

CLEMSON UNIVERSITY

Doctoral Hooding Ceremony

DECEMBER 18, 2019



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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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and Life Sciences

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Health Sciences

Wendy York
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and Applied Sciences

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Dean of University Libraries

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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, IIIAgricultural Sciences
Charles F. Rosenkrans, Jr.....Animal & Veterinary Sciences
E. Jeffery Rhodehamel.....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. Schwensen..... School of Architecture
Valerie A. Zimany Art
John A. Gaber.....City Planning & Real Estate Development
N. Mike Jackson..... Construction Science & Management
Susanna M. AshtonEnglish
James M. Burns.....History
Salvador A. Oropesa Languages
Becky K. BeckerPerforming 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. 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. FilipiAutomotive Engineering
Martine LaBerge Bioengineering
David A. Bruce Chemical & Biomolecular Engineering
Jesus M. de la Garza..... Civil Engineering
Amy W. AponSchool of Computing
Daniel L. NoneakerElectrical & Computer Engineering
Cindy M. LeeEngineering & Science Education
David L. Freedman Environmental Engineering &
Earth Sciences
R. Joe Watkins General Engineering
Jeffrey P. Kharoufeh Industrial Engineering
Kyle BrinkmanMaterials 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 Biological Sciences
William T. Pennington Chemistry
William R. Marcotte, Jr.Genetics & Biochemistry
Kevin James.....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

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 ZhouLongyan, 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
Dissertation: Healthcare Genetics Approach to Studying the First 1000 Days of Life:
An Opportunity for Early Intervention
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 VerhoevenRaleigh, 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 HefnerGreenville, 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 MinorNew 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 PinkstonColumbia, 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 ShehuPristina, 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.

COLLEGE OF BUSINESS

Economics

DOCTOR OF PHILOSOPHY

- 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

COLLEGE OF EDUCATION

Educational Leadership

DOCTOR OF PHILOSOPHY

- 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
Dissertation: On Resilient Control for Secure Connected Vehicles: A Hybrid Systems
Approach
Advisor: Dr. Pierluigi Pisu

Bioengineering

DOCTOR OF PHILOSOPHY

Xun ChenShenyang, 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 EmmettRaleigh, NC
B.S., Clemson University
Dissertation: Power and Capacity Enhancement of Energy Storage Devices via Faradaic
Doping of Carbon Electrodes
Advisor: Dr. Mark Roberts

Alphonse HakizimanaNyamagabe, 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 XieShaoxing, 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 ZhuNanjing, 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 AlawadiAmman, 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 ChengAnhui 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
Dissertation: Development of Blast Risk Assessment Framework for Financial Loss and
Casualty Estimation
Advisor: Dr. Weichiang Pang

Prashant RawalKathmandu, 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 LiuXinxiang, 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 PoseyScott 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 WelchErie, 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 LeiTaishan, 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 ZhuShandong, 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 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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