

## Dr. Vikas Kumar, FNAE



- Dr. Vikas Kumar, FNAE, Distinguished Scientist (DS) & Former Director, Defence Metallurgical Research Laboratory (DMRL) / DRDO, Hyderabad has obtained his Bachelor's degree from IIT, Roorkee, M.Tech from IIT-Kanpur and Ph.D from IIT-Madras. He is Fellow of Indian National Academy of Engineering (INAE), Institute of Engineers (IEI), Indian Institute of Metals (IIM), and Telangana Academy of Sciences (TAS). He has published more than 200 papers and has several international patents and awards to his credit.
- He has developed expertise in the area of Fatigue, Fracture & Damage Mechanics, Life Prediction Technologies & Structure Integrity Analysis of Military Aeroengines and Weapon systems at DRDO for more than three and half decades.
- He has executed several collaborative projects with several world class research labs in abroad like Wight-Patterson US Air Force Research Lab (AFRL) USA, ENSMP/SNECMA/Safran - France, Russian Academy of Sciences-Moscow, Institute of Aerospace/LPTi-Canada.
- He has developed several Application Codes for Fracture Mechanics based testing, qualification & Structure Integrity of materials & components under service simulated environments for Aerospace, Naval and Armour applications. He has made contributions to several projects at DRDO related to development of advanced materials for Aerospace, Armour and Naval applications. He has closely worked with Academia, Defence Services, MIDHANI-HAL-DPSUs, SAIL, Ordnance Factories, CSIR-DAE-ISRO R&D Labs and Certification agencies.
- He has executed successfully several projects on Life Cycle Management (LCM) of Aeroengines for Indian Air Force (IAF) which saved enormous foreign exchequer as well as generated crucial lakhs of additional flying hours and sustainability of ageing fleets of IAF. In addition, he has been responsible for establishment of world class state-of-the-art related infrastructure facilities and developed Damage Tolerance & Damage Prognostics based LCM & Failure Assessment Diagram (FAD) based Structure Integrity technologies at DRDO for Defence platforms.
- Presently, he is Distinguished Visiting Professor at several IITs & Autonomous Institutes; Chairman- Steering Committee, Aeronautical Research & Development Board (AR&DB), DRDO, Ministry of Defence; Chairman - Bureau of Indian Standards (BIS) on MTD-3 Committee on Materials Testing;
- Under personal capacity, freelancing the facilitation of developing ecosystem / CoEs by harnessing potential of MSME-Academia-R&D Labs consortiums for fast-track development of cutting edge multidisciplinary advanced technologies for benefit of Defence Services under Aatmnirbhar Bharat Initiative of Govt. of India; Advisor MoD/ Defence Corridors/ DPSUs / MSMEs consortiums for establishment of Defence Testing Infrastructure Scheme (DTIS) - a MoD driven Govt-Pvt partnership enterprise; assisting MSMEs for Aerospace & Defence manufacturing under Technology Offsets; Mentoring Defence Training & Skilling Centers (DTSCs) & Govt-Pvt R&D Cells; Mentoring young leaders at IITs and creating technical database resources / Publications / White Papers for defence technologies for benefit of policy makers, Students, Practicing Engineers & Scientists.