

CLEMSON UNIVERSITY

Doctoral Hooding Ceremony

DECEMBER 14, 2016



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DOCTORAL HOODING CEREMONY

WEDNESDAY, DECEMBER 14, 2016

3:00 PM

BROOKS CENTER FOR THE PERFORMING ARTS

ORDER OF CEREMONIES

PROCESSIONAL

(Please stand for the processional and the National Anthem)

NATIONAL ANTHEM

OPENING OF CEREMONY

University Marshal Deborah M. Switzer

REFLECTION

Ashley L Isreal

PhD candidate in Educational Leadership

Gates Millennium Scholar

WELCOME AND INTRODUCTIONS

Associate Provost and Dean of the Graduate School

Jason W Osborne

and

Executive Vice President for Academic Affairs and Provost

Robert H Jones

CONFERRING OF DEGREES, DELIVERY OF DIPLOMAS, AND HOODING

President James P Clements

ALMA MATER

RECESSIONAL

Music by the Clemson University Brass Quintet

Selections and credits on page 15

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

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

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Vice President for Development and Alumni Relations

THE GRADUATE SCHOOL

Jason W Osborne
Associate Provost and Dean

Frankie O Felder
Senior Associate Dean

William G Ferrell
Associate Dean

David S Fleming
Associate Dean

Tia N Dumas
Assistant Dean for Professional Development
and Inclusive Excellence

COLLEGIATE DEANS

George R Askew, Jr
Dean of College of Agriculture, Forestry and Life Sciences

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

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Dean of College of Behavioral, Social and Health Sciences

Robert E McCormick
Dean of College of Business

Anand K Gramopadhye
Dean of College of Engineering, Computing and
Applied Sciences

George J Petersen
Dean of College of Education

Mark D Leising
Interim Dean of College of Science

Maggie Farrell
Dean of Libraries

GRADUATE STUDENT GOVERNMENT

Tyrese J Bryant
President

R Shawn Nanney
Vice President

David C Bivens
Vice President of the Greenville Council

Special Thanks to Graduate Program Directors and Staff

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

ASSOCIATE DEANS AND DEPARTMENT CHAIRS

COLLEGE OF AGRICULTURE, FORESTRY AND LIFE SCIENCES

Joseph D Culin
Associate Dean for Research and Graduate Studies
Ted Whitwell
Associate Dean for Undergraduate Studies

Patricia A Zungoli, *interim*.....Agricultural & Environmental Sciences
James R Strickland.....Animal & Veterinary Sciences
E Jeffery Rhodehamel.....Food, Nutrition, & Packaging Sciences
Greg K Yarrow.....Forestry & Environmental Conservation

COLLEGE OF ARCHITECTURE, ARTS AND HUMANITIES

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

Katherine L Schwennsen.....School of Architecture
Greg W Shelnuttt.....Art
Roger W LiskaConstruction Science & Management
Lee J Morrissey.....English
James M Burns.....History
Mary G Padua.....Landscape Architecture
Salvador A Oropesa.....Languages
David J Hartmann.....Performing Arts
Charles Starkey, *acting*.....Philosophy & Religion
James H Spencer.....Planning, Development & Preservation

COLLEGE OF BUSINESS

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

Jeffrey J McMillian, *interim*School of Accountancy
Scott L Baier.....Economics
Angela G Morgan, *interim*.....Finance
Charles Tonkin.....Graphic Communications
“Sri” V Sridharan.....Management
Gregory M Pickett, *interim*Marketing

COLLEGE OF ENGINEERING, COMPUTING AND APPLIED SCIENCES

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

Eileen T Kraemer.....School of Computing
Zoran S Filipi.....Automotive Engineering
Martine LaBerge.....Bioengineering
David A Bruce, *interim*....Chemical & Biomolecular Engineering
James R Martin.....Civil Engineering

Daniel L NoneakerElectrical & Computer Engineering
Cindy M Lee.....Engineering & Science Education
David L FreedmanEnvironmental Engineering & Earth Sciences
R Joe Watkins.....General Engineering
J Cole Smith.....Industrial Engineering
Rajendra “Raj” Bordia.....Materials Science & Engineering
Christopher L Cox, *interim*.....Mathematical Sciences
Richard Figliola, *interim*.....Mechanical Engineering

