


CURRICULUM VITAE

Title (Ms/Mr/Dr/Prof)	Dr.	First Name Savita	Last Name Sharma	Photograph
Designation	Assistant Professor			
Department	Physics			
Address (Official)	Flat No.15, Jamna Apartments, Sector-9, Rohini, Delhi-110085, India			
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Email	savitasharma@kalindi.du.ac.in			

Education

Subject	Institution	Year	Details
B.Sc. (Physics)	Kalindi College, University of Delhi	2007	Physics Hons.
M.Sc. (Physics)	Hindu College, University of Delhi	2010	With Electronics Specialization
B.Ed.	G.G.S. Indraprastha University, Delhi	2008	Teaching of Science & Mathematics
Ph.D.	Delhi Technological University	2016	Material Sciences

Career Profile

Organisation/Institution	Designation	Duration	Role
Department of Physics & Astrophysics, University of Delhi	Project Assistant	Aug. 2010 –Aug. 2011	Research
National Physical Laboratory, Delhi	Project Assistant	April 2012- July 2012	Research
Delhi Technological University	Assistant Professor (Guest)	Aug. 2012- July 2013	Teaching
Delhi Technological University	Teaching Research Fellow	Aug. 2013-December 2015	Teaching
Delhi Technological University	Assistant Professor (Guest)	Aug. 2016-Decem 2016	Teaching
Kalindi College, University of Delhi	Assistant Professor	Jan.2017- April 2017	Teaching
Kalindi College, University of Delhi	Assistant Professor	July 2017- Present	Teaching

Research Interests/Specialization

Electronics, Nanotechnology, Material Sciences: Thin Film Technology, Sensors & Transducers, Memory devices, Solar Cells, High energy Ion beam irradiation.

AREAS OF RESEARCH

- Study of multiferroic properties of various multilayered and single-layered thin films.
- Energy Harvesting by Ferroelectric Photovoltaic effect in multilayered thin films.
- Energy storage using perovskite materials.
- Resistive switching in ferroelectric & metal-oxide thin films for memory devices applications.
- Synthesis of perovskite materials by low-cost, low-temperature hydrothermal synthesis and to study its multiferroic properties.
- Exploitation of metal-oxides and perovskites thin films for gas sensing applications.
- Development of UV-Photodetectors using synthesized perovskite thin films.

RESEARCH EXPERTISE

- Specialization in thin film deposition using Physical Vapor Deposition techniques like Magnetron Sputtering, RF Diode Sputtering, DC Sputtering, Thermal Evaporation, Pulsed Laser Deposition, Thermal Evaporation and Chemical Solution Deposition for various application.
- Handling and analysis of characterization techniques like X-Ray Diffraction, Micro Raman Spectroscopy, UV-Visible Spectrophotometer, Fourier Infra-red Spectroscopy, Scanning Electron Microscopy, Atomic force Microscopy, Cyclic Voltammetry, Semiconductor Characterization Unit (Keithely 4200), Radiant ferroelectric loop tracer, Vibrating Sample Magnetometer (VSM) and LCR meter-Dielectric Measurements.

Administrative Assignments / Contribution to corporate life

1. President, Alumni Association, Kalindi College
2. Co-Convener, E-Content development Committee, Kalindi College
3. Member, Management Information System (MIS) Committee, Kalindi College
4. Member, Criteria II Committee, Kalindi College
5. Member, Prize Committee, Kalindi College
6. Member, Repository committee, Kalindi College
7. Member, Farewell committee, Kalindi College
8. Member, Rangoli Cultural Club, Kalindi College
9. Member, Swachhta Abhiyan, Science Block, First Floor, Kalindi College.
10. Member, organizing committee, "Dimenzie" an inter-college fest, held on 15th Feb 2017. Guided students for project in event "Science in everyday life".

11. Member, organizing committee of National seminar on “A paradigm shift towards empowerment of women”, held on 3-4 Feb 2017 organized by Science Departments of Kalindi college.
12. Member, Momento Committee, “Lehre in 2017”
13. Represented Kalindi College along with Undergraduate students in the National Science Day Programme organized by the Inter-University Accelerator Centre, Delhi, India on 28th February 2017.
14. Member, organizing committee “Workshop on “Quantum Physics: An Insight” held on October 25-26, 2017 organized by the The National Academy of Sciences India-Delhi Chapter & Physics Department, Kalindi College, University of Delhi.
15. Faculty Volunteer, Organizing committee at **94th, 95th & 96th Annual Convocation, University of Delhi** held on November, 2017-2019
16. Member, Organizing committee of “International symposium on Integrated functionalities ISIF-2017” held on December 10-13, 2017 at Shangri-La Ero’s Hotel, New Delhi, jointly organized by University of Delhi, IISc Bangalore & IIT Delhi under the aegis of MRSI.
17. Member, organizing committee, “Technowave-2k18” an inter-college fest, held on 7-8th Feb 2018. Guided students for events "Q-Fiesta" & “Circuit Making”.
18. Convener, Communication System -- 3rd year Physics Hons. Subject at committee formed during 4-Days Workshop held on 31st Jan-5th Feb. 2018 at Department of Physics & Astrophysics, University of Delhi.
19. Examiner, at Department of Physics & Astrophysics, University of Delhi.
20. Organizer and Trainer of “SKILL ENHANCEMENT WORKSHOP FOR LABORATORY STAFF” organized by Internal Quality Assurance Cell & Science Departments at Kalindi College, University of Delhi, Delhi, India held from 13th to 14th March 2018.
21. Resource person for the teaching Solid State Physics paper in Summer M.Sc. Entrance Coaching classes organized by Department of Physics & Astrophysics, University of Delhi.
22. Organized Field visit to Electronic Materials and Devices Laboratory, Department of Physics & Astrophysics for students of B.Sc. (H) Physics & B.Sc. Physical Science IIIrd Year Kalindi College

Teaching Experiences (Subject/Courses taught)

Subjects taught in Delhi Technological university : Applied Physics Lab (B.Tech., 1st year), Theory : Applied Physics 1 & 2, Engineering materials

