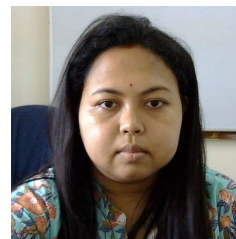


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Educational Qualification:

- Ph.D., (2019, Jadavpur University)
Thesis Title: *Nucleation of Piezoelectric β -Phase in P(VDF-HFP) Co-Polymer for Mechanical Energy Harvesting and Multifunctional Applications*
- M.Sc., (2012, Indian Institute of Technology Guwahati)
- B. Sc., (2010, Jadavpur University)

Subject Specialization: Condensed Matter Physics

Areas of Research Interest: Piezoelectric Materials, Flexible Polymeric Nanogenerators, Self-powered Electronics, Development of Mechanical Energy Harvesters.

No. of Ph.D. students: (a) Supervised: Nil (b) Ongoing: 01.

Professional Experiences:

Teaching Experience:

- Guest Faculty, Department of Physics, Cooch Behar Panchanan Barma University, (October 2020 to January 2021)
- Assistant Professor, Department of Physics, University of North Bengal (February, 2021 to till date)

Research Experience: 2013 to till date

Scholarships/Fellowships/Achievements:

- DST-INSPIRE Scholarship in the year 2007.
- Joint Admission to M.Sc. (JAM) at IITs Qualified.
- GATE Qualified.
- NET Qualified.
- JRF under State Government Fellowship Scheme.
- UGC-RGNF Fellowship.
- The best oral presentation award in 23th WB State Science & Technology Congress, 2016.

Research Publications:

- (1) The co-operative performance of a hydrated salt assisted sponge like P(VDF-HFP) piezoelectric generator: an effective piezoelectric based energy harvester, **P. Adhikary**, S. Garain and D. Mandal, *Phys.Chem.Chem.Phys* 2015, 17, 7275–7281.
- (2) Flexible Hybrid Eu³⁺ Doped P(VDF-HFP) Nanocomposite Film Possess Hypersensitive Electronic Transitions and Piezoelectric Throughput, **P. Adhikary**, S. Garain, S. Ram, D. Mandal, *J. Polym. Sci. B: Polym. Phys.* 2016, 54, 2335–2345.
- (3) Enhanced electro-active phase in a luminescent P(VDF-HFP)/Zn²⁺ flexible composite film for piezoelectric based energy harvesting applications and self-powered UV light detection, **P. Adhikary**, D. Mandal, *Phys.Chem.Chem.Phys.* 2017, 19, 17789–17798.
- (4) Improved sensitivity of wearable nanogenerator made of electrospun Eu³⁺ doped P(VDF-HFP)/ graphene composite nanofibers for self-powered voice recognition, **P. Adhikary**, AnirbanBiswas and DipankarMandal, *Nanotechnology* 2016, 27, 495501–495511.
- (5) Self-Poled Transparent and Flexible UV Light-Emitting Cerium Complex–PVDF Composite: A High-Performance Nanogenerator, SamiranGarain, Tridib Kumar Sinha, **P. Adhikary**, K. Henkel, S. Sen, S. Ram, C. Sinha, D. Schmeißer and D. Mandal, *ACS Appl. Mater. Interfaces* 2015, 7, 1298–1307.
- (6) Electrospun Gelatin Nanofiber Based Self-Powered Bio-e-Skin for Health Care Monitoring, S. K. Ghosh, **P. Adhikary**, S. Jana, A. Biswas, V. Sencadas, S. D. Gupta, B. Tudu and D. Mandal, *Nano Energy* 2017, 36, 166–175.
- (7) Synthesis of β-cyclodextrin grafted rhombohedral-CuO antioxidant nanozyme for detection of dopamine and hexavalent chromium through off-on strategy of peroxidase mimicking activity, S. Ali, S. Sikdar, S. Basak, D. Das, D. Roy, Md. S. Haydar, V. K. Dakua, **P. Adhikary**, P. Mandal and M. N. Roy, *Microchem.* 2022, 179, 107514.

Conference Proceedings:

- (1) Electro-active β -Phase Formation in Poly(vinylidene fluoride) Films by Hydrated Rare earth Metal Salt, S. Garain, **P. Adhikary**, D. Mandal, S. Sen, K. Henkel, D. Schmeisser. *Proc. Int. Conf. on Nanotechnology* (ISBN: 978-81-927756-0-9), PP 2033, p. 127 (2013).
- (2) Study of Dielectric Properties of Silver Poly vinylidene Fluoride (PVDF) Nanocomposites, **P. Adhikary**, S. Garain, D. Mandal. *Proc. Int. Conf.on Nanotechnology* (ISBN: 978-81-927756-0-9), PP 2037, p. 131 (2013).
- (3) Performance of a self-poled hydrated salt assisted sponge like piezoelectric generator: an effective mechanical energy harvester, **P. Adhikary**, S. Garain and D. Mandal, *IISRR-International Journal of Research*, (Vol-1, Issue-2, ISSN 2394-885X) (2015).
- (4) P(VDF-HFP)/Cerium composite films with improved dielectric properties for energy storage applications, **P. Adhikary**, S. Garain and D. Mandal, *AIP Conference Proceedings*, 1832, 040025 (2017).