COLLEGE OF BEHAVIORAL, SOCIAL AND HEALTH SCIENCES

Kathy N Headley
Senior Associate Dean of the Division of Collaborative Academic Services
Eric R Muth
Associate Dean for Research and Graduate Studies
Denise M Anderson
Associate Dean for Undergraduate Studies
Kathleen L Valentine
Associate Dean for School of Nursing

Kathleen L Valentine.....School of Nursing
Bryan E Denham.....Communication Studies
Francis A McGuire, *interim*.....Parks, Recreation & Tourism Management
Bruce W Ransom II.....Policy Studies
Jeffrey S Peake.....Political Science
Patrick H Raymark.....Psychology
Ronald W Gimbel.....Public Health Sciences
Douglas “Kinly” Sturkie.....Sociology & Anthropology
Mark A Small.....Youth, Family & Community Studies

COLLEGE OF EDUCATION

Kathy N Headley
Senior Associate Dean of the Division of Collaborative Academic Services
David E Barrett
Associate Dean for Academic Affairs and Research
Suzanne N Rosenblith
Associate Dean for Undergraduate Studies

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

COLLEGE OF SCIENCE

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

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

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, and used his degree in vocational education to serve as 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 4,712 graduate students and, including today's graduation, has awarded 36,616 master's degrees, 498 education specialist degrees, and 4,599 doctoral degrees.

1. Holmes, A, and GR 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" long doctoral hood is draped over the shoulders by the faculty member who, as chair of the advisory committee, has formally mentored and guided the student's successful research and education journey.

CANDIDATES FOR THE DOCTORAL DEGREE

Jason W Osborne, Dean, Graduate School

COLLEGE OF AGRICULTURE, FORESTRY AND LIFE SCIENCES

DOCTOR OF PHILOSOPHY

Food Technology

Bolim Lee..... Incheon, Korea

B.A., Clemson University

Dissertation: Study of Chemical Profiles of Volatile and Non-Volatile Bioactive Compounds of Muscadine Grapes (*Vitis rotundifolia*) During Ripening Stages and Evaluation of their *In Vitro* Biological Properties

Advisor: Dr. F Chen

Bolim has two peer-reviewed publications and received an award certificate in the IFT graduate student poster competition.

Collin Jeffrey Popp.....Omaha, NE

B.S., University of Arizona; M.S., University of Nebraska

Dissertation: Evaluating Indirect Calorimetry Methodology, Postural Energy Expenditure, and the Effects of Diet and Exercise Recommendations

Advisor: Dr. E Jesch

Maciel Ugalde San José, Costa Rica

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

Dissertation: Spatial Analysis of the Nutritional Risk of Older Adults Participating in the Older Americans Act Program in South Carolina, 2013

Advisor: Dr. K Cason

Maciel won first place at the Graduate Research and Discovery Symposium and SC Aging Research Day in 2015, became an RDN, and has accepted a position in public health nutrition.

Plant and Environmental Sciences

Gandura Abagandura.....Clemson, SC

M.S., Omar Al Mukter University

Dissertation: Using Soil Conditioners to Increase Soil Physiochemical Properties and Agricultural Productivity in Libya

Advisor: Dr. D Park

Abagandura has one peer-reviewed publication and seven more in process.

Asma Abdelghafar Abdelghafar..... Benghazi, Libya

B.S., M.S., Garyounis University

Dissertation: Enabling Marker Assisted Breeding (MAB) for Phytochemical Compounds in Peach [*Prunus persica* (L.) Batsch]

Advisor: Dr. K Gasic

Wildlife and Fisheries Biology

Lindsay Moore Hill.....Butler, PA
B.S., Indiana University of Pennsylvania; M.S., Clemson University
Dissertation: Investigation into the Ecological and Toxicological Constraints on a
Population of Lesser Flamingos (*Phoeniconaias minor*) at Kamfers Dam in Kimberley,
South Africa
Advisors: Dr. William Bowerman and Dr. G Yarrow

Kyla Jayne IwinskiMarquette, MI
B.A., University of Denver; M.S., Northern Michigan University
Dissertation: Release and Degradation of Microcystin-LR Following Exposures of
Microcystis to Copper-Based Algaecides
Advisor: Dr. J Rodgers, Jr.
Kyla has six peer-reviewed publications, was named the Aquatic Plant Management
Society's 2016 graduate student of the year, and has accepted a position at Applied
Polymer Systems.

