Honoring 2020, 2021 and 2022 Awardees

Wednesday, April 20, 2020
4:00 PM - 7:00 PM

Bryant Conference Center, Sellers Auditorium
240 Paul W. Bryant Drive, Tuscaloosa, AL 35401
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**Faculty Research Day 2022 Awards Ceremony**

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OPENING REMARKS
Russell J. Mumper, Ph.D.
Vice President for Research & Economic Development

WELCOME
Stuart R. Bell, Ph.D.
President

NATIONAL ACADEMY OF INVENTORS
INDUCTEE PRESENTATIONS
Lauren A. Wilson, J.D.
Assistant Vice President for Research Agreements & Commercialization

PRESIDENT'S FACULTY RESEARCH
AWARD PRESENTATIONS
John C. Higginbotham, Ph.D., MPH
Senior Associate Vice President for Research & Economic Development

CONCLUDING REMARKS
Russell J. Mumper, Ph.D.
Vice President for Research & Economic Development
The National Academy of Inventors is a member organization comprising U.S. and international universities, and governmental and non-profit research institutes, with over 4,000 individual inventor members and Fellows spanning more than 250 institutions worldwide.
Dr. Jialai Wang’s main research efforts focus on material innovations to enhance the resilience and sustainability of civil infrastructure systems. His current research topics include:

Synthesis and characterization of innovative sustainable materials, including low and non-clinker construction materials, fiber reinforced polymer composites.

In-situ nanoparticle production for better performance of structural materials.

Adaptive building envelope for multi-hazard mitigation and energy efficiency.

Dr. Wang received his Ph.D. in Civil Engineering (Structural Engineering and Advanced Materials) from the University of Akron in 2003.
NATIONAL ACADEMY OF INVENTORS
2020 INDUCTEE

Dr. Xiangrong Shen
Professor of Mechanical Engineering

Dr. Xiangrong Shen is a professor in the department of mechanical engineering at The University of Alabama, where he has been a faculty member since 2008. He received his doctorate in mechanical engineering from Vanderbilt University in 2006, and subsequently completed a two-year postdoctoral training in rehabilitation robotics, also at Vanderbilt.

Professor Shen’s research is focused on assistive and rehabilitation robotics, and the specific topics include robotic lower-limb prostheses, portable power-assist lower-limb orthoses, and legged/wheeled robotic platforms for assistive and therapeutic purposes. His research has been supported by multiple NSF and NIH grants, including an NSF CAREER award in 2014.

He served as an associate editor for the journal of Control Engineering Practice from 2008 to 2014, and currently, he is an advisory board member of the Alabama Life Research Institute.
Dr. Qiang Huang is an associate professor in the Department of Chemical and Biological Engineering at The University of Alabama, where he has been a faculty member since 2016. He received his doctorate in Chemical Engineering from Louisiana State University in 2004 and subsequently worked as a Research Staff Member and Project Manager at IBM TJ Watson Research Center at New York for 12 years.

Professor Huang’s research has been focused on electrochemical technologies for the manufacturing of microelectronic, semiconductor, and quantum devices, aiming to understand the interrelation between the chemistry, process, material microstructures, and the electronic, magnetic, and superconducting properties of the material. His work takes primarily an experimental approach complimented by mathematical modeling and, recently, machine learning. His research at UA has been supported by NSF, DOE, and industrial partners, including an NSF CAREER award in 2020.
Dr. Dawen Li
Professor of Electrical and Computer Engineering

Dr. Dawen Li is a Professor in the Department of Electrical and Computer Engineering at the University of Alabama. Dr. Li received his Ph.D. in Electrical Engineering and Computer Science from the University of Michigan, Ann Arbor, in 2006. During his Ph.D. study, Dr. Li had intern experience at Bell Labs, Lucent Technologies. From 2006 to 2008 he was a post-doctoral research fellow at the University of Michigan, Ann Arbor.

Dr. Li joined the University of Alabama in 2008. He is a recipient of the prestigious NSF CAREER award. Dr. Li’s current research focuses on solar cells and advanced manufacturing through high-speed printing. His group published papers in top journals and is well recognized in the field.
Dr. Evan K. Wujcik is currently an Assistant Professor in the Department of Chemical and Biological Engineering and Adjunct Professor of Civil, Environmental, and Construction Engineering (1/2017–present) at The University of Alabama [Tuscaloosa, AL, USA]. He also has appointments within the Alabama Water Institute [AWI] and UA System Materials Science PhD Program. He was previously an Assistant Professor of Chemical Engineering in the Dan F. Smith Department of Chemical Engineering (8/2013–12/2016) at Lamar University [Beaumont, TX, USA]. Prof. Wujcik obtained his Ph.D. in Chemical and Biomolecular Engineering from The University of Akron [Akron, OH, USA] (2013) as well as his M.B.A. (2011), M.S. in Chemical Engineering (2009), B.S. in Applied Mathematics (2010), and B.S. in Chemical Engineering (2008) from The University of Rhode Island [Kingston, RI, USA]. He directs the Materials Engineering And Nanosensor [MEAN] Laboratory—currently overseeing 3 international visiting scholars, 3 PhD researchers, and 7 undergraduate researchers—where his research interests include advanced materials, water quality engineering, wearables, polymer electronics, composites, fibers, and electrohydrodynamics.

