Curriculum Vitae

Dr. Rahul Das

Assistant Professor
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➢ *CAREER:*

- ✓ Assistant Professor at Department of Physics, A. B .N. Seal College, Cooch Behar, India (3rd March 2015 – 20th December 2016).

- ✓ Assistant Professor at Department of Physics, The University of Burdwan, Bardhaman, India (21st December 2016 - Present).

➢ *EDUCATIONAL QUALIFICATIONS:*

- ✓ Bachelor of Science from Dinhata College, University of North Bengal, India (2004).

- ✓ Master of Science from Dept. of Physics & Meteorology, IIT Kharagpur, India (2006).

- ✓ Ph.D from Dept. of Physics, IIT Guwahati, India (2014).

  Thesis Title: "Study of phase transitions and magneto-caloric effect in Ni-Mn-X (X = Ga, Sn, In) ferromagnetic shape memory alloys"

  Thesis Supervisor: Prof. A. Srinivasan & Prof. A. Perumal

➢ *ADDITIONAL QUALIFICATIONS/ AWARDS/ ACHIEVEMENTS:*

- ✓ **JAM :** 2004.
- ✓ **NET:** June 2009 (LS), December 2009 (JRF) & June 2011 (JRF).
- ✓ **GATE :** 2007,2008, 2009, 2010.
- ✓ **JRF in IIT Guwahati:** 2008.
- ✓ **SRF in IIT Guwahati:** 2010.
- ✓ **WBSSC:** 2006 (PGT), 2011(PGT).
- ✓ **WBPSC:** 2013 (PGT), 2014 (Assistant Professor)
- ✓ **WBCSC:** 2012, 2015.
- ✓ **UPSC:** Meteorologist Grade-II (2015).
- ✓ **Peer Reviewer:** Journal of Alloys and Compounds.

➢ *RESEARCH AND PUBLICATIONS:*

Research Interest:-

Condensed Matter Physics (Experimental); Metallic Alloys, Shape Memory Alloys, Magnetocaloric Effects.

Publication in Journals:-

1. Effect of Co and Cu substitution on the magnetic entropy change in $Ni_{46}Mn_{43}Sn_{11}$ alloy, ***Rahul Das***, S. Sarma, A. Perumal and A. Srinivasan, *J. Appl. Phys*. **109** (2011) 07A901 **[ISSN 0021-8979]**.

2. Evaluation of Ni-Mn-In-Si alloys for magnetic refrigerant application, ***Rahul Das***, A. Perumal and A. Srinivasan, *IEEE Trans. Magn.* **47** (2011) 2463 **[ISSN 0018-9464]**.

3. Effect of particle size on the magneto-caloric properties of $Ni_{51}Mn_{34}In_{14}Si_1$ alloy, ***Rahul Das***, A. Perumal and A. Srinivasan, *J. Alloys. Compd.* **572** (2013) 192 **[ISSN 0925-8388]**.

4. Influence of solidification rate and heat treatment on magnetic refrigerant properties of melt spun $Ni_{51}Mn_{34}In_{14}Si_1$ ribbons, ***Rahul Das***, P. Saravanan, D. Arvindha Babu, A. Perumal, A. Srinivasan, *J. Magn. Magn. Mater*. **344** (2013) 152 **[ISSN 0304-8853]**.

5. Magnetic properties of Ge substituted Ru_2FeSi alloys, Bhargab Deka, ***Rahul Das*** and A. Srinivasan, *J. Magn. Magn. Mater*. **347**(2013)101 **[ISSN 0304-8853]**.

6. Estimation of entropy change at the first order martensitic transition in Ni-Mn-X based ferromagnetic shape memory alloys, ***Rahul Das***, A. Perumal and A. Srinivasan, *Physica B* **448** (2014) 327 **[ISSN: 0921-4526]**.

7. Critical behaviour and magnetic entropy change at magnetic phase transitions in Ni50Mn35In14Si1 ferromagnetic shape memory alloy, ***Rahul Das***, A. Perumal and A. Srinivasan, *EuroPhys. Lett.* **108** (2014) 66004 **[ISSN 1286 - 4854]**.

Publications in Proceedings:-

1. Room temperature magnetocaloric effect in Co substituted Ni-Mn-Sn alloy, *Proc*. NABSET. **1** (2010) 3 [**ISBN: 978-93-80408-71-2**].

2. Enhanced magnetocaloric effect in cobalt substituted Ni-Mn-Ga alloys, **Rahul Das**, S. Sarma, A. Perumal and A. Srinivasan, *AIP Conf. Proc.* **1347** (2011) 107 [**ISSN: 0094-243X**].

3. Magnetic refrigerant properties of $Ni_{50}Mn_{37-x}Fe_xSn_{13}$ alloy at low magnetic fields, **Rahul Das**, A. Perumal and A. Srinivasan, *AIP Conf. Proc.* **1447** (2012) 1173 [**ISSN: 0094-243X**].

4. Estimation of latent heat and entropy changes at the first order structural transition in $Ni_{55}Mn_{21-x}Ga_{24+x}$ alloys, **Rahul Das**, A. Perumal and A. Srinivasan, *Proc*. PFAM-XXI, **1** (2012) 52 [**ISBN: 978-93-82332-15-2**].

5. Tailoring the magnetocaloric properties of $Ni_{51}Mn_{34}In_{15}$ alloy by Ge and Si substitution for In, ***Rahul Das***, A. Perumal and A. Srinivasan, *Phys. Express* **3** (2013) 13 **[ISSN 2231 - 0002]**.

6. Variations in structural and magnetic phase transitions of Ni-Mn-In-Si alloy with change in Ni/Mn ratio, ***Rahul Das***, S. Sarma, B. Deka, A. Perumal and A. Srinivasan, *Phys. Express* **4** (2014) 7 **[ISSN 2231 - 0002]**.

7. Structural and thermal properties of Cu and Co substituted $Ni_{46}Mn_{43}Sn_{11}$ ferromagnetic shape memory alloys, ***Rahul Das***, *B. N. Seal J. Sci.* **8-2** (2016) 38 **[ISSN 0975-5624]**.