Kalindi College, University of Delhi

Class	Paper Name & Details
1. B.Sc. (H) Physics Part III	Communication Systems & Lab (DSE)
2. B.Sc. (H) Part I	Mechanics (GE)
3. B.Sc. (H) Part II	Waves & Optics Lab
4. B.Sc. Physical Science II Year	Thermal Physics & Statistical Mechanics
5. B.Sc. (H) Part II	Electric Circuits & Network Skills (SEC)
6. B.Sc. Physical Science II Year	Basic Instrumentation Skills (SEC)

Research Guidance

- 1) Guided M.Sc. students of University of Delhi in their M.Sc. final year project under the supervision of Prof. Vinay Gupta.
- 2) Guided M.Sc. & M.Tech. students of Amity University in their M.Sc. final year project under the supervision of Prof. Vinay Gupta.
- 3) Guiding 01 Ph.D. student- Shiva Lamichhane with Late Prof. Vinay Gupta & Dr. Arijit Chowdhuri. Till date there have been 04 publications out of this association.

Publications as Book Chapters

1. **Savita Sharma, Chapter 6 – An overview on ferroelectric photovoltaic materials**, January 2021, In book: Sustainable Material Solutions for Solar Energy Technologies by Elsevier. Editor(s): Mariana Amorim Fraga, Delaina Amos, Savas Sonmezoglu, Velumani Subramaniam, **In Solar Cell Engineering, Sustainable Material Solutions for Solar Energy Technologies, Elsevier, 2021, Pages 175-199, ISBN 9780128215920**
DOI: <https://doi.org/10.1016/B978-0-12-821592-0.00002-9>.
2. **Savita Sharma, K. Uday Kumar, D. Haranath, R. Rakesh Kumar and Hitesh Borkar, Chapter 5 - Organic-Inorganic Perovskites Nanogenerators for Energy Harvesting Applications**, November 2021, In book: Advances in Energy Research Volume 35 (Numbered Series), Nova, Science and Technology, Technology and Engineering, **BISAC: SCI024000, ISBN: 978-1-68507-373-2, DOI: <https://doi.org/10.52305/EEEQ2450>**

Patents Filed:

1. **Title of the invention:** Electrochemical based genosensor for the Detection of Puccinia striiformis f. sp. tritici and method thereof. Ref. No./Application No. 202011027298, Application No. TEMP/E-1/30053/2020-DEL, **INVENTOR(S):** Neelam R. Yadav, Rizwana Rehsawla, Nidhi Dhull, **Savita Sharma**, Vinay Gupta, **APPLICANT(S):** Chaudhary Charan Singh Haryana Agricultural University.
2. **Title of the invention:** Surface Plasmon Resonance based DNA biosensor for the detection of Puccinia striiformis f. sp. tritici and method thereof. Ref. No./Application No. 202011022741, Application No. TEMP/E-1/24707/2020-DEL, **INVENTOR(S):** Neelam R. Yadav, Rizwana Rehsawla, Surbhi Jain, **Savita Sharma**, Vinay Gupta, **APPLICANT(S):** Chaudhary Charan Singh Haryana Agricultural University.

Publication (Peer Reviewed/Indexed Journals)

Year of Publication	Title	Journal (Name of the journal. Vol. Issue ISSN)	Co-Author
1. 2022	Studies on energy storage properties of BFO/WO ₃ bilayer thin film capacitor	Energy Storage, Wiley Publications (Accepted, In Press) DOI: https://doi.org/10.1002/est2.342	Shiva Lamichhane, Savita Sharma , Monika Tomar and Arijit Chowdhuri
2. 2021	Investigation of charge transport mechanism in hydrothermally synthesized reduced graphene oxide (rGO) incorporated zinc	Journal of Material Science: Materials in Electronics, 33, 1307-1323 (2021) DOI: https://doi.org/10.1007/s10854-021-07445-6	Nitika Jain, Savita Sharma , Nitin K. Puri

	oxide (ZnO) nanocomposite films	ISSN: 0957-4522	
3. 2021	Investigation of Adulteration in Milk using Surface Plasmon Resonance	ECS Journal of Solid State Science and Technology , Volume 10, Number 9, Page 091004 (2021). ISSN: 2162-8769 Impact Factor: 2.070 DOI: https://iopscience.iop.org/article/10.1149/2162-8777/ac1f71	Savita Sharma , Ayushi Paliwal, Monika Bassi, Monika Tomar, Vinay Gupta, and Sudha Gulati
4. 2021	Bipolar Resistive Switching in Magnetostrictive Ni/PZT/Pt Structure for Non-Volatile Memory Applications	ECS Journal of Solid State Science and Technology , Volume 10, Number 7, Page 071001 (2021). ISSN: 2162-8769 Impact Factor: 2.070 DOI: https://doi.org/10.1149/2162-8777/ac0cc7	Savita Sharma , Surbhi Gupta, Reema Gupta, Hitesh Borkar, Ashok Kumar, Vinay Gupta, and Monika Tomar
5. 2021	Comparison of Ferroelectric Photovoltaic Performance in BFO/BTO Multilayer Thin Film Structure Fabricated Using CSD & PLD Techniques	Journal of Electronic Materials , volume 50, pages 1835–1844 (2021) ISSN: 0361-5235 https://doi.org/10.1007/s11664-021-08793-z Impact Factor : 1.938	Savita Sharma , Anjali Sharma, Vinay Gupta, Nitin K. Puri and Monika Tomar
6. 2020	Fresnel's equations in transition from single to multiple interfaces and evaluation of optical parameter	Sambodhi , Volume 43, 4, Page 131, 2020. ISSN: 2249-6661	Rachana Kumar, Seema Gupta and Savita Sharma
7. 2020	Influence of laser fluence in modifying energy storage property of BiFeO ₃ thin film capacitor	Journal of Energy Storage Volume 32, 101769 (2020) ISSN: 2352-152X https://doi.org/10.1016/j.est.2020.101769 Impact Factor : 6.5	Shiva Lamichhane, Savita Sharma , Monika Tomar, Ashok Kumar and Vinay Gupta
8. 2020	Effect of Laser fluence on multiferroic BFO ferroelectric Photovoltaic Cells	Journal of Physics and Chemistry of Solids , Volume 146, 109602, (2020). ISSN: 0022-3697. https://doi.org/10.1016/j.jpcs.2020.109602 Impact Factor : 3.94	Shiva Lamichhane, Savita Sharma , Monika Tomar, and Vinay Gupta
9. 2020	Non-volatile resistive switching in WO ₃ Thin films	AIP Conference Proceedings 2220, 040035 (2020); https://doi.org/10.1063/5.0002679	Shiva Lamichhane, Savita Sharma , Monika Tomar, and Vinay Gupta

