

Name	DR. SUNITA MOHANTY
Designation	Lecturer in Physics
Education Qualification	M.Sc., Ph. D.
Year of Passing M. Phil	
Year of Award Ph.D.	
Special Paper in P.G.	Experimental Condensed Matter Physics
Date of Birth	03.03.1985
Mob. No.	9777089319
Date of Joining in Govt. Service	25.07.2014
Research Publication in Journals	10
Books	NIL
Research Projects ongoing and completed	NIL
Refresher / Orientation Programmes Participated	NIL
Seminar / Workshop / Conference attended	<ol style="list-style-type: none"> <li>1. Magnetic Properties of <math>Zn_{1-x}M_xO</math> (M Mn, Co) Diluted Magnetic Semiconductors. <b>S. Mohanty</b>, K. Manna and S. Ravi <i>Proceeding/Poster DAE solid state symposium, Dec. 2008, Mumbai</i></li> <li>2. Room Temperature Ferromagnetism in Bulk <math>Sn_{0.95}Mn_{0.05}O_2</math> (M = Co, Ni) based Diluted Magnetic Semiconductors. <b>Sunita Mohanty</b> and S.Ravi <i>Oral presentation on Homi Bhabha Centenary DAE-BRNS National Conference on Spintronics and Magnetoelectronics Materials, Jan.08-09, 2009, Tosali Sands, Puri.</i></li> <li>3. Magnetic Properties of Co-doped <math>SnO_2</math> Diluted Magnetic Semiconductors <b>Sunita Mohanty</b> and S.Ravi <i>Oral presentation on PANE Conference-2009, Tripura</i></li> <li>4. Effect of Sb doping in <math>(Sn_{0.95}Fe_{0.05})O_2</math> based diluted magnetic Semiconductors <b>Sunita Mohanty</b>, P.Nath and S.Ravi <i>Proceeding/ Poster presentation in 54<sup>th</sup> DAE</i></li> </ol>

*solid state symposium proceedings, Dec. 2009, Baroda.*

5. Room Temperature Ferromagnetism in Ni-doped SnO<sub>2</sub> based Diluted Magnetic Semiconductor.  
**Sunita Mohanty** and S.Ravi  
*Poster Presentation in Discussion meeting on Statistical and Condensed matter physics, IIT Guwahati (Oct- 2009) (Best Poster Award)*
6. Structural and Magnetic Properties of Nanocrystalline Sn<sub>0.98</sub>Co<sub>0.02</sub>O<sub>2</sub> under different Annealing conditions. **Sunita Mohanty** and S. Ravi  
*Poster Presentation International Conference on Advanced Nanomaterials and Nanotechnology, IITGuwahati (Dec-2009)*
7. Effect of Metal doping on the formation of bound magnetic polaron in Transition metal-doped SnO<sub>2</sub>. **Sunita Mohanty**, P.Nath and S.Ravi  
*Poster presentation in "Recent Advances in Correlated Electron Systems" IITGuwahati (Jan-2010) Spintronics and Diluted Magnetic Semiconductors*
8. S.Ravi and **Sunita Mohanty**  
*Invited Talk in National Conference on Advanced Materials, Tamilnadu, (Aug-2010)*
9. Giant magnetic moment in mechanically milled Sn<sub>1-x</sub>Co<sub>x</sub>O<sub>2</sub> compounds  
**Sunita Mohanty** and S. Ravi  
*Poster presentation in Current Trends in Condensed Matter Physics, Orissa, (Dec-15)*
10. Ferromagnetism in mechanically milled Sn<sub>1-x</sub>Co<sub>x</sub>O<sub>2</sub> (x=0 to 0.10) compounds  
**Sunita Mohanty** and S.Ravi  
*Oral presentation in IEEE International Magnetism Conference, Taipei, Taiwan, April-25-29,2011*
11. Magnetic Properties of Nanocrystalline SnO<sub>2</sub> prepared by mechanical synthesis  
**Sunita Mohanty**, M.Kar and S.Ravi ,  
ICANN-2011, Guwahati.

## Manuscript published

- 1) "Critical Behavior of Ferromagnetic Transition in SnO<sub>2</sub> based Diluted Magnetic Semiconductor" **Sunita Mohanty** and S. Ravi: (accepted for publication in *Journal of Superconductivity and Novel Magnetism*).
- 2) "Ferromagnetism in mechanically milled Sn<sub>1-x</sub>Co<sub>x</sub>O<sub>2</sub> (x=0 to 0.10) compounds" **Sunita Mohanty** and S.Ravi: *Journal of Superconductivity and Novel Magnetism*, **25** (2012), 1017
- 3) "Structural and Magnetic Properties of Nanocrystalline Sn<sub>0.98</sub>Co<sub>0.02</sub>O<sub>2</sub> under different Annealing conditions" **Sunita Mohanty**, S.Ravi, H.S. Jena and V. Manivannan: *International Journal of Nanoscience*, **10** (2011), 313-317.
- 4) "Ferromagnetism and Bound Magnetic Polaron Behavior in (In<sub>1-x</sub>Co<sub>x</sub>)<sub>2</sub>O<sub>3</sub>" T. Bora, B. Samantaray, **S. Mohanty** and S. Ravi: *IEEE Transaction in Magnetics*, **47** (2011), 10.
- 5) "Ferromagnetism and bound magnetic polaron behavior in bulk Sn<sub>1-x</sub>Co<sub>x</sub>O<sub>2</sub>" **Sunita Mohanty** and **S. Ravi**: *Solid State Communications*, **150** (2010) **739**.
- 6) "Magnetic Properties of Co doped SnO<sub>2</sub> Diluted Magnetic Semiconductors" **Sunita Mohanty** and **S. Ravi**: *Indian J. Phys.* **84** (2010), 735-739.
- 7) "Magnetic Properties of Sn<sub>1-x</sub> Ni<sub>x</sub>O<sub>2</sub> based diluted magnetic semiconductors" **Sunita Mohanty** and **S. Ravi**: *Solid State Communications*, **150** (2010) 1570-1574.
- 8) "Structural, electrical and magnetic properties of Co and Fe co-doped ZnO nanoparticles prepared by solution combustion method." M.L. Dinesha, H.S. Jayanna, **S. Mohanty** and **S. Ravi**: *Journal alloys and compounds*, **490** (2010) 618-623 .
- 9) "Neutron Powder Diffraction Studies in LaMn<sub>1-x</sub>Cu<sub>x</sub>O<sub>3</sub> (x=0.05,0.10and 0.15)" B. Samantaray,S. K. Srivastava, **S. Mohanty** and **S. Ravi**, I. Dhiman and A.Das: *Journal of Applied Physics*, **107** (2010), 09D719.
- 10) "Magnetic Properties of Nanocrystalline SnO<sub>2</sub> Prepared by Mechanical Alloying" **Sunita Mohanty**, M.Kar, S. Ravi: *International Journal of Modern Physics B*, **27** (2013) 1350025

## School Attended:

Attended Homi Bhabha Centenary DAE-BRNS HRI School on Spintronics and Magnetolectronics Material and Devices, Jan 5-7, 2009, Toshali Sand, Puri.