

**Government Science College, Gandhinagar**

**Staff Profile**

**Personal Details**

Name: Dr. Pooja Uttamprakash Sharma

Date of Birth: 03/01/1981

Qualification: MSc-Physics (Sp: Electronics), PhD-Physics

Designation: Assistant Professor (Physics)

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**Academic Details:**

<b>Degree</b>	<b>Passing year</b>	<b>Board / University</b>	<b>Percentage</b>
<b>S.S.C.</b>	1997	GSEB	76
<b>H.S.C.</b>	1999	GSEB	45
<b>B.Sc.</b>	2002	Hemchandracharya North Gujarat University	67
<b>M.Sc.</b>	2004	Saurashtra University	70
<b>M.Phill</b>		-	-
<b>Ph.D.</b>	2010	Saurashtra University	-
<b>CCC+</b>	2013	SPIPA	75

**Academic Experience:**

- **U.G.**

Date: 01/03/2011 to till date      Total Years: 12 years

- **P.G.**

Date: 19/11/2013 to 05/12/2019      Total Years: 6 years

**University Recognition:**

<b>Degree</b>	<b>University</b>	<b>Recognition Letter number</b>	<b>Recognition Date</b>
<b>U.G.</b>	Gujarat University	NO.ACA/ADHYAPAK/11/9407/2011	21/11/2011
	Hemchandrachary North Gujarat University	NO.ACA/MANYATA/287/1781/2013	20/03/2013
<b>P.G.</b>	Hemchandrachary North Gujarat University	NO.PG/RECOG./26(25)6927/2013	19/11/2013
<b>M.Phil.</b>	-	-	-
<b>Ph.D. (Guide ship)</b> <b>(If Yes No. Of Students:</b> <b>Awarded _____</b> <b>Running _____)</b>	-	-	-

**Orientation/ Refresher**

<b>Sr. No.</b>	<b>Course</b>	<b>Title of the Course</b>	<b>Name of Academic Staff College/Organization</b>	<b>Duration</b>	
				<b>Date</b>	<b>Date</b>
<b>1.</b>	Orientation program	General	Academic Staff College, Gujarat University, Ahmedabad.	30/04/2016	26/06/2016
<b>2.</b>	Refresher course	Nanotechnology	Academic Staff College, Gujarat University, Ahmedabad.	07/11/2016	27/11/2016
<b>3.</b>	Refresher course	Value education	HRDC, Gujarat University, Ahmedabad	04/11/2019	17/11/2019
<b>4.</b>	Refresher course	Quality in Higher Education	HRDC, Gujarat University, Ahmedabad	06/09/2021	19/09/2021
<b>5.</b>	Refresher course	Research Methodology	HRDC, Sardar Patel University, Vallabh Vidyanagar	12/12/2022	25/12/2022

**Publications****Research Articles/Papers**

<b>Sr. No.</b>	<b>Title of the Paper</b>	<b>Name of the Journal</b>	<b>Volume &amp; Issue of the Journal</b>	<b>ISSN of the Journal</b>	<b>State/ National/ International</b>
1.	Elastic constant determination for Fe <sup>3+</sup> substituted YIG through infrared spectroscopy and heterogene	Journal of material science	40(5) (2005) 1247-1249.	0022-2461	International
2.	Ultrasonic studies of aluminium substituted Bi (Pb)-2223 Superconductors	Pramana-Journal of Physics	65(3) (2005) 481-490	0304-4289	International
3.	Study of elastic properties of fine particle copper-zinc ferrite through infrared spectroscopy	Indian journal of pure and applied physics	44(2006) 165-168	0973-1776	International
4.	Study on electrical and dielectric behaviour of Zn-substituted cobalt-ferri-aluminates	Journal of physics: condensed matter	18(2006) 8063-8092	0953-8984	International
5.	Study of electric and dielectric properties of Mn <sup>4+</sup> -substituted cobalt ferrite	Indian Journal of Physics	80(8), (2006) 789-796	0974-9845	International
6.	Elastic properties of gallium substituted Bi (Pb)-2212 superconducting system at 300K	Ceramic International	33(2007) 21-25	0272-8842	International
7.	Mossbauer Studies of Fe <sup>3+</sup> substituted YIG	Ceramic International	33, (2007) 1543-1546	0272-8842	International
8.	Effect of Nickel substitution on structural, infrared and elastic properties of Lithium Ferrite	Indian Journal of Pure and Applied Physics	45, (2007) 596-600	0973-1776	International
9.	Effect of Ag <sup>+</sup> addition on Elastic behaviour of Bi-2212 superconductors	Indian Journal of Pure and Applied Physics	45, (2007) 764-766	0973-1776	International
10.	SHI-Induced ion beam mixing in Y <sup>3+</sup> : YIG revelation through X-ray diffraction and Mossbauer spectrosc	Hyperfine interactions	187,(2008)117-124	1572-9540	International
11.	Effect of Fe <sup>3+</sup> substitution on elastic properties of yttrium iron garnet	Physica scripta	81, (2010) 015601	1402-4896	International