10. 2020	Designing and Analysis of Swamped Transistor Amplifier and study of effect of Swamping on gain Stabilization	Kalindi College, Yearly Academic Journal , Vol. XIX, ISSN: 2348-9014, 2019-2020.	Monika Bassi, Sudha Gulati, Savita Sharma
11. 2019	Multiferroic BFO/BTO multilayer structures based magnetic field sensor	Physica B 571 (2019) 1-4. https://doi.org/10.1016/j.physb.2019.06.056	Savita Sharma , Ayushi Paliwal, Monika Tomar and Vinay Gupta
12. 2019	Impact of plasma dynamics on magneto optic kerr effect (MOKE) in Mn doped BFO thin films	Physica B 571 (2019) 57-63. https://doi.org/10.1016/j.physb.2019.06.054	Ayushi Paliwal, Savita Sharma , Monika Tomar and Vinay Gupta
13. 2018	Effect of top metal contact on the ferroelectric photovoltaic response of BFO thin film capacitors	Vacuum 158 (2018) 117-120. Impact factor: 2.067. ISSN: 0042-207X. DOI: https://doi.org/10.1016/j.vacuum.2018.09.032	Savita Sharma , Monika Tomar, Vinay Gupta
14. 2018	Structural, morphological and optical properties of BiFe _{0.99} Cr _{0.01} O ₃ thin films	Vacuum 158 (2018) 166-171. Impact factor: 2.067. ISSN: 0042-207X DOI : https://doi.org/10.1016/j.vacuum.2018.09.051	Shaan Ameer, Kajal Jindal, Savita Sharma , Pradip K. Jha, Monika Tomar, Vinay Gupta
15. 2018	Detailed optical analysis of 100 MeV Ni ⁷⁺ ion irradiated WO ₃ thin films using Surface Plasmon Resonance	Radiation Physics and Chemistry 153 (2018) 51-57. Impact factor: 1.435. ISSN: 0969-806X. https://doi.org/10.1016/j.radphyschem.2018.09.004	Savita Sharma , Ayushi Paliwal, Monika Tomar, Fouran Singh, Nitin K. Puri, Vinay Gupta
16. 2018	WO ₃ /BTO heterostructures based NO ₂ sensor with enhanced response characteristics	Integrated Ferroelectrics 193 (2018) 106–120. https://doi.org/10.1080/10584587.2018.1516069	Savita Sharma , Monika Tomar, Nitin K. Puri, Vinay Gupta
17. 2018	Studies on the effect of integration of metal nanoclusters on the electrical and ferroelectric properties of barium titanate thin film.	Ferroelectrics 533(1) 43-48 (2018) Impact factor: 0.728. Print ISSN: 0015-0193 Online ISSN: 1563-5112 https://doi.org/10.1080/00150193.2018.1470829	Savita Sharma , Monika Tomar, Ashok Kumar, Vinay Gupta
18. 2017	Influence of 100 MeV Au ⁺⁸ ion on photovoltaic response of BiFeO ₃ /BaTiO ₃ multilayer structures.	Materials and Design 114 (2017) 345–354. Impact factor: 3.99. ISSN: 0264-1275. DOI: https://doi.org/10.1016/j.matdes.2016.11.011	Savita Sharma , Monika Tomar, Ashok Kumar, Fouran Singh, Nitin K. Puri, Vinay Gupta
19. 2017	Photovoltaic response of hydrothermally derived BFO ceramics	Emerging Materials Research 6(1) (2017) 1-17. ISSN 2046-0147 https://doi.org/10.1680/jemmr.2017.06.001	Savita Sharma , Nitin K. Puri, Vinay Gupta

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20. 2016	Effect of insertion of low leakage polar layer on leakage current and multiferroic properties of BiFeO ₃ /BaTiO ₃ multilayer structure.	RSC Advances 6 (2016) 59150-59154. Impact factor: 3.289. ISSN: 2046-2069. DOI: https://doi.org/10.1039/C6RA09326D	Savita Sharma, Monika Tomar, Ashok Kumar, Nitin K.Puri, Vinay Gupta
21. 2016	Effect of Ion beam irradiation on dielectric properties of BaTiO ₃ thin film studied using Surface Plasmon resonance	Journal of Material science 51 (2016) 4055-4060. Impact factor: 2.302. ISSN: 0022-2461 DOI: https://doi.org/10.1007/s10853-016-9725-x	Savita Sharma, Ayushi Paliwal, Monika Tomar, Fouran Singh, Nitin K. Puri and Vinay Gupta
22. 2015	Enhanced Ferroelectric photovoltaic response of BiFeO ₃ /BaTiO ₃ multilayer structures	Journal of Applied Physics 118 (2015) 074103-1-74109 Impact factor: 2.183. ISSN: 0021-8979. https://doi.org/10.1063/1.4928964	Savita Sharma, Monika Tomar, Ashok Kumar, Nitin K. Puri, Vinay Gupta
23. 2016	Photovoltaic properties of BiFeO ₃ /BaTiO ₃ multilayered thin films prepared by Sol-gel Method	Journal of Physics and Chemistry of Solids 93 (2016) 63-67. Impact factor: 2.048. ISSN: 0022-3697. https://doi.org/10.1016/j.jpcs.2016.02.010	Savita Sharma, Monika Tomar, Nitin K.Puri, Vinay Gupta
24. 2016	BiFeO ₃ /BaTiO ₃ multilayered structures for solar energy harvesting applications	Energy Harvesting and Systems 3 (2016) 237-243. ISSN: 2329-8766. DOI: https://doi.org/10.1515/ehs-2016-0001	Savita Sharma, Monika Tomar, Nitin K.Puri, Vinay Gupta
25. 2015	Stress induced enhanced polarization in multilayer BiFeO ₃ /BaTiO ₃ structure with improved energy storage properties	AIP Advances 5 (2015) 107216. Impact Factor: 1.444. E-ISSN: 2158-3226. https://doi.org/10.1063/1.4934578	Savita Sharma, Monika Tomar, Nitin K. Puri, Vinay Gupta
26. 2015	Ultraviolet radiation detection by barium titanate thin films grown by Sol-gel hydrothermal Method	Sensors & Actuators A 230 (2015) 175–181. Impact factor: 2.201. ISSN: 0924-4247. https://doi.org/10.1016/j.sna.2015.04.019	Savita Sharma, Monika Tomar, Nitin K. Puri, Vinay Gupta
27. 2014	Multiferroic Properties of BiFeO ₃ /BaTiO ₃ Multilayered Thin Films	Physica B 448 (2014) 125-127. Impact factor: 1.352. ISSN: 0921-4526. https://doi.org/10.1016/j.physb.2014.03.089	Savita Sharma, Monika Tomar, Ashok Kumar, Nitin K. Puri, Vinay Gupta

