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Officially assigned duties/responsibilities: Conduct basic and applied research in nanomaterials, mentor young scientists and engineers, identify critical science and technology areas in nanoscience relevant to Army technologies and work with Army S&E and senior leadership to develop relevant program, identify and recommend to management chain R&D leveraging opportunities within and outside of DoD

Dr. Shashi P. Karna is a Senior Research Scientist of Nano-functional Materials at the Army Research Laboratory, Weapons & Materials Research Directorate, Aberdeen Proving Ground, MD. The main focus of his research is a fundamental understanding of the structure and quantum-size properties of nanomaterials and their applications in Army technologies. He obtained a Ph.D. (1983) and an M.Sc. (1976) degree in Chemistry from Banaras Hindu University, India and B.Sc.(1973) degree in Math, Physics, and Chemistry from Bhagalpur University in India. He has authored/coauthored over 300 articles including refereed technical papers, conference proceedings, reviews, and book chapters. He has coedited three books including "DoD Applications of Nanomaterials". He is an ARL Fellow, and an elected Fellow of the American Physical Society (APS) and the Optical Society of America (OSA). He led the ARL Nanoscience Strategic Technical Initiative (2006-2008). He has served as the Chair of the Nanotechnology area at the Army Science Conference (2006, 2008), American Physical Society Symposium on Molecular Electronics (2003, 2005), American Chemical Society Symposium on Nonlinear Optical Materials (1994, 2001), Materials Research Society Symposium on Optical Materials (1999, 2003), Nanomaterials – (2004, 2007) and as Technical Program Committee Member of the Institute of Electrical and Electronics Engineers (IEEE) NANO (2001 – present). He serves as the Chair of NATO Sensors and Electronics Technology Research Technical Group on "Smart Textiles". He also serves as a Member of the External Advisory Board of Michigan Technological University, Mechanical Engineering and Engineering Mechanics Department and as a Member of the Department of Energy, Office of Energy Basic Research, Energy Frontiers Research Centers (FERC) Review Panel. He holds an Adjunct Professor position at the State university of New York, Buffalo and Michigan Technological University, and Morgan State University.