12.	<i>Effect of 50 MeV Li<sup>3+</sup>-ion irradiation on M-H loop characteristics of Y<sup>3+</sup>-substituted YIG</i>	<i>Radiation Effects and Defects in Solids: Incorporating Plasma Science and Plasma</i>	166(8),(2011), 648.	1042-0150	International
13.	<i>Swift Heavy ion irradiation – induced modifications in structural and electrical properties of Y<sup>3+</sup>-substituted yttrium iron garnet. (967-974)</i>	<i>Radiation effects and defects in solids : Incorporating Plasma Science and Plasma</i>	168 (11-12), 967-974,(2013)	1042-0150	International
14.	<i>Permeability spectral analysis and micro-structural parameter determination for yttrium excess polycrystalline yttrium iron garnet (025702)</i>	<i>Physica Scripta</i>	88 (2), 025702,(2013)	0031-8949	International
15.	<i>On the effect of SHI irradiation on dielectric properties of Y<sup>3+</sup> x Fe<sup>5-</sup> x O<sub>12</sub> (x= 0.0–0.6) system(723-739)</i>	<i>Radiation Effects and Defects in Solids : Incorporating Plasma Science and Plasma</i>	169 (8), 723-739 (2014)	1042-0150	International
16.	<i>Pre and post effect of swift heavy ion irradiation on infrared spectral evolution of Y<sup>3+</sup>xFe<sup>5-</sup>xO<sub>12</sub>(x= 0.0–1.0) system (66–72)</i>	<i>International Letters of Chemistry, Physics and Astronomy</i>	44, 66–72 (2015)	2299-3843	International
17.	<i>Effect of mechanical milling induced strain and particle size reduction on some physical properties of polycrystalline yttrium iron garnet (425-436)</i>	<i>Indian Journal of Physics</i>	89 (5), 425-436 2015)	0973-1458	International
18.	<i>On the Relationship Between Structural-Optical Parameters of Y<sup>3-</sup>xFe<sup>5+</sup>xO<sub>12</sub> Garnet Ferrites and the Oxide Additivity Rule (1931–1936)</i>	<i>Journal of Superconductivity and Novel Magnetism</i>	29, Issue 7, pp 1931–1936,(2016)	1557-1939	International
19.	<i>Study on Thermodynamic Properties of Fe<sup>3+</sup>-Substituted Yttrium Iron Garnets (778-784)</i>	<i>Acta Physica Polonica A</i>	130 (3), 778-784(2016)	0587-4246	International
20.	<i>Effect of thermal history on structural, microstructural properties and J–E characteristics of CaCu<sub>3</sub>Ti<sub>4</sub>O<sub>12</sub> polycrystalline ceramic</i>	<i>Materials Chemistry and Physics</i>	212, 343-350, (2018)	0254-0584	International

