

CURRICULUM VITAE



Dr. Swati Pandya

Assistant Professor

Department of Physics

Sardar Patel University, Vallabh Vidyanagar

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Date of Joining : 15th July 2016

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Area of Research : Experimental Condensed Matter Physics.

Teaching and Research Experience

Name of Organizations	Designation	Nature of Work	Period
Department of Physics, S P University, V VNagar	Assistant Professor	Teaching- Research	July 2016- till date
BITS edu campus,GTU,Vadodara	Assistant Professor	Teaching- Research	June 2013-May 2015
TIFR,Mumbai	Visiting Scientist	Research	November 2012- May 2013
TIFR,Mumbai	Visiting Fellow	Research	June 2011 – October 2012
UGC-DAE CSR ,Indore	CSIR- Senior Research Fellow	Research	April 2009 - March 2011
UGC-DAE CSR ,Indore	Scientific Assistant (DST Sponsored project)	Research	June 2005 – March 2009

Academic Details:

Name of the Degree	Board/ Institute/University	Year of passing	Subjects studied
Ph.D [#]	UGC-DAE Consortium for Scientific Research, Indore,(M.P)	Dec2007- July2012	Experimetal Condensed Matter Physics
M.Sc ^{\$}	S .P. University , Vallabh Vidhya Nagar (Gujarat)	April 2004	Solid State Physics
B.Sc [*]	Bhavnagar University, Bhavanagar (Gujarat)	April 2002	Physics

Title of Research topic “**Transport and Thermal studies on systems of novel ground states**” Under the supervision of Dr V Ganesan (Scientist H) , Head of Low temperature Laboratory, UGC-DAE Consortium for Scientific Research, Indore.

\$ Stand First among the Successful candidate of M.Sc (Solid State Physics) Examination.

* Stand University First among the Successful candidate of B.Sc Examination. (Gold Medalist)

Awards and Fellowship

1. Gold Medal for University first rank in B.Sc., (April-2002)
2. Summer School Programme fellowship for period 2nd June 2003 to 11th July , 2003 at Institute for Plasma Research , Gandhinagar
3. International travel award from DST , India (August-2008) to attend LT25 held at Amsterdam , The Netherland
4. Meritorious CSIR – Senior Research Fellowship for period April 2009 to March 2011.
5. International travel award from CSIR, India (January-2010) to attend Intermag-2010 held at Washington, US.

Abroad Visit

1. Visit of Low temperature laboratory of Heike Kamerlingh Onnes at Leiden University, Netherland during August 2008
2. Attended International Low Temperature conference held in Amsterdam, Netherland during August 2008
3. Attended Joint MMM-Intermag international conference held in Washington, US during January 2010

4. Attended 15 days training program on Scanning probe microscopy at Nano-Magnetics R & D Centre , Ankara, Turkey during September 2011

5. Visit of international beam line for MuSR experiment at ISIS, Rutherford Appleton Laboratory, UK during September 2012

Funded Research Project

Principal Investigator for a sponsored research project entitled “Preparation and Characterizations of Sandwich Nanostructures of TCO/Metal/TCO”

Project Duration: 2018-2020, Project scheme: UGC-BSR Start up grant

Amount : Rs. 10 lacs, Funded by: UGC, New Delhi .

