

2024-25 Officers of the Circular Bioeconomy Systems Institute (CBSI)

LEADERSHIP TEAM



Erin Webb, Chair - Email: webbeg@ornl.gov

Leads the Bioresource Science & Engineering Group and Laboratory Relationship Manager of the DOE Bioenergy Technology Office at Oak Ridge National Laboratory. She co-leads the University of Tennessee-Oak Ridge Innovation Institute's new Circular Bioeconomy Systems Initiative. She is a Fellow of the American Society of Biological and Agricultural Engineers (ASABE).



Edward (Ed) Barnes, Chair-Elect - Email: ebarnes@cottoninc.com

Senior Director of Agricultural & Environmental Research, Cotton Incorporated. He manages agricultural engineering related projects, including ginning, precision farming, irrigation, and conservation tillage system research. He served on the Editorial Board of Agricultural Water Management, and on the Science Advisory Council of Field to Market, The Alliance for Sustainable Agriculture. He is a Fellow of the American Society of Biological and Agricultural Engineers (ASABE) and has served on the ASABE Board of Trustees.



Chad Yagow, Vice-Chair

Director of Digital Agronomy at Verdant Robotics. A 29-year member and Fellow of the American Society of Agricultural and Biological Engineers, Chad has spent a career in the agricultural industry bringing mechanical and digital solutions to food, feed, and fiber producers throughout the world. With a background in engineering and agronomy, Chad is interested in the intricacies of how seemingly disparate systems work together to form chains of circularity.



John F. Reid, Past-Chair - Email: j-reid1@illinois.edu

Research Professor in Computer Science, Ag & Bio Engineering, Electrical and Computer Engineering at University of Illinois, Urbana-Champaign (UIUC). John has extensive technology leadership experience in industry and academia focused on sensing, agricultural robotics and automation, and control systems engineering for food and agricultural applications. He is a member of the National Academy of Engineering and a Fellow of ASABE.

WORKING TEAM - I

Innovate Circular Systems



Charles (Chuck) W. Rice, Chair - Email: cwrice@ksu.edu

University Distinguished Professor and Mary Vanier Endowed Professor in the Department of Agronomy at Kansas State University. Dr. Rice has garnered international recognition, including being a co-winner of the 2007 Nobel Peace Prize for his contributions to the United Nations' Intergovernmental Panel on Climate Change. His research spans soil quality, microbiology, and climate change, aiming to improve and protect the environment. Dr. Rice served as President of Soil Science Society of America. (SSSA). He also contributes to national initiatives like the National Academies Board on Agriculture (BANR) and the U.S. Department of Agriculture's Agricultural Air Quality Task Force.



Niki Labbe, Chair-Elect - Email: nlabbe@utk.edu

Professor of Biomass Chemistry and the Assistant Director of the Center for Renewable Carbon, with the School of Natural Resources as her academic home. Her research interest focuses on understanding properties of biomass –appearance, variability, and potential for conversion to various products such as fuels, chemicals, and value-added products in the context of circular bioeconomy systems. Her research program focuses on the fractionation and conversion of lignocellulosic biomass into a portfolio of products.



Changying (Charlie) Li, Vice-Chair - Email: cli2@ufl.edu

Professor of agricultural AI and automation in the department of agricultural and biological engineering, University of Florida. His research interests are in robotics for phenomics and precision crop management, and sensing technology for agri-food product quality and safety evaluation. He is a member of American Society of Agricultural and Biological Engineers (ASABE) and IEEE Robotics and Automation Society.



Lara Moody, Past-Chair - Email: LMoody@afia.org

Executive Director for the Institute for Feed Education. She provides leadership to the public charity's activities including program development, strategic partnerships and collaborative resourcing. Prior to joining IFEEDER in April 2021, Moody served as the vice president of stewardship and sustainability at The Fertilizer Institute. Moody holds a bachelor's degree in agricultural engineering and master's degree in biosystems engineering from the University of Tennessee-Knoxville. She is a member of the American Society of Agricultural and Biological Engineers (ASABE).

WORKING TEAM II

Develop Circular Metrics, Models, Methods and Standards



Ziynet Boz, Chair - Email: ziynetboz@ufl.edu

Assistant Professor in the department of agricultural and biological engineering, University of Florida. Her current research addresses food loss and waste mitigation strategies and solutions at various value chain members (E.g., retail and consumer) through processing and packaging, valorization of waste into bioproducts, optimization, and modeling to improve sustainability and shelf-life of food systems, and the assessment of environmental sustainability through Life Cycle Assessment. She is a member of the American Society of Agricultural and Biological Engineers (ASABE), Institute of Food Technologists (IFT), and Society of Food Engineering (SoFE).



Jesse Daystar, Chair-Elect - Email: JDaystar@cottoninc.com

Vice President and Chief Sustainability Officer in Cotton Incorporated. Prior to joining the Company, he was the Assistant Director at the Center for Sustainability at Duke University, where he collaborated with Cotton Inc. on a wide range of research projects spanning many of the Company's divisions. He has established himself as a leader in cellulosic fiber sustainability, and led research and consulting in aspects of product sustainability, biomaterials, biochemicals, and bioenergy. His research has produced numerous publications, sustainability and chemical and engineering tools; and certifications for clients including the USDA and the U.S. Department of Energy.



