CURRICULUM VITAE

Name : Dr. PRASANNA A. A.

Address : Associate Professor of Physics
Malnad College of Engineering
Hassan

Education : M.Sc., Ph. D.

Ph. D Obtained from IIT Kharagpur (July 2009 – Feb. 2014)

Title of the Ph.D. thesis : Magnetostructural transitions, magnetocalory and magnetoresistance in Heusler Ni-Mn-Sn alloys of granular nanostructure

Post Graduation M. Sc. in Physics from University of Mysore, Mysore, Karnataka.

Year of passing : 1996

Under Graduation B. Sc. with Physics, Electronics, and Mathematics as major subjects from University of Mysore, Mysore, Karnataka.

Year of passing : 1994

Teaching Experience 27 years

Present Designation Associate Professor

Subjects taught Engineering Physics of VTU and MCE Autonomous curricula for B. E. courses

Research Details :

***Ph. D. Scholar* (Regular)** Materials Science Centre, IIT Kharagpur

Date of admission 22.07.2009

Date of Viva 18.2.2014

Broad area Nanostructured Ni-Mn based Heusler alloys

Publications :

International Journals 18 (Impact Factor up to 3.7)

Conferences 21 [15 (International) + 6 (National)]

Short term courses/seminars 12

Professional Memberships (Life member)

1. Indian Society for Technical Education, New Delhi
2. Society for Materials Chemistry, BARC, India

Awards

1. Best poster presentation in Research Scholars Day (held on 29 Dec.2010, IIT Kharagpur).
2. Best oral presentation in International Conference on Nanoscience, Engineering, and Technology (held during Nov. 28-30, 2011, Sathyabama University, Chennai, India).

LIST OF PUBLICATIONS

Sl. No.	Year	Articles	Title of the paper
	Journal articles (Impact Factor up to 3.7)		
1	2023	Journal of Materials Research, Online First Article, July, 2023	Superparamagnetic and spin glass characteristics with Griffiths phase in Ni50Mn30−xFexSn20−ySby ($1 \leq x \leq 4$ and $2 \leq y \leq 8$) Heusler alloys
2	**2023**	Journal of Materials Research, Volume 38 Issue 8 April 2023 **ISSN** 2044-5326	Near Room Temperature Martensitic transition in Ductile $Ni_{50}Mn_{30-x}Fe_xSn_{20-y}Sb_y$ ($1 \leq x \leq 4$ and $2 \leq y \leq 8$) Heusler alloys
3	**2023**	Journal of Composite Science, Vol. 7, 1 and pp.1-15, ISSN 2504-477X	Martensitic Transformation and Magnetic Properties of Ni-Mn Quinary Heusler Alloy
4	**2023**	Journal of Composite Science, Vol.7,5 and pp. 1-14, ISSN 2504-477X	Investigation on Magnetization, Magnetocalory, Magnetoresistance, and Electric Properties of Ni-Mn Based Heusler Alloy
5	**2022**	*Engineered Science*, **17**, pp. 303-308, ISSN 2576988X, 25769898	Microstructure and Mechanical Properties of Annealed Quinary Ni-Mn-Sn-Fe-In Heusler Alloy
6	**2022**	*Manufacturing Review*, 9, 4, pp. 1-5, ISSN 22654224	Vickers micro-hardness variation during change in concentration of constituent elements in $Ni_{50-x}Fe_xMn_{30}Sn_{20-y}In_y$, Heusler alloys,
7	**2021**	Journal of Physics: Conference Series, 2070, 012231, ISSN 1742-6588 (print) 1742-6596 (web)	Martensitic transformation behavior and structural characteristics of annealed Ni-Mn-Sn-Fe-In Heusler alloy
8	**2021**	Advances in Sustainability Science and Technology, Springer Nature, pp. 155,	Magnetoelastic Transition in Energy

