RIPPLES

NOVEMBER 2026 - VOLUME XVI ISSUE 2

NEWSLETTER OF DEPARTMENT OF PHYSICS

FACULTY ACHIEVEMENT: DR. MYREN AZAVEDO SUCCESSFULLY DEFENDS PH.D. THESIS



Ms. Myren Michael Azavedo, Department of Physics has successfully defended her Ph.D. thesis titled "UNDERSTANDING NEGATIVE THERMAL EXPANSION IN METALLIC SYSTEMS" on 23rd October 2026

She completed her doctorate from the School of Physical and Applied Sciences, Goa University under the guidance of Prof. Kaustubh R.S. Priolkar. Department of Physics extends its heartfelt congratulations to Dr. Myren Azavedo on this significant achievement.

STUDENT ACHIVEMENT AT STATE LEVEL

National Space Day 2026 – State-Level PPT Presentation Competition





The Goa State Council of Science & Technology (GSCST), under the Department of Science, Technology & Waste Management, Government of Goa, organised a programme to commemorate National Space Day 2026, held on 3rd and 4th September 2026. The theme of the programme was "Towards Viksit Bharat: Innovating, Collaborating and Aspiring to Global Space Leadership." As part of the programme, a State-Level PPT Presentation Competition for Science and Engineering Colleges was organised at the Goa Science Centre, Miramar.

Parvatibai Chowgule College of Arts and Science was represented by Ms. Divyanka Phal Dessai (F.Y. B.Sc. Physics) and Mr. Sanket Shirodkar (S.Y. B.Sc. Geology), accompanied by Ms. Jevila Rebello, Assistant Professor, Department of Physics.

MS. DIVYANKA PHAL DESSAI SECURED THE FIRST CONSOLATION PRIZE AT THE STATE LEVEL

FACULTY ACHIEVEMENTS

ACADEMIC CONTRIBUTIONS AND RECOGNITION

Dr. Malati Dessai

CONTRIBUTION TO ACADEMIC PEER REVIEW

Dr. Malati Dessai contributed to the peer-review process of the Journal of Applied Physics, a scopus-indexed international journal published by the American Institute of Physics (AIP), with an impact factor of 2.7.

Dr. Ashish M. Dessai

RESOURCE PERSON – QUANTUM TECHNOLOGIES AWARENESS PROGRAMME

Dr. Ashish M. Desai, Associate Professor, Department of Physics, Parvatibai Chowgule College of Arts and Science, Margao, served as a Resource Person at the Two-Day Awareness Programme on “Quantum Technologies” held on 24–25 September 2026 at Goa College of Engineering, Farmagudi, Ponda.



He delivered a talk on “Quantum Mechanics for Quantum Computing,” highlighting the fundamental principles of quantum mechanics underlying quantum computing and emerging quantum technologies.

FACULTY ACHIEVEMENTS

ACADEMIC CONTRIBUTIONS AND RECOGNITION

Under the Guidance of Mr. Yatin P. Desai: Undergraduate Research Published in DAE-SSPS 2025

A significant research contribution by undergraduate students of the Department of Physics has been recognised through its publication in the Proceedings of the 69th DAE Solid State Physics Symposium (DAE-SSPS 2025). The research article, titled "Mn doping effects on structural and magnetic properties of $NiFe_2O_4$ nano-ferrites", is based on the project work undertaken by TYBSc Physics students Shravya Borkar, Joshle Colaco, Kimberly Estibeiro and Chloy Costa during the academic year 2023–2024, under the guidance of Mr. Yatin P. Desai, Department of Physics. The study investigated the influence of manganese substitution on the structural and magnetic properties of nickel ferrite nanoparticles synthesised using the sol-gel auto-combustion method. The research involved X-ray diffraction (XRD), scanning electron microscopy (SEM) and magnetic characterisation using a SQUID magnetometer. The findings confirmed the formation of nanoscale ferrite particles exhibiting soft magnetic characteristics, with their structural and magnetic properties varying with manganese concentration.

The article's inclusion in the proceedings of this prestigious national-level symposium, organised by the Bhabha Atomic Research Centre (BARC), Mumbai, and held at IIT Roorkee in December 2025, marks an encouraging achievement for the student researchers and reflects the Department's commitment to promoting research-oriented learning and providing undergraduate students with opportunities to contribute to scientific research.

REFERENCE

Borkar, S., Colaco, J., Estibeiro, K., Costa, C., Desai, Y. P., & Kothawale, M. M. (2025). Mn Doping Effects on Structural and Magnetic Properties of $NiFe_2O_4$ Nano-Ferrites. Proceedings of the 69th DAE Solid State Physics Symposium, Series 69, pp. 512–515. Bhabha Atomic Research Centre, Mumbai. ISBN: 978-81-984360-9-2.

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