



Dr. Sujata Sanghi (Professor)

Department of Physics
Guru Jambheshwar University of
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Present Position: Chairperson, Department of Physics,

I-EDUCATIONAL QUALIFICATIONS

1- Doctor of Philosophy

Thesis Title: Study of Some Non Linear Processes: Optical Gain and Photoacoustics in Optical Materials

Thesis Advisor: Professor R.D. Singh

Year: 1996

University: M.D. University, Rohtak.

2- Master of Philosophy: (Gold Medal)

Thesis Title: Optical Gain Studies in Coumarin 460 Dyes.

Thesis Advisor: Professor R.D. Singh

Year: 1990

University: M.D. University, Rohtak.

3- Master of Science: Physics

Year: 1989

Specialization: Electronics

University: M.D. University, Rohtak.

4- Field of Study: Laser spectroscopy and Materials Science

5- Research Interests: Structural, electrical and optical properties of heavy metal based oxide glasses; Rare-earth doped glasses (Laser material); Oxide glasses as nonlinear optical materials; Synthesis, electrical and magnetic properties of multiferroics and multiferroic composites; Impedance spectroscopy of glasses/ceramics.

II-ACADEMICS CONTRIBUTIONS

1- Projects Undertaken:

Sr. No	Title of the project	Funding Agency & Ref. No	Amount (Rs. In Lakhs)	Duration & Status	Other Investigator
1.	Laser-induced nonlinear processes in optical materials	DST Young scientist project HR/SY/P-01/96	0.50	2 years Completed	-
2.	Studies of the structure and semi-conducting behaviour of the oxide glasses	UGC, New Delhi, F.10-44/2001(SR)	3.285	3 years Completed	Dr. A. Agarwal
3.	Fabrication and characterization of glass-metal nanocomposites	AICTE, New Delhi	6.50	2 Years Completed	Dr. A. Agarwal
4.	Structure, dielectric behaviour and impedance spectroscopy of mixed transition metal/alkali oxide glasses	UGC, New Delhi	9.833	3 Years Completed	Dr. A. Agarwal
5.	Development and characterization of heavy metal oxide glasses as photonic materials	CSIR, New Delhi	10.40	3 Years Completed	Dr. A. Agarwal
6	Investigation of crystal structure, dielectric and magnetic properties of rare earth/transition metal doped BiFeO ₃ multiferroics	DST, New Delhi	13.50	In Progress	Dr. A. Agarwal (PI)
7.	Investigation of crystal structure, dielectric and magnetic properties of Ho doped BiFeO ₃ multiferroics	DST, PURSE, New Delhi	3.20	In Progress	--
8.	DST-FIST Project for the Department of Physics, GJUS&T, Hisar	DST, New Delhi	95.00	In Progress (Coordinator since 01 December 2018)	

2- Foreign Academic Visits:

- 15th Conference & Exhibition of the European Ceramic Society (ECerS 2017) at **Budapest (Hungary)**, 09 - 13 July 2017.
- 22nd International Conference on Processing and Fabrication of Advanced Materials at National University, **Singapore**, December 18-20, 2013.
- XXth International Congress on Glass at Kyoto International Conference Hall, **Kyoto, JAPAN**, September 26-October 01, 2004

3- Conferences/Symposia/Workshop (International & National) Organized:

- **Co-Convener** for 25th International Conference (CONIAPS XXV) on Physical and Biological Sciences at Cross-roads organized by GJUST, Hisar and IAPS during December 29-31, 2019.
- **Organized** Two Days workshop on “Calibration and Standardisation” during 15-16 Nov. 2019 at Department of Physics, GJUS&T, Hisar.
- **Member Local organizing Committee** for 63rd DAE-SSPS, 18-22 December 2018, during the tenure as Chairperson, Department of Physics, GJUS&T, Hisar
- **Member organizing Committee for Science Conclave** 12-13 February 2019 at GJUS&T, Hisar
- **Co-Convener** for International Conference on Advances in Optics and Photonics (ICAOP-2017) (XLI Conference of Optical Society of India), 23-26 November 2017, organized by Department of Physics, GJUS&T, Hisar
- **Member Organizing Committee** for 21st International Conference of International Academy of Physical Sciences (CONIAPS XXI) during October 28-30, 2017 organised by Department of Mathematics, GJUS&T, Hisar
- **Organizing Secretary** for 3rd National Conference on Photonics & Materials Science organized by Department of Applied Physics, GJUS&T Hisar, Haryana, 18-19 November 2015.
- **Member Organizing Committee** for 2nd National Conference on Photonics & Materials Science organized by Department of Applied Physics, GJUS&T, Hisar, Haryana, 14-15 March, 2014.
- **Member Organizing Committee** for 1st National Conference on Photonics & Materials Science at Department of Applied Physics, GJUS&T, Hisar, Haryana, October 24-25, 2008.

