

Dr. Anjna Devi
Assistant Professor
Department of Physics
Government Degree College Shahpur
District- Kangra (Himachal Pradesh), India



Educational Qualification:

- **CSIR- JRF, HPSET, HPTET**
- **M.Sc. Physics-** Himachal Pradesh University, Shimla (2012-2014)
- **B.Ed.-** Govt. College of Teacher Education Dharamshala, Kangra (HP) (2012)
- **M.Phil.-** Himachal Pradesh University, Shimla (2015)
- **Ph.D.-** Himachal Pradesh University, Shimla (2022)

Work Experience:

- 1) **Teaching Experience:** approx. **8 years** in College Cadre as an Assistant Prof. in Physics having teaching experience of PG and UG classes.
- 2) **Research experience:** approx. 11 years on computational material sciences in two dimensional, one dimensional and zero dimensional materials.
- 3) Experience of teaching PG classes and guided ten groups in M.Sc. Physics Projects at Govt. Degree College Ghumarwin, Bilaspur.
- 4) **Life Time Memberships with Organisations:** All Indian Association of Physics Teachers, IAPT-L8800 and Vigyan Samiti Himachal-VIGYASA, 22-23/0523.
- 5) Reviewer of difference peer reviewed journals.

Research Contributions in Peer Reviewed Journals and International Conferences

1. Satish Kumar, Monika Gupta, **Anjna Devi**, Arun Kumar Exploration of *Hydrogen Decorated Two-dimensional Graphullerene: a First Principle Investigation*, Proceedings of the 68th DAE SOLID STATE PHYSICS SYMPOSIUM, ISBN: 978-81-967453-0-1., April **2026**,
2. Ritika Negi, Yogyata Pathania, **Anjna Devi**, Surjeet Kumar, Arun Kumar, *A First-Principles Study of Structural and Electronic Properties of 2-Iodoethylammonium Lead Iodide Perovskite*, Proceedings of the 68th DAE SOLID STATE PHYSICS SYMPOSIUM, ISBN: 978-81-967453-0-1., April **2026**,
3. Chet Ram, Vaishali Thakur, Bharti Thakur, **Anjna Devi**, *Enhanced Photo catalytic Performance of MoS₂/bg-C₃N₄ Hetero-structures for Hydrogen Evolution Reaction: A First-Principles Study*, Proceedings of the 68th DAE SOLID STATE PHYSICS SYMPOSIUM, ISBN: 978-81-967453-0-1., April **2026**.
4. **Devi A**, Satish Kumar, Arun Kumar. Graphene-Graphullerene Heterostructure: *A Novel Material for High-Performance Capacitors*. J.Cond. Matt., **2025** Mar.25, 3(01):38-40.
<https://jcm.thecmrs.in/index.php/j/article/view/76>
5. Devi L, Kumar A, **Devi A**, Iron doped MSe₂ Monolayers (M=Mo, W): *A First-Principles Study of Structural, Electronic, and Magnetic Properties*. J. Cond. Matt, **2025** Mar., 2(02):123-6. <https://jcm.thecmrs.in/index.php/j/article/view/127>
6. Ashutosh, **Anjna Devi**, Arun Kumar, Amarjeet Singh, Rajendra Adhikari, *Structural, electronic and thermal properties of NbSe₂ monolayer: First principle study*, AIP Conf. Proc. 2995, 020104 (**2024**) <https://doi.org/10.1063/5.0177960>.
7. Ajay Kumar, Ananya Chandel, Anchal Kumar Sharma, Chandrika Negi, Abhishek Chandel, **Anjna Devi**, Arun Kumar, *First principle study of structural and electronic properties of copper Thiocyanate (CuSCN) monolayers*, AIP Conf. Proc. 2995, 020051 (**2024**) <https://doi.org/10.1063/5.0177989>.
8. P. Contreras, **A. Devi**, D. Uzcátegui and E. Ochoa, THE TWO-DIMENSIONAL DENSITY OF STATES IN NORMAL AND SUPERCONDUCTING COMPOUNDS, ISSN: 1920-3853; Print ISSN: 1715-9997, Vol. 17, No. 2, pp. 5659-5671, **June 2023**.
9. **Anjna Devi**, Neha Dhiman, Narender Kumar, Wadha Alfalasi, Arun Kumar, P. K. Ahluwalia, Amarjeet Singh and Nacir Tit, *Ferromagnetism in Defected TMD (MoX₂, X = S, Se) Monolayer and Its Sustainability under O₂, O₃, and H₂O Gas Exposure: DFT Study*, *Nanomaterials* **2023**, 13, 1642.
<https://doi.org/10.3390/nano13101642>.

