson, mentored a Creative Inquiry team, and has three publications.

Plant and Environmental Sciences

Dwayne Joseph.....Castries, Saint Lucia

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

Dissertation: The Below-ground Competitive Ability and Allelopathic Potential of Palmer

Amaranth in Soybean

Advisors: Dr. Christina Wells and Dr. Michael Marshall

Niroshan Siva..... Kotagala, Sri Lanka

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

Dissertation: Prebiotic Carbohydrate Profiles of Lentil, Chickpea, and Common Bean

Advisor: Dr. Dil Thavarajah

Niroshan has seven peer-reviewed publications and is a member of the Academy of Nutrition and Dietetics and the Institute of Food Technologists. He is seeking a faculty position in food science.

COLLEGE OF ARCHITECTURE, ARTS AND HUMANITIES

DOCTOR OF PHILOSOPHY

Planning, Design, and the Built Environment

Christopher William Kiss..... Wantage, NJ

M.Arch., Norwich University

Dissertation: The Influence of Windows on Surgeons' Stress

Advisor: Dr. Dina Battisto

Chris was an Academy of Architecture for Health Fellow and will serve as the Director of Project Execution at the U.S. Army Health Facility Planning Agency in Falls Church, VA.

COLLEGE OF BEHAVIORAL, SOCIAL AND HEALTH SCIENCES

DOCTOR OF NURSING PRACTICE

Carl Thurman CromerAnderson, SC
B.S., Clemson University

Michelle Marie DeemWalhalla, SC
B.S., DePauw University; M.S., Emory University

R. Elizabeth FisherAugusta, GA
B.S., West Virginia University; M.S., University of North Carolina
Beth plans to continue her work as a nurse practitioner in pediatric hematology/oncology and will remain on the faculty in Clemson University's School of Nursing.

Cherrish Megan Simpson KyleClemson, SC
B.S., Clemson University

Jessica Taylor MeltonLiberty, SC
B.S., Clemson University

DOCTOR OF PHILOSOPHY

Healthcare Genetics

Bohua WuYiyang, China
M.D., Central South University
Dissertation: Association between MSH2 Missense Mutations and Breast Cancer
Advisors: Dr. Veronica Parker and Dr. Emil Alexov

Industrial/Organizational Psychology

Emily Anne BurnettLakeland, FL
B.A., Guilford College; M.S., Clemson University
Dissertation: Building a New Perspective on Unethical Workplace Behavior: A Qualitative Examination of Former Employees' Recounted Experiences
Advisor: Dr. Cynthia Pury
Emily is working as senior survey specialist at the Publix Super Markets, Inc. headquarters in Lakeland, Florida.

Nastassia Marie SavageOviedo, FL
B.S., University of Central Florida; M.S., Clemson University
Dissertation: The Job Demands-Resources Model: Understanding the Impact of Job Characteristics on Healthcare Leaders
Advisor: Dr. Marissa Shuffler
Nastassia was named her department's Outstanding Doctoral Degree Student in 2019 and has joined Virginia Commonwealth University as Director of Organizational Assessment and Evaluation.

International Family and Community Studies

Natyra AganiPristina, Kosovo
B.A., University of Pristina
Dissertation: Children’s Exposure to Peer Victimization, Bullying, Perceptions of School Safety, and School Climate Among Albanian and Serbian Students in Kosovo
Advisor: Dr. Susan Limber

Rachael Mary Bowers Clemson, SC
B.A., University of Notre Dame; M.S.W., University of Pennsylvania
Dissertation: Home is the Key: A Study of the Social Impact of Habitat for Humanity in South Carolina
Advisor: Dr. Arelis Moore de Peralta

Rachel K. Lang-Baldé Greenville, SC
B.A., University of California; M.P.H., Emory University
Dissertation: Voices Bearing Witness: Culture and the Birth Process in the District of Labé, Fouta Djallon, Guinea
Advisors: Dr. Bonnie Holaday and Dr. Arelis Moore de Peralta
Rachel won a Fulbright student award to study in Guinea for 2017-2018 and an Outstanding Graduate Researcher award from her college in 2019.