He is a Founding Associate Editor for Advanced Composites and Hybrid Materials [Springer-Nature, 2020 IF: 5.693] and on the editorial board for ES Materials & Manufacturing and ES Energy & Environment [Engineered Science Publisher]. Prof. Wujcik is a Senior Member of the American Institute of Chemical Engineers [AIChE] and has served as the Vice (2017), Acting (2018), and Past (2019) Chair of the Composites Area [08F] within the Materials Engineering & Science Division [MESD]. Currently, he is a Director of the AIChE MESD (2021–2022 Annual Meetings). Prof. Wujcik is the recipient of a 2020 NSF CAREER Award [MPS/DMR/Electronic and Photonic Materials], the 2021 UA AIChE Faculty Award, and was honored to be a 2020 AIChE Sensors Topical Plenary Speaker—among other awards, as a student and faculty member.
2020 PRESIDENT’S FACULTY RESEARCH AWARD RECIPIENTS

EMERGING SCHOLARS

ARTS & HUMANITIES
Kelly E. Shannon-Henderson
Assistant Professor
Modern Languages and Classics

PHYSICAL & BIOLOGICAL SCIENCES,
MATHEMATICS AND ENGINEERING
Alex Hainen
Associate Professor
Civil, Construction and Environmental Engineering

SOCIAL & BEHAVIORAL SCIENCES
Dr. Sonya E. Pritzker
Associate Professor
Anthropology
Dr. Kelly E. Shannon-Henderson was an Assistant Professor of Classics in the Department of Modern Languages and Classics at The University of Alabama. She holds a DPhil in Greek and Latin Languages and Literature from the University of Oxford. A scholar of Greek and Latin literature of the Roman Empire, she is the author of two monographs. *Religion and Memory in Tacitus’ Annals* (Oxford University Press, 2019) is the first book-length treatment of religion in the Annals, the most famous work by the Roman historian Tacitus (fl. 110s CE), and reveals how references to concepts such as the gods, fate, and emperor worship are a key vehicle for Tacitus’ assessment of the principate as a system of government, the activities of individual emperors, and their impact on Roman society and cultural identity. Dr. Shannon-Henderson’s book was honored by the Society for Classical Studies in 2021 with the Charles J. Goodwin Award of Merit, that organization’s highest scholarly award.

Dr. Shannon-Henderson’s second monograph is an edition, translation, and commentary on the *Peri Thaumasion* (“On Wonders”) by Phlegon of Tralles (Brill, 2019), a Greek-speaking freedman of the emperor Hadrian (r. 117-138 CE) who compiled in his native language a collection of strange tales including stories of giants, centaurs, and resurrections from the dead. She has also published several articles on Roman religion, ancient historiography, and paradoxography, and presented her work at numerous national and international conferences.
Alex Hainen
Civil, Construction and Environmental Engineering

Alex Hainen is an associate professor in the Department of Civil, Construction and Environmental Engineering at The University of Alabama. He received his BSCE from Michigan Technological University and his MSCE and PhD from Purdue University. He has nearly 40 peer-reviewed journal articles and more than 30 additional conference proceedings. His research includes traffic signals, transportation operations, travel mobility, and connected vehicles. His work has been funded by FHWA, USDOT, USDOE, NSF, the US Army ERDC-CERL, and many state agencies. He has worked with 17 departments of transportation on pooled funds projects, and has worked extensively with the departments of transportation in Indiana, Utah, and Alabama. He has collaborated with George Bush Intercontinental Airport (IAH) and Cincinnati/Northern Kentucky International Airport (CVG). He currently serves as the secretary for the Transportation Research Board’s Standing Committee on Utilities, as the academic chair on the Gulf Region Intelligent Transportation Society, and as the chair for the University’s Parking & Traffic Committee.

Currently, Alex is working on the first connected vehicle pilot deployment in the state. The pilot will cover more than 100 signalized intersections and over 30 miles on I-20/59. He has presented to the Transportation Research Board in Washington, D.C., Intelligent Transportation System America in Washington, D.C., and numerous state transportation engineering conferences. He is fortunate to work very closely with colleagues at ALDOT and the Tuscaloosa DOT. Support from State and local agencies has allowed this real-world work to be conducted.

Alex and his wife, Laura, currently attend One Hope Church in Tuscaloosa with their two daughters, Quinn (3) and Calla (1).
Dr. Sonya E. Pritzker is a linguistic and medical anthropologist with an emphasis in psychological and biocultural medical anthropology, as well as a licensed practitioner of Chinese medicine. Her work, very broadly, investigates how both health and healthcare are mediated by interaction in multiple cultural settings. Her research thus far has focused on three principal areas, including translation in the practice of Chinese medicine, psychology in China, and the study of language and emotion in human relationships.

Dr. Pritzker received a Ph.D. in 2011 from the UCLA Department of Anthropology. Her first faculty appointment was in the UCLA Division of General Internal Medicine and Health Services Research, where she worked as a researcher with a focus on integrative medicine. In 2015, she joined the faculty of the Department of Anthropology at The University of Alabama. At UA, she is active in the core program in biocultural medical anthropology and serves as the department’s linguistic anthropologist. She is also active in the interdepartmental programs in Linguistics and Asian Studies.
2021 PRESIDENT’S FACULTY RESEARCH AWARD RECIPIENTS

EMERGING SCHOLARS

ARTS & HUMANITIES

Dr. Richard W. Newton
Assistant Professor
Religious Studies

PHYSICAL & BIOLOGICAL SCIENCES, MATHEMATICS AND ENGINEERING

Kevin M. Kocot
Associate Professor
Biological Sciences

SOCIAL & BEHAVIORAL SCIENCES

Mercy Ngosa Mumba, PhD, RN, CMSRN, FAAN
Associate Professor
Nursing
Dr. Richard Newton has served as Assistant Professor of Religious Studies at the University of Alabama since 2018. He holds a PhD in Critical Comparative Scriptures from the Claremont Graduate University’s School of Religion. His research focuses on “scriptures” as social texts and their role in social formation. His monograph, *Identifying Roots: Alex Haley and the Anthropology of Scriptures* (Equinox 2020) examines the critically acclaimed book and mini-series as a case study in the dynamics of scriptures, race, and identity. He is also Editor of the *Bulletin for the Study of Religion*.

