FRTR Spring 2024 Meeting Speaker Biographies

Carol Eddy-Dilek is a Laboratory Fellow at the Department of Energy Savannah River National Laboratory. For the past 33 years, she has worked on a variety of programs focused on development and deployment of innovative approaches and tools for environmental characterization and remediation, specifically, the design and optimization of phased characterization strategies that can be applied to complex and challenging environments. Her efforts resulted in the successful development or deployment of over twenty innovative methods for subsurface access and characterization that have been successfully applied within the DOE complex. Since 2002, she has been the technical lead for the Department of Energy's Technical Assistance program at the Savannah River National Laboratory that provides technical support to the DOE complex. Since 2006, she has organized more than 25 teams that have visited eleven DOE sites and made recommendations yielding an estimated cost savings of $100M. She is currently the lead for the DOE EM ALTEMIS project to develop a new paradigm of long-term monitoring based on state-of-art technologies – in situ groundwater sensors, geophysics, drone/satellite-based remote sensing, reactive transport modeling, and AI – that will improve effectiveness and robustness of monitoring, while reducing the overall cost. She is also the lead for the EM National Laboratories activities focused on expanding the Office of Legacy Management access to EM technical expertise in the development and deployment of environmental strategies.

Dr. Leonel E. Lagos has over 24 years hands-on experience in executing, managing, and leading sponsored research programs sponsored by federal agencies and private industry. As a principal investigator (PI) and Director of Research at FIU's Applied Research Center, Dr. Lagos directs and executes sponsored research projects under Cooperative Agreements and research grants from various government agencies including the Department of Energy's Office of Environmental Management, Department of Defense's Test Resource Management Center and Department of Energy's Minority Serving Institutions Partnership Program.

He is also a certified Project Management Professional (PMP) and relies on his vast technical and management skills to lead multi-disciplinary and multi-million dollars research efforts engaging fulltime staff (scientists/engineers/faculty), STEM students (undergraduates and graduates), and post-doctoral Fellows. Dr. Lagos also is a member of the American Nuclear Society (ANS) and is has served as the Chair of the Executive Committee for the Robotics and Remotes System Division (RRSD). Dr. Lagos has led ARC international efforts and has developed strong working relationships with the International Atomic Energy Agency (IAEA), the OECD Nuclear Energy Agency (NEA) of France, the Korea Atomic Energy Research Institute (KAERI) and the Institute for Energy Technology (IFE), Halden, Norway. Dr. Lagos has also served as an adjunct professor in FIU's Biomedical Engineering Department and Mechanical and Materials Engineering Department. Dr. Lagos is also a Graduate Faculty within the Department of Civil and Environmental Engineering at FIU.

Brad Bonn is the Senior Manager of Nuclear Operations for Boston Dynamics. Brad's primary focus is to work with customers and partners to ensure their robots keep people safe, reduce costs, PPE waste, and improve mission effectiveness in hazardous scenarios. He spearheaded the development of the first radiation mapping technology on Spot by aligning sensor data with robotic localization, conducted the first testing of Spot in a high radiation environment, and has personally operated Spot robots in one of the world's most significant nuclear accident sites. Before his time at Boston Dynamics, Brad spent more than 20 years working with technologies ranging from software and cloud infrastructure, to the core backbone of the Internet.

Brian Ringley is a Principal Product Manager at Boston Dynamics where he leads digital twin product development, specifically industrial facility mapping to support enterprise asset management and anomaly detection for preventative maintenance. Before coming to Boston Dynamics, he was a Senior Construction Automation Researcher at WeWork and a Senior Associate on the Design Technology team at Woods Bagot. He has taught at Pratt Institute, the City University of New York, and the University of Cincinnati.

Hunter Klein is a Chemical Engineer at the Naval Facilities Engineering and Expeditionary Warfare Center (NAVFAC EXWC) with 4 years of experience in the field of environmental security and compliance. He has both assisted and served as the principal investigator for several research, development, test, and evaluation (RDT&E) projects relating to energy and water resiliency efforts through ESTCP, NDCEE, NSETTI, and NESDI. These efforts have included demonstrations involving expeditionary waste-to-energy systems, wastewater and potable water treatment systems, and advanced leak detection technologies. He earned a bachelor's degree in chemical engineering from University of California, Davis and a master's degree in material science and engineering from University of California, Los Angeles.
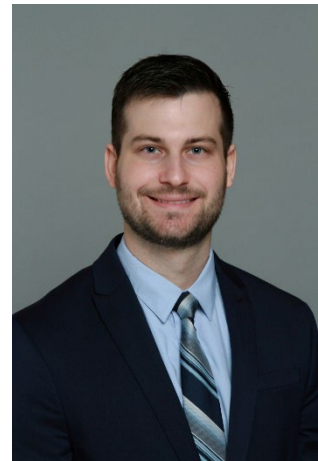
Mr. Kendrick White is an Engineer at the Expeditionary Warfare Center (EXWC) within the Naval Facilities Engineering Command (NAVFAC).