4- Conferences/Symposia/Workshop (International & National) attended:
**still updating*

- 63rd DAE-SSPS, 18-22 December 2018, GJUS&T, Hisar
- Workshop on Innovation and Intellectual Property Rights, GJUST, Hisar, March 09, 2016.
- 59th DAE-SSPS Amity Noida 21-25 December 2015
- Workshop on Research Innovations & Intellectual Property Rights: Strategies and Challenges for Commercialization, GJUST, Hisar, Feb. 21, 2015.
- National Workshop on Intellectual Property Rights and Technology Commercialization, March 18, 2013, GJUST Hisar, Haryana.
- Workshop on Research Databases Awareness, May 7, 2013, GJUST Hisar, Haryana.
- International Conference & Workshop on Nanostructured Ceramics & other Nanomaterials, University of Delhi, Delhi, March 13-16, 2012, India
- National Workshop on Patent Awareness vis-à-vis Intellectual Property Rights, August 9, 2011, GJUST Hisar, Haryana.
- Workshop on Trends in Optical Coating for Head up Display & High Laser Damage Threshold, June 27, 2011, GJUST Hisar, Haryana.
- National Workshop on Recent Trends in Engineering & Technology, Mar 15, 2011, GJUST Hisar, Haryana
- National Workshop on Chemistry in Our Lives, March 14, 2011, GJUST Hisar, Haryana.
- International Symposium on the Synthesis and Characterization of Glass/Glass-Ceramics, July 9-10, 2010 at Centre for Materials for Electronics Technology, Pune
- National Workshop on Recent Trends in Engineering & Technology, Mar 06, 2010, GJUST, Hisar, Haryana
- International Conference on Electroceramics at University of Delhi, Delhi, India, December 13-17, 2009.
- 53rd DAE Solid State Physics Symposium at BARC, Mumbai, **India**, December 16-20, 2008.

- National Conference on Photonics & Materials Science, Guru Jambheshwar University of Science & Technology, Hisar, India, October 24-25, 2008.
 - 52nd DAE Solid State Physics Symposium at Mysore University, Mysore, **India**, December 26-31, 2007
 - National Seminar on Spiritualism and Technology at Guru Jambheshwar University, Hisar, **India**, February 21-22, 2004.
 - 45th DAE Solid State Physics Symposium at Punjab University Chandigarh, **India**, December 26-30, 2002.
 - National Symposium on Frontiers in Condensed Matter Physics held at Guru Jambheshwar University, Hisar, **India**, March 22-23, 2002.
 - National Laser Symposium held at Physical Research Laboratory, Ahmedabad, **India**, December 10-12, 1997.
 - National Laser Symposium held at Center for Advanced Technology, Indore, **India**, February 6-8, 1997.
 - Second Discussion Meeting on Networking of Laser Spectroscopy Laboratories held at Indian Institute of Technology, Delhi, **India**, August 23-24, 1996.
 - International Seminar on Current Developments in Disordered Materials held at Kurukshetra University, Kurukshetra, **India**, January 22-24, 1996.
 - International Conference on Spectroscopy: Perspectives & Frontiers held at Bhabha Atomic Research Center, Bombay, **India**, January 3-5, 1996.
 - Eleventh National Symposium on Developmental Biology held at Maharshi Dayanand University, Rohtak, **India**, March 25-27, 1995.
 - National Laser Symposium held at Instruments Research Development Establishment, Dehradun, **India**, February 10-14, 1995.
 - Symposium/Discussion Meeting on Laser Spectroscopy & Applications held at Indian Institute of Technology, New Delhi, **India**, January 20-21, 1995.
 - National Laser Symposium held at Indian Institute of Technology, Madras, **India**, February 17-19, 1993.
 - Indo-French Winter School on Laser Spectroscopy and applications held at Indian Institute of Technology, New Delhi, **India**, January 22-23, 1992.
- **Chaired Session in several conferences and Seminars.**

5- Life Member of Professional Societies:

