

Faculty Profile

1. Name of the faculty: Dr. Arnab Kumar Das
2. Name of the department: Physics
3. Educational qualification: PhD
4. Present position: Assistant Professor
5. Address for correspondence: ODRC(near Ajanta Cinema Hall),RM-1,Kolkata-38
6. Email and contact no.:d.raja98@gmail.com, 7001540424
7. Specialization: Condensed Matter Physics
8. Total teaching experience: 08 years
9. Courses taught: Mathematical Physics, Electrostatics, Magneto statics, Solid state physics, EM Theory, Kinetic Theory of Gases, Mechanics, Nano-Science and Technology
10. Research experience: 6 years
11. Participation in conferences, symposia and workshops: International, national, state or university level, attended. Presented paper, chaired session. Resource person-

International and National Conference:

- i. Arnab Kumar Das and A. Srinivasan, "Magnetic properties of heat treated PVA nanofibers containing transition metal (Zn, Co) salts"Presented in The International Conference on Magnetic Materials and Applications (ICMAGMA - 2017), Leonia Holistic Resorts, Hyderabad, 1 - 3 February 2017.
- ii. Arnab Kumar Das and A. Srinivasan, "Structural and morphological studies of Mg doped ZnO nanowires prepared by electrospinning route"Presented in The NANOS-2015, GITAM University, Visakhapatnam, 14-17 December 2015.
- iii. Arnab Kumar Das and A. Srinivasan, "Magnetic properties of CaFe₂O₄ nanoparticles prepared by solvothermal method" Presented in The EMCA-2014, CGCRI, Kolkata,4-6 December 2014
- iv. Arnab Kumar Das and A. Srinivasan, "Structural and optical properties of Mg doped ZnO nanowires prepared by electrospinning route" Presented in The ICONSAT-2014, Punjab University, 2-5 March 2014
- v. Arnab Kumar Das and A. Srinivasan, "Room temperature ferromagnetism of ZnO nanofibers

prepared via electrospinning” Presented in MAGMA-2013, IIT Guwahati, 5-7 December 2013

vi. Arnab Kumar Das, “X-Ray peak broadening analysis, Optical and Magnetic properties of ZnO nanofibers prepared by electrospinning method, presented in the NCETP 2021, Tezpur University, 16th June 2021

vii. Arnab Kumar Das, “Structural and Magnetic Properties of Solvothermal Synthesis CaFe₂O₄ Nanoparticles” presented in 3rd ICSEH 2022, WBSU, 19-20th December 2022

12. Refresher and Orientation courses attended:

- i. Orientation Programme attended during 06/02/19 to 06/03/19 at Jadavpur University.
- ii. Refresher course in Physics during 19/08/2019 to 2/09/2019 at Calcutta University
- iii. Refresher course in “Material Physics and Materials A Science” during 07/12/2020 to 21/12/2020

13. Publication of research papers: in peer reviewed journals, non-peer reviewed journals, conference proceedings, impact factors, citations, h-index. Numbers in SCOPUS. –

Journal Publications:

i. Arnab Kumar Das, Manoranjan Kar and Ananthkrishnan Srinivasan, "Room temperature ferromagnetism in undoped ZnO nanofibers prepared by electrospinning" *Physica B* 448 (2014) 112-114

ii. Arnab Kumar Das and Ananthkrishnan Srinivasan, “Evidence of oxygen defect induced ferromagnetism in heat treated electrospun ZnO nanowires”, *J. Magn. Mater.* 404 (2016) 190-196

iii. Arnab Kumar Das and Ananthkrishnan Srinivasan, “Band gap tuning and defects suppression upon Mg doping in electrospun ZnO nanowires”, *J. Mater. Sci. Mater. Electron.* 28 (2017) 6488-6492

iv. Arnab Kumar Das and Ananthkrishnan Srinivasan, “Magnetic and structural properties of Co doped ZnO nanowires prepared by heat treatment of electrospun PVA nanofibers containing Zn and Co acetates”, *J. Mater. Sci. Mater. Electron.* 29 (2018) 4351-4356

v. Arnab Kumar Das and Ananthkrishnan Srinivasan, “Structural and magnetic properties of sol-gel derived CaFe₂O₄ nanoparticles”, *J. Magn. Mater.* 451 (2018) 526-531

vi. Bhagaban Kisan, P. Ravikumar, Arnab Kumar Das, A. Srinivasan and A. Perumal, “Structural, Vibrational, Optical and magnetic properties of NiO nanoparticles” J. Sci. Lett 4 (2015) 160-175

vii. Arnab Kumar Das and Ananthakrishnan Srinivasan, Structural transition and associated magnetic properties of heat treated electrospun one-dimensional CaFe_2O_4 , Chemical Physics Letter, 2021

viii. Arnab Kumar Dar et. al. Comparative Study of ZnO Nanomaterials Synthesized by Green and Electrospinning Methods, Journal of Nano Research, 2021

Conference Proceedings:

i. Arnab Kumar Das, Rajkumar Modak and Ananthakrishnan Srinivasan, “Structural and optical properties of electrospun MoO_3 nanowires” AIP Conference Proceedings 1953 (2018) 030021-030022