Dr. Newton’s research has been featured in the *Journal of Biblical Literature, Method & Theory in the Study of Religion, Religion & Theology*, and other scholarly journals. A popular public speaker, his work has been discussed in local, regional, and national media venues. He is also the founder and curator of the social media platform, *Sowing the Seed: Fruitful Conversations in Religion, Culture and Teaching*. Newton’s current research project is a collection of essays that theorize familiar concepts associated with “religion” in light of how they are signified differently in African American cultural history.
Dr. Kevin M. Kocot is an associate professor in the Department of Biological Sciences and Curator of Invertebrates in the Alabama Museum of Natural History. Dr. Kocot’s research program is focused on the biodiversity, systematics, and genomics of marine invertebrates. His work has taken him to the ends of the Earth on Antarctic and Arctic ship-based research expeditions and to over a kilometer below the ocean’s surface in HOV Alvin. Research in the Kocot lab employs both modern and traditional techniques to understand the evolutionary history and diversity of some of the strangest animals on the planet. As such, his students receive integrative training in diverse approaches ranging from molecular laboratory techniques to bioinformatics to naming of species that are new to science.

Dr. Kocot has five active grants including an NSF CAREER award. To date, he has published 64 peer-reviewed scientific articles including four papers in Nature, one of the most highly ranked scientific journals in the world. Dr. Kocot teaches Invertebrate Zoology, Principles of Systematics, and Principles of Biology II and mentors one postdoctoral researcher, five Ph.D. students, and nine undergraduate students.

Dr. Kocot earned a B.S. from Illinois State University, a Ph.D. from Auburn University, and trained as a postdoctoral researcher at Auburn University and The University of Queensland. He joined the Department of Biological Sciences in January 2016.
Dr. Mercy Ngosa Mumba is an award-winning scientist and philanthropist. She is a published author in peer-reviewed scientific journals, and her research is widely funded by various agencies, including the National Institutes of Health (NIH). She is an Associate Professor in the Capstone College of Nursing at the University of Alabama. She graduated with her PhD from the University of Texas at Arlington College of Nursing and Health Innovation in December 2016 and with her Honors Bachelor of Science in Nursing in December 2010. Her research focuses on substance use disorders, addictive behaviors, and their comorbid mental health conditions. She is particularly interested in the impact of social determinants of health and the role of health disparities in preventing, treating, and managing these conditions.

Dr. Mumba is passionate about improving the human condition through evidence-based initiatives and interventions, and is a strong advocate for increasing research productivity, infrastructure, and human capital globally. She is personally involved in many initiatives that improve health care outcomes and promote holistic wellness and quality of life among individuals and communities.
2022 PRESIDENT’S FACULTY RESEARCH AWARD RECIPIENTS

EMERGING SCHOLARS

ARTS & HUMANITIES
Luke William Hunt, J.D., Ph.D.
Assistant Professor
Philosophy

PHYSICAL & BIOLOGICAL SCIENCES,
MATHEMATICS AND ENGINEERING
Tibor Szilvási
Assistant Professor
Chemical and Biological Engineering

SOCIAL & BEHAVIORAL SCIENCES
Jennifer Cox, Ph.D.
Associate Professor
Psychology
Luke William Hunt joined the Alabama philosophy faculty in 2020. He teaches in the department’s Jurisprudence Track, and his primary research interests are at the intersection of philosophy of law, political philosophy, and criminal justice. After graduating from law school, he was a law clerk for a federal judge in Virginia. He then worked as an FBI Special Agent in Virginia and Washington, D.C., followed by his doctoral work in philosophy at the University of Virginia.

His first monograph, *The Retrieval of Liberalism in Policing*, was published by Oxford University Press in 2019. It provides an account of how law enforcement in liberal societies has become illiberal in light of its response to security threats. His second monograph, *The Police Identity Crisis – Hero, Warrior, Guardian, Algorithm* (Routledge, 2021), examines the police role and identity from within a broader philosophical context, arguing that prominent conceptions of the police are inconsistent with collective conceptions of justice. His third monograph, *Police Deception and Dishonesty – The Logic of Lying*, is under contract with Oxford University Press.

His articles have appeared in journals such as *Law and Philosophy, Ratio Juris, Criminal Justice Ethics, Polis, and The Washington University Jurisprudence Review*, and he has served as a commentator for media outlets such as *NPR, Slate, and The New Republic*.
Dr. Tibor Szilvási is an assistant professor in the Department of Chemical and Biological Engineering. Dr. Szilvási’s research group focuses on the design of functional materials with well-tailored specific properties by applying computational methods. Specifically, Dr. Szilvási’s research group aims (i) to optimize catalysts for industrial processes, (ii) to identify functional soft materials, and (iii) to design complex interfaces for energy and sensor applications.