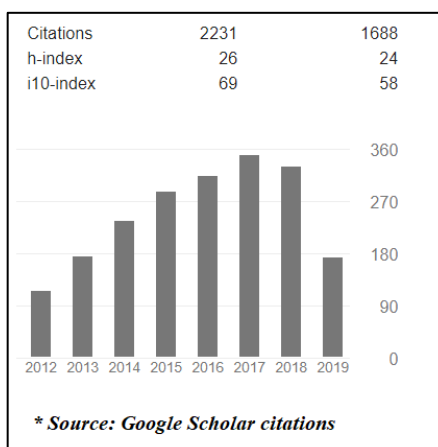
- Indian Laser Association
- Optical Society of India
- Materials Research Society of India

6- Research Articles and Citations:

Published over 100 research articles in SCI journals (international/national) since 1993.

** See recent publications below.*

*** for complete list of publications please see annexure-I.*



7- Extension Lectures:

- Delivered 01 lecture in the refresher course in Physics at K.U. Kurukshetra (17 May 2013)
- Delivered 01 lecture in the refresher course in physics on 18 May 2013 at GJUST Hisar (2013)
- Delivered 02 lectures in PDP for research scholars at GJUST Hisar (2011)
- Delivered 01 lecture in the refresher course in physics at GJUST Hisar (2010)
- Delivered 02 lectures in the refresher course in Physics at GCW, Rohtak (May 7-27, 2008)

8- **Reviewer** for various international journals of repute including.

III-EXPERIENCE

- **Administrative:**
 - Programme Co-ordinator NSS from Dec 01, 2015 to Jun 06, 2019.
 - Chairperson, Department of Physics since Dec 01, 2018 contd...
- **Teaching and Research:** “27 years”
- **Member Selection Committees**

IV-RESEARCH SUPERVISION:

(i) M.Phil.; 04 (Completed)

Sr. No.	Name	Title
1.	Sarita Duhan	Impedance spectroscopy of iron oxide based glasses
2.	Inder Pal	Physical and dielectric properties of sodium boro-sulfate glasses
3.	Shammi	Effect of remelting on optical and physical properties of $\text{Li}_2\text{O}.\text{CdO}.\text{TiO}_2.\text{B}_2\text{O}_3$ glasses
4.	Anju Goyat	Dielectric relaxation studies of borate glasses

(ii) Ph.D.; 19 (11 Completed, 08 In Progress)

Sr. No.	Name	Title	Status	Reg. No
1.	Sunita Sindhu	Study of the structure and electrical properties of semiconducting oxide glasses	Completed (2005)	02070501
2.	Sonam Rani	Investigation of structural, optical and electrical properties of mixed oxide glasses	Completed (26.06.2009)	0507904
3.	Anshu	Characterization of oxide glasses by: (a) UV-VIS-NIR, FTIR & EPR Spectroscopies; (b) DC and AC electrical conductivity	Completed (24.08.2010)	0507908.
4.	Neetu	Structural characterization and impedance spectroscopy of heavy metal oxide glasses	Completed (26.10.2009)	0707903
5.	Manju Lather	Structure and Spectroscopic properties of rare earth doped oxide glasses	Completed (Joint supervision)	CDLU, Sirsa (2012)

6.	Reetu	Structural, dielectric and magnetic properties of doped multiferroic ceramics	Completed 23.04.2013 (Joint Supervision)	0907904
7.	Ashima	Synthesis and characterization of mixed ferrites	Completed 21.05.2014	0907903
8.	Sunil Bhardwaj	Optical & structural characterization of rare earth doped heavy metal oxide glasses	Completed (Joint supervision)	DCRUST, Murthal (2014)
9.	Monica	Structural Characterization and Dielectric Properties of Lead Free Ceramics	Completed 21.05.2014 (Joint supervision)	11079001
10.	Saroj	Investigation of Structure and Dielectric Properties of Bi ₂ O ₃ /SiO ₂ based glasses	Completed (27.07.2015)	12079009
11.	Manisha	Crystal structure refinement, dielectric and magnetic properties of Rare earth /Transition metal doped BiFeO ₃ .	Completed (22.11.2017)	13079002
12.	Sandhaya	Investigation of Nb and Mn doping in modified BiFeO ₃ multiferroic	In progress (Thesis submitted)	14079004 (2019)
13	Sonia Rani	Study of crystal structure, magnetic and dielectric properties of Dy and Er doped BiFeO ₃ multiferroics	In Progress (Reg. Date: 11.03.2016)	
14	Muskaan Tuteja	Study of crystal structure, dielectric and magnetic properties of Ti and Mn doped Bi _{1-x} Pr _x FeO ₃ based multiferroics	In Progress (Reg. Date: 04.11.2016)	
15	Vibha	Investigation of crystal structure, dielectric and magnetic properties of double perovskites	In Progress (Reg. Date: 21.03.2017 (Joint supervision)	
16	Monika	Study of Nonlinear Optical Parameters in Transition Metal Polymer Nanomaterials	In Progress (Reg. Date: 21.03.2017)	

