

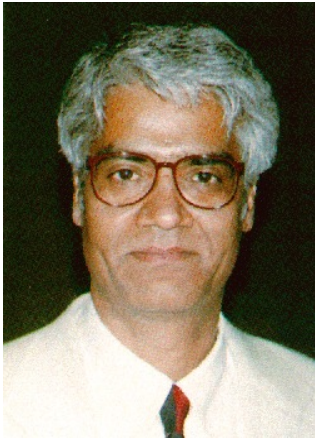
**THURSDAY
MARCH 22, 2007**

**Scaife Hall Auditorium
Room 125**

**4:30 p.m.
Refreshments—4:00 p.m.**

DR. SHASHI KARNA

**SENIOR RESEARCH SCIENTIST
ARMY RESEARCH LABORATORY**



Shashi P. Karna is a Senior Research Scientist (ST) in Nanomaterials at the Army Research Laboratory (ARL), Weapons and Materials Research Directorate (WMRD). He received a B.S. (Math, Physics, and Chemistry) degree from Bhagalpur University, India in 1974 and M. Sc. (1976) and Ph.D. (1983) degrees in Chemistry from Banaras Hindu University, India. Prior to joining Army's ST cadre in 2005, he was a Research Chemist at ARL, WMRD (2002-05). Between 1995 and 2002, he worked as a Senior Scientist (IPA), Chemist, and Senior Chemist, respectively, at the Space Electronics Division of the Air Force Research Laboratory at Kirtland AFB, NM, where his research was focused on fundamental physics and atomic-level understanding of radiation effects on space electronics; molecular-scale electronics, and nanomaterials applications to ultradense electronics. His prior employments include National Research Council Senior Resident Associate at the Air Force Frank J. Seiler Research Laboratory, Colorado Springs, CO (1994-95), Research Assistant and Associate Professor at State University of New York at Buffalo (1990-94), Research Scientist at IBM Corporation, Kingston, NY (1989-90), and Postdoctoral Associate at University of New Brunswick, Fredericton, Canada (1983-88).

He is an author/co-author of over 90 refereed articles in technical journals, 8 book chapters, 160 conference/symposia proceedings, and 3 articles in DoD technical magazines. He is a co-editor of 3 books, including the "Defense Applications of Nanomaterials (2004)". He has served as a member of the National Nanotechnology Initiative Panel on Electronics, Photonics, and Magnetics and as a member of the Technical Committee of IEEE NANO since 2002. He is an ARL Fellow (2005), and Fellow of the Optical Society of America (2004) and American Physical Society (2007).

ECE Seminar Hosts:

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Army Research Laboratory Nanotechnology Research and Initiatives

Nanotechnology promises to provide revolutionary capabilities in the way we perform various tasks across different walks of life. It takes advantage of the small-scale size of matter and novel phenomena that such matters exhibit. The Army Research Laboratory conducts a wide range of basic and applied research involving nanomaterials to address the future technological needs of the Army. In this talk I shall present an overview of the ARL research programs in nanomaterials and nanodevices focused on Soldier protection and survivability.