28. 2014	Properties of Barium titanate thin films grown by Sol-gel-hydrothermal process.	Journal of Computational and Theoretical Nanoscience 20 (2014) 1143-1146. Impact factor: 1.253. ISSN: 1936-6612. https://doi.org/10.1166/asl.2014.5499	Savita Sharma, Monika Tomar, Ashok Kumar, Nitin K. Puri, Vinay Gupta
29. 2014	Photovoltaic Properties of BiFeO ₃ /BaTiO ₃ bilayered thin films	Journal of Computational and Theoretical Nanoscience 20 (7) (2014) 1316-1320. Impact factor: 1.253. ISSN: 1936-6612. https://doi.org/10.1166/asl.2014.5573	Savita Sharma, Monika Tomar, Ashok Kumar, Nitin K. Puri, Vinay Gupta
30. 2016	Refractive index dispersion of swift heavy ion irradiated BFO thin films using Surface Plasmon Resonance technique	Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms 379 (2016) 126–130. Impact factor: 1.389. ISSN: 0168-583X. https://doi.org/10.1016/j.nimb.2016.04.051	Ayushi Paliwal, Savita Sharma, Monika Tomar, Fouran Singh, Vinay Gupta
31. 2016	Swift Heavy Ion irradiated SnO ₂ thin film sensor for efficient detection of SO ₂ gas	Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms 379 (2016) 219–223. Impact factor: 1.389. ISSN: 0168-583X. https://doi.org/10.1016/j.nimb.2016.03.048	Punit Tyagi, Savita Sharma, Monika Tomar, Fouran Singh, Vinay Gupta
Proceedings in National/ International conferences			
1. 2016	Prominent photovoltaic response in multiferroic BFO/BTO heterostructures	IEEE Conference Proceedings Pages 1-4 (2016); DOI: https://doi.org/10.1109/ISAF.2016.7578092 . ISBN : 978-1-5090-1871-0	Savita Sharma, Nitin K. Puri, Vinay Gupta and Monika Tomar
2. 2016	Dielectric studies of multilayered BiFeO ₃ /BaTiO ₃ capacitors deposited by pulsed laser deposition	AIP Conference Proceedings 1724, 020098 (2016) DOI: https://doi.org/10.1063/1.4945218 ISSN: 0094-243X	Savita Sharma, Monika Tomar, Ashok Kumar, Nitin K. Puri and Vinay Gupta
3. 2015	Multiferroic BiFeO ₃ /BaTiO ₃ thin films fabricated by chemical solution deposition technique	Mater. Res. Soc. Symp. Proc. Vol. 1805 (2015). Impact factor: 1.25. ISSN: 02729172. https://doi.org/10.1557/opl.2015.622	Savita Sharma, Monika Tomar, Nitin K. Puri, Vinay Gupta
4. 2014	NO ₂ sensing properties of	Conference papers in Science,	Savita Sharma,

	WO ₃ thin films deposited by Rf-magnetron sputtering	Hindawi Publishing Corporation Volume 2014, Article ID 683219, 5 pages http://dx.doi.org/10.1155/2014/683219 (2014). ISSN: 2356-6108.	Monika Tomar, Nitin K. Puri, Vinay Gupta
5. 2014	Ultraviolet radiation detection by barium titanate thin films grown by Sol-gel hydrothermal method	Procedia Engineering 87 (2014) 1172 – 1175. ISSN: 1877-7058. https://doi.org/10.1016/j.proeng.2014.11.375	Savita Sharma , Monika Tomar, Nitin K.Puri, Vinay Gupta
6. 2014	NO _x Sensing properties of Barium Titanate thin films	Procedia Engineering 87 (2014) 1067 – 1070. ISSN: 1877-7058. https://doi.org/10.1016/j.proeng.2014.11.347	Savita Sharma , Monika Tomar, Nitin K.Puri, Vinay Gupta

