

NOWROSJEE WADIA COLLEGE, PUNE

FACULTY ACADEMIC PROFILE



Dr. Vivek Vishwanath Antad

Associate Professor • Physics Department

Highest Qualification: MSc, MS, PhD

Specialization: Materials Science

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Flying Officer VIVEK V. ANTAD

Associate NCC Officer (ANO)

Wing: Air Force Wing NCC

Unit: 3 MAH AIR SQN NCC PUNE

Address: NCC Group Head Quarters Pune



PROFESSIONAL SNAPSHOT

*I am a **Physics Educator**, working for undergraduate and postgraduate students as well as I am a researcher with focus on Materials Science, especially Memristive Devices and Computational Physics.*

My teaching philosophy emphasizes making Physics conceptually clear, practical, and engaging by integrating theory, experiments, computation, and real-world applications. I employ innovative methodologies including visual learning, simulations, inquiry-based teaching, problem-solving, hands-on laboratory work, and Python-based computational learning. I encourage students to develop scientific curiosity, analytical thinking, practical skills, and a research-oriented approach. My key contribution is bridging fundamental Physics with modern computational techniques in the emerging materials research.

*Additionally, as an **Air Force Wing NCC Officer**, I contribute to developing discipline, leadership, teamwork, confidence, resilience, and a strong sense of responsibility and national service among students.*

EDUCATION

Qualification	University / Institution	Year
PhD	University of Poitiers, France	2009-2011
MS	University of Poitiers, France	2007-2009
MSc	Shivaji University, Kolhapur	2005-2007
BSc	DBF Dayanand College, Solapur	2002-2005

TEACHING & ACADEMIC INTERESTS

• Atomic Physics • Solid State Physics • Python Programming • Materials Science

RESEARCH & PUBLICATIONS

Research Area: Materials Science, Thin Film Device Technology, Functional Thin Films, Memristor Materials, Atmospheric Science, Chemical Kinetics, Computational Physics

Selected Publications: [Up to 5 key publications]

- ◆ D. Suthar, P. Sharma, B. Ruptake, **V. Antad**, N. Chaure, A. Banpurkar, A. Yengantiwar “Surface engineering of 3D printed carbon-PLA for electrocatalytic functionality” Physica Scripta, 101 135907 (2026) (IF: 2.60)
- ◆ S. Latpate, **V. Antad**, S. Kate, V. Borkar “A quantitative insight of substituent effect in terms of reactivity and nucleophilicity in rapid aqueous iodinations of monosubstituted benzene derivatives employing hydrodynamic voltammetry” International Journal of Chemical Kinetics, 57 08 (2025) (IF: 1.50)
- ◆ Kolhe, G. Aher, P. Soyam, S. Ralegankar, S. Kedia, L. Chaudhari, **V. Antad**, S. Ghude, P. Safai, S. Chakane, P. Devara “Aerosol Opto-physical Properties: Temporal Variation, Aerosol Type Discrimination and Source Identification” Aerosol Air Quality Research, 22 10 (2022) (IF: 4.53)

- ◆ **V. Antad**, P. A. Shaikh, A. Biswas, S. Rajput, S. Deo, M. Shelke, S. Patil, S. Ogale “Resistive Switching in $\text{HfO}_2 - \text{x/La}_{0.67}\text{Sr}_{0.33}\text{MnO}_3$ Heterostructures: An Intriguing Case of Low H-Field Susceptibility of an E-Field Controlled Active Interface” ACS Applied Materials and Interfaces, 13 54133 (2021) (IF: 10.38)
- ◆ Biswas, A. Sengupta, U. Rajput, S. K. Singh, **V. Antad**, S. K. M. Hossain, S. Parmar, D. Rout, A. Deshpande, S. Nair, S. Ogale “Growth, properties and applications of pulsed laser deposited layered nanolaminate Ti_3AlC_2 thin films” Physical Review Applied, 13 044075 (2020) (IF: 4.93)

Research Profile: <https://orcid.org/my-orcid?orcid=0000-0001-9174-2971>,

<https://scholar.google.com/citations?user=08cQ-HMAAAAJ&hl=en>

ACHIEVEMENTS & PROFESSIONAL DEVELOPMENT

- ◆ Recipient of the DST-SERB Major Research Grant under TARE Scheme (2018-19 to 2021-22)
- ◆ Recipient of the SPPU Minor Research Grant under BCUD Scheme (2016-17 to 2018-19)
- ◆ Recipient of the Gokhale Award (Year – 2019) for Best Performance in College
- ◆ Recipient of the College Research Award (Year – 2022)
- ◆ Commissioned as Air Force NCC Officer with the rank of Flying Officer (June - 2021)
- ◆ Deployed as Deputy Contingent Commander for Maharashtra Directorate for All India Vayu Sainik Camp (AIVSC) (Oct- 2024)

ACADEMIC RESPONSIBILITIES

- ◆ Coordinator for the College MoU Committee
- ◆ Member of College Avishkar Committee
- ◆ Member of College Development Committee
- ◆ Member of Bhoutiki Newsletter Committee
- ◆ Coordinator for College Admission Committee (FYBSc)
- ◆ Member of College Research Committee