Emily Smith SchaferSpartanburg, SC
B.S., University of South Carolina; M.A., Wheaton College
Dissertation: Examining the Impact of Trauma-informed Care Training on Educators’ Knowledge, Attitudes, and Behavior: A Qualitative Study
Advisor: Dr. Susan Limber
Emily received the Kimbrough-Melton Parents Award for Outstanding Graduate Student in 2018. She has accepted a faculty position at the University of South Carolina-Union.

Emily Nicole Winburn Central, SC
B.S., Clemson University
Dissertation: A Strengths-based Approach to Minority Youth Development: Examining Spirituality and Critical Consciousness as Predictors of Positive Youth Development and Contribution in Youth of Color
Advisor: Dr. Edmond Bowers

Parks, Recreation and Tourism Management

Katherine Dudley Carrollton, IL
B.S., Southern Illinois University; M.A., Texas State University
Dissertation: Sociocultural, Economic, and Political Factors Shaping the U.S. Tourism Workforce: A Case Study of New Orleans, Louisiana, USA
Advisors: Dr. William Norman and Dr. Lauren Duffy
Katie will begin an assistant professor position in the Department of Recreation and Leisure Studies at California State University-Long Beach in the fall.

Jessica Pearl Fefer Freeport, ME
B.S., University of Vermont; M.S., University of Maine
Dissertation: Experience Qualities Re-examined: Improving the Measurement of Experiential Conditions in Outdoor Recreation
Advisor: Dr. Jeffrey Hallo
Jessica has seven peer-reviewed publications, received her department’s 2019 Outstanding Graduate Student award, and has accepted an assistant professorship at Kansas State University.

William Hunter Holland..... Wilmington, NC
B.S., Appalachian State University; M.S., Ohio University
Dissertation: Investigating Experiential Wilderness-based Professional Development for
K-12 Educators
Advisor: Dr. Robert Powell
Hunter is a lecturer at University of North Carolina Wilmington, has five peer-reviewed
publications, has presented at national conferences, and is a serving board member of Education
without Walls, Inc.

COLLEGE OF BUSINESS

DOCTOR OF PHILOSOPHY

Business Administration

Jackie Patrick London, Jr. Augusta, GA
B.S., University of Georgia; M.B.A., Augusta University
Dissertation: Creativity and Information Systems: A Theoretical and Empirical
Investigation of Creativity in IS
Advisors: Dr. Varun Grover and Dr. Janis Miller
Jackie was awarded the College of Business's graduate student research (2016) and teaching (2017)
awards and has accepted a faculty position at Loyola University.

Kevin Daniel Matthews Fayetteville, NC
B.S., Methodist University; M.S., University of North Carolina
Dissertation: Hidden Signals Revealed in Social Media Profiles and Their Effect on
Organizational Decisions
Advisors: Dr. Philip Roth and Dr. Jason Thatcher
Kevin has three peer-reviewed publications. He has completed his first year as an assistant professor
of management information systems at Ohio University.

Daniel Aaron Pienta Rocky River, OH
B.S., Ohio State University; M.B.A., Cleveland State University
Dissertation: The Interplay of Cybersecurity Countermeasures on Compliance Behavior
Through the Lens of Trust
Advisors: Dr. Philip Roth and Dr. Jason Thatcher
Daniel has accepted a tenure-track position as an assistant professor of cybersecurity in the
Hankamer School of Business at Baylor University.

Economics

Jonathan Orry Ernest Simpsonville, SC
B.S., M.S., Clemson University
Dissertation: Essays on the Creation, Passage, and Effectiveness of Laws and Regulations
Advisor: Dr. Andrew Hanssen
Jonathan received an Outstanding Graduate Teacher award and his college's Graduate Teaching
Assistant Excellence award, and has accepted a faculty position at Case Western Reserve University.

Jeremy Mitchell Losak..... Bronx, NY
B.S., Syracuse University
Dissertation: Essays on Pricing Mechanisms in Sport Economic Markets
Advisors: Dr. Raymond Sauer and Dr. Paul Wilson
Jeremy won awards for his research in sports economics at domestic and international conferences.
He has accepted a tenure-track assistant professorship at Syracuse University.