21.	Structure-substitution limit correlation study on Cr <sup>3+</sup> substituted polycrystalline yttrium iron garnet	AIP Conference Proceedings	1728,(1), 020440,2016	0094- 243X	International
22.	50 MeV, Li <sup>3+</sup> - ion irradiation effect on magnetic ordering of Y <sup>3+</sup> - substituted yttrium iron garnet	AIP Conference Proceedings	1728 (1), 020103,2016	0094- 243X	International
23.	On the Relationship Between Structural-Optical Parameters of Y <sup>3+</sup> -x Fe <sup>5+</sup> x O-12 Garnet Ferrites and the Oxide Additivity Rule (vol 29, pg 1931, 2016)	Journal of Superconductivity and Novel Magnetism	vol 29, pg 1931, 2016)	1557- 1947	International
24.	Study on thermodynamic properties of Fe <sup>3+</sup> -substituted yttrium iron garnets	Acta Physica Polonica (A)	130, 778-784	1898- 794X.	International
25.	50 MeV, Li <sup>3+</sup> ion induced modifications in Mössbauer signature and hyperfine interaction parameters of Y <sup>3+</sup> +xFe <sup>5+</sup> -xO <sub>12</sub> system	International Journal of Scientific Research in Physics and Applied Sciences	6(2),5-9	2348- 3423	International
26.	Effect of thermal history on structural, microstructural properties and J–E characteristics of CaCu <sub>3</sub> Ti <sub>4</sub> O <sub>12</sub> polycrystalline ceramic	Materials Chemistry and Physics	212, 343-350	0254- 0584	International
27.	Study on Charge Transfer Mechanism in Mechanically Milled Co <sub>3</sub> O <sub>4</sub> by UV-Vis Spectral Analysis	Materials Today: Proceedings	18, 1489-1494	2214- 7853	International
28.	Mechanical milling engendered modifications in thermal dependence of DC conductivity of polycrystalline yttrium iron garnet	AIP Conference Proceedings	2220 (1), 020135	1551- 7616	International
	Title of the Paper	Name of the proceedings	Volume & Issue of the proceedings	ISSN of the Journal	State/ National/ International
29.	Thermoelectric Power study of Fe <sup>3+</sup> Substituted YIG	Proceedings of DAE-SSPS	49(2004) 730-731	-	National

30.	Master Curve generation of some experiment data for Zinc-substituted Cobalt Ferri-aluminates	Proceedings of DAE –SSPS	51, (2006) 681-682	-	National
31.	Dielectric Performance of Nanocrystalline Yttrium Iron Garnet	Proceedings of DAE –SSPS	52, (2007) 293-294	-	National
32.	Effect of SHII on Bulk and Microscopic Magnetic Properties of YIG	Proceedings of the National Conference on Recent Advances in Material Science	(2007) 241-245	-	National
33.	Effect of SHII on M-H loop characteristics of Y <sub>3+</sub> -substituted YIG	Proceedings of DAE-SSPS	53, (2008) 1157-1158	-	National
34.	Modifications in thermal variation of dc conductivity of Yttrium Iron Garnet by mechanical milling	Proceedings of DAE-SSPS	54, (2009)	-	National

**Research Projects:**

Sr. No.	Minor/Major	Sponsor/Organization	Status (Complete/Running/Proposed)
1.	UGC- sponsored minor research project	UGC	completed

**Seminar/workshops/Conferences**

Sr. No.	Title/Subject	Title of presentation	Organizer /Sponsor	Status (State/National/ International)	Dates
1.	25th International Workshop on Electron Cyclotron Resonance Ion Sources (ECRIS-2022)	Observation of Shear Alfvén waves for molecular ion beams in a magnetically confined plasma	Institute for Plasma Research, Bhat, Gandhinagar	International	12-14 October 2022
2.	Indo-Canadian multidisciplinary Research: Trends and Prospects	Mechanical milling engendered modifications in DC	Institute of Infrastructure, Research and Management,	International	28-29 December 2018

		<i>conductivity of Polycrystalline Yttrium Iron Garnet</i>	<i>(IITRAM) Ahmedabad</i>		
3.	<i>Fundamental and applications of Magnetics: Recent Development towards Biomedical engineering</i>	-	<i>Global initiative for academic Network(GIAN), Ministry of Human Resource and Development, Government of India at Government Engineering college , Gandhinagar</i>	<i>National</i>	<i>27th November to 1st December 2017</i>
4.	<i>International conference on Ion beams in Materials Engineering and Characterization</i>	<i>50 MeV Li 3+ ion irradiation induced modifications in Mössbauer signature and hyperfine interaction parameters of YIG system</i>	<i>Inter University Accelerator Centre (IUAC), New Delhi.</i>	<i>International</i>	<i>28th September to 1st October,2016</i>
5.	<i>International conference on condensed matter and applied physics, ICC 2015</i>	<i>50 MeV Li3+ ion irradiation effect on magnetic ordering of Y3+-substituted yttrium iron garnet</i>	<i>Government engineering college ,Bikaner,India</i>	<i>International</i>	<i>30-31 October-2015</i>
6.	<i>The 29th National Symposium on Plasma Science &amp;Technology and The International conference on Plasma and Nanotechnology</i>	<i>Particle Size Dependent Electrical and Dielectric Properties of Polycrystalline Yttrium Iron Garnet</i>	<i>Mahatma Gandhi University, Kottayam, Kerala, India</i>	<i>International</i>	<i>8-11 December,2014</i>
7.	<i>International Conference On Nanostructuring By Ion Beam (ICNIB-2013)</i>	<i>50 MeV, Li3+ - ion irradiation effect on magnetic ordering of Y3+ - excess polycrystalline</i>	<i>University of Rajasthan Jaipur, Malaviya National Institute of Technology</i>	<i>International</i>	<i>October 2013</i>

