DOCTORAL HOODING CEREMONY

WEDNESDAY, DECEMBER 18, 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
Altheia Richardson
Assistant Vice President for Strategic Diversity Leadership

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 16

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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DEANS

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Associate Provost and
Dean of the Graduate School

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Dean of University Libraries

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Vice President of Development and Alumni Relations

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Vice President for University Relations

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

David S. Fleming, interim
Associate Provost 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

Miles Maynard, President
Kaitlyn Samons, Vice President
Sohan Nair, Vice President 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, III........................................Agricultural Sciences
Charles F. Rosenkrans, Jr................................Animal & Veterinary Sciences
E. Jeffery Rhodenhamel..............................Food, Nutrition, & Packaging Sciences
Thomas J. Straka.................................Forestry & Environmental Conservation
Carlyle C. Brewster.................................Plant & Environmental Sciences

COLLEGE OF ARCHITECTURE, ARTS & HUMANITIES
James H. Spencer
Associate Dean for Research & Graduate Studies
James M. Burns
Acting Interim Associate Dean for Academic Affairs & Undergraduate Studies
Katherine L. Schwennsen...................................School of Architecture
Valerie A. Zimany..............................................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
Kelly C. Smith, interim.................................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 & Faculty Affairs
Kathy N. Headley
Senior Associate Dean of the Division of Collaborative Academic Services
Kathleen L. Valentine...................................School of Nursing
Joseph P. Mazer Jr..................................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. Weissensee........................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. Purman
Associate Dean for Undergraduate Studies
Zoran S. Filipi........................................Automotive Engineering
Martine LaBerge..........................................Bioengineering
David A. Bruce.................................Chemical & Biomolecular Engineering
Jesus M. de la Garra.................................Civil Engineering
Amy W. Apon...............................................School of Computing
Daniel L. Nonesker..............................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

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.
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.”

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.


**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
Animal and Veterinary Sciences

DOCTOR OF PHILOSOPHY

Jessica Lynn Britt .................................................. Taylors, SC
B.S., Lander University
Dissertation: The Impact of Ergot Alkaloid Consumption During Gestation on Maternal Performance and Fetoplacental Development
Advisor: Dr. Susan Duckett
Jessie has three peer-reviewed publications, was named her college’s Outstanding Graduate Researcher in 2019, and has accepted a research position with Prisma Health.

Andrea Nicole DeCarlo ........................................ Ventnor, NJ
B.S., Stockton University
Dissertation: The Impact of an Intronic Dopamine Receptor Type-2 Single Nucleotide Polymorphism on Growth, Reproduction and Prolactin Gene Expression in Beef Bulls
Advisor: Dr. Scott Pratt
Andrea has one peer-reviewed publication, one publication in review, and plans to pursue a career in industry research.

Forest Resources

DOCTOR OF PHILOSOPHY

Garth Raymond Groshans II .................................. Anderson, SC
B.S., College of Charleston; M.S., Clemson University
Dissertation: Applications of Ecosystem Services Valuation in the Contiguous United States
Advisor: Dr. Elena Mikhailova
Garth has eleven peer-reviewed publications and was awarded the 2019 Outstanding Graduate Student Teaching Assistant award in his college.

Hamdi Abdalkhaliq Zurqani ................................ Tripoli, Libya
B.Sc., M.Sc., University of Tripoli
Dissertation: Application of Geospatial Technologies for Land Use Analysis and Soil Science Education
Advisors: Dr. Elena Mikhailova and Dr. Christopher Post
Hamdi has 10 peer-reviewed publications with four in process, received the Douglas R. Phillips Award for outstanding graduate student in Forestry in 2019, and won first place at GRADS 2019.

