

Name of the faculty



Dr. Swati Khatta

Assistant Professor,
Department of Physics,
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Areas of Interest

- **Broad Area of Research:** Material Science/Condensed Matter Physics (Density Functional theory)
- **Sub-Area:** Semiconducting materials, structural, electronic and magnetic properties, transition elements, interstitial/ substitutional doping, simulations, First principles method.

Educational Qualifications

Degree	College/ University	Year of Passing	Division (%)
Ph.D.	Department of Physics, Panjab University	2018	Degree Awarded
M.Sc.	Department of Physics, N.I.T, Jalandhar	2011	First Division (Gold Medalist)
B.Ed	Department of Education, H.P.U, Shimla	2009	First Division
B.Sc.	M.C.M D.A.V College, Kangra, (H.P.U)	2008	First Division

Professional Experience

Designation	Name of Organization	Period	
		From	To
Assistant Professor	MCM DAV College for Women, Chandigarh	21.05. 2024	Till date
Assistant Professor (Contractual)	MCM DAV College for Women, Chandigarh	18.09.2020	30.04.2024
Assistant Professor (Contractual)	Sri. Guru Gobind Singh College, Sector-26, Chandigarh	23.07.2018	30.04.2020

Research Publications

S. No.	Authors	Title	Journal	Volume, issue no., pages	Year
1.	Veerpal Kaur, Swati Khatta , S.K. Tripathi, Satya Prakash	The Properties As ₂ S ₃ modified with Cu.	AIP Conf. Proc.	2220, 020166	2020
2.	Swati Khatta , S.K. Tripathi, Satya Prakash	First-principles study of the electronic and magnetic properties of Zn _{1-x} Co _x Se alloys.	Solid state communications	287, 48-53	2019
3.	Swati Khatta , S.K. Tripathi, Satya Prakash	The Electronic and magnetic properties of V-doped ZnSe at substitutional/ interstitial sites.	Journal of magnetism and magnetic materials	460, 354-360.	2018
4.	Swati Khatta , S.K. Tripathi, Satya Prakash	Ab-initio Study of Phonon and Thermodynamic Properties of Znic-blende ZnSe	AIP Conf. Proc.	1942, 090025	2018
5.	Swati Khatta , S.K. Tripathi, Satya Prakash	The First Principles Study of Elastic and Thermodynamic Properties of ZnSe	AIP Conf. Proc.	1953, 130016	2018
6.	Veerpal Kaur, Swati Khatta , S.K. Tripathi, Satya Prakash	The electronic structure of silver doped As ₂ S ₃ .	AIP Conf. Proc.	1942,070034	2018
7.	Swati Khatta , S.K. Tripathi, Satya Prakash	First-principles study on half-metallic ferromagnetic properties of Zn _{1-x} V _x Se ternary alloys	Applied Physics A	123, 582 1-11	2017
8.	Swati Khatta , S.K. Tripathi, Satya Prakash	Electronic and magnetic properties of Zn _{1-x} Fe _x Se alloys.	Journal of Solid State Chemistry	256, 116–123	2017
9.	Swati Khatta , S.K. Tripathi, Satya Prakash	The electronic and magnetic properties of Zn _{0.875} Fe _{0.125} Se alloy.	AIP Conf. Proc.	1832, 130022	2017
10.	Isha Gawri, Swati Khatta , K.P. Singh, S.K. Tripathi	Synthesis and Characterization of Polyaniline as Emeraldine Salt.	AIP Conf. Proc.	1728, 020287	2016
11.	Swati Khatta , Satya Prakash, S.K. Tripathi	First Principle Investigations of Structural and Electronic Properties of ZnTe.	AIP Conf. Proc.	1731, 120015	2016
12.	Swati Khatta , S.K. Tripathi, Satya Prakash	A First Principle Investigation of Structural and Electronic Properties of Bulk ZnSe.	AIP Conf. Proc.	1675, 030012	2015

Professional Recognition/ Award

S. No.	Name of Award	Awarding Agency	Year
1.	Gold Medal in MSc. Physics	Dr B R Ambedkar National Institute of Technology, Jalandhar	2011
2.	Inspire Fellowship	From February 2013-January 2018	Funded by DST-Inspire

Paper presentation in conferences:

