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Banquet Lecture
Monday, May 13, 7-8 pm ET

From Fire Research to High-Speed Propulsion Systems – Fundamental Combustion Research Supported by National Science Foundation

Abstract: While the characteristic times scales associated with fire propagation/suppression and high-speed reacting flows differ by orders of magnitude, the same fundamental transport and finite-rate chemical kinetic principles can be applied to address challenging issues in both systems. During this presentation, the breadth of fundamental reacting flow investigations supported by the NSF Combustion and Fire Systems Program will be highlighted. More importantly, often overlooked collaborative and cross-cutting funding opportunities available for researchers in engineering will also be discussed.

Bio: *Dr. Harsha Chelliah is the Program Director of the Combustion and Fire Systems at the National Science Foundation. He is also a Professor of Mechanical and Aerospace Engineering at the University of Virginia (UVa). Prior to joining UVa, he received his PhD in Mechanical and Aerospace Engineering from Princeton University in 1988. His research is focused on fundamental interactions between finite-rate kinetics and fluid flow using both experimental and modeling approaches. He was the Director of the Commonwealth Center for Aerospace Propulsion Systems (from 2011-2014), established by the Commonwealth of Virginia and Rolls-Royce. In addition, he also served as Director of the Graduate Studies in Mechanical and Aerospace Engineering (from 2011-2015). He is an active member of the American Institute of Aeronautics and Astronautics (AIAA), the American Society of Mechanical Engineers (ASME), and the Combustion Institute. He is a Fellow of ASME, a Fellow of the Combustion Institute, an Associate Fellow of AIAA, and a Visiting Fellow at Peterhouse College, Cambridge University.*