			(Joint supervision)	
17	Anand Kumari	Investigation of Crystal Structure, Dielectric and Magnetic Properties of BaTiO ₃ and Hexaferrites Based Multiferroic Composites	In Progress (Reg. Date: 28.02.2018)	
18	Meenal	Investigation of Crystal Structure, Dielectric and Magnetic Properties of Spinel ferrite and BaTiO ₃ Based Multiferroic Composites	In Progress (Reg. Date: 28.02.2018)	
19	Ms. Kavita	Linear and Nonlinear Optical Properties of Modified Chalcogenide Glasses	In Progress (Reg. Date: 28.02.2018) (Joint supervision)	

V-EMPLOYMENT HISTORY:

- 1- Professor: GJUS&T, Hisar, Duration: Oct 09, 2011 till date
- 2- Reader: GJUS&T, Hisar , Duration: Sep 18, 2005 to Oct 08, 2011
- 3- Lecturer: GJUS&T, Hisar, Duration: Sep 03, 1996 to Sep 17, 2005

VI-PARTICIPATION IN CO-CURRICULAR ACTIVITIES:

- Participation at State Level (Gold Medal) Master's Athletic Championship-2014
- Participation at National Level Master's Athletic Championship at Coimbatore (Tamil Nadu) February 2014
- Participation at State Level (Gold Medal) Master's Athletic Championship-2018
- Participation at National Level Master's Athletic Championship at Bangaluru, Karnataka February 2018
- Member of organizing committees and Convener of various committees at University Level Functions/Activities (Youth Festival, Convocation, Annual Sports Meet, National tournaments, Workshops, Conferences , Seminars etc.)

VII-SOCIAL CONTRIBUTIONS*:

1. Awareness Drive: AIDS awareness (2016, 2017 and 2018), Voter Awareness (2019), National Unity (2018), Sadbhavana (2017), Rashtriya Ekta (2016), International Yoga Day (2016, 2017), World Health Day (2016), Women Empowerment, Road Safety,
2. Blood Donation Camps: Statewide 6 camps organized till 2019 (About 3384 units collected)
3. Cleanliness derives: 03 (2016-2018)
4. District Youth Parliament (25-01-2019)
5. Kerala Relief Fund (2018) (21000/-)
6. National Integration Camp (NIC): 02-10-2017 to 08-10-2017
7. North-East Youth Exchange Program (25.03.2018 to 30-03-2018).
8. NSS Programs: State level Program 04 (First State NSS Award Function, State NSS Camp, State level Blood Donation Camp, 2018-2019)
9. Plantation derives: 06 (2016-2018) Saplings: 4050
10. Adventure camp (2018) 07-13 April 2018.
11. Workshops Organized: Cyber security (2018), Gender Sensitization (2017), Peace and Harmony: Role of Youth in Society (2016), Digital India (2016).

(* See complete list of social contributions in Annexure-II)

VIII-RECENT PUBLICATIONS (2019- 2020)**

- 1- Singh, J., Agarwal, A., Sanghi, S., Bhasin, T., Yadav, M., Bhakar, U., & Singh, O. (2019). Effect of Ba and Ho co-doping on crystal structure, phase transformation, magnetic properties and dielectric properties of BiFeO₃. *Current Applied Physics*, 19(3), 321-331.
- 2- Singh J., Agarwal A., Sanghi S., Yadav M., Bhasin T., Bhakar U. (2019) Investigation of crystal structure and improved magnetic and dielectric