Qing Wei.....Luoyang, China
B.A., Beijing Forestry University; M.A., Clemson University
Dissertation: Essays on Two-sided Platforms: Market Entry Strategy and Dynamic Pricing
Advisor: Dr. Tom Lam

COLLEGE OF EDUCATION

DOCTOR OF PHILOSOPHY

Curriculum and Instruction

Nikeetha Maryann Farfan D'Souza Coonoor, India
B.S., M.S., Bangalore University
Dissertation: Learning to Design Student-Centered Equitable Science Instruction: A Case
Study of a Social Design Experiment
Advisors: Dr. Allison Leonard and Dr. Cassie Quigley

Dwane E. ValeraMiami, FL
B.A., Florida International University; M.LIS., Florida State University
Dissertation: More Than Just Dictionaries: Exploring the Incorporation and Use of
Linguistically Inclusive Materials in a Middle School Library Media Center
Advisor: Dr. Mindy Spearman

Educational Leadership

Samuel Tristram Aldridge Brooklet, GA
B.S., Toccoa Falls College; M.Ed., Clemson University
Dissertation: Exploring Institutional Culture as a Macrosystem Antecedent to University
Workplace Bullying: An Organizational Ethnography
Advisor: Dr. Pamela Havice

Anna T. Brink Laurens, SC
B.A., Wofford College; M.Ed., University of South Carolina; Ed.S., Clemson University
Dissertation: An Examination of Principal Professional Learning Through Transformative
and Sociocultural Learning
Advisor: Dr. Hans Klar

Donald Galen DeHay Central, SC
B.S., M.S., Clemson University
Dissertation: Does Location Matter? Evaluating the Influence of Dual Enrollment Program
Location on Noncognitive Measures of College Readiness and Academic Performance:
A Multiyear Study
Advisor: Dr. Tony Cawthon

Cindy Nessim Youssef Riyad Greenville, SC
B.A., Furman University; M.A., Monash University
Dissertation: Preparing for Medical School Admissions Through Professional Competency
Education in a Healthcare Pipeline Program
Advisor: Dr. Tony Cawthon

Cindy is director of graduate medical education at Prisma Health-Upstate. She is a Rotary
Ambassadorial Scholar and past executive director of APEC Voices International Forum.

Claire Marie Stam..... Greenville, SC
B.A., Furman University; M.P.A., M.B.A., Clemson University
Dissertation: The Impact of a Therapeutic Music Intervention on Junior Nursing Students’
Perceived Stress
Advisor: Dr. Tony Cawthon
Claire graduated from the International Harp Therapy program in April 2019 and is currently the
only Certified Therapeutic Harp Practitioner (CTHP) in South Carolina.

Hagan Elizabeth Walker Greenville, SC
B.B.A., M.B.A., Augusta State University; M.S., Clemson University
Dissertation: Examining the Relationship Between Research Climate and Faculty
Productivity at an Emerging Academic Health Center in the Southeastern U.S.
Advisor: Dr. Robin Phelps-Ward

Literacy, Language and Culture

Leslie Dawn Roberts Winter Haven, FL
B.A., M.Ed., University of Florida
Dissertation: Motivation to Read in the Middle Grades
Advisor: Dr. Jacquelynn Malloy
Leslie has accepted a faculty position at Georgia Southern University.

Special Education

Jennifer My-Linn Counts Pella, IA
B.A., Luther College; M.A., Drake University
Dissertation: Investigating the Effects of School-based Coaching on Teachers’ Presentation
of Opportunities to Respond
Advisor: Dr. Antonis Katsiyannis
Jennifer has 12 peer-reviewed publications, two national awards, and two awards from Clemson for
research in behavior disorders. She has accepted a faculty position in Pella.

Michelle Elizabeth Dunn Travelers Rest, SC
B.S., Bemidji State University; M.S., Ed.S., University of Wisconsin
Dissertation: The Impact of a Social Emotional Learning Curriculum on the Social-
Emotional Competence of Elementary-age Students
Advisor: Dr. Joe Ryan
Michelle has five peer-reviewed publications and has accepted a position as a lead school psychologist
where she will continue to advocate for students with disabilities.