COLLEGE OF ARCHITECTURE, ARTS AND HUMANITIES
Planning, Design and the Built Environment

DOCTOR OF PHILOSOPHY

Herminia Silva Machry ........................................ Florianópolis, Brazil
B.Arch., Universidade Federal de Santa Catarina; M.Sc., Universidade de São Paulo
Dissertation: Exploring the Design of Single-Family Room NICUs: The Impact of the Built Environment on Family Engagement
Advisor: Dr. Anjali Joseph
Ying Zhou ................................................................. Longyan, China
B.E., Fujian University of Technology; M.E., Xiamen University
Dissertation: The Impact of Transportation Disadvantage on Healthcare Access
Advisor: Dr. Eric Morris

**College of Behavioral, Social and Health Sciences**

**School of Nursing**

**Doctor of Nursing Practice**

Valerie Anderson Walker-Fleming ............................................................... Anderson, SC
B.S., M.S., Clemson University
Practice Integration Project: Screening for Peripheral Artery Disease with the Ankle-Brachial Index Test as Part of the Health Risk Assessment
Advisor: Dr. Jennifer Rice

**Healthcare Genetics**

**Doctor of Philosophy**

JuliSu DiMucci-Ward ................................................................. Spartanburg, SC
B.S., University of California Davis; M.P.H., University of North Carolina
Advisor: Dr. Margaret Wetsel

**Industrial/Organizational Psychology**

**Doctor of Philosophy**

Tiffany N. Cooper ................................................................. Burbank, CA
B.S., University of Central Florida; M.S., Clemson University
Dissertation: Change in Organizations, What Do They Have to Say About It? Machine Learning Testing of an Affective Behavioral Circumplex Model of Reactions to Change
Advisor: Dr. Fred Switzer

Dana Casey Verhoeven ................................................................. Raleigh, NC
B.S., University of Central Florida; M.S., Clemson University
Dissertation: Team Familiarity and Task Interdependence: A New Perspective on Dynamic Team Composition
Advisor: Dr. Marissa Shuffler

**International Family and Community Studies**

**Doctor of Philosophy**

Traci Ann Hefner ................................................................. Greenville, SC
B.A., Fairmont State University; M.S.W., West Virginia University
Dissertation: Improving Healthcare Readiness to Respond to Human Trafficking: A Case Study
Advisor: Dr. Mark Small
Traci received a Clemson University doctoral dissertation completion grant in 2018, and is a member of Phi Kappa Phi Honor Society.
Laura Treash Minor .................................................................................... New Hartford, CT
B.S., Gordon College; M.Ed., University of Texas
Dissertation: Educating for Civic-Mindedness: Examining Student Impacts of Academic
Programs of Community and Civic Engagement in Higher Education
Advisor: Dr. Martie Thompson

Lauren Marie Pinkston .................................................................................. Columbia, TN
B.S., Freed-Hardeman University
Dissertation: Lived Experiences of Christian Development Workers in the Thailand
Anti-Trafficking Movement: Lessons from the Field
Advisor: Dr. Mark Small
Lauren has two peer-reviewed publications and has accepted a faculty position at Lipscomb
University.

Blerta Perolli Shehu ..................................................................................... Pristina, Kosovo
B.A., M.A., Universiteti i Prishtinës
Dissertation: Social Competence and Attitude Towards School in Relation to Academic
Achievements of Students in Kosovo
Advisors: Dr. Mark Small and Dr. Martie Thompson

**Parks, Recreation and Tourism Management**

**DOCTOR OF PHILOSOPHY**

Katrina Latrice Black .................................................................................. Columbia, SC
B.S., University of South Carolina; M.P.H., Walden University
Dissertation: The Role of Out-of-School Time Programming in Predicting Critical
Reflection and Positive Outcomes in Marginalized Youth
Advisor: Dr. Edmond Bowers

Samuel Scott Ogletree .................................................................................. Marietta, GA
B.S., University of Georgia; M.L.A., Clemson University
Dissertation: Crime and Greenspace: Extending the Analysis Across Cities
Advisors: Dr. Robert Powell and Dr. David White

Devyani Singh .......................................................................................... Mumbai, India
B.S., M.S., Mumbai University
Dissertation: Conservation, Conflict, and Community Context: Insights from Indian
Tiger Reserves
Advisors: Dr. Robert Powell and Dr. Lincoln Larson

**Policy Studies**

**DOCTOR OF PHILOSOPHY**

Alfred E. Bundrick .................................................................................. Clemson, SC
B.S., M.S., Clemson University
Dissertation: Higher Education Governance Structures and Tuition: A Quantitative
Analysis
Advisor: Dr. Joseph Stewart, Jr.
Xi Bai .............................................................................................................. Nantong, China
B.S., Guangdong University of Finance and Economics; M.A., University of San Francisco
Dissertation: Essays on China’s Cigarette Industry
Advisors: Dr. Andrew Hanssen and Dr. Chungsang Lam
Xi has accepted a tenure-track assistant professor position at Guangdong University of Finance and Economics.