- properties of Ti-substituted Bi_{0.90}Ho_{0.10}FeO₃ multiferroics, *Applied Physics A: Materials Science and Processing* 125 (3) 156.
- 3- Bhasin T., Agarwal A., Sanghi S., Yadav M., Meenal, Singh J.(2019) Investigation of Multiferroic Properties of Spinel Ferrite (ZnFe₂O₄) and Ferroelectric (Na_{0.5}Bi_{0.5}TiO₃) Composites, *Integrated Ferroelectrics*, 201 (1) 163-177.
 - 4- Yadav M., Agarwal A., Sanghi S., Tuteja M., Bhasin T., Singh J. (2019) Effect of Nd and Ti doping on crystal structure refinement, optical, dielectric and magnetic properties of Bi_{0.90}Nd_{0.10}FeO₃ multiferroic, *Materials Research Express*, 6 (10) 106107.
 - 5- Singh, J., Agarwal, A., Sanghi, S., Prakash, P., Das, A., Prajapat, C. L., & Rangi, M. (2019). Phase transformation in crystal and magnetic structure and improved dielectric and magnetic properties of Ho substituted BiFeO₃ multiferroics. *AIP Advances*, 9(2), 025110.
 - 6- Singh, O., Agarwal, A., Sanghi, S., & Singh, J. (2019). Variation of crystal structure, magnetization, and dielectric properties of Nd and Ba co-doped BiFeO₃ multiferroics. *International Journal of Applied Ceramic Technology*, 16(1), 119-129.
 - 7- Singh, J., Agarwal, A., Sanghi, S., Yadav, M., Bhasin, T., & Bhakar, U. (2019). Investigation of crystal structure and improved magnetic and dielectric properties of Ti-substituted Bi_{0.90}Ho_{0.10}FeO₃ multiferroics. *Applied Physics A*, 125(3), 156.
 - 8- Bhasin, T., Agarwal, A., Sanghi, S., Kotnala, R. K., Shah, J., Yadav, M., & Tuteja, M. (2018). Crystal structure, dielectric, magnetic and magnetoelectric properties of xNiFe₂O₄-(1-x)Na_{0.5}Bi_{0.5}TiO₃ composites. *Journal of Alloys and Compounds*, 748, 1022-1030.
 - 9- Jangra, S., Sanghi, S., Agarwal, A., Rangi, M., & Kaswan, K. (2018). Effects of Nd³⁺ and high-valence Nb⁵⁺ co-doping on the structural, dielectric and magnetic properties of BiFeO₃ multiferroics. *Ceramics International*, 44(7), 7683-7693.

- 10-Yadav, M., Agarwal, A., Sanghi, S., Kotnala, R. K., Shah, J., Bhasin, T., ... & Singh, J. (2018). Crystal structure refinement, dielectric and magnetic properties of A-site and B-site co-substituted $\text{Bi}_{0.90}\text{Nd}_{0.10}\text{Fe}_{1-x}\text{Ti}_x\text{O}_3$ ($x= 0.00, 0.02, 0.05$ & 0.07) ceramics. *Journal of Alloys and Compounds*, 750, 848-856.
- 11-Bhasin, T., Agarwal, A., Sanghi, S., Kotnala, R. K., Shah, J., Yadav, M., & Tuteja, M. (2018). Study of crystal structure, dielectric, magnetic and magnetoelectric properties of $x\text{CoFe}_2\text{O}_4-(1-x)\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}_3$ composites. *Ceramics International*, 44(7), 7629-7636.
- 12-Kumari, R., Ahlawat, N., Agarwal, A., Sanghi, S., Sindhu, M., & Rani, S. (2018). Effect of doping of alkaline metal ions on structural and electrical properties of $\text{Bi}_{0.8}\text{M}_{0.2}\text{FeO}_3$ -modified $\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}_3$ ceramics (M= Ca, Sr, and Ba). *Journal of Alloys and Compounds*, 747, 712-720.
- (** See complete list of publications in Annexure-I)

(Annexure – I)

** List of Publications

1. Jangra, S., Sanghi, S., Agarwal, A., Rangi, M., & Kaswan, K. (2018). Effects of Nd^{3+} and high-valence Nb^{5+} co-doping on the structural, dielectric and magnetic properties of BiFeO_3 multiferroics. *Ceramics International*, 44(7), 7683-7693.
2. Kumari, R., Ahlawat, N., Agarwal, A., Sanghi, S., Sindhu, M., & Rani, S. (2018). Effect of doping of alkaline metal ions on structural and electrical properties of $\text{Bi}_{0.8}\text{M}_{0.2}\text{FeO}_3$ -modified $\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}_3$ ceramics (M= Ca, Sr, and Ba). *Journal of Alloys and Compounds*, 747, 712-720.
3. Bhasin, T., Agarwal, A., Sanghi, S., Kotnala, R. K., Shah, J., Yadav, M., ... & Singh, J. (2018). Crystal structure, dielectric, magnetic and improved magnetoelectric properties of $x\text{NiFe}_2\text{O}_4-(1-x)\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}_3$ composites. *Materials Research Express*, 5(10), 106102.
4. Jangra, S., Sanghi, S., Agarwal, A., Rangi, M., Kaswan, K., & Khasa, S. (2017). Improved structural, dielectric and magnetic properties of Ca^{2+} and Nb^{5+} co-