Dr. Szilvási has two active grants and has published over 100 peer-reviewed publications including five papers in Science and Nature group journals, which are some of the most highly ranked scientific journals in the world, and 26 papers in Journal of American Chemical Society and Angewandte Chemie International Edition, which are the most respected general chemistry journals. Dr. Szilvási teaches Chemical Engineering Thermodynamics for undergraduate students and Advanced Thermodynamics for graduate students. Currently, he mentors four Ph.D. students, one of whom has recently obtained a DOE Computational Science Graduate Fellowship for the first time in the history of the state of Alabama and UA, and three undergraduate students.

Dr. Tibor Szilvási studied chemical engineering, chemistry, and physics at the Budapest University of Technology and Economics where he completed his PhD degree in 2016. After a postdoctoral stay at the University of Wisconsin-Madison he joined The University of Alabama as a tenure-track Assistant Professor in 2020.
Dr. Jenni Cox is an Associate Professor of Psychology, specializing in Clinical Psychology-Law, and the Co-Director of the Southern Behavioral Health and Law Initiative. Dr. Cox’s research focuses on the intersection of psychology and legal decision making. Her scholarship is unique in its broad scope, as she has published on topics including forensic mental health assessment, personality traits and constructs, domestic violence, prosecutorial discretion, experiences of LGBTQIA+ individuals in the legal system, the death penalty, and perceptions of public policies that differentially impact individuals from historically marginalized groups. Given the high stakes of many criminal cases, this research makes a substantial contribution to our understanding of the factors that contribute to legal outcomes. A more complete understanding of the elements that drive decision making within the courtroom may pave the way for addressing the differential treatment of defendants due to extra-legal considerations.

In 2020, Dr. Cox cofounded the Southern Behavioral Health and Law Initiative (SBHL). Receiving financial support from the Sozosei Foundation, SBHL brings together researchers across the UA campus in areas related to criminal justice, policing, forensic mental health and health disparities, and public policy. This group also works closely with community stakeholders to develop creative solutions to address barriers to mental health treatment for individuals involved in the criminal legal system. Although relatively young, this initiative has successfully supported multiple external grant applications and scholarship-practice collaborations.

Dr. Cox has received research support from the National Science Foundation, the Department of Justice Bureau of Justice Assistance, and the Alabama Department of Mental Health.
2020 PRESIDENT'S FACULTY RESEARCH AWARD RECIPIENTS

MID-CAREER SCHOLARS

ARTS & HUMANITIES
Andrew Raffo Dewar, Ph.D.
Professor
New College

PHYSICAL & BIOLOGICAL SCIENCES,
MATHEMATICS AND ENGINEERING
Laura K. Reed, Ph.D.
Associate Professor
Biological Sciences

SOCIAL & BEHAVIORAL SCIENCES
Peter D. Harms, Ph.D.
Associate Professor
Management
Andrew Raffo Dewar, Ph.D. is a composer, musician and ethnomusicologist. He is Professor of Interdisciplinary Arts in New College and the School of Music.

Recent publications include ethnographic research on 1970s intermedia art in Argentina during a military dictatorship, 1960s handmade electronic music collective the Sonic Arts Union, philosophical issues of ontology in performance and music technologies, original music for his performing ensembles, music for film and theatre, compositions incorporating ethnographic interviews, biofeedback, and electronic music utilizing 3D spatial audio.

He has performed internationally for the past 25 years, with over 200 performances and installations on five continents during his 12 years at UA. Recordings of Dewar as a composer and performer are available on over two dozen albums.


He has received grants and awards from the National Endowment for the Arts, Chamber Music America, NewMusicUSA, ASCAP, the Getty Foundation, Arts International and the National Endowment for the Humanities.

In 2019, he was awarded the Robert M. Stevenson Prize from the Society for Ethnomusicology, the premier award given by the society to composers who are also ethnomusicologists. Dewar holds an interdisciplinary BA in Music, Anthropology, and Asian Studies from the University of Minnesota, and an MA and Ph.D. in music composition and ethnomusicology from Wesleyan University.
Dr. Laura K. Reed is an Associate Professor of Biology, having joined the University of Alabama in 2010. Her research focuses on understanding how evolutionary, genetic, and environmental factors interact to shape complex metabolic traits, including diseases like obesity and type-2 diabetes. She uses the fruit fly, Drosophila melanogaster, and its relatives to understanding the evolution of metabolic traits. Her work has been supported by more than $6M in external research grants from NSF and NIH. She has authored more that 35 referred research articles in journals including *Nature*, *Proceedings of the National Academy of Sciences*, *Genetics*, and *Molecular Ecology*, and more than 80 referred conference presentations. She also co-edited a book on teaching evolution in the American South. She has served on a number of scientific community professional boards and working groups.

In 2017, she also became the Director for the Genomics Education Partnership, a long-standing national collaboration involving over 100 colleges and universities, which provides authentic course–based research experiences to undergraduate biology students. In that role she has secured grant funding to double the number of institutions served by the partnership over the next five years, especially focusing on Minority Serving Institutions and Community Colleges. At UA she teaches upper division courses in Integrated Genomics and Evolution, and Ecology and Evolution to biology majors. Dr. Reed also leads an outreach effort to bring fruit fly-based biology lessons to local middle school students. Her research lab group has graduated 70 undergraduate research students, ten graduate students, and one postdoctoral researcher. She is also the proud mother of two young children.