Yuvaluck Setboonsrung ................................................................. Bangkok, Thailand
B.A., M.A., Thammasat University
Dissertation: The Economics of Durable Goods and the College Textbook Market
Advisor: Dr. Chungsang Lam

Ikenna Quincy Ezealah .............................................................. Lagos, Nigeria
B.S., Bowling Green State University; M.S., University of Maryland
Dissertation: The Role of Self-Reflection in the Spiritual Quest to Make Meaning of Experiences
Advisor: Dr. Michelle Boettcher

Monica Lynn Kosanovich .............................................................. Denver, CO
B.S., Colorado State University; M.A., University of Denver
Dissertation: Impacts of Outcomes Based Funding on Resource Allocation: A Case Study of Senior Administrators in Colorado
Advisors: Dr. Kris Frady and Dr. Robert Knoeppel

Evguenia Passiouk Layton .............................................................. Greenville, SC
B.S., College of Charleston; M.B.A., Clemson University
Dissertation: Exploring the Benefits Short-Term Graduate Study Abroad Programs Provide to Professional Graduate Business Students and Business Employers
Advisor: Dr. Pamela Havice

Clifford Joseph Lee, Jr. ............................................................... Indianapolis, IN
B.A., Wabash College; M.A., The University of Akron; Ed.S, Clemson University
Dissertation: Understanding the Bridging Social Capital of Latinx Immigrant Students in the American Southeast
Advisor: Dr. Hans Klar
Cliff is a high school teacher in the Upstate and a member of the executive board of the South Carolina Education Association.

Alexander Douglas McCafferty ................................................ San Jose, CA
B.A., University of Oregon; M.B.A., Johns Hopkins University
Dissertation: Using Activity Based Costing to Inform Resource Allocation
Advisors: Dr. Cynthia Sims and Dr. Robert Knoeppel
Anna Shealy Wages................................................................................................Clinton, SC
B.S., Erskine College; M.Ed., Auburn University; Ed.S., Clemson University
Dissertation: A Case of Arts Coordination in a Rural School District: A Distributed
Perspective
Advisor: Dr. Hans Klar

COLLEGE OF ENGINEERING, COMPUTING AND APPLIED SCIENCES

Automotive Engineering

DOCTOR OF PHILOSOPHY

Jasprit Singh Gill............................................................... Mumbai, India
B.Engr., University of Mumbai
Dissertation: Probabilistic Framework for Behavior Characterization of Traffic Participants
Enabling Long Term Prediction
Advisors: Dr. Pierluigi Pisu and Dr. Matthias Schmid

Roberto Merco........................................................................ Rome, Italy
B.S., M.S., Tor Vergata University of Rome
Approach
Advisor: Dr. Pierluigi Pisu

Bioengineering

DOCTOR OF PHILOSOPHY

Xun Chen ................................................................. Shenyang, China
B.S., M.S., Tianjin University
Dissertation: Advancing Nonlinear Optical Microscopy for Morphological and Functional
Studies of Collagen-Rich Tissues
Advisor: Dr. Tong Ye
Xun has five peer-reviewed and in-process conference papers. He holds two patents, and plans to
explore career opportunities in biophotonics.

Anastasia Michelle Frank-Kamenetskii................................. Moscow, Russia
B.S., M.S., Moscow Institute of Physics and Technology
Dissertation: Tumorigenic Phenotype Suppression of HER2-Positive Breast Cancer Cells
Induced by Normal Mammary Microenvironment
Advisor: Dr. Brian Booth

Spencer Reid Marsh........................................................... Chapin, SC
B.S., M.S., Clemson University
Dissertation: Tissue Engineering Model for Cardiac Regeneration in Diabetes
Advisor: Dr. Agneta Simionescu

Joshua Dillon Walters....................................................... Blacksburg, SC
B.S., University of South Carolina
Dissertation: Development of a Nucleus Pulposus Implant for Intervertebral Disc Repair
Advisor: Dr. Jeremy Mercuri
Joshua has six peer-reviewed publications and holds one patent. He has accepted a postdoctoral
position at Clemson University’s Center for Human Genetics.
Michael Wiegand ................................................................. New Hartford, NY
B.S., Clarkson University; M.S., Syracuse University
Dissertation: Inflammation and Corrosion in Total Hip Prostheses: The Generation and
Interaction of Reactive Oxygen Species with CoCrMo Metallic Biomaterial Surfaces
Advisor: Dr. Jeremy Gilbert
Michael has three peer-reviewed publications and has accepted a senior scientist position with the
Naval Nuclear Laboratory. While in graduate school, he beat cancer twice.

