FACULTY PROFILE

1. Name of the Faculty Member: **Dr. Debabrata Pal**

2. Designation with Category (Substantive/SACT): **Assistant Professor** (Substantive)

3. Department: **Physics**

4. Educational and Professional Qualifications:

Name of the Institution	Name of the Affiliating Body	Degree/Diploma/Certificate Obtained	Specialization (if any)
Rajabazar Science College	University of Calcutta	M. Sc. (Physics)	
S. N. Bose National Centre for Basic Sciences	University of Calcutta	Ph. D.	

5. Teaching Experience (If applicable):

Name of the Institution	Position Held	From	To
Kandi Raj College	Assistant Professor	July 2010	December 2020
Gokhale Memorial Girls' College	Assistant Professor	December 2020	Till date

6. Research Experience (If applicable):

Name of the Institution	Nature of Work	Designation	From	To
S. N. Bose National Centre for Basic Sciences	Research	Research Fellow	2006	2010

7. Areas of Interest (Intra-disciplinary and/or Inter-disciplinary): **Magnetocaloric effect and Magnetoresistance in Heusler alloys, Magnetic nanoparticles.**

8. Research Projects (if any):

9. Research Publications (if any):

i. K. Mandal, **D. Pal**, O. Gutfleisch, P. Kerschl and K.-H. Mueller, "Magnetocaloric effect in reactively-milled $LaFe_{11.57}Si_{1.43}H_y$ intermetallic compounds", *Journal of Applied Physics*, **102**, (2007), 053906 (1-5).

ii. K. Mandal, **D. Pal**, N. Scheerbaum, J. Lyubina, O. Gutfleisch, "Magnetocaloric effect in Ni-Mn-Ga alloys", *IEEE Transaction on Magnetics*, **44**, (2008), 2993.

iii. K. Mandal, **D. Pal**, N. Scheerbaum, J. Lyubina and O. Gutfleisch, "Effect of pressure on the magnetocaloric properties of nickel-rich Ni-Mn-Ga Heusler Alloys", *Journal of Applied Physics*, **105**, (2009), 073509.

iv. M. Mandal, **D. Pal** and K. Mandal, "Negatively charged micelles directed synthesis of snow-ball flower like superparamagnetic Ni nanoparticles and investigation of their properties", *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **348**, (2009), 35 - 38.

v. **D. Pal**, K. Mandal, O. Gutfleisch "Large negative magnetoresistance in nickel-rich Ni-Mn-Ga Heusler alloys", *Journal of Applied Physics*, **107**, (2010), 09B103.

vi. **D. Pal**, K. Mandal, "Magnetic and Magneto-Transport Properties of Nickel-Rich Ni-Mn-Ga Heusler Alloys", *Japanese Journal of Applied Physics*, **49**, (2010), 073002.

vii. **D. Pal**, K. Mandal. "Magnetoresistance and magnetocaloric effect of Ni-Fe-Ga alloys", *Journal of Physics D: Applied Physics*, **43**, (2010), 455002.

viii. **D. Pal**, M. Mandal, A. Chaudhuri, B. Das, D. Sarkar and K. Mandal. "Micelles induced high coercivity in single domain cobalt-ferrite nanoparticles", *Journal of Applied Physics*, **108**, (2010), 124317.

ix. **D. Pal**, A. Ghosh and K. Mandal "Large inverse magnetocaloric effect and magnetoresistance in nickel rich $Ni_{52}Mn_{34}Sn_{14}$ Heusler alloy", *Journal of Magnetism and Magnetic Materials*, 3**60**, (2014), 183-187.

x. **D. Pal**, "Conventional and Inverse Magnetocaloric Effect in Ni-Rich Ni-Mn-Ga and Ni-Mn-Sn Heusler Alloy: A Comparison", *Journal of Scientific Research*, **12 (3)**, (2020), 303-310.

xi. **D. Pal**, D. De, A. Das, A. Chaudhuri and M. M. Goswami, "Synthesis of Micelles Guided Co-Ferrite Particles and Their Application for AC Magnetic Field Stimulated Drug Release", *Journal of Advanced Scientific Research*, **11(3)**, (2020), 170-175.

xii. **D. Pal, "**Magnetic Nanoparticles in Various Biomedical Applications", *Journal of Advanced Scientific Research*, **13(8)**, (2022), 01-06.