Dr. Reed’s academic training prior to coming to Tuscaloosa included a B.S. in Biology from the University of Oregon in 2000, a Ph.D. in Ecology and Evolution from the University of Arizona in 2006, and a NIH–National Research Service Award Postdoctoral Fellowship in Genetics at North Carolina State University.
Peter D. Harms is an associate professor and the Morrissette Faculty Fellow in Leadership and Ethics in the Department of Management at the Culverhouse College of Commerce. He received his Ph.D. in Personality Psychology from the University of Illinois at Urbana-Champaign. His research focuses on the assessment and development of personality, leadership, and psychological well-being. Dr. Harms has published over 100 peer-reviewed articles in such outlets as Journal of Applied Psychology, Personnel Psychology, Psychological Bulletin, Psychological Review, Journal of Personality and Social Psychology, Journal of Organizational Behavior, and The Leadership Quarterly. His work has been featured in popular media outlets such as CNN, Scientific American, Forbes, and the BBC. Dr. Harms has been invited to speak to audiences around the world and was selected by the St. Gallen symposium as one of the “100 Knowledge Leaders of Tomorrow” in 2011. He was recently selected as a fellow of the Society for Industrial and organizational Psychology (SIOP) and has twice received SIOP’s Joyce and Robert Hogan Award for Personality and Work Performance Paper of the Year.

2021 PRESIDENT'S FACULTY RESEARCH AWARD RECIPIENTS

MID-CAREER SCHOLARS

ARTS & HUMANITIES
Professor Lawrence M. Jackson
Associate Professor
Theatre and Dance

PHYSICAL & BIOLOGICAL SCIENCES, MATHEMATICS AND ENGINEERING
Dr. Paul G. Allison
Associate Professor
Mechanical Engineering

SOCIAL & BEHAVIORAL SCIENCES
Dr. Nicole Ruggiano
Professor
Social Work
Lawrence M. Jackson is an Associate Professor and serves as the Associate Chair of Dance, Director of Graduate Studies in Dance, Artistic Director of the Alabama Repertory Dance Theatre, Dance Alabama! The MFA Dance Concert and Dance Collection within the Department of Theatre and Dance at the University of Alabama. Within the Dance program, Jackson teaches both undergraduate and graduate courses in Jazz, Contemporary, Dance History, Pedagogy, Freshman Seminar, Improvisation and Choreography. In addition to his duties within the Department of Theatre and Dance, Jackson also serves the College of Arts and Sciences as Chair of the Diversity Committee and as a Distinguished Teaching Fellow. Jackson is also the current President of the Alabama Dance Council Executive Board.

Jackson currently serves on the editorial board of Siyobonana: The Journal of Africana Studies. As a scholar, Jackson has published in scholarly journals in the field of Black Dance. Most notably, he authored, co-edited and published a special edition devoted to Black Dance in the Journal of Pan African Studies, the second occurrence in history, where an academic journal edition was committed solely to Black Dance.

Lawrence has performed as a guest artist in a variety of concert dance venues. Most recently, Jackson performed I Walk with Spirit at the Edinburgh Fringe Festival in Edinburgh, Scotland. Choreographically, Jackson has produced over 95 original choreographic works. Most recently, Lawrence choreographed an off-Broadway production, Separate and Equal, which was subsequently nominated for an AUDELCO Award for Best Choreography.

Lawrence also serves as a Faculty Mentor for the Undergraduate Research and Creative Activity Conference, Grant Reviewer for The National Endowment for the Arts, Cuyahoga Arts and Culture, The UA Research Grants Committee and The Alabama State Council on the Arts. In the past seven years, Lawrence has received funding from the Alabama Touring Artists Program to tour Dance concerts throughout rural communities within Alabama, exposing underserved communities to the art of dance.
Dr. Paul G. Allison was an Associate Professor in the Mechanical Engineering Department at The University of Alabama (UA), Tuscaloosa, AL. Within the department, he taught undergraduate and graduate courses on manufacturing and material behavior. Dr. Allison is pioneering computational and experimental research on solid-state advanced manufacturing processes and led the UA Point-of-Need Manufacturing Initiative, and is involved in developing the fundamental understanding of the processing-structure-property-performance relations for a variety of material systems to support basic and applied research projects. His research has been supported by a variety of industrial sponsors as well as the Army, Air Force, DHS, DOE, FHWA, Marine Corps, Navy, and NASA during his career. Dr. Allison has a book published on the Fatigue of Friction Stir Welding, and over 100 journal articles, book chapters, technical reports and conference papers that have been cited over 1,100 times (h-factor=20, according to scholar.google.com).

Professionally, Dr. Allison has given multiple invited talks while helping to organize conferences by chairing/co-chairing mini-symposiums at the Society of Experimental Mechanics (SEM), The Minerals, Metals, & Materials Society (TMS) annual meetings, Nanotechnology for Defense, and ASME Symposia. He is active on multiple technical committees for SEM, TMS, and is the ASME Constitutive Equations technical committee Chair and SEM Dynamic Behavior of Materials Technical Committee Secretary. He is also the past Vice Chair for the ASME Mississippi Section. Dr. Allison also sits on the Graphene Academic Council for the National Graphene Association. He is on the Editorial Board for the journal, Metals, and is on the Metals journal Section Board for Metal Failure Analysis. Additionally, Dr. Allison serves as the faculty advisors for the UA SEM student chapter and Tau Beta Pi engineering honor society. He also serves as the co-advisor for the SAE Baja student design organization at UA.
Dr. Nicole Ruggiano is a Professor in the School of Social Work, joining the University of Alabama in 2016. Dr. Ruggiano’s research focuses on healthcare and caregiving for older adults with chronic conditions. She specifically focuses on developing and testing technologies to support people living with dementia and their caregivers. As a Principal Investigator, her work as been supported by more than $2 million in funding from the AHRQ, NIH, NSF, and the John A. Hartford Foundation. Dr. Ruggiano’s current research involves developing a touchscreen tablet technology that supports people with dementia in communicating their daily care preferences and experiences. Her research findings have been disseminated through more than 35 peer-reviewed journal articles and 60 international, national, regional, and local presentations. Dr. Ruggiano is also an Affiliated Scientist at UAB’s Alzheimer’s Disease Center (ADC), and an Affiliate Associate Professor in the Department of Neurology within UAB’s School of Medicine.

