

# NAVAL POSTGRADUATE SCHOOL DEFENSE ENERGY SEMINAR / CLIMATE & SECURITY NETWORK SPEAKER SERIES

## Tackling Energy Sector Challenges by Intersecting Materials, Manufacturing, and Systems

28 May 2024 / 12:00 – 1:00 PM PT

Naval Postgraduate School / MAE Auditorium

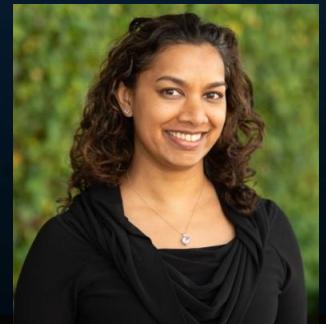
Dr. Saniya LeBlanc, Associate Professor, Department of Mechanical & Aerospace Engineering, The George Washington University

### Description

Tackling the energy sector's pressing technological and workforce needs requires a multi-pronged approach. This presentation includes research at the intersection of energy conversion materials and additive manufacturing as well as large-scale energy systems with integrated renewable power and storage. Focus areas include thermoelectric power generators that convert waste heat into electricity and additive manufacturing that could enable new architectures, material-to-device integration, and large-area processing. Dr. LeBlanc will describe progress in laser-based additive manufacturing of thermoelectric materials and discuss the link between materials, manufacturing, and system-level considerations for thermoelectric generators with a focus on hypersonic vehicle applications.

### About the Speaker

Dr. Saniya LeBlanc is an associate professor in the Department of Mechanical & Aerospace Engineering at the George Washington University. Her research goals are to create next-generation energy solutions leveraging advanced materials and manufacturing techniques. She obtained a PhD and MS in mechanical engineering at Stanford University. She was a Churchill Scholar at University of Cambridge where she received an MPhil in engineering, and she has a BS in mechanical engineering from the Georgia Institute of Technology. She has been named a "20 Under 40" high-achieving researcher by the American Society of Engineering Education and received the National Science Foundation CAREER award in 2020.



Dr. Saniya LeBlanc

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