LIST OF PUBLICATIONS

International Journals

- 1) Effect of nano-inclusions of RE-211 (RE= Y, Nd, Sm, Gd) on critical current density in high Tc $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ (123)
Nitu Katariya, LS Sharath Chandra, Swati Pandya, Bhavana Singh, SB Shrivastava, V Ganesan, AIP Conference Proceedings (2020), Vol -2220 ,issue 1, page 110013
- 2) Influence of Bi substitution on structural, optical and photoluminescence behaviour of Sb_2S_3 nanoparticles
Krishna Chauhan, MP Deshpande, Kiran N Patel, Piyush Rajput, Hiteshkumar R Bhoi, SH Chaki, Swati Pandya.
Materials Chemistry and Physics (2020) Vol - 240, 122276.
- 3) Effect of light and heavy rare earth mixing on the properties of $\text{Nd}_{1-x}\text{Gd}_x\text{Co}_2$, Swati Pandya, L.S. Sharath Chandra and V. Ganesan, J. Phys. D: Appl. Phys. 51 (2018), ISSN: 1361-6463, (Impact factor: 2.373)
- 4) Structural, morphological and vibrational properties of Bi substituted Sb_2S_3 nanoparticles, Krishna Chauhan, M P Deshpande, Kiran N Patel, S H Chaki and Swati Pandya, Mater. Res. Express 5 (2018) 105005, ISSN: 2053-1591 (Impact factor: 1.151)
- 5) Effect of Mn doping concentration on structural, vibrational and magnetic properties of NiO nanoparticles, Kiran N Patel , M P Deshpande, Krishna Chauhan, Piyush Rajput, Vivek P Gujarati, Swati Pandya, Vasant Sathe, S H Chaki, Advanced Powder Technology 29 (2018) 2394 – 2403, ISBN: , ISSN:0921-8831, (Impact factor: 2.943)
- 6) Structural and optical analysis of Fe doped NiO nanoparticles synthesized by chemical precipitation route, Kiran N Patel , M P Deshpande, Vivek P.Gujarati,

Swati Pandya , Vasant Sathe, and S H Chaki ,Materials Research Bulletin 106
(2018) 187-196, ISSN: 0025-5408 , (Impact factor: 2.873)

- 7) Synthesis, structural and photoluminescence properties of nano-crystalline Cu doped NiO
Kiran N Patel , M P Deshpande, Krishna Chauhan, Piyush Rajput, Vasant Sathe, Swati Pandya and S H Chaki , Mater. Res. Express 4 (2017) 105027, ISSN: 2053-1591 (Impact factor: 1.151)
- 8) Study of the sign change of exchange bias across the spin reorientation transition in $\text{Co}(\text{Cr}_{1-x}\text{Fe}_x)_2\text{O}_4$, Rajender Padam, Swati Pandya, S Ravi, S. Ramakrishnan, Arun Nigam, Arun Grover, Dilip Pal , Journal of Physics: Condensed matter . (2017), 29, 055803, ISSN: 1361-648X, (Impact factor: 2.617)
- 9) Transport studies on $\text{La}_{0.8-x}\text{Pr}_x\text{MnO}_3$ manganite films, P.S. Solanki , R.R. Doshi , Ashish Ravalia , M.J. Keshvani , Swati Pandya , V. Ganesan , N.A. Shah , D.G. Kuberkar, Physica B (2015), 465 ,71-80, ISSN: 0921- 4526, (Impact factor: 1.453)
- 10) Investigation of the thermal properties on $\text{Dy}_5\text{Ge}_2\text{Si}_2$, S. Shanmukharao Samatham, D. Venkateshwarlu, Mohan Gangrade, Swati Pandya and V. Ganesan, Journal of Physics: Conference Series (2014) , 534, 012019, ISSN: 1742-6596, (Impact factor: No)
- 11) XAFS understanding of repeated magnetic compensation in $\text{Nd}_{0.8}\text{Tb}_{0.2}\text{Al}_2$, Deb Dutta Lahiri , Tomohiro Shibata , Soma Chattopadhyay , Nitya Ramanan , Swati Pandya , P D Kulkarni, A Thamizhavel, A K Grover, S Ramakrishnan and Surinder Sharma, Journal of Physics: Conference Series (2013) ,430 ,012106, ISSN: 1742-6596, (Impact factor: No)
- 12) Magnetic compensation effect and phase reversal of exchange bias field across compensation temperature in multiferroic $\text{Co}(\text{Cr}_{0.95}\text{Fe}_{0.05})_2\text{O}_4$,R. Padam, Swati Pandya, S. Ravi, A. K. Nigam, S. Ramakrishnan, A. K. Grover, D. Pal, Appl. Phys. Lett. 2013,102,112412, ISSN: 1077- 3118, (Impact factor: 3.495)
- 13) Quantum magnetoresistance of the PrFeAsO oxypnictide, D. Bhoi, P. Mandal, P. Choudhury, S. Pandya, and V. Ganesan, Appl. Phys. Lett. (2011) 98, 172105, ISSN: 1077- 3118 (Impact factor: 3.495)
- 14) Anisotropic magnetic properties and giant magnetocaloric effect in antiferromagnetic $R\text{MnO}_3$ crystals ($R=\text{Dy}, \text{Tb}, \text{Ho}, \text{and Yb}$), Midya, S. N. Das, P. Mandal, S. Pandya, and V. Ganesan, Phys. Rev. B. (2011) ,84, 235127, ISSN: 2469-9969, (Impact factor: 3.813)

