



DEPARTMENT OF AEROSPACE ENGINEERING

Defence Institute of Advanced Technology (DU)

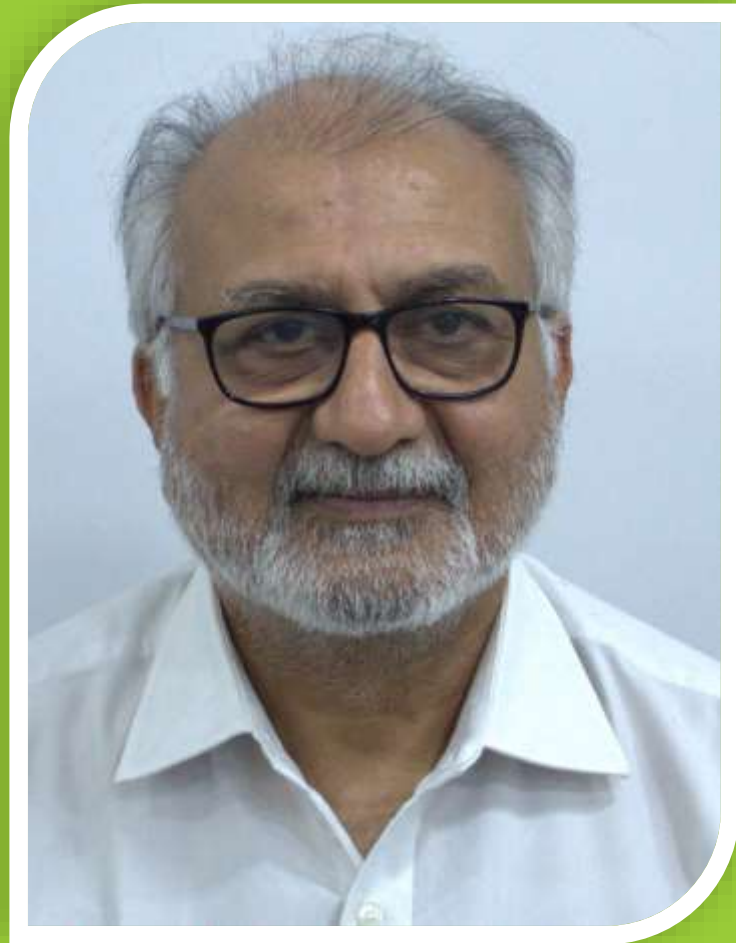
Girinagar, Pune - 411025, INDIA



Dr. Ajay Misra

Ph.D. (IIT Kanpur)

Associate Professor, Department of Aerospace Engineering



➤ 37 Years Experience in Teaching/Research

Research Areas

1. Flight Parameter Estimation
2. High Angle of Attack Aerodynamics
3. Flight Mechanics

Awards

- Best Professor Award-2018 by Society of Aeronautical Engineers

Publications (Total)	Journals	Conferences	CEPs/ STTP Conducted	Invited Talks	PhDs Guided	M.Tech/Master's Theses Guided
44	23	21	15	25+	6(Completed) 1(Ongoing)	50+

Facilities Developed



Research Highlights

- Grid Fin Aerodynamic characterisation
- Shock-wave boundary layer interaction studies.
- Aircraft & UAV Design

Sponsored R & D Projects

1. "Aerodynamic Characterization Of Grid Fins subsonic Regime"

Peer Reviewed Journal Publications (selected Five)

1. Tripathi M., Misra A. and M. S. Mahesh., Effect of Planar Member Cross-section on Cascade Fin Aerodynamics, Journal of Spacecraft and Rockets, AIAA, Nov 2018.
2. Effect of aspect ratio variation on subsonic aerodynamics of cascade type grid fin at different gap-to-chord ratios, Tripathi, M., Sucheendran, M.M., Misra, A. Aeronautical Journal, April 2020
3. Experimental analysis of cell pattern on grid fin aerodynamics in subsonic flow Tripathi M., Sucheendran M.M., Misra A. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, March 2020
4. Effect of Microramps on Flare induced Shock – Boundary Layer Interactions T. Nilavarasan, G. N. Joshi and A. Misra, Aeronautical Journal, Jan 2020
5. A numerical study of penetration in concrete targets by eroding projectiles of different materials, Harikrishnan S., Rao V.V., Misra A. Defence Science Journal, March 2021

Book/Book Chapters

1. B Cha Tripathi M., Mahesh M.S., Misra A. 'High Angle of Attack Analysis of Cascade Fin in Subsonic Flow'. In Proceedings of the International Conference on Modern Research in Aerospace Engineering. Ed by Singh S., Raj P., and Tambe S., Springer Lecture Notes in Mechanical Engineering. Singapore: Springer, 2016. Pp.121-132. (ISBN 978-981-10-5848-6)