Andrew David McQueen.....Rayville, LA
B.S., University of Louisiana; M.S., Clemson University
Dissertation: Mitigating Risks of Oil Sands Process Affected Water Using Hybrid
Constructed Wetland Treatment Systems
Advisor: Dr. J Rodgers Jr.
Andrew has four peer-reviewed publications and was featured in Clemson's Newsstand
for his role in designing treatment systems for renovating Canadian mining water.

COLLEGE OF ARCHITECTURE, ARTS AND HUMANITIES

DOCTOR OF PHILOSOPHY

Rhetorics, Communication and Information Design

Katherine A Elrick.....Elgin, IL
B.A., M.S., Illinois State University; M.A., Arcadia University
Dissertation: Ironic Feminism: Rhetorical Critique in Satirical News
Advisor: Dr. D Blakesley

COLLEGE OF BEHAVIORAL, SOCIAL AND HEALTH SCIENCES

DOCTOR OF PHILOSOPHY

International Family and Community Studies

Holly GroverCovington, OH
B.A., Brigham Young University
Dissertation: Where Cultures Collide: Hispanic Family Involvement in Education
Among Different Socioeconomic Groups
Advisor: Dr. S Limber

Ben R Ole Koissaba Narok, Kenya
M.A., Northwest University
Dissertation: A Critical Analysis of Factors that Contribute to Maasai Land
Appropriation: The Case of Maasai Land Appropriation in Kajiado and Narok
Counties in Kenya
Advisors: Dr. M Small and Dr. B Holaday

Policy Studies

Peter Marcus StaplesClemson, SC
B.S., Brigham Young University; M.B.A., University of Chicago; M.S., Clemson
University
Dissertation: Social Entrepreneurialism as Economic Development Policy
Advisors: Dr. D Willis and Dr. D Hughes

COLLEGE OF BUSINESS

DOCTOR OF PHILOSOPHY

Economics

Abdulbasit AydinClemson, SC
B.S., Ankara University; M.S., Florida State University
Dissertation: Essays on Export Sophistication
Advisor: Dr. S Baier
Abdulbasit has established several small businesses during his doctoral studies.

COLLEGE OF EDUCATION

DOCTOR OF PHILOSOPHY

Curriculum and Instruction

Corrie Leigh MartinCalhoun Falls, SC
B.S., Clemson University; M.Ed., The Citadel
Dissertation: The Intentionality of Coaching Responses: Connecting Stances to
Practices
Advisor: Dr. N Bannister

Erica B WalkerClemson, SC
B.F.A., University of Colorado; M.S., Clemson University
Dissertation: Opportunities for Innovation: Game-based Learning in an Engineering
Senior Design Course
Advisor: Dr. M Boyer
Erica is a lecturer in the Department of Graphic Communications at Clemson, an
Adobe Digital Creativity Scholar, and a Clemson Thinks² Faculty Scholar. In 2016,
she has given ten conference presentations and has two publications in press.

Educational Leadership

Sumood Makki Almaowashi.....Clemson, SC

B.A., University of Baghdad; M.A., Clemson University

Dissertation: Online Social Networking and International Students' Adjustment

Advisor: Dr. R Marion

Sumood is a Fulbright Scholar. She earned her M.A. in English from Clemson and plans to work with international students attending academic institutions across the US.

Jared Michael Halter York, PA

B.S., Slippery Rock University; M.S., Syracuse University

Dissertation: me of the Lowercase Variety: Reflections on the American Dream, Power, Privilege, and self

Advisor: Dr. M Boettcher

Jared is a social justice educator and 2013 Education Pioneers Fellow. He is writing a book manuscript on the American dream and will be a public scholar.

Kristin Adams SchulzeGreenville, SC

B.A., University of South Carolina, M.A.T., College of Charleston

Dissertation: Instructional Coaches and the Development of Relational Trust

Advisor: Dr. H Klar

COLLEGE OF ENGINEERING, COMPUTER AND APPLIED SCIENCES

DOCTOR OF PHILOSOPHY

Automotive Engineering

Farbod Akhavan Niaki.....Greenville, SC

B.S., M.S., Sharif University of Technology

Dissertation: A Probabilistic-Based Approach to Monitoring Tool Wear State and Assessing Its Effect on Workpiece Quality in Nickel-Based Alloys

Advisor: Dr. L Mears

Jun HuBengbu, China

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

Dissertation: Characterization and Modeling of Deformation, Springback, and Failure in Advanced High Strength Steels (AHSSs)

Advisor: Dr. F Abu-Farha

Jun has had 13 conference presentations and publications in the past four years. He worked as an intern in ThyssenKrupp Steel in 2015 and will join AK Steel in 2017.