- 15) Fe-spin reorientation in PrFeAsO: Evidences from resistivity and specific heat studies, D. Bhoi, P. Mandal, P. Choudhury, S. Pandya, and V. Ganesan, J. Appl. Phys. (2011), 110, 113722, ISSN: 1089-7550, (Impact factor: 2.176)
- 16) Magnetotransport properties of $\text{FeSe}_{0.9-x}\text{M}_x$ (M= Si,Sb) ,Swati Pandya, Siya Sherif, L.S. Sharath Chandra and V. Ganesan, Supercond. Sci. Technol. (2011), 24, 045011, ISSN: 1361-6668, (Impact factor: 2.861)
- 17) Superconductivity in Sulfur substituted FeTe, Swati Pandya, Siya Sherif, L.S. Sharath Chandra and V. Ganesan, Supercond. Sci. Technol. (2010), 23,075015, ISSN: 1361-6668, (Impact factor: 2.861)
- 18) Low Temperature Heat Capacity of $\text{Y}_{1-x}\text{Nd}_x\text{Co}_2$, Swati Pandya, L.S. Sharath Chandra and V. Ganesan, Solid. State. Commun. (2009), 149, 168-171, ISSN: 0038-1098, (Impact factor: 1.549)
- 19) On the Magneto Structural Transition in NdCo_2 , Swati Pandya, L.S. Sharath Chandra, P.N.Vishwakarma and V. Ganesan J. Phys. Conf. Series (2009) 150, 042160 , ISSN: 1742-6596, (2009) (Impact factor: No)
- 20) Frozen magneto-structural order in Gd_5Ge_4 : A Calorimetric Study , L. S. Sharath Chandra, Swati Pandya, P. N. Vishwakarma, Deepti Jain, and V.Ganesan, Phys. Rev. B. (2009),79, 052402, ISSN: 2469-9969, (Impact factor: 3.813)
- 21) Simple and Precise Thermoelectric Power Measurement Setup for Different Environments , L. S. Sharath Chandra, Archana Lakhani , Deepti Jain , Swati Pandya , P. N. Vishwakarma , Mohan Gangrade and V. Ganesan , Rev. Sci. Instrum. (2008) 79, 103907, ISSN: 1089-7623, (Impact factor: 1.428)
- 22) Transparent and low resistive nanostructured laser ablated tungsten oxide thin films by nitrogen doping: II. Sub strate temperature, K J Lethy, Swati Pandya, D Beena, R Vinodkumar, Vasant Sathe and V. P Mahadevan Pillai, J. Phys.D: App.Phys. (2009) 42 185407 , ISSN: 1361-6463, (Impact factor : 2.373)
- 23) Transport and Magnetotransport studies on sol-gel grown nanostructured $\text{La}_{0.7}\text{Pb}_{0.3}\text{MnO}_3$ manganites , P.S.Solanki, R.R.Doshi, C.M.Thaker, Swati Pandya, V.Ganesan and D.G.Kuberkar , J. Nano. Nanotech. (2009), 9, 1-6, ISSN: 1533- 4899, (Impact factor: 1.354)
- 24) Effect of Molarity of Precursor Solution on Nanocrystalline Zinc Oxide Thin Films, Girjesh Singh, S.B.Shrivastava, Deepti Jain, Swati Pandya and V.Ganesan

Defect and Diffusion Forum (2009), 293, 99, ISSN: 1662-9507 (Impact factor : 0.26)

25) Effect of Indium doping on Zinc oxide films prepared by chemical spray pyrolysis Technique Girjesh Singh, S.B.Shrivastava, Deepti Jain, Swati Pandya, T Shripathi and V.Ganesan, Bull.Mater.Sci, (2010), 33, 5, 581-587, ISSN: 0973-7669, (Impact factor: 0.925)

National Journals

26) Design and Implementation of an Adiabatic Demagnetization set up on a Dilution Refrigerator to Reach Temperature below 100mK, L.S.Sharath Chandra, Deepti Jain, Swati Pandya, P.N.Vishwakarma and V.Ganesan, Indian Journal of Cryogenics, 2009 Vol. 34. No.1-4, 90, ISSN: 2349-2120 (Impact factor: No)

