

PERSONAL PROFILE



DR. SOURAV KUNDU

Assistant Professor & HOD

**Department of Physics
Saldiha College, Saldiha,
Bankura-722173, WB**

Date of Birth : 26/01/1984

Educational Qualification : **B.Sc.** (Physics in 2005), **M.Sc** (2007),
Ph.D (Nanostructured Manganites/Cobaltites, 2012)

Additional Qualification : **JAM** (2005), **GATE** (2007), **JEST** (2007)

Permanent Address : Parul (Santiniketan palli),
P.O.+P.S.- Arambagh,
Dist. Hooghly, Pin-712601,
West Bengal, India

Contact Number : (+91) 9475044158, (+91)7098244268

E-mail : souravphy@gmail.com

Date of Joining : 30/06/2015

Area of Teaching : Electrodynamics, Optics, Quantum, Mechanics,
Solid State Physics

Research interest : Magnetism, Magnetic Nanoparticles/Thin films

List of Research Papers in National/International Journal

1. Critical behavior and magnetic relaxation dynamics of $\text{Nd}_{0.4}\text{Sr}_{0.6}\text{MnO}_3$ nanoparticles, **S. Kundu** and T. K. Nath, *Philosophical Magazine*, Vol. **93**, p. 2527-2548 (2013).
2. Effect of Mn doping on magnetic and transport properties of $\text{Nd}_{0.5}\text{Sr}_{0.5}\text{Co}_{(1-y)}\text{Mn}_y\text{O}_3$, **S. Kundu** and T. K. Nath, *Journal of Magnetism and Magnetic Materials*, Vol. **325**, p. 1 (2013).
3. Superparamagnetic State by Linear and Non-Linear AC Magnetic Susceptibility in $\text{Mn}_{0.5}\text{Zn}_{0.5}\text{Fe}_2\text{O}_4$ Ferrites Nanoparticles, T. Suneetha, **S. Kundu**, Subhash C.

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Kashyap, H. C. Gupta, and T. K. Nath, **Journal of Nanoscience and Nanotechnology**, Vol. **13**, p. 270-278 (2013).

4. A Griffiths-like phase in antiferromagnetic $R_{0.5}Eu_{0.5}MnO_3$ ($R = D, Pr, Nd, Sm$), A. Karmakar, S. Majumdar, **S. Kundu**, T. K. Nath and S. Giri, **Journal of Physics: Condensed Matter**, Vol. **25**, p. 066006 (2013).
5. Observation of Griffiths phase in antiferromagnetic $La_{0.32}Eu_{0.68}MnO_3$, A. Karmakar, S. Majumdar, **S. Kundu**, T. K. Nath, S. Giri, **Journal of Physics: Condensed Matter**, Vol. **24**, p. 126003 (2012).
6. Suppression of a glassy magnetic state and emergence of a Griffiths-like phase on size reduction in $Nd_{0.8}Sr_{0.2}MnO_3$, **S. Kundu** and T. K. Nath, **Journal of Applied Physics**, Vol. **111**, p. 113903 (2012).
7. Size-dependent electronic-transport mechanism and sign reversal of magnetoresistance in $Nd_{0.5}Sr_{0.5}CoO_3$, **S. Kundu** and T. K. Nath, **Journal of Physics: Condensed Matter**, Vol. **24**, p. 236005 (2012).
8. Metallicity and ferromagnetism in nanosystem of charge ordered $Nd_{0.5}Sr_{0.5}MnO_3$, **S. Kundu**, T. K. Nath, A. K. Nigam, T. Maitra, and A. Taraphder, **Journal of Nanoscience and Nanotechnology**, Vol. **12**, p. 943 (2012).
9. Size-induced ferromagnetism and metallicity in $Nd_{0.5}Sr_{0.5}MnO_3$ nanoparticles: A neutron diffraction study, **S. Kundu**, A. Das, T. K. Nath and A. K. Nigam, **Journal of Magnetism and Magnetic Materials**, Vol. **324**, p. 823 (2011).
10. Evidence of electronic phase arrest and glassy ferromagnetic behaviour in $(Nd_{0.4}Gd_{0.3})Sr_{0.3}MnO_3$ manganite; Comparative study between bulk and nanometric samples, **S. Kundu** and T. K. Nath, **Journal of Physics: Condensed Matter**, Vol. **23**, p. 356001 (2011).
11. Size-induced metallic state in nanoparticles of ferromagnetic insulating $Nd_{0.8}Sr_{0.2}MnO_3$, **S. Kundu** and T. K. Nath, **Journal of Physics: Condensed Matter**, Vol. **22**, p. 506002 (2010).
12. Probing the magnetic state by linear and non-linear ac magnetic susceptibility measurements in under-doped manganite $Nd_{0.8}Sr_{0.2}MnO_3$, **S. Kundu** and T. K. Nath, **Journal of Magnetism and Magnetic Materials**, Vol. **322**, p. 2408 (2010).
13. Magnetic, Electronic- and Magneto-Transport Properties of Nanocrystalline $Nd_{0.6}Sr_{0.4}MnO_3$ Manganite, **S. Kundu** and T. K. Nath **Advanced Materials Research**, Vol. **67**, p. 131 (2009).