- substituted BiFeO₃ multiferroics. *Journal of Alloys and Compounds*, 722, 606-616.
5. Kumari, R., Ahlawat, N., Agarwal, A., Sanghi, S., & Sindhu, M. (2017). Structural transformation and investigation of dielectric properties of Ca substituted (Na_{0.5}Bi_{0.5})_{0.95-x}Ba_{0.05}CaxTiO₃ ceramics. *Journal of Alloys and Compounds*, 695, 3282-3289.
 6. Rangi, M., Sanghi, S., Jangra, S., Kaswan, K., Khasa, S., & Agarwal, A. (2017). Crystal structure transformation and improved dielectric and magnetic properties of La-substituted BiFeO₃ multiferroics. *Ceramics International*, 43(15), 12095-12101.
 7. Kaswan, K., Agarwal, A., Sanghi, S., Rangi, M., Jangra, S., & Kumar, A. (2017). Crystal structure refinement, enhanced magnetic and dielectric properties of Na_{0.5}Bi_{0.5}TiO₃ modified Bi_{0.8}Ba_{0.2}FeO₃ ceramics. *Ceramics International*, 43(5), 4622-4629.
 8. Singh, O., Agarwal, A., Das, A., Sanghi, S., & Jindal, A. (2017). Evolution of structural and magnetic phases in Nd doped BiFeO₃ multiferroics with sintering time. *Journal of Magnetism and Magnetic Materials*, 442, 200-207.
 9. Singh, O., Agarwal, A., Sanghi, S., & Das, A. (2017). Investigation of crystal structure, dielectric and magnetic properties in La and Nd co-doped BiFeO₃ multiferroics. *Journal of Magnetism and Magnetic Materials*, 426, 369-374.
 10. Kumari, R., Ahlawat, N., Agarwal, A., Sanghi, S., Sindhu, M., & Ahlawat, N. (2016). Phase transformation and impedance spectroscopic study of Ba substituted Na_{0.5}Bi_{0.5}TiO₃ ceramics. *Journal of Alloys and Compounds*, 676, 452-460.
 11. Godara, P., Agarwal, A., Ahlawat, N., Sanghi, S., & Kaswan, K. (2016). Effect of doping of vanadium ions on crystal structure, dielectric and magnetic properties of Bi_{0.8}Ba_{0.2}FeO₃ multiferroic. *Journal of Magnetism and Magnetic Materials*, 406, 76-82.
 12. Kumari, R., Ahlawat, N., Agarwal, A., Sanghi, S., Sindhu, M., & Ahlawat, N. (2016). Rietveld refinement, impedance spectroscopy and magnetic properties