Chemical Engineering
DOCTOR OF PHILOSOPHY

Robert Emmett ................................................................. Raleigh, NC
B.S., Clemson University
Doping of Carbon Electrodes
Advisor: Dr. Mark Roberts

Alphonse Hakizimana .................................................... Nyamagabe, Rwanda
B.S., Henderson State University
Dissertation: Novel Optimization Approaches for Integrated Design and Operation of
Smart Manufacturing and Energy Systems
Advisor: Dr. Joseph Scott

Tianjun Xie ................................................................. Shaoxing, China
B.S., Nanjing Forestry University; M.S., University of Pennsylvania
Dissertation: Multi-Scale Assessment of Binding Geometries and Energetics of Aqueous
Phase Reforming of Glycerol and Methanol: Towards Realistic, Accurate, and
Computationally Tractable Strategies
Advisor: Dr. Rachel Getman

Jiazhou Zhu ................................................................. Nanjing, China
B.S., East China University of Science and Technology; B.S., University of Missouri
Dissertation: Computationally Driven Design of Advanced Materials: Expanding Methods
from Computational Catalysis to Designing Substituted Metal Ferrites with Precise
Magnetic Properties
Advisor: Dr. Rachel Getman

Civil Engineering
DOCTOR OF PHILOSOPHY

Roa’a Jaber Mohammad Alawadi ........................................ Amman, Jordan
B.S., Hashemite University; M.S., University of Jordan
Dissertation: Modeling of Household Evacuation Decision, Departure Timing, and
Number of Evacuating Vehicles from Hurricane Matthew
Advisor: Dr. Pamela Murray-Tuite

Yuting Cheng .............................................................. Anhui Lu’an, China
M.S., Clemson University
Dissertation: Simulation-Based Evaluation and Optimization of the Seismic Performance
of Buildings with Passive Energy Dissipation System
Advisors: Dr. Qiushi Chen and Dr. Weichiang Pang
Genshen Fang .................................................. Huangshan, China
B.S., Southeast University
Dissertation: Typhoon Wind Modeling and Flutter Fragility Analysis of Long-Span Bridges in Coastal Regions of China
Advisors: Dr. Weichiang Pang and Dr. Yaojun Ge

Adika Mammadrahimli Iqbal ..................................... Sheki, Azerbaijan
B.S., Korea Advanced Institute of Science and Technology; M.S., Clemson University
Dissertation: Midblock Crash Analysis Using Short Segments and Precisely Geocoded Crashes
Advisors: Dr. Wayne Sarasua and Dr. Jennifer Ogle
Adika received the 2019 James Edwin Clark Fellowship, designated for an outstanding student in the Civil Engineering graduate program.

Sruthy Orozhiyathumana Agnisarman ......................... Ernakulam, India
B.S., Mahatma Gandhi University; M.S., National Institute of Technology; M.S., Clemson University
Dissertation: Context-Enabled Visualization Strategies for Automation Enabled Human-in-the-Loop Inspection Systems to Enhance the Situation Awareness of Windstorm Risk Engineers
Advisor: Dr. Kapil Chalil Madathil
Sruthy has 10 peer-reviewed journal publications and was named a student member with honors of the Human Factors and Ergonomics Society.