Michelle Lee Popham Walhalla, SC
B.S., Clemson University; M.A.T., Western Carolina University; Ed.S., Liberty University
Dissertation: The Impact of Self-regulated Strategy Development on Upper Elementary
Students’ Opinion Writing Performance
Advisor: Dr. Janie Hodge
Michelle has four peer-reviewed publications and was named a CEC Division of Research Student
Scholar. Michelle has accepted a postdoctoral position at Clemson University.

COLLEGE OF ENGINEERING, COMPUTING AND APPLIED SCIENCES

DOCTOR OF PHILOSOPHY

Automotive Engineering

Akshat Agha..... Lakhimpur-Kheri, India
B.E., Birla Institute of Technology and Science, Pilani; M.S., Clemson University
Dissertation: Cure Dependent Viscoelastic-Plastic Modeling of Adhesives to Capture CTE
Effects in Multi-material Structures
Advisor: Dr. Fadi Abu-Farha
Akshat is joining his advisor's enterprise, Fadi-AMT LLC, as a research engineer.

Hakan Kazan.....Ankara, Turkey
B.S., Zonguldak Karaelmas University; M.S., Clemson University
Dissertation: Hybrid Single Shot Manufacturing of Multi-materials Structure for
Automotive Applications
Advisor: Dr. Srikanth Pilla
Hakan has six peer-reviewed publications and has accepted a faculty position at Amasya University
in Turkey.

Veera Aditya Choudary Yerra..... Hyderabad, India
B.S., Bapatla Engineering College; M.S., Clemson University
Dissertation: Understanding the Theory and Use of Resistive Welding Technology for
Fiber-reinforced Thermoplastic Composite Structures in Automotive Applications
Advisor: Dr. Srikanth Pilla
Aditya was named Outstanding Doctoral Student in his department for the year 2018-2019. He has
six peer-reviewed publications and will be joining an electric vehicle startup.

Bioengineering

Saketh Ram Karamched Hyderabad, India
B.Tech., Osmania University; M.S., Clemson University
Dissertation: Targeted EDTA Chelation Therapy with Albumin Nanoparticles to Reverse
Arterial Calcification and Restore Vascular Health in Chronic Kidney Disease
Advisor: Dr. Narendra Vyavahare

Hetal Umesh Maharaja..... Mumbai, India
B.Engr., University of Mumbai; M.S., University of Florida
Dissertation: Electrochemical Assessment of Alumina-TiC Composite: A Potential
Biomaterial
Advisors: Dr. Martine LaBerge and Dr. Guigen Zhang

Daniel C. Odenwelder.....Pen Argyl, PA
B.S., Lehigh University; M.S., Clemson University
Dissertation: Understanding the Warburg Phenotype and the Metabolic Plasticity of
Proliferative Mammalian Cells Using ¹³C Metabolic Flux Analysis
Advisor: Dr. Sarah Harcum

Lucas P. Schmidt.....Charleston, SC
B.S., M.S., Clemson University
Dissertation: Development of Laser Guidance Based Cell Manipulation Techniques
Advisor: Dr. Bruce Gao

Xiaoqi Yang.....Tianjin, China
B.S., Southeast University
Dissertation: Cardiomyocyte-rescuing Effects of Stem Cells Associated with Mitochondrial
Transfer via Tunneling Nanotubes
Advisor: Dr. Bruce Gao

Cai Yuan Jiujiang, China
B.S., Shandong University; M.S., Tianjin University
Dissertation: Polarization-resolved Second Harmonic Generation Microscopy Study of
Cardiac Hypertrophy
Advisor: Dr. Bruce Gao

Biosystems Engineering

Natasha Lynn Bell.....Spartanburg, SC
B.S., Clemson University; M.S., University of Illinois
Dissertation: Evaluation of the Potential for Ecological Treatment Technologies to
Remediate Species of Phytophthora from Irrigation Runoff
Advisors: Dr. Daniel Hitchcock and Dr. Sarah White
Natasha has five peer-reviewed publications, was named a USDA NIFA predoctoral fellow in 2018,
and has accepted a faculty position at East Carolina University.