Xianjie Zhou Foshan, China

B.S., South China University of Technology; M.S., Beihang University

Dissertation: Formulation of an Interactive Ruled-based Design Envelope for Ensuring Aftermarket Vehicle Dynamics Compliance

Advisor: Dr. B Ayalew

Xianjie has three peer-reviewed publications and has accepted an automotive technology position at Robert Bosch LLC.

Bioengineering

Kayla Elizabeth Wilson.....Sumter, SC
B.S., M.S., Clemson University
Dissertation: Diabetes in Low-Resource Settings: Novel Methods for Detection and Daily Monitoring
Advisor: Dr. D Dean
Kayla won the Lemelson-MIT CureIt! prize in 2014, has a peer-reviewed publication, and plans to work in the diabetes medical device industry.

Chemical Engineering

Nithinart Chitpong Nonthaburi, Thailand
B.Sc., MEng., Chulalongkorn University
Dissertation: Functionalized Cellulose Nanofiber Membranes for Heavy Metals Removal from Impaired Waters
Advisor: Dr. S Husson

Civil Engineering

Zeinab Farahmandfar Tehran, Iran
B.S., Power & Water University of Technology; M.S., K.N. Toosi University of Technology
Dissertation: Resilience-Based Rehabilitation Planning of Water Supply Systems in Seismic Regions
Advisor: Dr. K Piratla

Behnam Naji.....Clemson, SC
B.S., Islamic-Azad University; M.S., University of Dayton
Dissertation: Characterization and Modeling of Bond-Loss Behavior in Pretensioned Concrete I-Girders
Advisor: Dr. B Ross
Behnam has four peer-reviewed publications, won the 2013-2014 PCI Daniel P. Jenny Fellowship and received a 2016 Glenn Teaching Fellowship.

Mahmoodreza Soltani..... Zanjan, Iran
B.S., Abbaspour University; M.S., Amirkabir University of Technology; M.S., University of Texas
Dissertation: Interface Shear Transfer in Reinforced Concrete Members: Code Evaluation, Modeling, and Testing
Advisors: Dr. B Ross and Dr. T Cousins
Mahmood has four peer-reviewed publications and has been twice honored with a Glenn Teaching Fellowship award.

Xi Zhao..... Wuhan, China
B.S., M.S., Wuhan University of Technology; M.E., Texas A&M University
Dissertation: Traffic Surveillance and Automated Data Extraction from Aerial Video Using Computer Vision, Artificial Intelligence, and Probabilistic Approaches
Advisor: Dr. W Sarasua

Computer Engineering

Bo WuClemson, SC
B.S., M.S., Northwestern Polytechnical University
Dissertation: Complex Network Analysis and the Applications in Vehicle
Delay-Tolerant Networks
Advisor: Dr. H Shen

Computer Science

Paul Michael KilgoTuscaloosa, AL
B.S., M.S., University of Alabama
Dissertation: Radiative Transfer Using Path Integrals for Multiple Scattering in
Participating Media
Advisor: Dr. J Tessendorf
Paul is a member of the Upsilon Pi Epsilon National Honor Society and is
currently working at Blizzard Entertainment.

Raghuveer Mohan.....Chennai, India
B.E., Anna University; M.S., Clemson University
Dissertation: Efficient Analytics for Large Implicit Correlation Networks
Advisor: Dr. B Dean
Raghu won the Graduate Teaching Assistant Award in 2015, is passionate about
teaching, and plans a career in teaching and service.

Pengfei Xuan Yulin, China
B.S., Beijing Institute of Technology; M.S., Clemson University
Dissertation: Accelerating Big Data Analytics on Traditional High-Performance
Computing Systems Using Two-Level Storage
Advisors: Dr. F Luo

Yuanyuan ZhangSuizhou, China
B.S., M.S., Wuhan University
Dissertation: Techniques to Improve the Retrieval Efficiency and Usability of G-Bean
Advisor: Dr. J Wang

Electrical Engineering

Abdlmnam A Abdlrahem..... Alkufra, Libya
B.S., Benghazi University; M.S., University of Tripoli
Dissertation: A Multi-Model Approach to Design a Robust Fixed-Order Controller to
Improve Power System Stability
Advisor: Dr. E Makram
Abdlmnam has six peer-reviewed publications, and plans to work with Quanta
Technology.