Seminar/Workshop/Conferences Presentation/Organisation

1. “NO_x Sensing properties of Barium Titanate Thin Films”, **Savita Sharma**, Monika Tomar, Nitin K. Puri, Vinay Gupta, presented at **1st winter workshop on Engineering at Nanocale: From Materials to Bio-sensors** held at **IIT Indore** from **10th – 12th December 2012**.
2. “Barium Titanate Thin Film based NO_x Gas Sensor”, **Savita Sharma**, Monika Tomar, Nitin K. Puri, Vinay Gupta, presented at **International conference on Emerging Technologies: Micro to Nano 2013 (ETMN- 2013)** held at **BITS Pilani, Goa, India** from **23rd – 24th February, 2013**.
3. “Properties of Barium titanate thin films grown by Sol-gel-hydrothermal process”, Savita Sharma, Monika Tomar, Ashok Kumar, Nitin K. Puri, Vinay Gupta, presented at **International Conference for Nanoscience and Nanotechnology (2013)**, held at **BBAU, Lucknow, India** from **18th - 20th November 2013**.
4. “Multiferroic Properties of BiFeO₃/BaTiO₃ Multilayered Thin Films”, **Savita Sharma**, Monika Tomar, Ashok Kumar, Nitin K. Puri, Vinay Gupta, presented at **Magnetic Materials and Applications (MagMA-2013)**, held at **IIT Guwahati, India** from **5th -7th December 2013**.
5. “Multiferroic Properties of BiFeO₃/BaTiO₃ Multilayered Thin Films”, **Savita Sharma**, Monika Tomar, Nitin K. Puri, Vinay Gupta, presented at **IUMRS-ICA 2013**, held at **IISc, Bangalore, India** from **16th -20th December 2013**.
6. “NO₂ sensing properties of WO₃ thin films deposited by Rf-magnetron sputtering”, **Savita Sharma**, Monika Tomar, Nitin K. Puri, Vinay Gupta, presented at **Advances in Material Sciences For Energy applications (AMSEA 2014)**, held at **UPES campus, Dehradun, India** from **9th – 10th January 2014**.
7. “Photovoltaic properties of BiFeO₃/BaTiO₃ bilayered thin film”, **Savita Sharma**, Monika Tomar, Ashok Kumar, Nitin K.Puri, Vinay Gupta, presented at **National Conference on Nanotechnology and Renewable Energy (NCNRE 2014)**, held at **Jamia Millia Islamia, Delhi, India** from **28th-29th April 2014**.
8. **DST Sponsored Workshop on Indigenously Developed Low Cost Surface Plasmon Resonance Technique and its Applications**, held at **University of Delhi, Delhi, India** from **8th-**

9th May 2014.

9. “Multiferroic properties of BiFeO₃/BaTiO₃ bilayered thin film prepared by Sol-gel Spin coating method”, **Savita Sharma**, Monika Tomar, Ashok Kumar, Nitin K. Puri and Vinay Gupta, presented at **National conference on Multifunctional Advanced Materials (MAM 2014)**, held at **Shoolini University**, Solan, Himachal Pradesh, India from **11th-13th June 2014**.
10. “Ultraviolet radiation detection by barium titanate thin films grown by Sol-gel hydrothermal method”, **Savita Sharma**, Monika Tomar, Nitin K.Puri, Vinay Gupta, presented at **The 28th European conference on solid-state transducers (EUROSENSORS 2014)**, held at, **Brescia, Italy** from **7th-10th September 2014**.
11. “NO_x Sensing properties of Barium Titanate thin films”, **Savita Sharma**, Monika Tomar, Nitin K.Puri, Vinay Gupta, presented at **The 28th European conference on solid-state transducers (EUROSENSORS 2014)**, held at, **Brescia, Italy** from **7th-10th September 2014**.
12. “Electrical properties of BiFeO₃/BaTiO₃ bilayered thin film prepared by chemical route” **Savita Sharma**, Monika Tomar, Ashok Kumar, Nitin K.Puri, Vinay Gupta, presented at **3rd International Conference NANOCON 014**, held at, **Bharati Vidyapeeth University Pune, India** from **14th -15th October 2014**.
13. “Photovoltaic properties of BiFeO₃/BaTiO₃ multilayered thin films prepared by Sol-gel Method”, **Savita Sharma**, Monika Tomar, Ashok Kumar, Nitin K.Puri, Vinay Gupta, presented at **6th World Conference on Photovoltaic Energy Conversion (WCPEC-6)** held in **Kyoto, Japan** from **23rd November to 27th November 2014**.
14. Attended the **UGC Sponsored One Day “National Seminar on Recent Advances in Physics (NSRAP-2015)”** held at **Delhi Technological University, Delhi, India** on **16th February, 2015**.
15. “Effect of swift heavy ion irradiation on the structural and optical properties of Tungsten Oxide thin films”, **Savita Sharma**, Monika Tomar, Fouran Singh, Nitin K.Puri, Vinay Gupta, presented at **4th International Conference on Current Developments in Atomic, Molecular, Optical and Nano Physics with applications**, held at **Conference Centre, University of Delhi, India**, from **11th-14th March 2015**.
16. “Multiferroic BiFeO₃/BaTiO₃ thin films fabricated by chemical solution deposition technique”, **Savita Sharma**, Monika Tomar, Nitin K.Puri, Vinay Gupta, presented at **Materials Research Society Spring Meeting & Exhibit (MRS-2015)**, held at **San Francisco, California, USA**, from **6th-10th April 2015**.
17. “Photovoltaic response of hydrothermally derived BFO ceramics”, **Savita Sharma**, Nitin K.Puri, Vinay Gupta, presented at **9th National Conference on Solid State Chemistry and Allied Areas**, held at **Conference Centre, University of Delhi, India**, from **8th-10th May 2015**.
18. “Dielectric studies of multilayered BiFeO₃/BaTiO₃ capacitors deposited by pulsed laser deposition”, **Savita Sharma**, Monika Tomar, Ashok Kumar, Nitin K. Puri and Vinay Gupta, presented at **2nd International Conference on Emerging Technologies: Micro to Nano (ETMN-2015)** held at **Manipal University, Jaipur, India** from **24th-25th October 2015**.
19. “Swift heavy ion irradiation effects on structural and optical properties of Tungsten Oxide thin

films”, **Savita Sharma**, Monika Tomar, Fouran singh, Nitin K. Puri and Vinay Gupta, presented at **18th International Conference on Radiation Effects in Insulators (REI-18)** held at **Hotel Royal Orchid, Jaipur, Rajasthan, India** from **26th-31st October 2015**.