In 2018 Dr. Ruggiano became the Founding Director of the new Doctor of Social Work (DSW) degree program at the University of Alabama. She has played a leadership role with faculty in building the practice doctorate program, which has received national recognition and is in high demand after only two years of accepting students. The program received more than 200 applications for only 20 spots in its 2021 cohort. Through her leadership, the DSW program supports advanced social workers in the field in learning to develop and integrate evidence-base into practice, with a focus on practical-based applications of research methodologies.

Dr. Ruggiano has made an ongoing effort to use her research findings and expertise to make positive change in the community and through policy. Dr. Ruggiano was selected for the competitive American Political Science Association’s Health and Aging Policy Congressional Fellowship from 2018–2019. Here, she worked to advance AHRQ’s multiple chronic condition initiative, as well as its development of an interoperable e-care planning platform. Dr. Ruggiano was also selected by Governor Kay Ivy to serve on the Alabama Lifespan Respite Coalition to help advance community-based long-term care support.
2022 PRESIDENT'S FACULTY RESEARCH AWARD RECIPIENTS

MID-CAREER SCHOLARS

ARTS & HUMANITIES
Kenon A. Brown
Associate Professor
Advertising and Public Relations

PHYSICAL & BIOLOGICAL SCIENCES, MATHEMATICS AND ENGINEERING
Prof. Jason Edward Bara
Professor
Chemical and Biological Engineering

SOCIAL & BEHAVIORAL SCIENCES
Dr. Hyunjin Noh
Associate Professor
Social Work
Kenon A. Brown (Ph.D., The University of Alabama, 2012) is an associate professor in the Department of Advertising and Public Relations (A+PR) at the University of Alabama. As the programming director for the Alabama Program in Sports Communication, Kenon is responsible for stakeholder communication and events for the program. His research interests include image and reputation management, particularly in sports, and minority recruitment in mass communication. Kenon has worked closely with several sport and entertainment organizations, including the International Olympic Committee, FOX Sports, Twitch, NASCAR and the Country Music Association. Keeping with his practitioner roots after a career in restaurant marketing and management, Kenon also consults with several regional and national clients, specifically assisting with market research and strategic planning.
PHYSICAL & BIOLOGICAL SCIENCES, MATHEMATICS AND ENGINEERING

Prof. Jason Edward Bara
Chemical and Biological Engineering

Jason received a B.S. in Chemical Engineering from Virginia Commonwealth University and a Ph.D. in Chemical Engineering from the University of Colorado at Boulder. He has authored more than 135 peer-reviewed research publications and 6 book chapters on the topics of separations, ionic liquids, polymer membranes, nanostructured materials, and chemical process engineering. He has also been awarded 11 U.S. patents for discoveries in these areas. In recognition of his research, he received the Early Career Fellow from the Industrial & Engineering Chemistry Division of ACS (2021), the Membranes (MDPI) Young Investigator Award (2020) and the FRI/John G. Kunesh Award from the Separations Division of AIChE (2015). Jason has also been recognized for his contributions to chemical engineering education as the 2018 recipient of the Ray W. Fahien Award from ASEE and the 2017 recipient of the David Himmelblau Award for Innovations in Computer-Based Chemical Engineering Education Award from AIChE.
Hyunjin Noh, Ph.D., MSW (from University of Wisconsin-Madison), is an Associate Professor at the University of Alabama School of Social Work and the Deep South Resource Center for Minority Aging Research (RCMAR) Scholar. Her research areas include end-of-life care decision making, pain and symptom management in rural communities, palliative care education, and racial disparities in end-of-life care. She has methodological expertise in qualitative and mixed-methods. Funded by the Alabama Transportation Institute, her most recent research project explored transportation barriers in pain management among rural residents in Alabama. She also conducted a pilot study of an educational intervention to improve palliative care knowledge among family caregivers of cognitively impaired older adults and a cross-sectional survey study to examine racial differences in experiences of pain and needs for pain management among community-dwelling older adults in rural areas. Her earlier research studies explored end-of-life decision making, such as hospice use and advance care planning. Her research studies have been funded by national organizations and research centers, such as Palliative Care Research Cooperative (PCRC) Group, Shiley Haynes Institute for Palliative Care, and RCMAR.

