

FUNDAMENTAL BASIC RESEARCH ISSUES IN STRUCTURAL MECHANICS -- AN AIR FORCE OFFICE OF SCIENTIFIC RESEARCH PERSPECTIVE

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The presentation will start with a historical perspective of the Air Force Office of Scientific Research (AFOSR) and the role it has played in funding and promoting fundamental basic research for the benefit of the Air Force and the US scientific community in general. Next, the presentation will offer a brief review of the current AFOSR organization and its research focus areas. Particular attention will be given to the field of Structural Mechanics, its current directions and the new challenges. The public-domain BAA-2008 and the AFOSR public website will be used as reference materials. Administrative aspects such as the funding cycle, the white-paper and proposal submission time lines, and the proposal review process will also be addressed.

The presentation is conceived as a dialog with the audience: the brief presentation from the author will be followed by an interactive questions and answers period.

Brief Vita:

Education: Imperial College, London, UK: PhD (1977) Aeronautical Structures; BS (1972) Aeronautics.

Research: Adaptive Materials and Smart Structures, Structural Health Monitoring, Mechatronics; Embedded Ultrasonic NDE with Piezoelectric Wafer Active Sensors (PWAS); Active Biomedical Sensors, Integrated Nano Sensors.

Employment: 1996-current: University of South Carolina, Professor of Mechanical Engineering (2005) and Director of the Laboratory for Adaptive Materials and Smart Structures. 1992-1996: Virginia Tech, ESM and Center for Intelligent Materials Systems and Structures. 1977-1992: Aviation Research Institute, Bucharest, Romania.

Service: Associate Editor of Structural Health Monitoring - An International Journal (Sage Pub.); chair of the Structural Health Monitoring Person of the Year committee, guest editor for Journal of Intelligent Material, Systems and Structures, and Smart Structures and Systems - An International Journal, organizer, chair/co-chair of numerous conferences in smart structures, adaptive materials, structural health monitoring, etc.

Currently, the author serves a 2-year assignment as program manager for Structural Mechanics at the Air Force Office of Scientific Research

(http://www.afosr.af.mil/ResearchAreas/research_aero_structural.htm)

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