- of Bi_{0.8}Sr_{0.2}FeO₃ substituted Na_{0.5}Bi_{0.5}TiO₃ ceramics. *Journal of Magnetism and Magnetic Materials*, 414, 1-9.
13. Rangi, M., Sanghi, S., Jangra, S., Kaswan, K., & Agarwal, A. (2016). Effect of Mn doping on crystal structure, dielectric and magnetic ordering of Bi_{0.8}Ba_{0.2}FeO₃ multiferroic. *Ceramics International*, 42(4), 5403-5411.
 14. Bala, R., Agarwal, A., Sanghi, S., & Khasa, S. (2015). Influence of SiO₂ on the structural and dielectric properties of ZnO· Bi₂O₃· SiO₂ glasses. *Journal of Integrated Science and Technology*, 3(1), 6-13.
 15. Lather, M., Aghamkar, P., & Sanghi, S. (2015). Optical absorption and fluorescence spectral analysis of Ho³⁺ ions doped zinc bismuth borate glasses. *Journal of Integrated Science and Technology*, 3(2), 28-33.
 16. Dahiya, R., Agarwal, A., Sanghi, S., Hooda, A., & Godara, P. (2015). Structural, magnetic and dielectric properties of Sr and V doped BiFeO₃ multiferroics. *Journal of Magnetism and Magnetic Materials*, 385, 175-181.
 17. Godara, P., Agarwal, A., Ahlawat, N., & Sanghi, S. (2015). Crystal structure refinement, dielectric and magnetic properties of Sm modified BiFeO₃ multiferroic. *Journal of Molecular Structure*, 1097, 207-213.
 18. Hooda, A., Sanghi, S., Agarwal, A., & Dahiya, R. (2015). Crystal structure refinement, dielectric and magnetic properties of Ca/Pb substituted SrFe₁₂O₁₉ hexaferrites. *Journal of Magnetism and Magnetic Materials*, 387, 46-52.
 19. Rani, S., Sanghi, S., Ahlawat, N., & Agarwal, A. (2015). Crystallization kinetics, optical and dielectric properties of Li₂O· CdO· Bi₂O₃· SiO₂ glasses. *Journal of Molecular Structure*, 1098, 1-11.
 20. Rani, S., Sanghi, S., Ahlawat, N., & Agarwal, A. (2015). Influence of Bi₂O₃ on physical, electrical and thermal properties of Li₂O· ZnO· Bi₂O₃· SiO₂ glasses. *Journal of Alloys and Compounds*, 619, 659-666.
 21. Rani, S., Sanghi, S., Ahlawat, N., & Agarwal, A. (2014). Influence of Bi₂O₃ on thermal, structural and dielectric properties of lithium zinc bismuth borate glasses. *Journal of Alloys and Compounds*, 597, 110-118.

22. Khasa, S., Singh, P., Sanghi, S., Singh, N., & Agarwal, A. (2014). Structural analysis and dielectric characterization of Aurivillius type $\text{CaSrBi}_2\text{Nb}_2\text{O}_9$ ceramics. *Journal of Integrated Science and Technology*, 2(1), 13-21.
23. Hooda, A., Sanghi, S., Agarwal, A., & Dahiya, R. (2014). Structural, dielectric and magnetic properties of Cd/Pb doped W-type hexaferrites. *Journal of Magnetism and Magnetic Materials*, 349, 121-127.
24. Singh, P., Agarwal, A., Sanghi, S., Singh, N., & Khasa, S. (2014). Dielectric characterization of bismuth layered $(\text{Bi}_2\text{O}_3)(\text{Na}_x\text{Fe}_{1-x}\text{O}_3)$ ceramics. *Physica B: Condensed Matter*, 436, 64-73.
25. Godara, P., Agarwal, A., Ahlawat, N., Sanghi, S., & Dahiya, R. (2014). Crystal structure transformation, dielectric and magnetic properties of Ba and Co modified BiFeO_3 multiferroic. *Journal of Alloys and Compounds*, 594, 175-181.
26. Bhardwaj, S., Shukla, R., Sanghi, S., Agarwal, A., & Pal, I. (2014). Spectroscopic properties of Sm^{3+} doped lead bismosilicate glasses using Judd–Ofelt theory. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 117, 191-197.
27. Rangi, M., Agarwal, A., Sanghi, S., Singh, R., Meena, S. S., & Das, A. (2014). Crystal structure and magnetic properties of $\text{Bi}_{0.8}\text{A}_{0.2}\text{FeO}_3$ (A= La, Ca, Sr, Ba) multiferroics using neutron diffraction and Mossbauer spectroscopy. *AIP Advances*, 4(8), 087121.
28. Ahlawat, N., Ahlawat, N., Aghamkar, P., Agarwal, A., Sanghi, S., & Sindhu, M. (2013). Influence of SiO_2 on conduction and relaxation mechanism of Li^+ ions in binary network former lead silicate glasses. *Physica B: Condensed Matter*, 414, 103-109.
29. Bala, R., Agarwal, A., Sanghi, S., & Singh, N. (2013). Effect of Bi_2O_3 on nonlinear optical properties of $\text{ZnO} \cdot \text{Bi}_2\text{O}_3 \cdot \text{SiO}_2$ glasses. *Optical Materials*, 36(2), 352-356.
30. Pal, I., Agarwal, A., Sanghi, S., SANJAY, & BHARDWAJ, S. (2013). Optical Absorption and Structural Studies of Pr^{3+} Doped Cadmium Bismuth Borate Glasses in Visible and Near Infrared Regions. In *International Journal of*

Modern Physics: Conference Series (Vol. 22, pp. 408-415). World Scientific Publishing Company.