Hani Awad Albalawi Tabuk, Saudi Arabia
B.S., King Abdulaziz University; M.Sc., University of Sheffield
Dissertation: Optimal Operation of a Northwest Grid of Saudi Arabia Including
Renewable Resources
Advisor: Dr. E Makram

Yuan Li..... Tianjin, China
B.S., Tianjin University; M.S., Nankai University
Dissertation: Study on the Amplification of Spatial Modes in a Crystal Rod Amplifier
Advisor: Dr. E Johnson

Mehdi Rahmani-Andebili..... Tehran, Iran
B.Sc., Shahed University; M.Sc., Tarbiat Modares University
Dissertation: Cooperative Distributed Energy Scheduling for Smart Homes Applying
Multi-Time Scale Stochastic Model Predictive Control
Advisor: Dr. H Shen

Engineering and Science Education

Gustavo Moran Soto..... Durango, Mexico
B.S., Instituto Tecnológico de Durango; M.S., CIMAV
Dissertation: Effects of Mismatched Math Self-Efficacy and Performance on Behaviors
and Attitudes of Engineering Students with Poor Math Preparation
Advisor: Dr. L Benson
Gustavo is the first Mexican student to graduate from the ESE department.

Environmental Engineering and Science

Francisco Javier Barajas Rodriguez Hermosillo, Mexico
B.S., University of Sonora
Dissertation: Evaluation of 1,4-Dioxane Biodegradation Under Aerobic and Anaerobic
Conditions
Advisor: Dr. D Freedman
Francisco has accepted a position at an environmental consulting firm in Austin, Texas.

Peng Xie Zhuzhou, China
B.S., Hunan University
Dissertation: Simulation of Reverse Osmosis and Osmotically Driven Membrane
Processes
Advisor: Dr. D Ladner
Peng won first places in three poster competitions, has one peer-reviewed publication,
received a Linvil G. Rich and Ray Abernathy award, and has held Legacy of
Learning and Atkins fellowships.

Human Centered Computing

Jeffrey W Bertrand..... Des Moines, IA
B.A., University of Iowa
Dissertation: Examining the Effects of Interaction Fidelity on Task Performance and
Learning in Virtual Reality
Advisor: Dr. S Babu
Jeff received the HCC department's Outstanding PhD Student Award in 2013.

Industrial Engineering

Ling Zu Hefei, China
B.S., Anhui Agricultural University; M.S., Guizhou Normal University;
M.S., Clemson University
Dissertation: A Study of the Static Bicycle Reposition Problem with a Single Vehicle
Advisor: Dr. M Kurz

Materials Science and Engineering

Zhaoxi ChenSuqian, China

B.S., Nanjing University

Dissertation: Ceramic Thin Films with Embedded Magnetic Nanofibers or Nanorods of Controlled Orientations

Advisors: Dr. F Peng and Dr. K Kornev

Zhaoxi has nine peer-reviewed publications. He won the Hitachi High Technologies Electron Microscopy Graduate Fellowship in 2015.

James Brandon Marro..... Orangeburg, SC

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

Dissertation: Tunable Copper Microstructures in Blanket Films and Trenches Using Pulsed Electrodeposition

Advisors: Dr. K Richardson and Dr. Y Obeng

Mechanical Engineering

Saad F Alazemi.....Fahaleel, Kuwait

B.S., M.S., Kuwait University; M.S., Lawrence Technological University

Dissertation: Characterizing the Performance of a Ferrofluid-Based Electromagnetic Energy Harvester under Direct and Parametric Excitations

Advisor: Dr. M Daqaq

Clodoaldo José da Silva Sao Paulo, Brazil

B.S., University of Sao Paulo; M.S., Clemson University

Dissertation: On the Modal Effective Nonlinearity of a Class of Tapered-Cantilever Beams

Advisor: Dr. M Daqaq

Clodoaldo has three peer-reviewed publications. Currently he is an engineer/scientist at the Electric Power Research Institute (EPRI).

Seyed Alireza Fayazi..... Tehran, Iran

B.Sc., University of Khaje Nasir Tousi; M.Sc., University of Tehran

Dissertation: Connected Vehicles at Signalized Intersections: Traffic Signal Timing Estimation and Optimization

Advisor: Dr. A Vahidi

Alireza has three peer-reviewed journal publications and one patent. He plans to work in the automotive industry.