He has been principal investigator on various Research, Development, Test, and Evaluation (RDT&E) projects involving Artificial Intelligence and Machine Learning (AI/ML), natural language processing (NLP), agent-based modeling and simulation, extreme value modeling and prediction, and multivariate time series analysis. These techniques were applied to fields including mooring systems, waterfront structures, distributed logistics, and geothermal energy production.

He earned a bachelor's degree in electrical engineering from Tuskegee University and a master's degree in Mathematics from the University of Alabama at Birmingham.

Dr. David Adamson is a Vice President and Principal Engineer with GSI Environmental Inc. in Houston, Texas USA and has more than 24 years of experience in the environmental field.   Dr. Adamson has authored or co-authored over 60 published technical articles with a focus on PFAS, 1,4-dioxane, and contaminant fate and transport. He has been a PI or co-PI for a number of SERDP and ESTCP research projects, including as co-author of the ESTCP-sponsored guidance document "Frequently Asked Questions About MNA" and was one of three co-instructors for the ESTCP-sponsored "Massive Open Online Course" (MOOC) on MNA. Dr. Adamson has been a trainer for ITRC and has served as an Adjunct Assistant Professor and Lecturer at Rice University.

Dr. Charles Newell is a Vice President of GSI Environmental Inc. in Houston, Texas, USA.   He is a member of the American Academy of Environmental Engineers, a NGWA Certified Ground Water Professional, and an Adjunct Professor at Rice University. He has extensive experience in the remediation of soils, groundwater, and surface water impacted by hydrocarbons, solvents, and/or PFAS. He was awarded the 2018 ITRC *Environmental Excellence Award*; the 2020 *Foundation Achievement Award* presented by the Association for Environmental Health and Science; and the American Academy of Environmental Engineer's 2024 *Gordon Maskew Fair Award*.

Inci Demirkanli is a senior scientist and technical advisor at PNNL with experience in analytical and numerical modeling of multiphase flow and transport with application in remediation research and radionuclide mobility, and subsurface energy and storage systems, such as geologic sequestration of carbon dioxide. She provides technical support to the Department of Energy (DOE)'s Richland Office on integrated cleanup efforts as well as programmatic and regulatory strategy development at the Hanford site. Her technical work at Hanford focuses on performance-based pump-and-treat remedy optimization approaches, characterization and monitoring of contaminants in groundwater and vadose zone, in-situ source remedy development, treatability studies and implementation, as well as implementation of adaptive approaches for cleanup. In addition, she also supports the Environmental Protection Agency (EPA) related to injection of carbon dioxide into subsurface for storage purposes and permitting of industrial scale projects. She developed the Aquifer Injection Modeling (AIM) Toolbox.

Dr. Tim Johnson is a computational geophysicist at PNNL. He is internationally recognized for his technical contributions to subsurface geophysical imaging and process monitoring. His primary research is focused on characterizing and monitoring subsurface properties and processes using autonomous geophysical measurements, with an emphasis on electrical methods. Dr. Johnson is the original developer of the award winning E4D software, parallel electrical resistivity tomography and spectral induced polarization inversion code designed specifically for 4D subsurface imaging.

Christian Johnson has worked on environmental restoration and remediation technology research and development at PNNL since 1992. He has designed and implemented multiple ex situ and in situ bioremediation systems for treatment of hydrocarbons and chlorinated solvents and is an author of the RT3D reactive transport code and guidance for performance and end state evaluation of pump-and-treat and soil vapor extraction. He has developed remediation decision support software such as the Aquifer Injection Modeling (AIM) Toolbox, Soil Vapor Extraction Endstate Tool (SVEET), Suite Of Comprehensive Rapid Analysis Tools for Environmental Sites (SOCRATES), and Tracking Restoration And Closure (TRAC) tool for the Department of Energy, the Department of Defense, and the Environmental Protection Agency.