As a researcher, she strives to take an interdisciplinary, community-based participatory research (CBPR) approach whenever possible. Dr. Noh has a goal to implement a statewide palliative care educational intervention tailored for rural caregivers in the state of Alabama to promote palliative care knowledge in community settings. She teaches Qualitative Research Method Seminar, Research for Social Work Practice, Evaluation Research, and Death, Dying and Bereavement and serves on the Board of Directors for the Association for Gerontology Education in Social Work (AGESW).
2020 PRESIDENT’S FACULTY RESEARCH AWARD RECIPIENTS

SENIOR SCHOLARS

ARTS & HUMANITIES
Seth Panitch
Professor
Theatre and Dance

PHYSICAL & BIOLOGICAL SCIENCES, MATHEMATICS AND ENGINEERING
Steven Jones
Professor
Civil, Construction and Environmental Engineering

SOCIAL & BEHAVIORAL SCIENCES
Dr. Susan White
Professor
Psychology
Seth Panitch is Professor of Acting and heads the MFA and BFA Acting programs at The University of Alabama. A professional Director, Actor, Playwright and Filmmaker, Seth has worked internationally in Havana, Cuba with the Ministry of Culture; Off-Broadway at the 59E59 Theatre, American Place Theater, Westbeth Theater Center, Harold Clurman Theatre, Samuel Beckett Theatre, and Urban Stages Theatre; regionally at the Colorado Shakespeare Festival (three seasons), Utah Shakespearean Festival, Texas Shakespeare Festival and Idaho Repertory Theatre; and in Los Angeles at the Globe Playhouse, Odyssey Theatre, Ventura Court Theatre, Complex Theatre and the Hillside Repertory Company. His plays *Hell: Paradise Found* (published by Broadway Play Publishing Inc.), *Separate and Equal*, *Alcestis Ascending* and *Dammit, Shakespeare!* have received critical success in New York and Los Angeles productions, as well as productions in Havana, Cuba.

Seth wrote, directed, and performed in the feature film *Service to Man*, which was awarded Best Picture at over a dozen national and international film festivals, and is distributed by Freestyle Entertainment Pictures. His documentary *A Night in the Theatre* has been published by Insight Media, and his second documentary *Company HavanaBama: Directing Across the Gulf* was screened by the 15th Annual Sidewalk Film Festival. Seth has been awarded the Southeastern Conference (SEC) Faculty Achievement Award, The University of Alabama’s Blackmon-Moody Outstanding Professor Award, the Burnum Distinguished Faculty Award, the Alabama National Alumni Association’s Outstanding Commitment to Teaching Award, and was named the 2010 Druid Arts Educator of the Year. He was also awarded a Leadership Board Faculty Fellowship from 2009-2012.

At The University of Alabama, Seth has directed eighteen productions, from Shakespeare to Modern Musical Theatre, and performed as a guest artist in *Misalliance, Moon Over Buffalo, A Flea in Her Ear* and *Blithe Spirit*. Seth received his MFA in Classical Acting at the University of Washington’s Professional Actor’s Training Program and is a member of both the Society of Stage Directors and Choreographers and the Dramatists Guild of America.
Dr. Steven Jones has more than 20 years of transportation engineering and planning experience spanning both academic and private sector consulting appointments. He has participated in transportation projects in the U.S., Europe, Asia, and sub-Saharan Africa.

Jones has served as principal investigator on some $13 million in externally-sponsored projects from a range of funding sources and participated in and/or managed more than $1 million in projects as a consultant. He has authored or co-authored more than 150 journal articles, conferences papers, design manuals, and project reports on a range of transportation topics.

Jones serves on the advisory board of the World Bank-funded African Center of Excellence, the Transport Research and Education Centre Kumasi located at the Kwame Nkrumah University of Science and Technology in Ghana. He has recently completed a year as Fulbright Scholar conducting road safety research at the Namibia University of Science and Technology.

As director of the Transportation Policy Research Center and deputy director of the Alabama Transportation Institute, Jones currently focuses much of his professional efforts exploring how transportation impacts human development (e.g., health and safety, basic accessibility) with particular emphasis on how transportation relates to the Sustainable Development Goals. He is interested and active in cultivating international relationships to facilitate collaborative research, education and technology transfer.
Dr. Susan W. White is Professor and Doddridge Saxon Chair in Clinical Psychology at The University of Alabama. She directs the Center for Youth Development and Intervention (CYDI). Her research interests include assessment and intervention for co-occurring and core social problems in ASD. Dr. White’s body of work rests solidly at the intersection of science and clinical practice. In addition to conducting several grant-funded studies, she maintained a private practice for several years and also has developed and directed a university-affiliated assessment clinic. Over the past two years, since joining UA, in addition to directing the CYDI she has launched the ‘Building the Bridge’ Initiative, the goal of which is to improve the pipeline from research to practice and dissemination of evidence-based practices.

Dr. White works with several graduate and undergraduate students, and has co-authored numerous papers with students through the years. She finds mentoring one of the most rewarding aspects of her career, and she has been recognized for her mentorship abilities, as recognized by her induction into the UA Mortar Board as an honorary member in 2020 and by her receipt of the ABCT Mentor Award in 2019.

She is Editor of the ABCT Series on Implementation of Clinical Approaches and Associate Editor for the Journal of Clinical Child and Adolescent Psychology and the Journal of Autism and Developmental Disorders. Her research has been funded by the National Institutes of Health, the US Department of Defense, and several foundations. She is co-author of the Emotion Awareness and Skills Enhancement (EASE) Program and developer of the Stepped Transition in Education Program for Students with ASD (STEPS). She is also widely published in high-impact scientific journals and has authored or co-edited several books.
2021 PRESIDENT'S FACULTY RESEARCH AWARD RECIPIENTS

SENIOR SCHOLARS

ARTS & HUMANITIES
Heather Cass White
Professor
English

PHYSICAL & BIOLOGICAL SCIENCES, MATHEMATICS AND ENGINEERING
Prof Fei Hu
Professor
Electrical and Computer Engineering

SOCIAL & BEHAVIORAL SCIENCES
Dr. Rajesh Kana
Professor
Psychology
Heather Cass White is a Professor of English. She has been at the University of Alabama since 2000, after receiving a B.A. from Yale University, and a Ph.D. from Cornell University. Her specialty is American poetry of the twentieth century. For ten years the primary focus of her research was the poetry of Marianne Moore (1886-1972), one of the most important American poets of the interwar period. Her work resulted in three editions of Moore’s poetry: A-Quiver with Significance: Marianne Moore 1932-1936 (2008), Adversity and Grace: Marianne Moore 1936-1941 (2012), and the New Collected Poems of Marianne Moore (2017). In 2019 New Collected Poems won the Modern Language Association’s Prize for a Scholarly Edition.

