Opportunities to Engage in Basic Research at the U.S. Department of Defense

As the Director of Basic Research at the U.S. Department of Defense (DoD), Dr. Nair is responsible for oversight and management of department’s ~$2.6 billion investment in high risk, high pay-off fundamental research. In this presentation, she will discuss engagement opportunities and various programs, including the Vannevar Bush Faculty Fellowship, MURI and others.

Dr. Nair is responsible for oversight and coordination of the DoD’s investment in basic science within the Office of the Secretary of Defense (OSD). This investment supports projects in physical science, life science, environmental science, applied mathematics and other fields that probe the limits of today’s technologies and discover new phenomena that may ultimately lead to future technologies for the department.

From 2012-2017, Dr. Nair served in various roles, including Acting Director and Deputy Director in the Human Performance, Training and Biosystems Directorate within OSD. In this role, Dr. Nair was involved in overseeing a broad range of the DoD’s science and technology programs that support warfighter effectiveness. Her specific areas of responsibilities in the office were in environmental technologies, bio-assist technologies (for exoskeletons and prosthetics), human machine teaming and social behavioral modeling in the information environment.

Prior to her assignment to OSD, Dr. Nair worked for the Department of the Army with oversight responsibilities for the science and technology program in power and energy. She has worked in the DoD laboratory system at Natick Soldier Research, Development and Engineering Center as well as in private industry at Foster Miller.

Her research expertise is in the field of material science and engineering including nanomaterials, polymers and organic electronic materials, and she has taught graduate level courses in polymer synthesis. She has published primarily in membrane and materials development fields and holds patents in fuel cell technologies. Dr. Nair holds a B.S. from the University of Florida and a Ph.D. from Massachusetts Institute of Technology in materials science and engineering.