Chemical Engineering

Siva Kalyan Dasetty.....Visakhapatnam, India
B.Tech., National Institute of Technology; M.S., Clemson University
Dissertation: Towards Computer Aided Engineering of Proteins and Protein-surface
Complexes
Advisor: Dr. Sapna Sarupria

Ryan Scott DeFever.....Greenville, SC
B.S., Clemson University
Dissertation: Advancing Molecular Simulations of Crystal Nucleation: Applications to
Clathrate Hydrate
Advisor: Dr. Sapna Sarupria
Ryan has ten peer reviewed publications and received the Graduate School's Outstanding Graduate
Researcher award in 2019.

Ozgun GuzdemirAnkara, Turkey
B.S., Middle East Technical University; M.S., Clemson University
Dissertation: Melt-spinning and Properties of Soy-filled Polyethylene, Polypropylene, and
Poly-(Lactic Acid) Fibers
Advisor: Dr. Amod Ogale

Civil Engineering

Abdulrahman Abdulaziz Bin Mahmoud.....Riyadh, Saudi Arabia
B.S., King Saud University; M.S., Clemson University
Dissertation: Optimal Design and Operational Control Framework for Water Distribution
Systems: A Resilience-based Asset Management Approach
Advisor: Dr. Kalyan Piratla
Abdulrahman has one peer-reviewed publication, earned a certificate in engineering and science
education, and has accepted a faculty position at King Saud University, KSA.

Sakib Mahmud Khan.....Dhaka, Bangladesh
B.S., Bangladesh University; M.S., Clemson University
Dissertation: Connected and Automated Vehicles in Urban Transportation Cyber-physical Systems
Advisor: Dr. Mashrur Chowdhury
Sakib has 29 peer-reviewed publications, was named the 2019 Outstanding Graduate Researcher by the Graduate School, and will work in academia to solve mobility challenges.

Seyedhamidreza Torbatarraf..... Tehran, Iran
B.S., Iran University of Science and Technology; M.S., Tehran University
Dissertation: Effect of Microstructure on Corrosion of Structural and Advanced Alloys
Advisor: Dr. Amir Poursaee
Hamid has ten peer-reviewed publications. He has accepted a postdoctoral position at Arizona State University.

Electrical Engineering

Irfan Kil..... Antakya, Turkey
B.S., Karadeniz Technical University; M.S., Clemson University
Dissertation: Development and Preliminary Validation of Image-enabled Process Metrics for Assessment of Open Surgery Suturing Skill
Advisor: Dr. Richard Groff

Anjan Narsingh Rayamajhi..... Bhaktapur, Nepal
B.E., Tribhuvan University
Dissertation: Exploring Smart Infrastructure Concepts to Improve the Reliability and Functionality of Safety Oriented Connected Vehicle Applications
Advisors: Dr. James Martin and Dr. Harlan Russell

Environmental Engineering and Earth Sciences

Alexander Charles Hanna Canoga Park, CA
B.S., California Southern University; M.S., Clemson University
Dissertation: Stochastic Parameter Estimation of Poroelastic Processes Using Geomechanical Measurements
Advisors: Dr. Lawrence Murdoch and Dr. Stephen Moysey

Chunyan Li JiNan, China
B.S., M.S., China Agricultural University
Dissertation: Stability and Transport of Cadmium Selenide Quantum Dot Nanoparticles in Different Environmentally Relevant Conditions
Advisor: Dr. Christophe Darnault

Watcharapol Pumkaew Bangkok, Thailand
B.S., King Mongkut's Institute of Technology; M.S., Mahidol University; M.S., Clemson University
Dissertation: Joint Management of Biofuel Production and Food Production to Optimize Energy Return to Land Use in Thailand: A Regional Mathematical Programming Approach
Advisor: Dr. Cindy Lee

Human-Centered Computing

Alexandre Gomes de SiqueiraSão Paulo, Brazil
B.S., University of São Paulo; M.B.A., Fundação Getúlio Vargas
Dissertation: Toward New Ecologies of Cyberphysical Representational Forms, Scales, and Modalities
Advisor: Dr. Brygg Ullmer
Alexandre has accepted a postdoctoral position with the Virtual Experiences Research Group at the University of Florida in Gainesville.