Isaya Kisseka, Vice-Chair - Email: ikisseka@ucdavis.edu

Professor in the departments of biological and agricultural engineering, and land, air and water resources at the University of California - Davis. He also serves as the director of the U Davis Agricultural Water Center of Excellence. His research focuses on developing management strategies and technologies to help farmers optimize productivity and net profitability under limited water while minimizing negative impacts on the environment. Current projects include evaluation of precision irrigation systems in almonds and alfalfa production, development of integrated soil and plant water status sensing systems to guide irrigation scheduling, development of simulation-optimization models for irrigation, fertigation and salinity management for various crops. He is a member of the American Society of Agricultural and Biological Engineers (ASABE).



Charles Parrish, Past-Chair - Email: charles@foodshuttle.org

Vice President of Agriculture in the Inter-Faith Food Shuttle. The Food Shuttle recovers and distributes over 9 million pounds of food per year, and teaches skills for self-sufficiency including culinary job skills, shopping and cooking healthy on a budget, and how to grow food. Charles is a biosystems engineer and regenerative systems designer who applies ecological principles, processes, and patterns to cultivate resilient community food systems. Charles unifies over a decade of experience in biological research, development, and production with a portfolio of design+build projects in permaculture and controlled environment systems toward consulting with community partners, municipalities, and clients to further the sustainability and circularity of community and planetary life support systems.

WORKING TEAM III

Organize meetings, conferences and webinars



Gal Hochman, Chair - Email: BoardChair@cfare.org

Professor of agricultural, food, and resource economics at Rutgers University. He dissertation research focused on international trade agreements and crony capitalism and his work at the University of Berkley focused on energy and agricultural biotechnology. Hi current research focus includes issues related to the development, energy, the environment, technology, and trade. He is keenly engaged in understanding the importance of policy in facilitating the transition to sustainable and resilient supply chains and an improved understanding of aquaculture technologies and their role in future food supply chains. He is currently the Chair of Council on Agricultural Food & Resource Economics Board. He is a member of the Agricultural and Applied Economics Association (AAEA).



Alicia Modenbach, Chair-Elect - Email: alicia.modenbach@uky.edu

Lecturer and Student Services Coordinator in the department of biosystems and agricultural engineering at the University of Kentucky. She works wit students to ensure that they make knowledgeable academic and career decisions. She develops teaching innovative course curricula and programs that provide transformative experiences for students. She is a member of the American Society of Agricultural and Biological Engineers (ASABE).



Anita Thompson, Vice-Chair - Email: amthompson2@wisc.edu

Professor and Chair of the biological systems engineering department and chair of Nelson Institute's Water Resources Management Program. Her fields of interests include: hydrological implication of land use change, urban hydrology and stormwater management, water quality impacts on biofuel crop production, cold region hydrology, hydrological modeling, sediment, nutrient and pathogen transport, and plyacrylamides and biosolids for fertilizer and erosion management. She is member of the American Society of Agricultural and Biological Engineers (ASABE).



Mary Leigh Wolfe, Past-Chair - Email: mlwolfe@vt.edu

Professor *Emerita* of biological systems engineering at Virginia Tech and former president and Fellow of the American Society of Agricultural and Biological Engineers (ASABE). Her research areas include nonpoint source pollution control and modeling; and decision support for watershed management.

WORKING TEAM - IV

Publicize and Promote Circular Bioeconomy Systems



K. C. Ting, Chair - Email: kcting@illinois.edu

Professor and Head emeritus of Department of Agricultural and Biological engineering, University of Illinois at Urbana-Champaign. He served as Vice Dean, International Campus, Zhejiang University during 2017-2020. He has pioneered holistic automation and systems analysis approaches to developing intelligent driven and empowered agricultural systems (IDEAS) including controlled environment agriculture and biomass for bioenergy. He has received awards from ASABE and his alma maters. He is Fellows of ASABE and ASME. Email: kcting@illinois.edu



Nitin Nitin, Chair-Elect - Email: nnitin@ucdavis.edu

Professor and Vice-Chair of food science and technology in the department of biological and agricultural engineering at the University of California – Davis. He is interested in using a combination of interdisciplinary approaches encompassing biomolecular engineering, mathematical modeling, material science and molecular imaging to study food safety and food for health initiatives and molecular imaging technologies from a single cell level to a whole-body imaging to enable early-stage detection of diseases and qualification of molecular processes for understanding of patho-physiology. He is a member of the Institute of Food Technologists (IFT) and American Oil Chemist Society (AOCS).



Sudhagar Mani, Vice-Chair - Email: smani@uga.edu

Professor and SEC University Faculty Scholar of biochemical engineering at the University of Georgia. His areas of expertise includes biological and chemical process modeling, simulation & optimization, sustainable biomass feedstock supply logistics system, novel biomass densification, torrefaction and thermal conversion technologies, techno-economic analysis (TEA) and Life Cycle Assessment (LCA), and novel routes to produce nano-size cellulose, chemicals & biocomposites. He is a Fellow of the American Society of Agricultural and Biological Engineers (ASABE).



Gayle C. Baker, Past-Chair - Email: gcbaker@mstutz.com

Agricultural Service Engineer, Maurer-Stutz, Inc., Peoria, IL. Her goal is to help the agricultural industry by providing technical advice, working in a team environment to produce high-quality work that helps my clients with innovative solutions to use their resources effectively while accomplishing their operational goals. She is an active leader in the Young Professions Community (YPC) of the American Society of Agricultural and Biological Engineers (ASABE) and serves as a member of ASABE Board of Trustees.