Sri Harshitha Polamuri ........................................... Hyderabad, India
B.Tech., M.Tech., Jawaharlal Nehru Technological University
Dissertation: Projections of Typhoon Wind Speeds for Estimating the Future Typhoon Wind Hazard Due to Climate Change in the Asia Pacific Basin
Advisor: Dr. Weichiang Pang

Paresh C. Poudel .................................................... Lalitpur, Nepal
B.E., Tribhuvan University; M.S., Clemson University
Advisor: Dr. Weichiang Pang

Prashant Rawal ...................................................... Kathmandu, Nepal
B.E., Tribhuvan University; M.S., Clemson University
Dissertation: Stochastic Simulation of Hurricane Wind and Rain Hazards
Advisor: Dr. Weichiang Pang

Computer Science
DOCTOR OF PHILOSOPHY

Ayush Bhargava ..................................................... Gurgaon, India
B.S., M.S., Clemson University
Dissertation: The Effect of Anthropometric Properties of Self-Avatars on Action Capabilities in Virtual Reality
Advisor: Dr. Sabarish Babu

Yang Yang He ......................................................... Anqing, China
B.E., Beihang University; M.S., Clemson University
Dissertation: Recommending Privacy Settings for Internet-of-Things
Advisor: Dr. Bart Knijnenburg
Jianwei Liu .................................................................Xinxiang, China  
B.S., M.S., Xidian University  
Dissertation: Design and Evaluation of Flow Mapping Systems for Heterogeneous Wireless Networks  
Advisor: Dr. Jim Martin  
Jianwei has 10 peer-reviewed publications and earned a patent while interning in Bell Labs. He won the Best Paper award in Local Computer Networks, 2018.

Brandon Michael Posey .............................................Scott Depot, WV  
B.S., Marshall University; M.S., Clemson University  
Dissertation: Evaluating and Enabling Scalable High Performance Computing Workloads on Commercial Clouds  
Advisor: Dr. Amy Apon  
Brandon currently holds the record for the scale of computation on a single problem in a public cloud. He has accepted a position at BMW’s Innovation and Research Lab.

Daniel Thomas Welch ..............................................Erie, PA  
B.A., Denison University  
Dissertation: Scaling Up Automated Verification: A Case Study and a Formalization IDE for Building High Integrity Software  
Advisor: Dr. Murali Sitaraman  
Dan has numerous peer-reviewed publications, won first place at the ACM SIGSCE 2017 graduate research competition, and was named Outstanding PhD Student in Computing in 2018.

**Electrical Engineering**  
**DOCTOR OF PHILOSOPHY**

Jincheng Lei .............................................................Taishan, China  
B.E., South China University of Technology  
Dissertation: Advanced Laser 3D Manufacturing of Ceramics and Glasses  
Advisors: Dr. Hai Xiao and Dr. Fei Peng

Hongmei Li ............................................................Helong, China  
B.S., Xidian University; M.S., Seoul National University  
Dissertation: Graphene Based Ion Sensitive Field Effect Transistor for K+ Ion Sensing  
Advisor: Dr. Goutam Koley  
Hongmei published thirteen peer-reviewed articles and received one patent during her doctoral studies.

Chunlei Zhang ..........................................................Hunan, China  
B.S., Beihang University  
Dissertation: Privacy-Preserving Decentralized Optimization and Event Localization  
Advisor: Dr. Yongqiang Wang

Yeyu Zhu .................................................................Shandong, China  
B.S., Chongqing University; M.S., University of Electronic Science and Technology of China  
Dissertation: Hybridly Integrated Diode Lasers for Emerging Applications: Design, Fabrication, and Characterization  
Advisor: Dr. Lin Zhu
Engineering and Science Education
DOCTOR OF PHILOSOPHY
Staci Neas Johnson ................................................................. Clemson, SC
B.S., University of Tennessee; M.S., Clemson University
Dissertation: Cognitive Processes in Undergraduate Anatomy and Physiology Courses
Advisor: Dr. Eliza Gallagher
Staci has two peer reviewed publications. She received a SABER Scholar in Training travel award
and a Clemson University doctoral dissertation completion grant.