		ISSN 2662-6829 ISSN 2662-6837 (electronic) ISBN 978-981-16-1118-6 ISBN 978-981-16-1119-3 (eBook)	Efficient Magnetic Refrigerant $Ni_{50}Mn_{32}Sn_{18}$ Heusler Alloy
9	**2020**	International Journal of Mechanical and Production Engineering Research and Development, Vol. 10, Issue 4, 29–46, ISSN (P): 2249–6890; ISSN (E): 2249–8001	Analysis on magnetocaloric and structural properties of Heusler alloys used in magnetic refrigeration
10	2013	*Science and Technology of Advanced Materials*, Vol. 14, pp.015004(13).	Local strains, calorimetry, and magnetoresistance in adaptive martensite transition in multiple nanostrips of $Ni_{39+x}Mn_{50}Sn_{11-x}$($x\leq2$) alloys
11	2013	*Journal of Nanoscience and Nanotechnology*, Vol. 13, pp. 5351-5359.	Consecutive magnetic and magnetocaloric transitions in a Heusler $Mn_{50}Ni_{41}Sn_9$ alloy of herringbone nanostructure
12	2013	*Advanced Nanomaterials and Nanotechnology*, Springer Proceedings in Physics, 143, pp. 441-448	Herringbone nanostructure and thermal properties in martensite transition in ferromagnetic $N_{i39+x}M_{n50}S_{n11-x}$ Heusler alloys
13	2012	*Journal of Emerging Trends in Engineering and Applied Sciences*, Vol. 3, pp. 601-607	Attenuating large magneto-entropy, heat-capacity and adiabatic temperature change in Heusler $Ni_{41-x}Mn_{50}Sn_{9+x}$($x\leq1.5$) alloys
14	2011	*American Institute of Physics: Conference Proceedings*, Vol. 1447, pp. 980-981.	Giant Hall resistivity at low magnetic fields in nanocrystalline $Ni_{50}Mn_{32}Sn_{18}$ Heusler alloy
15	2011	*IEEE Xplore*, ISBN: 978-1-4673-0072-8, pp. 424-427.	Effect of crystallite size on Vickers microhardness in nanostructured Heusler $Ni_{39+x}Mn_{50}Sn_{11-x}$ ($x\leq2$) alloys,
16	2011	*Functional Materials*, Ed. Jayakumar, S. Vaideki, K. and Balaji,	Large adiabatic temperature change in magnetoelastic

		R. (2011), McMillan Publishers Ltd: New Delhi. ISBN: 978-935-059-046-1, pp.195-198.	transition in nanocrystallites of Heusler $Ni_{50}Mn_{32}Sn_{18}$ alloy
	Conference presentations		
1	2012	99th Indian Science Congress (held during Jan. 3-7, 2012, at Bubaneswar, India), MSP-54.	Nanostructured Heusler $Ni_{50}Mn_{25+x}Sn_{25-x}$ ($7 \leq x \leq 12$) alloys a potential magnetic coolant with structural magnetic transitions
2	2011	56th DAE-Solid State Physics Symposium (held during Dec. 19-23, 2011, at SRM University, Chennai, India), P-225, I-15	Giant Hall resistivity at low magnetic fields in nanocrystalline $Ni_{50}Mn_{32}Sn_{18}$ Heusler alloy,
3	2011	International Conference on Advanced Materials (held during Dec. 12-16, 2011, at PSG College of Technology, Coimbatore, India), G020, pp. 155.	Large adiabatic temperature change in magnetoelastic transition in nanocrystallites of Heusler $Ni_{50}Mn_{32}Sn_{18}$ alloy
4	2011	International Conference on Advances in Materials and Materials Processing (held during Dec. 9-11, 2011, at IIT Kharagpur, West Bengal, India), pp. 195	Coexistence of martensite and austenite states in a Heusler $Ni_{39+x}Mn_{50}Sn_{11-x}$ ($x \leq 2$) alloy of nanolaminates,
5	2011	International Conference on Advanced Nanomaterials and Nanotechnology (held during Dec. 8-10, 2011, at IIT Guwahati, Assam, India), pp. 393.	Irreversible caloric transitions in Heusler Ni-Mn-Sn alloys of granular nanostructure
6	2011	International Conference on Theoretical and Applied physics (held during Dec. 1-2, 2011, at IIT Kharagpur, West Bengal, India), p.146	Effect of residual local strains on functional properties in a granular nanostructure in Heusler $Ni_{39+x}Mn_{50}Sn_{11-x}$ ($x \leq 2$) alloys
7	2011	International Conference on Nanoscience, Engineering, and Technology (held during Nov. 28-30, 2011, at Sathyabama University,	Effect of crystallite size on Vickers microhardness in nanostructured Heusler $Ni_{39+x}Mn_{50}Sn_{11-x}$ ($x \leq 2$) alloys