20. “A-site doped Bismuth Ferrite ($\text{Bi}_{0.97}\text{La}_{0.03}\text{FeO}_3$) thin film for photovoltaic applications”, Shaan Ameer, **Savita Sharma**, Monika Tomar and Vinay Gupta, presented at **International Conference on Materials Science & Technology (ICMTECH-2016)**, held at **Conference Centre, University of Delhi, New Delhi, India** from **7th to 10th March 2016**.
21. “Prominent photovoltaic response in multiferroic BFO/BTO heterostructures”, **Savita Sharma**, Nitin K. Puri, Vinay Gupta and Monika Tomar, presented at **2016 Joint IEEE International symposium on the Applications of Ferroelectrics, European Conference on Application of Polar Dielectrics, and Piezoelectric Force Microscopy Workshop (ISAF/ECAPD/PFM)** held at **Technische Universität Darmstadt, Darmstadt, Germany** from **August 21-25, 2016**.
22. Attended the **TEQIP-II Sponsored One Week Faculty Development Programme on “Advances in Microelectronics and Plasma Diagnostics”** organized by **Department of Applied Physics, Delhi Technological University (DTU)** from **August 29-September 02, 2016**.
23. “Au/BiYFeO₃/ITO MMM structure for photovoltaic studies having potential solar energy harvesting applications”, Shaan Ameer, **Savita Sharma**, Monika Tomar and Vinay Gupta, presented at **International Conference on Advances in Nanomaterials and Nanotechnology (ICANN-2016)**, held at **Jamia Milia Islamia, New Delhi, India** from **4th to 5th November, 2016**.
24. “Enhanced Photovoltaic response in metal nanocluster loaded multiferroic BFO thin film”, **Savita Sharma**, Monika Tomar and Vinay Gupta, presented at **International Conference on Technologically Advanced Materials & Asian Meeting on Ferroelectrics (ICTAM-AMF10)** held at **University of Delhi, Delhi, India** from **November 7-11, 2016**.
25. “Effect of Cr doping on dielectric properties of Bismuth Ferrite thin films”, Shaan Ameer, **Savita Sharma**, Monika Tomar and Vinay Gupta, presented at **International Conference on Technologically Advanced Materials & Asian Meeting on Ferroelectrics (ICTAM-AMF10)** held at **University of Delhi, Delhi, India** from **November 7-11, 2016**.
26. “Effect of Cr doping on dielectric properties of Bismuth Ferrite thin films”, **Savita Sharma**, Monika Tomar and Vinay Gupta, presented at **National Seminar on “A PARADIGM SHIFT TOWARDS EMPOWERMENT OF WOMEN”** held at **Kalindi College, University of Delhi, Delhi, India** from **February 3-4, 2017**.
27. Participated in the **National Science Day Programme** organized by the **Inter-University Accelerator Centre, Delhi, India** on **28th February 2017**.
28. “Bipolar resistive switching in Pt/BFO/BTO/Pt sandwiched structures”, **Savita Sharma**, Surbhi Gupta, Vinay Gupta and Monika Tomar, presented at **“The 14th International Meeting on Ferroelectrics IMF-2017”** held at **Grand Hyatt, San Antonio, Texas, USA** from **September 4-8, 2017**.
29. “Studies on the effect of integration of metal nanoclusters on the electrical and ferroelectric properties of barium titanate thin film”, **Savita Sharma**, Monika Tomar, Ashok Kumar, Vinay Gupta, presented at **“The 14th International Meeting on Ferroelectrics IMF-2017”** held at

Grand Hyatt San Antonio, Texas, USA from September 4-8, 2017.

- 30. Participated in the Workshop on “Quantum Physics: An Insight” organized by the The National Academy of Sciences India-Delhi Chapter & Physics Department, Kalindi College, University of Delhi, Delhi, India from October 25-26, 2017.**
- 31. “Comparison of Photovoltaic response in multiferroic BFO thin film with different top metal electrodes”, Savita Sharma, Harish K. Yadav, Monika Tomar and Vinay Gupta presented at “International symposium on Integrated functionalities ISIF-2017” held at Shangri-La Ero’s Hotel, New Delhi, INDIA from December 10-13, 2017.**
- 32. “WO₃/BTO heterostructures based NO₂ sensor with enhanced response characteristics”, Savita Sharma, Dheeraj Kumar, Monika Tomar, G.S. Chilana, Nitin K. Puri and Vinay Gupta presented at “International symposium on Integrated functionalities ISIF-2017” held at Shangri-La Ero’s Hotel, New Delhi, INDIA from December 10-13, 2017.**
- 33. Organizer and Trainer of “SKILL ENHANCEMENT WORKSHOP FOR LABORATORY STAFF” organized by Internal Quality Assurance Cell & Science Departments at Kalindi College, University of Delhi, Delhi, India held from 13th to 14th March 2018.**
- 34. “Enhanced Photovoltaic response in metal nanocluster loaded multiferroic BFO thin film”, Savita Sharma, Monika Tomar and Vinay Gupta presented at “International symposium on functional materials ISFM-2018” held at Hotel Shivalik View, Chandigarh, INDIA from April 13-15, 2018.**
- 35. Attended One-Day Seminar on “Life and works of Prof. M. N. Saha and Prof. S. N. Bose” organized by Department of Physics and Material Science & Engineering, Jaypee Institute of Information Technology, Noida on 15th September, 2018.**
- 36. Participated in the Conclave on “Biodiversity for Everyone’s Life” organized by the Institute of Bioresources and Sustainable Development (IBSD), Manipur & Miranda House University of Delhi held at Miranda House, University of Delhi, Delhi, India on 31st August, 2018.**
- 37. Attended the TEQIP-III Sponsored One Week Faculty Development Programme on “Recent Trends in Material Science and Engineering” organized by Department of Applied Physics, Delhi Technological University (DTU) from September 17th - September 21st, 2018.**
- 38. “BFO/BTO multilayer structures by Pulsed Laser deposition technique for ferroelectric photovoltaic applications”, Savita Sharma, Monika Tomar, Ashok Kumar, Nitin K. Puri and Vinay Gupta, presented at National Seminar on “New Trends in Nanotechnology and Applications” held at Atma Ram Sanatan Dharma College, University of Delhi, Delhi, India from September 27-28, 2018.**
- 39. “Multiferroic BFO/BTO multilayer structures based Magnetic field sensor”, Savita Sharma, Ayushi Paliwal, Monika Tomar, Vinay Gupta, presented at International conference on Magnetic Materials and Applications (ICMAGMA-2018), held at NISER Bhubaneswar, India from 9th -13th December 2018.**
- 40. “Food adulteration and recent techniques to detect ”, Neha ahlawat, Raksha tewari, Manu**

chaudhary, Ritika jain, Ayushi dhyani, Ishika bhullar, Monika bassi, Savita sharma, Sudha gulati, presented at **JIT Student Conference On Optics And Photonics held at Jaypee Institute Of Information Technology** , Noida from 2nd-3rd November, 2018.