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Social Welfare Activities

- **Programs Organized/Conducted during April 2018- June 2019**
 1. Adventure Camp (07.04.2018 to 13.04.2018)
 2. Help Desk (04-07-2018)
 3. Prerna-2018 NSS Merit certificate distribution function (05-05-2018)
 4. Green Campus Clean Campus (16-07-2018 to 31-08-2018)
 5. Plantation (04-08-2018)
 6. PFMS Training of NSS Programme Officers (05-09-2018).
 7. First State Level NSS Award Function (28-09-2018)
 8. NSS Day (24-09-2018)
 9. Rally on Cleanliness (02-10-2018)
 10. Workshop on Cyber security (15-10-2018)
 11. Kerala Relief Fund (21000/-)
 12. National Unity Day (31-10-2018)
 13. World Aids Day (30-11-2018)
 14. Blood Donation Camp (07-12-2018)(100 units)
 15. Cultural Evening: Autalya Bharat-Ek Jhalak (20-12-2018)
 16. District Youth Parliament (25-01-2019)
 17. Seven Day Camp at village Shahpur (24-01-2019 to 30-01-2019)
 18. Blood Donation Camp (26-01-2019) Unit-350
 19. State Level NSS Camp (22-03-2019 to 28-03-2019)
 20. Voter Awareness Programme at village Behbalpur (16-04-2019)
 21. Prerna (28-04-2019)

- **Programs Organized/Conducted during April 2017- March 2018**
 1. Prerna-2017: NSS Merit Certificate distribution function.(28-04-2017)
 2. Workshop on Gender Sensitization (07-08- April-2017).
 3. International Yoga Day (21-06-2017)
 4. Help Desk (28-06-2017 and From 06-07-2017 to 14-07-2017)
 5. Tree Plantation (27-07-2017)
 6. Swacch Pakwara Report (01-08-2017 to 15-08-2017)
 7. Trail Camp for Pre-Republic Day Parade camp-2017.
 8. Patriotic Cultural Programe “Maa Tujhey Salam” (27-09-2017)
 9. National Integration Camp (NIC): 02-10-2017 to 08-10-2017
 10. Sadbhavana Diwas (31-10-2017)
 11. Pre Republic Day Parade Camp-24-11-2017 to 03-12-2017)
 12. World Aids Day (01-12-2017)
 13. Seven Day Special Camp at village Behbalpur (20-01-2018 to 26-01-2018)
 14. Republic Day Parade Camp-2018 (01-01-2018 to 31-01-2018). 4 Volunteers
 15. State Level Camp (27.02.2018 to 05.03.2018)
 16. North-East Youth Exchange Program (25.03.2018 to 30-03-2018).
- **Programs Organized/Conducted during April 2016- March 2017**
 1. Prerna-2016 (30-04-2016)
 2. International Yoga day-21.06.2016
 3. Help Desk (05-07-2016)
 4. Help Desk (07-07-2016 to 15-07-2016)
 5. Tree Plantation (24-08-2016)
 6. NSS Day (24-09-2016)
 7. State level Blood Donation camp (27-09-2016) unit-1426
 8. Pre-Rd Parade Selection camp (07-10-2016)
 9. Digital India Workshop (21-10-2016)
 10. Pre-RD Parade Camp (26-10-2016 to 04-11-2016)
 11. Rashtriya Ekta Divas (31-10-2016)

12. Rahagiri (06-11-2016)
13. City Cleanliness Drive (22-11-2016)
14. One-week Orientation Training (22-11-2016 to 28-11-2016)
15. World AIDS Day (01-12-2016)
16. Seven Day Camp at village Mirzapur (20-01-2017 to 26-01-2017)
17. Blood Donation Camp-2017(18-03-2017) unit-508

○ **Programs Organized/Conducted during December 2015 – April 2016**

1. Vehicle free day (07-01-2016)
2. National youth day(12-01-2016)
3. Dhandoor-bir seven days camp (20-01-2016 to 26-01-2016)
4. Workshop on peace and harmony in society.(05-03-2016)
5. World health day celebration (7th April 2016)

GOOGLE SCHOLAR LINK:

https://scholar.google.com/citations?hl=en&user=YqULSV4AAAAJ&view_op=list_works&sortby=pubdate