27) Low temperature properties of Gd_5Ge_4 , L.S.Sharath Chandra, Swati Pandya, P.N.Vishwakarma, Deepti Jain and V.Ganesan, Indian Journal of Cryogenics 2008, Vol. 33. No.2-4, 6, ISSN: 2349-2120 , (Impact factor: No)

28) Nano-inclusions of Y-211 in high temperature superconductor YBCO, Nitu Badera, S.B.Srivastava, Swati Pandya, L.S.Sharath Chandra, Deepti Jain and V.Ganesan , Indian Journal of Cryogenics 2008, Vol. 33. No.2-4, 90, ISSN: 2349-2120, (Impact factor: No)

29) Grain growth dependent transport and magnetotransport of nanostructured $La_{0.7}Pb_{0.3}MnO_3$, P.S.Solanki, R.R.Doshi, Swati Pandya, V.Ganesan and D.G.Kuberkar , Indian Journal of Cryogenics 2008, Vol. 33. No.2-4, 28, ISSN: 2349-2120, (Impact factor: No)

30) A novel solution combustion method for the synthesis of CMR material $La_{1-x}Sr_xMnO_3$, S.T.Bendre, P.B.Patil, P.P.Jagtap, Swati Pandya, L.S.Sharath Chandra, Deepti Jain, D.M.Phase and V.Ganesan , Indian Journal of Cryogenics.2008, Vol. 33. No.2-4, 33, ISSN: 2349-2120, (Impact factor: No)

31) Magnetic and electrical transport properties of Ce substituted perovskite oxides $La_{1-x}Ce_x MnO_3$, M.P.Sharma, Anjali Krishnamurthy, Bipin K. Srivastava, Swati Pandya and V.Ganesan , Indian Journal of Cryogenics 2008, Vol. 33. No.2-4, 22, ISSN: 2349-2120, (Impact factor: No)

International and National Conference Papers

32) On the magneto structural transition in $NdCo_2$
Swati Pandya, L.S.Sharath Chandra, P.N.Vishwakarma and V.Ganesan.
25th International Conference on Low Temperature Physics (LT25),

Amsterdam, the Netherlands, August 6-13 (2008)

- 33) Superconductivity in Sulfur substituted FeTe
Swati Pandya, Siya Sherif, L.S. Sharath Chandra and V. Ganesan
11th Joint MMM-Intermag conference, Washington, DC, January 18-22 (2010)
- 34) Dimensionality study on Fe based Superconductors
Swati Pandya, Siya Sherif, L.S. Sharath Chandra and V. Ganesan
International Conference on Quantum Effects in Solids of Today (I-Conquest) NPL, New Delhi (India) December 20-23 (2010)
National Conferences
- 35) Exchange bias and its tuning in magnetic compensated Nd doped ferromagnetic samarium metal, Swati Pandya, S.Ramakrishnan and A.K.Grover
DAE –SSPS (2012), AIP Conf. Proc. 1512, 1168 (2012)
- 36) Exchange bias effect in $\text{Co}(\text{Cr}_{0.925}\text{Fe}_{0.075})_2\text{O}_4$
R. Padam, Swati Pandya, S. Ravi, A. K. Grover and D. Pal
DAE –SSPS (2012), AIP Conf. Proc. 1512, 1112 (2012)
- 37) 2D Lowest Landau Level Scaling in $\text{FeTe}_{0.5}\text{Se}_{0.5}$
Swati Pandya, Siya Sherif, L.S. Sharath Chandra and V. Ganesan
DAE –SSPS (2010), AIP Conf. Proc. 1349, 885 (2011)
- 38) Non-Debye Specific heat of $(\text{NH}_4)_x\text{Rb}_{1-x}\text{Br}$
P.S. Goyal, Swati Pandya, P.D. Babu, R. Rawat and V. Ganesan
DAE –SSPS (2010), AIP Conf. Proc. 1349, 509 (2011)
- 39) Temperature Dependent Photosensitivity of Cu doped CdS Thin Film
Richa Panda, Swati Pandya, Vandana Rathore, Manoj Rathore, Vilas Shelke, Nitu Badera, Deepti Jain, L.S.Sharathchandra, M.Gangrade and V.Ganesan
DAE –SSPS (2010), AIP Conf. Proc. 1349, 267 (2011)
- 40) Possibility Of Non Fermi Liquid States co Exists With Superconductivity in Doubly Filled Skutterudites .
Venkateshwarlu D, Shanmukhrao S, Swati Pandya, L.S.Sharath Chandra, P.N.Vishwakarma, Deepti Jain, Mohan Gangrade and V.Ganesan
DAE –SSPS (2010), AIP Conf. Proc. 1349, 887 (2011)
- 41) Large Relative Cooling Power in Dy_5Si_4 : Dy_5Si_3 Composite
Shanmukhrao S, Venkateshwarlu D, Swati Pandya, Mohan Gangrade
L.S.Sharath Chandra, Deepti Jain, and V.Ganesan
DAE –SSPS (2010), AIP Conf. Proc. 1349, 1231 (2011)
- 42) Heat Capacity and Magnetocaloric Study on $\text{Dy}_5\text{Ge}_3\text{Si}$
Shanmukhrao S, Venkateshwarlu D, Swati Pandya, Mohan Gangrade