List of Books/Book Chapters

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Seminars/Conferences Proceeding Abstracts

1. An automated homemade low cost vibrating sample Magnetometer, **S. Kundu** and T. K. Nath, ***AIP conference proceedings***, Vol. **1349**, p. 453 (2011).
2. Emergence of ferromagnetism in nanoparticles of antiferromagnetic $\text{Nd}_{0.4}\text{Sr}_{0.6}\text{MnO}_3$, **S. Kundu** and T. K. Nath, ***AIP conference proceedings***, Vol. **1276**, p. 350 (2010).
3. Emergence of ferromagnetism in nanoparticles of antiferromagnetic $\text{Sm}_{0.5}\text{Ca}_{0.5}\text{MnO}_3$ and $\text{Nd}_{0.4}\text{Sr}_{0.6}\text{MnO}_3$, **S. Kundu**, S. K. Giri and T. K. Nath, ***Abstract book of International Conference on Nanomaterials and Nanotechnology (NANO-2010)***, page no. 91, edited by V. Rajendran et al., Macmillan Publishers India Ltd., ISBN: 023-033-206-4.
4. Effect of size reduction on the charge ordering of $\text{Nd}_{0.5}\text{Sr}_{0.5}\text{MnO}_3$, **S. Kundu**, T. K. Nath, A. Taraphder, A. K. Nigam, Abstract book of **National Conference on Recent Advances in Correlated Electron Systems**, IIT Guwahati, India (2010).
5. Emergence of ferromagnetism in nanoparticles of antiferromagnetic $\text{Nd}_{0.4}\text{Sr}_{0.6}\text{MnO}_3$, **S. Kundu** and T. K. Nath, ICANN -2009, IIT Guwahati, India (2009) (Awarded best poster presentation).
6. Effect of Gd doping on transport and magnetic properties of $\text{La}_{0.7-x}\text{Gd}_x\text{Sr}_{0.3}\text{MnO}_3$ ($x=0.1, 0.2, 0.3$) nanoparticles, **S. Kundu**, P. Dey, and T. K. Nath, Proceedings of **52nd DAE Solid State Physics Symposium**, Mysore University, India (2007).

National/International Seminar/Conferences/Workshops Attended

1. National seminar on Human rights: Challenges and Responsibilities, Saldiha College, Saldiha, Bankura, India (2015).
2. Two-day international seminar on Recent Trends on Histro-Geographic Approaches of South - Asian Environment, Saldiha College, Saldiha, Bankura. (2015).
3. International conference on Magnetic Materials and Applications, IIT Guwahati, India (2013).
4. 6th India Singapore Joint Physics Symposium on Physics of Advanced Materials, Indian Institute of Technology, Kharagpur, India (2013).

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5. Advanced School on High Resolution X-Ray Techniques Atomic Force Microscopy and their Applications (XRDSNB-11), S N Bose National Centre for Basic Science, Kolkata, India **(2011)**.
6. International Conference on Theoretical and Applied Physics, Indian Institute of Technology, Kharagpur, Kharagpur-721302, India **(2011)**.
7. National School cum Workshop on Magnetic Phase Transitions and Transformations, Jadavpur University, Kolkata, India **(2011)**.
8. Internatinal conference on Fundamental and Applications of Nanoscience and Technology, Jadavpur University, Kolkata, India **(2010)**.
9. 55th DAE SSPS2010, Manipal University, Manipal, Karnataka, India **(2010)**.
10. Theme Symposium on New Generation Composites and Hybrid Materials: Concepts to applications, Organized by MRSI Kolkata Chapter, Saha Institute of Nuclear Physics, India **(2009)**.
11. National Seminar on Advanced Nanomaterials and applications, Jadavpur University, Kollkata, India **(2008)**.
12. International Conferences on Nanomaterials and Devices: Processing and Applications (NADPA 2008), IIT Roorkie, India **(2008)**.

International & National links for Teaching & Research

Member of Professional Bodies

Agency/Organisation	Type	Since	Membership ID
Magnetics Society of India (MSI)	Life Member	—	—

Faculty Development Courses or Programmes Attended

Sl. No.	Course	Sponsoring Agency	Institutions	Period/Date

Extracurricular Activities

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1. Worked as Lecturer (on contract) in the Department of Physics, Rajiv Gandhi University of Knowledge Technologies, Nuzvid Campus, Andhra Pradesh (From 08.08.2012 to 26.06.2015).

Other Academic Activities

1. Acted as reviewer of peer reviewed journal, "Current Applied Physics", Elsevier.
2. Acted as reviewer of peer reviewed journals of Elsevier.
3. Acting as member of different sub-committees of our college.