		Chennai, India), pp.492.	
8	2011	National Conference cum Workshop on Recent Developments in Engineering Materials (held during May 12–14, 2011, at Birla Institute of Technology, Mesra, Ranchi, India), OP1, pp. 10.	Magnetic field dependence of martensite transition and magnetocalory in Heusler $Ni_{50}Mn_{32}Sn_{18}$ alloy
9	2011	National Conference on Sensors & Actuators: Science to Technology (held during March 11–12, 2011, at CGCRI, Kolkata, West Bengal, India), P46, pp. 92	Heusler $Ni_{50}Mn_{32}Sn_{18}$ alloy; a potential magnetic sensing material,
10	2011	National Conference on Magnetic Materials and Applications (held during Jan. 24-25, 2011, at S. N. Bose National Centre for Basic Sciences, Kolkata, India), PP32, pp. 121.	Successive phase transitions and inverse magnetocalory in $Ni_{41-x}Mn_{50}Sn_{9+x}$ Heusler alloys,
11	2010	International Symposium on Materials Chemistry (held during Dec. 7-11, 2010, at Bhabha Atomic Research Centre, Mumbai, India), F-11, pp. 255.	Ferromagnetism in austenite and martensite states in a new $Ni_{40.5}Mn_{50}Sn_{9.5}$ Heusler alloy of nanocrystallites,
12	2010	International Conference on Fundamental and Applications of Nanoscience and Technology (held during Dec. 9-11, 2010, at Jadhavpur University, Kolkata, West Bengal, India), P28, pp.154	Magnetoresistance in Ni-Mn-Sn nanocrystalline Heusler alloys,
13	2010	International Conference on Multifunctional Materials (held during Dec. 6-9, 2010, at Department of Physics, Banaras Hindu University, Utter Pradesh, India), PP110, pp. 230	Anomalous electrical and magnetotransport properties in Ni-Mn-Sn Heusler alloys,
14	2010	National Seminar on Ferroelectrics and Dielectrics-XVI (held during Dec. 2-4, 2010, at Guru Ghasidas	Heusler $Ni_{50}Mn_{50-x}Sn_x$ alloys a possible multiferroic material,

		University, Bilaspur, Chattisgarh, India), P34, pp. 65.	
15	2010	International Conference on Advanced Materials, Manufacturing, Management and Thermal Sciences (held during Nov. 18-19, 2010	Magnetoresistance in ferromagnetic Ni-Mn-In Heusler alloys"
16	2010	National Metallurgists' Day-Annual Technical Meeting (held during Nov. 14-16, 2010, at Indian Institute of Science, Bangalore, India), P1.45, pp. 29.	Martensite transformation in $Ni_{40.5}Mn_{50}Sn_{9.5}$ nanocrystallites,
17	2010	International Conference on Nanomaterials (held during Apr. 27-29, 2010, at Mahatma Gandhi University, Kottayam, Kerala, India), IL86, pp. 80.	Anomalous change in electrical resistivity in martensite to austenite transition in Ni_2MnSn nanocrystallites of Heusler alloys