41. "Modern techniques to detect food adulteration", Neha ahlawat, Raksha tewari, Ritika jain, Monika bassi, Sudha gulati, Savita sharma, presented at **Astrodroid, Physcom society fest of Kalindi college held at Kalindi college**, University Of Delhi.
42. "Growth of BFO/BTO multilayer thin film structures for energy storage applications", **Savita Sharma**, Monika Tomar and Vinay Gupta, presented at **"INTERNATIONAL CONFERENCE ON PHYSICS, SOCIETY AND TECHNOLOGY (ICPST-2019)"** organized by **Deshbandhu College, University of Delhi, Delhi, India** from **January 17-19, 2019**.
43. "SPR based Optical Sensor for the Detection of Adulteration in Milk", Sudha Gulati, Monika Bassi, **Savita Sharma**, Neha Ahlawat, Ayushi Dhyani, Raksha Tewari, Manu Chaudhary, Ritika Jain, Ishika Bhullar, Ayushi Paliwal, Monika Tomar, Vinay Gupta presented at **International Conference On Physics, Society And Technology-2019** organized by **Deshbandhu College, University of Delhi, Delhi, India** held at **Conference Centre, University Of Delhi** from 17th-19th January,2019.
44. Participated in the **National Science Day Programme** organized by the **Inter-University Accelerator Centre, Delhi, India** on **28th February 2019**.
45. "Bismuth Ferrite (BFO) thin films for multifunctional energy devices", Shiva Lamichhane, **Savita Sharma**, Monika Tomar, Ashok Kumar and Vinay Gupta presented at **National Conference on Smart Energy Resources and Sustainable Engineering** organized by **Swami Shraddhanand College, University of Delhi, Delhi, India** from 28th - 29th March, 2019.
46. "Optimization of BFO thin films for energy harvesting and energy storage properties", Shiva Lamichhane, **Savita Sharma**, Monika Tomar and Vinay Gupta presented at **National Conference on Recent Trends and Advancements in Chemical Sciences** organized by **Department of Chemistry and Bhaskaracharya College of Applied Sciences, University of Delhi, Delhi, India** from 29th -31st March, 2019.
47. "Non-Volatile Resisitive Switching in WO₃ Thin Films", Shiva Lamichhane, **Savita Sharma**, Monika Tomar and Vinay Gupta presented at **National Conference on Physics and Chemistry of Materials** organized by **Maharaja Agrasen Institute of Technology, Delhi, India** from 22nd -23rd April,2019.
48. "Urea detection in Milk Using Surface Plasmon Resonance", **Savita Sharma**, Monika Bassi, Sudha Gulati, Neha Ahlawat, Ayushi Dhyani, Raksha Tewari, Manu Chaudhary, Ritika Jain, Ishika Bhullar, Ayushi Paliwal, Monika Tomar, Vinay Gupta presented at **National Conference on Physics and Chemistry of Materials** organized by **Maharaja Agrasen Institute of Technology, Delhi, India** from 22nd -23rd April,2019.
49. "Detection of Adulteration in Milk Using SPR based Optical sensor", **Savita Sharma**, Sudha Gulati, Monika Bassi, Neha Ahlawat, Ayushi Dhyani, Raksha Tewari, Manu Chaudhary, Ritika Jain, Ishika Bhullar, Ayushi Paliwal, Monika Tomar, Vinay Gupta presented at **National Conference on Advanced Materials: Theory and Applications** organized by **Hansraj**

College, University of Delhi, Delhi, India from 26th- 28th Sept 2019.

50. "Laser fluence controlled Resistive Switching in Bismuth Ferrite thin films," Shiva Lamichhane, **Savita Sharma**, Monika Tomar and Vinay Gupta presented at " National Conference on Advanced Materials: Theory and Applications NCAMTA – 2019" held at Department of Physics and Electronics, HansRaj College, University Of Delhi, New Delhi, India, September 26-28, 2019.
51. "Non-Volatile Resistive Switching In WO₃ Thin Films." Shiva Lamichhane, **Savita Sharma**, Monika Tomar and Vinay Gupta presented at "3 rd International Conference on condensed Matter and Applied Physics." held at Department Of Physics, Govt. Engineering College, Bikaner, India, 14-15 October, 2019.
52. "Determination of Optical and Dielectric parameters for single to multiple interfaces using Fresnel's equations" Rachana Kumar, Seema Gupta, **Savita Sharma**, Nivedita, Mrinal, Natasha, Divya in "National Conference on Advanced Materials: theory and Applications (NCAMTA)" held on September 26-28, 2019 at Published in Abstract Hansraj College, University of Delhi. Book pp 42, NCAMTA-2019.
53. **Participated in National Seminar** on "Nuclear, Particle and Accelerator Physics" jointly organized by Department of Physics, Kalindi College and The National Academy of Sciences (NASI) Delhi Chapter on 6th November, 2019.
54. International webinar on "Importance of Cyber security in the world of Pandemics and Social Media" organized by Kamala Nehru College on May 6, 2020 at 11:00 A.M
55. International webinar on "Strengthening the immune system through Naturopathy" organized by the Department of Botany in collaboration with IQAC, Hansraj College on May 6, 2020 from 3:00-4:00 PM.
56. Webinar on "Covid-19: Managing Uncertainties" organized by ARSD College held on April 30th, 2020.
57. वेबिनार "हिंदी : अपार सम्भावनाओं का क्षेत्र" organized by Janki Devi Memorial College, Sir Ganga Ram Hospital Marg, Old Rajinder Nagar, Rajinder Nagar, New Delhi, Delhi 110060, India on May 2, 2020 10:30am - 12:30pm.
58. National Webinar on "Higher Education in India after COVID-19" organized by ARSD College held on May 7th, 2020.
59. Webinar on 'Integrating GIS with Geography' organized by Geography department, Kalindi College held on 1st-2nd May, 2020.
60. Webinar on "Material Science, Technology & Society" MTMS 2020 organized by School of Physical Sciences, JNU, New Delhi on 8th-9th May 2020
61. Participated in "National Level Quiz Competition on COVID - 19" organized by IQAC of Vanita Vishram Women's College of Commerce, Surat on 4th May 2020 to spread awareness about Corona.