Mohammad Fazelpour.....Ahvaz, Iran

B.S., Azad University; M.S., Iran University of Science and Technology

Dissertation: Developing Unit Cell Design Guidelines for Meso-scale Periodic Cellular Materials

Advisors: Dr. J Summers and Dr. P Shankar

Mohammad has nine peer-reviewed publications and won two NSF/ASME design essay awards.

Ayşe Korucu Kocaeli, Turkey

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

Dissertation: Analysis of High Pressure H_2/O_2 , H_2/Air and *Kerosene/Air* Reacting Shear Flames

Advisor: Dr. R Miller

Ivan Saul Mata Santa Ana, El Salvador
B.S., Universidad Centroamericana
Dissertation: Affordance-Based Design Product Evolution Using Customer Feedback
Advisor: Dr. G Fadel

Jingyuan Yan Harbin, China
B.S., Sichuan University; M.S., Clemson University
Dissertation: Optimal Design of Process Parameters During Laser Direct Metal
Deposition of Multi-Material Parts
Advisors: Dr. G Fadel and Dr. I Battiato

COLLEGE OF SCIENCE
DOCTOR OF PHILOSOPHY

Biochemistry and Molecular Biology

Sarah Twitty Bauer Camden, SC
B.S., Presbyterian College
Dissertation: Glycosome Heterogeneity, Dynamics, and ER Association in
Trypanosoma brucei
Advisor: Dr. M Morris
Sarah has three peer-reviewed publications, was an NSF Graduate Research Fellowship
Honorable Mention in 2014, and has accepted a post-doctoral position at Stanford
School of Medicine.

Chemistry

McKenzie Louise Campbell Belton, SC
B.S., Erskine College
Dissertation: Investigating Materials that Promote New Organic Methodology and
Remediation of Volatile Organic Compounds
Advisor: Dr. D Whitehead
McKenzie has six peer-reviewed publications, has served on the cabinet of the
Chemistry Graduate Student Organization, and plans to work in academia.

Yi Jin Jingning, China
B.S., Qingdao University of Science & Technology; M.S., South China University
of Technology
Dissertation: Solution Processed Solar Cells
Advisor: Dr. G Chumanov

Yinling Liu Shaoyang, China
B.S., Qingdao University of Science & Technology; M.S., South China University
of Technology
Dissertation: Effect from Substrate Binding and Selected Mutations for Allosteric
Communication in Atm1 Type ABC Exporter
Advisor: Dr. B Dominy

Alfredo Picado-ValenzuelaClemson, SC
B.S., Universidad de Costa Rica
Dissertation: Studies in Organic Synthesis: Copper Mediated Allylic Substitutions,
Synthesis of Spiro 3(2H)-Furanones, Intermolecular Halofunctionalization of
Alkenes and Synthesis of Difluorovinyl Ethers
Advisor: Dr. K Dieter

Genetics

Richard Elmer Boyles III Barnwell, SC
B.S., University of South Carolina
Dissertation: Genetic Study of Grain Yield and Quality Traits in Sorghum
Advisor: Dr. S Kresovich

Steven Bradley Cogill.....Elwood, IN
B.S., University of Wisconsin; M.S., Indiana University
Dissertation: Functional Analysis of Human Long Non-Coding RNAs and Their
Associations with Diseases
Advisor: Dr. L Wang

Mathematical Sciences

Christopher Michael Wilson.....Roanoke, VA
B.S., Wingate Univeristy; M.S., Clemson Univeristy
Dissertation: Kernel Smoothing and Tolerance Intervals for Hierarchical Data
Advisor: Dr. P Gerard

Physics

Philipp Alexander Roser..... Bellingham, WA
M.Phil., Oxford University; M.Sc., Imperial College London
Dissertation: Gravitation and Cosmology with York Time
Advisor: Dr. A Valentini

Menghan Zhou Beijing, China
B.S., Nanjing University
Dissertation: Vanadium Diselenide: On the Verge of Charge Density Wave
Advisor: Dr. J He

Jingyi Zhu Nanjing, China
B.S., M.S., Lanzhou University
Dissertation: Defects in Graphene: Electrochemical, Magnetic, and Optical Properties
Advisor: Dr. A Rao

Jingyi has sixteen peer-reviewed publications and was named Outstanding Graduate
Researcher in the Department of Physics and Astronomy in 2015.

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 Processionals

Processional

Pomp and Circumstance – Sir Edward Elgar

National Anthem

Words by Francis Scott Key
Music attributed to John Stafford Smith

Closing

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

Recessional

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

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

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