L.S.Sharath Chandra, Deepti Jain, and V.Ganesan
DAE –SSPS (2010), AIP Conf. Proc. 1349, 1253 (2011)

- 43) Fluctuation Conductivity in Sulfur substituted FeTe
Swati Pandya, Siya Sherif, L.S. Sharath Chandra and V. Ganesan
DAE –SSPS, 54, 875 (2009)
- 44) Evidence for magnetic correlations in superconducting skutterudites
Swati Pandya, L.S.Sharath Chandra, P.N.Vishwakarma, Deepti Jain, Mohan
Gangrade and V.Ganesan , DAE –SSPS, 54, 799 (2009)
- 45) Effect of Molarity of Precursor solution on Nanocrystalline ZnO films
Girjesh Singh, S.B.Srivastava, Swati Pandya, Deepti Jain and V.Ganesan
DAE –SSPS, 54, 279 (2009)
- 46) Smooth Indium doped Zinc oxide film prepared by chemical spray pyrolysis
technique
Girjesh Singh, S.B.Srivastava, V.G.Sathe, Swati Pandya, Deepti Jain, Mohan
Gangrade and V.Ganesan , DAE –SSPS, 54, 529 (2009)
- 47) Effect of magnetic field on the heat capacity of $Y_{1-x}Nd_xCo_2$
Swati Pandya, L.S. Sharath Chandra and V.Ganesan,
DAE–SSPS, 53, 1129 (2008)
- 48) Design and Implementation of an Adiabatic Demagnetization set up on a
Dilution Refrigerator to Reach Temperature below 100mK
L.S.Sharath Chandra, Deepti Jain, Swati Pandya, P.N.Vishwakarma and
V.Ganesan.
National Symposium on Cryogenic, IISC Bangalore , December (2008).
- 49) Itinerant Spin Fluctuations in a Localized Moment Ferromagnet
Swati Pandya, L.S.Sharath Chandra, P.N.Vishwakarma and V.Ganesan.
DAE –SSPS, 52, 853(2007)
- 50) On the similarities of Kondo Insulators FeSi and FeSb₂
L. S. Sharath Chandra, Mohan Gangrade, Swati Pandya and V. Ganesan
DAE –SSPS, 52, 869 (2007)
- 51) Anomalous behavior in Ge doped CoMnSi
P. N. Vishwakarma, L. S. Sharath Chandra, Swati Pandya and V. Ganesan
DAE –SSPS, 52, 1021 (2007)
- 52) Fermi Liquid State at High Magnetic Fields in Ce₇Ni₃
Swati Pandya, L.S.Sharath Chandra and V.Ganesan ,
DAE–SSPS, 51, 143(2006)
- 53) Double Rare Earth Filling in Skutterdites: Thermopower of Yb_{1-x}Pr_xFe₄Sb₁₂

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DAE –SSPS, 51, 977(2006)

54) Thermoelectric power of Ce_7Ni_3

L. S. Sharath Chandra, Archana Lakhani, Swati Pandya, Mohan Gangrade,
and V. Ganesan , DAE –SSP, 50, 721 (2005)