She teaches broadly in the literature of the American twentieth century, fiction as well as poetry. In July of 2021 Farrar, Straus & Giroux published her monograph Books Promiscuously Read: Reading as a Way of Life, on the pleasure and meaning of reading over the course of a lifetime.
Dr. Fei Hu received the first Ph.D. degree in signal processing from Tongji University, Shanghai, China, in 1999; and the second Ph.D. degree in electrical and computer engineering from Clarkson University, New York, NY, USA, in 2002. He is currently a Professor with the Department of Electrical and Computer Engineering, University of Alabama, Tuscaloosa, AL, USA.

Dr. Hu has published over 200 journal/conference papers (50 are IEEE journal papers) and 15 books in the field of wireless networks and machine learning. He has also filed 15 patents. His research interests are wireless networks, machine learning, big data, network security and their applications. His research has been supported by U.S. NSF, DoE, DoD, Cisco, and Sprint. He has won more than 10 U.S. NSF awards and many other grants. He has graduated 20 Ph.D. students so far.
Dr. Rajesh Kana is Professor in the Department of Psychology at the University of Alabama. He directs the Center for Innovative Research in Autism (CIRA). Dr. Kana is also the director of the Alabama Life Research Institute (ALRI)’s Neuroscience Theme. His research focuses on basic and translational neuroscience involving neurodevelopmental disorders like autism. Dr. Kana uses a variety of brain imaging techniques to understand the functional and anatomical organization of the brain in autism. As a William Fulbright Fellow, Dr. Kana learned neuroimaging at the University of California Los Angeles (UCLA), followed by a postdoctoral training at Carnegie Mellon University in Pittsburgh, Pennsylvania.

Dr. Kana works with several graduate and undergraduate students in his research at the Cognition, Brain, and Autism Laboratory. He is a leader in autism research with more than 90 research publications. His work has been funded through different federal agencies, such as the National Institute of Deafness and Other Communication Disorders (NIDCD), the National Science Foundation (NSF), and other private foundation grants. Dr. Kana serves as Associate Editor of reputed journals like Autism Research and Frontiers in Human Neuroscience.
2022 PRESIDENT'S FACULTY RESEARCH AWARD RECIPIENTS

SENIOR SCHOLARS

ARTS & HUMANITIES

Eric Weisbard
Professor
American Studies

PHYSICAL & BIOLOGICAL SCIENCES, MATHEMATICS AND ENGINEERING

Dr. Andreas Piepke
Professor
Physics and Astronomy

SOCIAL & BEHAVIORAL SCIENCES

Dr. Hee Yun Lee
Professor
Social Work
 physicaL & biologicaL sCIences, mathematics and enginEering

Dr. Andreas Piepke
Physics and Astronomy

Dr. Piepke is Professor in the Department of Physics and Astronomy at the University of Alabama. His research interests are in experimental nuclear and particle physics. As member of the international nEXO and LZ collaborations he works on the exploration of neutrinos and dark matter. His research group operates an on-campus facility devoted to the determination of radioactivity at ultra-trace concentrations. He authored and co-authored more than 100 scientific publications on work funded by the Department of Energy and the National Science Foundation. Dr. Piepke is a Fellow of the American Physical Society.

Dr. Piepke earned a doctoral degree from the Ruprecht Karls University at Heidelberg (Germany) in 1990. He had postdoctoral appointments at the Max-Planck-Institut für Kernphysik (Heidelberg) and the California Institute of Technology (Pasadena), the latter as a Feodor Lynen Fellow of the Alexander von Humboldt Foundation. He joined the faculty of the University of Alabama in 2000.
Dr. Hee Yun Lee is a Professor, Associate Dean for Research, and Endowed Academic Chair on Social Work and Health at The University of Alabama School of Social Work. She is a behavioral health scientist and her major research areas include health and mental health disparities among underserved populations. She has more than 15 years of experience in clinical trials of health behavior change interventions using mobile health technology. To date, she has developed five different types of applications combined with wearable devices to promote positive health behavior changes. She is currently working on three federally-funded research projects with interdisciplinary research teams at The University of Alabama.

Her other line of research is global health. Several of her research investigations have specifically focused on health disparity issues among marginalized groups globally including Korea, India, and Uganda. Her research findings have been used to develop evidence-based health programs and policies including Healthy People 2030 and she provides numerous presentations at national and international conferences.
FACULTY RESEARCH DAY

The purpose of Faculty Research Day is to showcase and celebrate excellence in research, creativity and scholarship by bringing together faculty from across our campus. The event is intended to increase awareness and generate enthusiasm for scholarship among faculty as the University advances its research enterprise and its impact. During the event, the President’s Faculty Research Award, sponsored by our President and the Vice President for Research & Economic Development, is presented to outstanding faculty researchers from across UA Colleges and Schools. National Academy of Inventors inductees are also recognized at the Faculty Research Day Awards Ceremony.

The Office for Research & Economic Development wishes to thank President Stuart R. Bell for supporting Faculty Research Day.

THE UNIVERSITY OF ALABAMA
Research & Economic Development