		<i>yttrium ion garnet</i>	<i>Jaipur and IUAC, New Delhi</i>		
8.	<i>International Conference On Nanostructuring By Ion Beam (ICNIB-2013)</i>	<i>Pre and post effect of swift heavy ion irradiation on infrared spectral evolution of <math>Y_3+xFe_5-xO_{12}</math> (<math>x = 0.0 - 1.0</math>) system</i>	<i>University of Rajasthan Jaipur, Malaviya National Institute of Technology Jaipur and IUAC, New Delhi</i>	<i>International</i>	<i>October 2013</i>
9.	<i>Conference on Swift Heavy Ions in Materials Engineering and Characterization (SHIMEC 2010)</i>	<i>Influence of 50 MeV <math>Li^{3+}</math>-ion irradiation on M-H loop characteristics of <math>Y_3+</math>-substituted YIG</i>	<i>Inter University Accelerator Centre (IUAC), New Delhi.</i>	<i>National</i>	<i>October 2010</i>
10.	<i>54th DAE Solid State Physics Symposium (2009)</i>	<i>Modifications in thermal variation of dc conductivity of Yttrium Iron Garnet by mechanical milling.</i>	<i>M.S. University, Baroda</i>	<i>National</i>	<i>December 2009</i>
11.	<i>53rd DAE Solid State Physics Symposium (2008)</i>	<i>Effect of SHII on M-H loop characteristics of <math>Y_3+</math>-substituted YIG</i>	<i>Bhabha Atomic Research Centre and Tata Institute of Fundamental Research, Mumbai</i>	<i>National</i>	<i>December 2008</i>
12.	<i>52nd DAE Solid State Physics Symposium (2007)</i>	<i>Dielectric Performance of Nanocrystalline Yttrium Iron Garnet</i>	<i>Mysore University, Mysore</i>	<i>National</i>	<i>December 2007</i>
13.	<i>International Conference on the Applications of the Mössbauer Effect (ICAME-2008)</i>	<i>SHI-Induced ion beam mixing in <math>Y_3+</math>: YIG revelation through X-ray diffraction and Mossbauer spectroscopy</i>	<i>IIT-K, Kanpur.</i>	<i>International</i>	<i>October 2007</i>

14.	<i>National conference on Physics of Nanostructure and biomolecules</i>	<i>Dielectric performance of Nanocrystalline yttrium Iron Garnet</i>	<i>Physics Department, M.S. University, Vadodra.</i>	<i>National</i>	<i>January 2007</i>
15.	<i>51th DAE Solid State Physics Symposium</i>	<i>Master Curve generation of some experiment data for Zinc-substituted Cobalt Ferri-aluminates</i>	<i>Barkatullah Univesity, Bhopal</i>	<i>National</i>	<i>December 2006</i>
16.	<i>Indian National Science Academy of Sciences sponsored workshop on Condensed Matter Research and Magnetic materials</i>	<i>Effect of SHII, Quenching and Grain Size reduction On Elastic Properties of Copper Ferrite</i>	<i>University of Hyderabad, Hyderabad.</i>	<i>National</i>	<i>December 2006</i>
17.	<i>National Conference on Recent Advances in Material Science (RAMS-06)</i>	<i>Effect of SHII on bulk and Microscopic Magnetic Properties of YIG</i>	<i>Kurukshetra University, Kurukshetra.</i>	<i>National</i>	<i>September 2006</i>
18.	<i>Workshop on Functional Oxide Materials</i>	<i>Effect of SHII on bulk and Microscopic Magnetic Properties of YIG</i>	<i>Inter University Accelerator Center,(IUAC), New Delhi.</i>	<i>National</i>	<i>September 2006</i>
19.	<i>One Day National Seminar on Recent Advances in Condensed matter and Space Physics</i>	<i>Effect of SHII on Magnetic Properties of Fe<sup>3+</sup> Substituted YIG</i>	<i>Department of Physics, Saurashtra University, Rajkot.</i>	<i>National</i>	<i>March 2006</i>
20.	<i>One Day Seminar on Celebration of International Year of Physics</i>	<i>A Novel Approach for elastic constant determination of polycrystalline oxide</i>	<i>Physics Dept. Saurashtra University and IAPT- Regional Council- Gujarat,</i>	<i>State</i>	<i>January 2006</i>