Environmental Engineering and Earth Sciences
DOCTOR OF PHILOSOPHY
Linlin Mu ................................................................. Yichang, China
B.S., Huazhong University of Science and Technology; M.S., Wuhan Institute of Technology
Dissertation: Stability and Toxicity of Cerium Oxide Nanoparticles in Water-Soil-Plant Systems
Advisor: Dr. Christophe Darnault

Human Centered Computing
DOCTOR OF PHILOSOPHY
Lorenzo Barberis Canonico .................................................. Greenville, SC
B.S., Western Governors University
Dissertation: Human-Machine Teamwork: An Exploration of Multi-Agent Systems, Team Cognition, and Collective Intelligence
Advisor: Dr. Nathan McNeese

Industrial Engineering
DOCTOR OF PHILOSOPHY
Amro Nofan Khasawneh .................................................... Irbid, Jordan
B.S., Jordan University of Science and Technology; M.S., State University of New York
Dissertation: Systems Engineering Approaches to Minimize the Viral Spread of Social Media Challenges
Advisor: Dr. Kapil Chalil Madathil
Amro received a Student Member with Honors award from the Human Factors and Ergonomics Society and has accepted a postdoctoral position at Johns Hopkins School of Medicine.

Mechanical Engineering
DOCTOR OF PHILOSOPHY
Masoud Farahmand ................................................................. Clemson, SC
B.S., Semnan University; M.S., Sharif University of Technology
Dissertation: Cavopulmonary Support for Failing Fontan Patients: Computational and in Vitro Assessment
Advisor: Dr. Ethan Kung

Junkui Huang ................................................................. Shenyang, China
B.S., Dalian Jiaotong University; M.S., Beijing Institute of Technology
Dissertation: Hybrid Ground Vehicle Thermal Management System Using Heat Pipes — Model and Control
Advisor: Dr. John Wagner
College of Science

Biochemistry and Molecular Biology

Doctor of Philosophy

Mufida Ahmed Nagi Ammar .......................................................... Tripoli, Libya
B.S., M.S., Tripoli University
Dissertation: Role of Cryptococcus neoformans Pyruvate Decarboxylase and Aldehyde Dehydrogenase Enzymes in Acetate Production and Virulence
Advisor: Dr. Kerry Smith

Biological Sciences

Doctor of Philosophy

Kelly M. Diamond ................................................................. Orlando, FL
B.S., University of Central Florida; M.S., Clemson University
Dissertation: Functional Morphology and Environmental Impacts on Migration-Relevant Performance Measures in Amphidromous Goby Fishes
Advisor: Dr. Richard Blob

Micaela Ro Scobie ............................................................. Asheville, NC
B.S., University of North Carolina
Dissertation: The Effects of Indirubin Derivative E804 on Inflammatory Profiles in Glioblastoma Multiforme Cell Lines and Subsequent Crosstalk Effect on Tumor Associated THP-1 Macrophages
Advisor: Dr. Charles Rice

Chemistry

Doctor of Philosophy

Richard Edwin Overstreet .................................................. Belton, SC
B.S., Western Carolina University
Dissertation: Assessing the Adsorption of Various Proteins with Conformational Screening Utilizing k-Means Clustering and CHARMM Potential Energy Calculations
Advisor: Dr. Brian Dominy

Hung Khiem Trang .................................................. Ho Chi Minh, Vietnam
B.S., Texas A&M University; M.S., Clemson University
Dissertation: Development of Functionalized Capillary-Channeled Polymer (C-CP) Fibers as Stationary Phase for Affinity Chromatography
Advisor: Dr. Kenneth Marcus
Hung has five peer-reviewed publications and four conference presentations. His Clemson master’s thesis is the most downloaded thesis in the TigerPrints repository, with nearly 40,000 downloads.

Environmental Toxicology

Doctor of Philosophy

Ian Edhlund ............................................................. Seneca, SC
B.A., Metropolitan State University; M.S., University of Wisconsin
Dissertation: Application of Mathematical Modeling Languages and Statistical Optimization Methods in Physiologically Based Toxicokinetic to Quantitative Adverse Outcome Pathway Models
Advisor: Dr. Cindy Lee
Mathematical Sciences
DOCTOR OF PHILOSOPHY

Thomas Conrad Clevenger ................................................................. Locust Grove, GA
B.S., LaGrange College; M.S., Clemson University
Dissertation: A Parallel Geometric Multigrid Method for Adaptive Finite Elements
Advisor: Dr. Timo Heister

Chase Norman Joyner ................................................................. Clover, SC
B.S., M.S., Clemson University
Dissertation: High Dimensional Regression Techniques for Complex Data
Advisor: Dr. Christopher McMahan

Chase has four peer-reviewed publications and two more in press. He has accepted a position at
Bank of America in Charlotte, NC as a quantitative finance analyst.
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 alway.

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 processional

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.