1. Oral and Poster Presentation in “62nd DAE SSPS 2017” held at BARC, Mumbai (Dec.26th-30th, 2017)
2. Poster Presentation in 2nd International Conference on “Condensed Matter and Applied Physics” held at Department of Physics, Engineering College, Bikaner (Nov. 24th-25th 2017).
3. Presented a Poster in “61st DAE SSPS 2016” held at KIIT University, Bhubaneswar, Odisha (Dec. 26th -30th, 2016).
4. Poster Presentation in Second International Conference on “Harnessing Engineering Technology and Innovation for Sustainable Growth (HETIS 2016)” held at Dr. S. S. Bhatnagar University Institute of Chemical Engineering & Technology (Dr. SSBUI CET), Panjab University, Chandigarh (Sep. 30th – 1st Oct, 2016).
5. Presented a Poster in “60th DAE SSPS 2015” held at Amity University, Uttar Pradesh (Dec. 21st -25th, 2015).
6. Poster Presentation in “4th National Conference on Advanced Materials and Radiation Physics (AMRP-2015)” held at Sant Longowal Institute of Engineering and Technology University, Sangrur, Panjab (March 13th -14th, 2015).
7. Presented a Poster in First International Conference on “Harnessing Engineering Technology and Innovation for Sustainable Growth (HETIS 2014) held at Dr. S. S. Bhatnagar University Institute of Chemical Engineering & Technology (Dr. SSBUI CET), Panjab University, Chandigarh (Sep. 19th – 20th Sept, 2014).

Participation in workshops/ School/ Seminar

1. Attended Online International Conference on “Beyond the Contemporary Science (BCS 2022)” jointly organized by Department of Physics, Mehr Chand Mahajan DAV College for Women, Chandigarh and School of Physical Sciences, Amrita Vishwa Vidyapeetham, Mysuru on 18th and 19th November 2022.
2. Participated and organized a skill development workshop named “Hands on Electronic Equipments” in the Department of Physics, Mehr Chand Mahajan DAV College for Women, Chandigarh on 29th August 2022

3. Attend and organized a quiz competition to mark the celebration of Akshay Urja Diwas-2022 sponsored by Chandigarh Renewable Energy and Science & Technology Promotion Society (CREST) in the Department of Physics, Mehr Chand Mahajan DAV College for Women on 20th August 2022
4. Participated Expert Lecture on NAAC-Revisiting the quality benchmarks: An Assessor's Perspective organized by Internal Quality Assurance Cell (IQAC), M C M D AV College for Women sector 36A, Chandigarh on 28 July 2021.
5. Attended Workshop cum Awareness Programme आचरण organized to celebrate Happiness at work by Character Building Committee, M C M D AV College for Women sector 36A, Chandigarh on 22 March 2021.
6. Participated Rashtriya Uchchatar Shiksha Abhiyan (RUSA) - Sponsored Online Workshop on Online Assessment Tools: A Step Forward.... organized by M C M D A V College for Women sector 36A, Chandigarh on 22nd March 2021.
7. Participated Rashtriya Uchchatar Shiksha Abhiyan (RUSA) - Sponsored Online Workshop-cum-Awareness Programme on Character Building through Education with special reference to National Education Policy-2020 organized by M C M DAV College for Women sector 36A, Chandigarh on 25-Feb.-2021 in collaboration with Vidarbha College of Arts, Commerce & Science, Jiwati, (M.S.).
8. Attended online National Seminar on “Recent Advances in Physics” under the aegis of Star College Scheme, DBT organized by BOSONS-The Physics Club, Department of Physics, Goswami Ganesh Dutta Sanatan Dharma College, Chandigarh on January 23, 2021.
9. Participated in Rashtriya Uchchatar Shiksha Abhiyan (RUSA) - Sponsored Online Workshop-cum-Awareness Programme on Open Educational Resources organized by M C M DAV College for Women sector 36A, Chandigarh on 22nd January 2021
10. Attended online webinar organized by Vidyalankar Institute of Technology, Mumbai dated 16th May 2020 on: "NAAC: Systematic data organization and representation.
11. Attended the National level webinar on “Future of Quantum Computing” organized by Sri Guru Gobind Singh College Physics Association on July 29, 2020.
12. Attended National school cum workshop on “Accelerator Physics” held at Department of Physics, Panjab University, Chandigarh (March 15th-18th, 2016).
13. Attended workshop on “High Performance Computing” held at Department of Physics, Panjab University, Chandigarh (March 16th-17th, 2015).
14. Attended **DST-SERC School** on “Density Functional Theory & Beyond” held at Department of Physics, M.S. University of Baroda, Vadodara, Gujarat (Nov. 24th –Dec 13th, 2014).