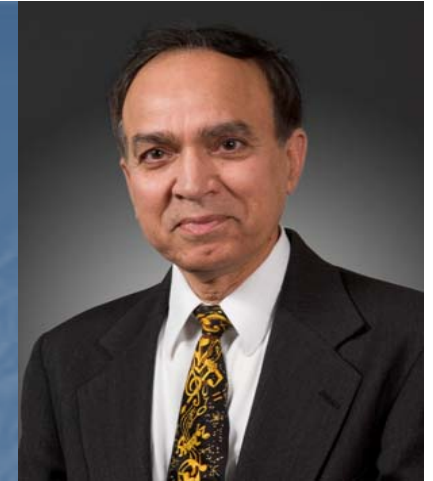


# Suraj P. Rawal

## Lockheed Martin



- Dr. Rawal is the Senior Manager of the Advanced Material and Structures, R&T group of Lockheed Martin Space Systems Company. Dr. Rawal has over 25 years of experience in the advanced materials technologies and he has been extensively involved in the development of innovative processing techniques, and structure property relationships for advanced composites. He has been program manager and principal investigator of several contract research and development (CR&D) programs sponsored by AFRL, BMDO, DARPA, NASA, and ONR. A few of these programs included Composite Materials Database for Space Applications, Multifunctional Structures Technology Demonstration, C-C ion engine Grid Development, Lightweight Dimensionally Stable C-C Structures, Thermal-Structural Materials Solutions for Spacecraft, Carbon-Carbon Radiator for Space Applications, C-C Heat Pipe Development, Heat Pipe Cooled Leading Edges, Structural Health Monitoring, Multifunctional Nano-composites, High Temperature Thermoelectric, and CEV TPS development. Dr. Rawal has extensive experience in the development, testing, and mechanical/thermophysical property characterization of advanced composites.
- Dr. Rawal is also the Principal Investigator of the Independent Research and Development (IR&D) Project D-90D, "Lightweight Spacecraft Technologies", which is directed to develop advanced composites components, nanotechnology, smart structures and mechanisms, inflatable concepts, and multifunctional structures technologies for next generation spacecraft. Working closely with the system/subsystem technical leads of Civil Space System programs, Dr. Rawal has been able to successfully transfer composite radiator, optical bench, carbon-carbon (C-C) engine shield, C-C thermal doublers, C-C heat shield (Genesis), and multifunctional structures technologies into DoD/NASA spacecraft.
- Before joining Lockheed Martin, Dr. Rawal served as manager of research and development and technical services from 1980 to 1984, and as manager of alloy operations from 1973 to 1980 at A.J. Oster Company, a division of Cookson USA, RI. His activities covered a broad base of production and R&D efforts related to fabrication, heat treatment, brass rolling mill, plating, joining, and metallurgical characterization of advanced materials.
- Dr. Rawal is the board member of Colorado Nanotechnology Advisory Board. Dr. Rawal is a member of The Metallurgical Society (TMS) of the AIME, ASM International, the Sigma Xi (Professional Scientific Society), AIAA, and the Society of Advanced Materials and Process (SAMPE).
- Dr. Rawal has received numerous Lockheed Martin awards, including inventor, author, and technical achievement, and has authored over 55 articles on advanced composites, thermal management, and structure/property relationships. Dr. Rawal has four patents in the areas of thermal management and multifunctional structures technology. Dr. Rawal has also authored two chapters entitled, 'Composites for Space Applications', and 'Multifunctional Materials and Structures' in the 'Comprehensive Composite Materials' handbook edited by A. Kelly and Carl Zweben.