

Dr. Zaffir Chaudhry Fellow, Mechanical Systems



Biographical Profile

Zaffir Chaudhry, Ph.D., is Fellow, Mechanical Systems, United Technologies Research Center (UTRC). As such, he develops capabilities, directs major program initiatives and provides support to United Technologies Corporation (UTC) businesses, including Sikorsky Aircraft, Climate Controls and Security, Otis, Pratt & Whitney and UTC Aerospace Systems (UTAS). Prior to his current role, Chaudhry served as group leader, Applied Mechanics, UTRC and manager, Structures and Dynamics Group, Electric Systems, UTAS.

Key appointments include Research Scientist and Associate Director, Center for Intelligent Material Systems and Structures, Virginia Polytechnic Institute and State University (Virginia Tech), Blacksburg, Virginia; Senior Research Engineer, UTRC; Director of Engineering, Memry Corporation, Brookfield, Connecticut; and Director of Engineering, Xinetics Inc., Devens, Massachusetts.

During the course of his career, Chaudhry has received recognition for directing the development of actuation system and structural design of an active rotor system at UTRC; directing the development and demonstration of a constant mass flow valve for fire suppression at UTRC; and the development and demonstration of the piezoelectric impedance-based structural health monitoring concept at Virginia Tech.

Chaudhry has authored one book chapter, 20 peer-reviewed journal articles and more than 50 conference papers, and holds 16 patents in the areas of actuation, controls, and adaptive mechanical and opto-mechanical systems. He is a member of the American Institute of Aeronautics and Astronautics, American Society of Mechanical Engineers, and American Helicopter Society, and serves as associate editor of the *Journal of Intelligent Material Systems and Structures*. Chaudhry earned a B.S. in aerospace engineering from the College of Aeronautical Engineering, Karachi, Pakistan; an M.S. in aeronautical engineering from the Air Force Institute of Technology, Wright Patterson Air Force Base, Ohio; and a Ph.D. in mechanical engineering from Virginia Tech.