		<i>compositions</i>	<i>At Saurashtra University, Rajkot</i>		
21.	<i>Indian Physics Association and World Year of Physics-Intermeeting (2005)</i>	<i>A Novel application of Raman spectroscopy (1st prize winner for best paper presentation)</i>	<i>Veer Narmad South Gujarat University, Surat.</i>	<i>National</i>	<i>2005</i>
22.	<i>19th Gujarat Science Congress (2004)</i>	<i>Oxygen does not play any role in governing Elastic properties of Oxide Compositions (2nd prize winner for best paper presentation)</i>	<i>S. P. University, Vallabh Vidyanagar.</i>	<i>State</i>	<i>2004</i>
23.	<i>49th DAE Solid State Physics Symposium (2004)</i>	<i>Thermoelectric Power study of Fe<sup>3+</sup> Substituted YIG</i>	<i>Guru Nanak Dev University, Amritsar.</i>	<i>National</i>	<i>December 2004</i>
24.	<i>Student research convention west zone</i>	<i>Use of ferrites in Jammer</i>	<i>Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur.</i>	<i>National</i>	<i>14th-16th march 2008</i>
25.	<i>4th SERC School in Condensed Matter and Materials Physics (Special Theme: Magnetism and Superconductivity)</i>	-	<i>School of Physics, University of Hyderabad, Hyderabad.</i>	<i>National</i>	<i>13th November-9th December 2006</i>
26.	<i>School on X-ray technique in Material Science</i>	-	<i>Inter University Accelerator Center, New Delhi.</i>	<i>National</i>	<i>12th- 16th June '2006</i>
27.	<i>IUAC Ph.D teaching programme on Vacuum techniques(grade-A+) and Ion- sources</i>	-	<i>Inter University Accelerator Center, New Delhi.</i>	<i>National</i>	<i>7th-24th February - 2006.</i>

	(grade-B)				
28.	National Workshop on Advanced techniques for Characterization of Nanomaterials	-	Department of Physics, Pune University, Pune.	National	28th June-2nd July '2005
29.	National Workshop on prospects of Astronomy research in universities	-	Department of Physics, Saurashtra University, Rajkot	National	25-27 February 2004

**History of service:**

Sr.No	College Name	From Date	To Date	Order No	Order Date
1.	Sheth L.H.Science College, Mansa, Dist. Gandinagar	01/03/2011	14/08/2012	NO.VA-1/2010-11/118-23 (By appointment)	27/01/2011
2.	M.N.College, Visnagar, Dist. Mehsana	05/10/2012	05/12/2019	NO. OW/2012/ESC2/29-38 (By appointment)	30/09/2012
3.	Government Science College, Gandhinagar	06/12/2019	Till now	NO.MaKaMa/ESC2/Fe. BADALI/2019/11986-12016	05/12/2019

**Representation in various Committee (University/Government/ College/District/Zone)**

Name of the Committee	Level	Position	Duration
Internal evaluation	college	member	2013-2017
Internal evaluation	college	convener	2017-2018, 2018-2019, 2022-2023
Admission committee	college	member	2013-2017, 2022-2023
RUSA/UGC	college	member	2018-2019
NAAC	college	member	2013-2019
CWDC	college	member	2013-2017, 2018-2019, 2019-2020
IQAC	college	member	2014-2019
Saptadhara (Gyan dhara)	college	member	2013-2019

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<b><i>Cultural committee</i></b>	<b><i>college</i></b>	<b><i>member</i></b>	<b><i>2017-2018</i></b>
<b><i>UDISHA/Placement Cell</i></b>	<b><i>college</i></b>	<b><i>member</i></b>	<b><i>2019-2023</i></b>
<b><i>Exam Form committee</i></b>	<b><i>college</i></b>	<b><i>Co-coordinator</i></b>	<b><i>2020-2021</i></b>
<b><i>Innovation club</i></b>	<b><i>College and District</i></b>	<b><i>Coordinator</i></b>	<b><i>2022-2023</i></b>
<b><i>SSIP</i></b>	<b><i>College</i></b>	<b><i>Co-coordinator</i></b>	<b><i>2022-2023</i></b>
<b><i>Eco-club</i></b>	<b><i>College</i></b>	<b><i>member</i></b>	<b><i>2022-2023</i></b>