62. "Webinar 12- "Corona Pandemic and Economic Challenges in India" by Dr. Jaswinder Singh" organized by Guru Angad Dev Teaching Learning Centre (GAD-TLC) of MHRD under PMMMNMTT scheme on 4th May 2020.
63. Webinar on "Search, Research and Publication Ethics" at 11.00 am - 12.30 pm By Prof. Ramesh C Gaur organized by Kalindi College Library held on 4th May, 2020.
64. Webinar series on "Quality Assurance in Higher Education: Practices and Issues", being organised under the aegis of the UGC Paramarsh scheme in collaboration with IQAC, Hansraj College from May 4 - May 8, 2020 from 4:00 PM onwards.
- 65.

Awards & Distinctions

1. Best ORAL Award for presenting Enhanced Photovoltaic response in metal nanocluster loaded multiferroic BFO thin film" at "**International symposium on functional materials ISFM-2018**" held at **Hotel Shivalik View, Chandigarh, INDIA** from **April 13-15, 2018**.
2. Received International Travel Grant from Department of Science & Technology (DST) for attending International conference in Italy in September 2014.
3. Qualified GRADUATE APTITUDE TEST IN ENGINEERING (GATE), jointly conducted by six Indian Institute of Technology(s) and Indian Institute of Science on behalf of Ministry of Human Resource and Development, Government of India, in the year 2012 in Physics.
4. Qualified CTET, conducted by C.B.S.E., in the year 2012.
5. Awarded for meritorious academic performance, Kalindi College, University of Delhi, 2007
6. Merit Scholarship for distinction in all subjects in AISSE, DAV Public School, Rohini, Delhi, 2002
7. Merit Scholarship for distinction in Sanskrit in AISSE, Sanskrit Kala Academy, 2002.
8. 1st prize at State level and 2nd at National level for Republic Day Parade, Govt. of India, 2001.
9. Won 1st prize in Collage Making competition during fest LehreIn'2006.

Public Service/ University Service/ Consulting Activity

1. **Workshops attended for Curriculum development**
2. **Resource person for the development of e-content for different papers of M.Sc. Physics and Material Science, for preparing different quadrants of various modules, under e-PG Pathshala mission of MHRD by the UGC under the supervision of Prof. Vinay Gupta (Project Coordinator).**
3. Member, **Sample/Model Question paper committee of Thermal Physics paper of Physics Hons. Paper IInd Year, University of Delhi.**
4. Attended "**Orientation Programme for Physics Course of IV Semester**" held on **Feb 22, 2017 at Department of Physics, University of Delhi.**
5. Faculty Volunteer, Organizing committee at **94th Annual Convocation, University of Delhi** held on November, 2017, 2018 & 2019.

6. Member, **Moderation committee of CBCS syllabus of group VII Physics Hons. Papers**, University of Delhi.
7. **Resource person for the teaching Solid State Physics paper in Summer M.Sc. Entrance Coaching** classes organized by Department of Physics & Astrophysics, University of Delhi.
8. **Organized Field visit to Electronic Materials and Devices Laboratory**, Department of Physics & Astrophysics for students of B.Sc. (H) Physics & B.Sc. Physical Science IIIrd Year Kalindi College.
9. Attended, 4-Days **“Workshop for the of Semester-VI” held on 31st Jan-5th Feb. 2018** at Department of Physics & Astrophysics, University of Delhi.
10. Attended **Vigyan Samagam-First mega-science exhibition** in India at National Science Centre on 21st January 2019 along with B.Sc. (H) Physics IIIrd & IIrd year students.

11. Evaluation of answer scripts

12. External examiner for practical examination B.Sc. (H) Physics - December 2017-2019

Professional Societies Memberships

1. Lifetime Membership of **Indian Physics Association (IPA)**.
2. Lifetime Membership of **Indian Association of Physics Teachers (IAPT)**.
3. Lifetime Membership of **Nano & Molecular Society (NMS), INDIA**.
4. Lifetime Membership of **VIBHA, Delhi**.
5. Membership of **Materials Research Society (MRS), USA**.

Research grants, projects completed and ongoing during last year:

Projects (Major Grants / Collaborations)

- Project completed entitled “Investigation of Adulteration in Milk using Surface Plasmon Resonance” Principal investigators – **Dr. Savita Sharma**, Dr. Sudha Gulati, Dr. Monika Bassi funded by Kalindi College, University of Delhi- 2018-19.
- Project completed entitled “Study of Electrical behavior of Metal Semiconductor Contacts for UV Photodetectors”. Principal investigators – **Dr. Savita Sharma** and Dr. Sudha Gulati, Academic advisor – Dr. Monika Bassi – 2019-2020.
- **Principal Investigator** in ongoing Innovation Research Project, Kalindi College entitled “Solar Energy Harvesting using Ferroelectric thin films”. Principal investigators - **Dr. Savita Sharma** and Dr. Sudha Gulati, 2021-2022.
- Project completed entitled “To elucidate Fresnel’s equations for reflection of electromagnetic waves at an interface between dielectric media and to correlate the reflection and transmission coefficients of lossless and lossy material for implication in energy conservation and its potential applications” Principal investigators – **Dr. Savita Sharma**, Dr. Rachna Kumar, Dr. Seema Gupta funded by Kalindi College, University of Delhi-2018-19.
- B.Sc. Project - “To study the properties of amorphous and crystalline materials using thin films deposition by sputtering methods”, Department of Physics and Astrophysics, University of Delhi, 2007.
- M.Sc. Project - “Infrared door monitor system and automatic room light controller”, Department of Physics and Astrophysics, University of Delhi, 2010

Other Details

COMPUTER PROFICIENCY

- C/C++language, Pascal language
- Operating MS Office and working on Linux
- PYTHON, MATLAB, SCILAB, BRUKER TOPAS 3, Origin Pro 8, FullProf, Powder X