Industrial Engineering

Ceyda Best..... Izmir, Turkey
B.S., M.S., Boğaziçi University
Dissertation: Control of Infectious Diseases in a Metapopulation
Advisors: Dr. Burak Eksioğlu and Dr. Amin Khademi

Timothy Warren HolzmännDayton, OH
B.A., Cedarville University; M.S., Air Force Institute of Technology
Dissertation: Network Interdiction under Uncertainty
Advisor: Dr. J. Cole Smith
Tim has four peer-reviewed publications and has submitted his fifth. He begins work this fall as an assistant professor at the Air Force Institute of Technology in Dayton.

Materials Science and Engineering

Christopher Charles Hornat Glastonbury, CT
B.S., Lehigh University
Dissertation: Shape Memory Induced Self-healing Polyurethanes
Advisor: Dr. Marek Urban
Chris was selected to present at the American Chemical Society (ACS) Excellence in Graduate Polymer Research Symposium in 2017.

Liyang Wei..... Lanzhou, China
B.S., Beijing University of Chemical Technology; M.S., Worcester Polytechnic Institute
Dissertation: Synthesis, Characterization, and Application of Oleophobic Fluorinated Copolymers
Advisor: Dr. Igor Luzinov

Mechanical Engineering

Di Li..... Wuhan, China
B.S., M.E., University of Electronic Science and Technology
Dissertation: Microfluidic Particle Separation via Elasto-Inertial Focusing in Straight Rectangular Microchannels
Advisor: Dr. Xiangchun Xuan

COLLEGE OF SCIENCE

DOCTOR OF PHILOSOPHY

Biological Sciences

Kylie Michelle Smith.....Fraser, CO

B.A., University of Colorado; M.S., Clemson University

Dissertation: The Influence of Coral Community Composition on Reef Herbivore Behavior and Coral Restoration Success in the Florida Keys

Advisor: Dr. Michael Childress

Kylie has three peer-reviewed publications and was awarded the Creative Inquiry Graduate Mentor of the Year and College of Science Excellence in Outreach awards.

Chemistry

Mohammed Abdulali Abbas Thi-Qar, Iraq

B.S., University of Thi-Qar; M.S., Basrah University

Dissertation: Synthesis, Characterizations, and Study of the Antioxidant Activity of Novel Ruthenium-Thione and -Selone Complexes

Advisor: Dr. Julia Brumaghim

Timothy Robert Lex..... Swedesboro, NJ

B.S., Saint Joseph's University

Dissertation: Developing Iodoarene Derivatives for Useful Oxidative Transformations and Biodegradable X-ray Materials

Advisor: Dr. Daniel Whitehead

Maria I. Swasy Blairsville, PA

B.S., Saint Vincent College

Dissertation: Development of Peptides for Enantioselective Hypervalent Iodine(III)-mediated Chemistry and Functional Materials for Environmental Remediation

Advisor: Dr. Daniel Whitehead

Maria received the Department of Chemistry Outreach Award and an Outstanding Graduate Researcher award. She has accepted a position at CEM Corporation in Charlotte.

Environmental Toxicology

David Charles Wyker.....Lincolnwood, IL

B.S., Drake University

Dissertation: Pairing Passive Sampling with Epigenetic Biomarkers of Exposure to Monitor Potential Toxic Impact of Environmental Complex Mixtures

Advisor: Dr. Peter van den Hurk

Mathematical and Statistical Sciences

Sanwar Uddin Ahmad.....Dhaka, Bangladesh

B.S., M.S., University of Dhaka

Dissertation: Analytical and Iterative Regularization Methods for Nonlinear Ill-posed Inverse Problems: Applications to Diffuse Optical and Electrical Impedance Tomography

Advisor: Dr. Taufiqar Khan

Sanwar has one peer-reviewed publication and has presented at four conferences. He will continue his research as a postdoctoral fellow at Colorado State University.

Haotian Feng Beijing, China
B.S., University of International Business and Economics; M.S., Clemson University
Dissertation: Performance of Latent Dirichlet Allocation with Different Topic and Document Structures
Advisor: Dr. William Bridges

Stella Coker Watson Self Greenville, SC
B.S., Furman University; M.S., Clemson University
Dissertation: Bayesian Spatio-temporal Modeling for Forecasting, Trend Assessment and Spatial Trend Filtering
Advisor: Dr. Christopher McMahan
Stella has several peer reviewed publications, won the Outstanding Graduate in Discovery award, and has accepted a tenure-track position at the University of South Carolina.

Camille E. Zervas Shoreview, MN
B.S., North Dakota State University; M.S., Clemson University
Dissertation: Numerical Methods and Analysis for Continuous Data Assimilation in Fluid Models
Advisor: Dr. Leo Rebholz
Camille has six publications, won the College of Science's Outstanding Graduate in Teaching award, and will work in the renewable energy field.

Microbiology

Harrison Breedlove Taylor Florence, SC
B.S., Francis Marion University; M.S., Clemson University
Dissertation: Regional, Temporal, and Anthropogenic Factors Shape Community Structure and Function in Beach Sands of the Grand Strand Region of South Carolina
Advisor: Dr. Harry Kurtz, Jr.
Harrison currently has two manuscripts submitted for publication, won the department's Henson Award twice, and was an active member of the Club Swim and Club Water Polo teams.

Physics and Astronomy

Steven Cade Adams Ball Ground, GA
B.S., University of Georgia
Dissertation: Near-infrared Observations of Herbig Ae/Be Stars
Advisor: Dr. Sean Brittain

Fengjiao Liu Case Harbin, China
B.E., M.E., China University of Geosciences
Dissertation: Elucidating Fundamental Mechanisms in Energy Generation and Energy Storage Materials – A Raman Spectroscopic Study
Advisor: Dr. Apparao Rao
Fengjiao has four peer-reviewed publications. She was named the physics department's Outstanding Graduate Researcher in 2019.

Arghya Chakravorty Uttarpara, India
B.Tech., M.Tech., Indian Institute of Technology
Dissertation: Modeling Electrostatics and Geometrical Quantities in Molecular Biophysics Using a Gaussian-based Model of Atoms
Advisor: Dr. Emil Alexov
Arghya has ten peer-reviewed publications and was named the physics department's Outstanding Graduate Researcher in 2019. He is joining the University of Michigan as a postdoctoral researcher.

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- Abhishek Amitbhai DesaiVadodara, India
 B.E., Gujarat Technological University; M.S., California State University
 Dissertation: Unveiling the Cosmic History of Light
 Advisor: Dr. Marco Ajello
- Amy Christina Gall..... Savannah, GA
 B.S., Georgia Institute of Technology; M.S., Clemson University
 Dissertation: Inner Shell Atomic Processes in Highly Charged Argon EBIT Plasma
 Relevant to Astrophysics
 Advisor: Dr. Endre Takacs
 Amy was named the physics department's Outstanding Graduate Teaching Assistant in 2018 and
 has accepted a postdoctoral research position at the Smithsonian Astrophysical Observatory.
- Nirmal Nischal.....Janakpur, Nepal
 B.S., M.S., Tribhuvan University
 Dissertation: Nonmigrating Tidal Impact on the Energy Budget of the Lower
 Thermosphere
 Advisor: Dr. Jens Oberheide
 Nirmal has two peer-reviewed publications and has accepted a faculty position at Berry College.
- Bishwambhar SenguptaKolkata, India
 B.S., Calcutta University; M.S., Pondicherry Central University; M.S., Clemson University
 Dissertation: Generation and Modeling of Radiation for Clinical and Research
 Applications
 Advisor: Dr. Endre Takacs
 Bishwambhar has three peer-reviewed publications and is a member of Phi Kappa Phi and Omicron
 Delta Kappa honor societies. He will joining the University of Washington School of Medicine as a
 research fellow.
- Nicolas Graeme Underwood..... Clemson, SC
 M.Sc., Imperial College; M.Phys., University of York
 Dissertation: Signatures of Relic Quantum Nonequilibrium
 Advisor: Dr. Murray Daw

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

Candidates appearing in this program may not be 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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UNIVERSITY