10. Pedro Contreras, Dianela Osorio, **Anjna Devi**, Self-Consistent Study of the Superconducting Gap in the Strontium-doped Lanthanum Cuprate, March 7, 2023, Vol. 9, No. 1, **2023**, pp. 1-13. doi: 10.11648/j.ijamtp.20230901.11.
11. **Anjna Devi** , Ashutosh, P.K. Ahluwalia, Arun Kumar, Pedro Contreras, Computational insight into structural, electronic and thermal properties of novel two-dimensional NiXO (X = Cl, Br) monolayers: Ab initio perspective, *Materials Today: Proceedings*, February **2023**, <https://doi.org/10.1016/j.matpr.2023.02.059>
12. **Anjna Devi**, Arun Kumar, Pedro Contreras, Amarjeet Singh, P.K. Ahluwalia, Optical properties of triangular nanoflakes of Cr_mSe_n, *Materials Today: Proceedings*, **2023**, ISSN 2214-7853, <https://doi.org/10.1016/j.matpr.2022.12.259>.
13. **Devi A.**, Kumar N., Thakur A., Kumar A., Singh A., and Ahluwalia P. K., “Electronic band gap tuning and calculation of mechanical strength & deformation potential by applying uniaxial strain on MX₂ (M=Cr, Mo, W & X= S, Se) monolayers and nanoribbons”, *ACS Omega*, **2022**; 7(44), 40054-40066.
14. P. Contreras, D. Osorio, **A. Devi**, The effect of nonmagnetic disorder in the superconducting energy gap of strontium ruthenate, *Physica B: Condensed Matter*, 646, **2022**, 414330,0921-4526.
15. P. Contreras, D. Osorio, **A. Devi**, The effect of Nonmagnetic disorder in the energy gap at zero temperature for the Fs gamma-sheet of Strontium Ruthenate, **2022** <https://ssrn.com/abstract=4184333> .
16. **A. Devi**, Kumar A, Ahluwalia P.K, Singh A., “Novel properties of transition metal dichalcogenides monolayers and nanoribbons (MX₂, where M= Cr, Mo, W and X = S, Se): A spin resolved study”, *Materials Science and Engineering: B*, **2021**; 271: 115237.
17. **Devi A.**, Kumar A, Kumar T, Bharti, Adhikari R, Ahluwalia P.K, Singh A., “Structural, electronic and magnetic properties of Cr_MS_n and Cr_MSe_n nanoflakes: An ab initio Investigation”, *Physica E: Low-dimensional Systems and Nanostructures*, **2021**; 134: 114825.
18. **Devi, A.**, Kumar, A., Singh, A., Ahluwalia, P. K. A, “A comparative spin dependent first principle study of monolayer (2D), armchair and zigzag nanoribbon (1D) of chromium disulfide (CrS₂)”, *AIP Conference Proceeding*, **2020**; 2265 , 03070.
19. Suruchi Thakur, Narender Kumar, Raj Kumar, **Anjna Devi** and Arun Kumar, "Band gap engineering of tungsten disulfide (WS₂) nanoribbon by applying elastic strain and electric field", *AIP Conference Proceedings* 2265, 030698, **2020** <https://doi.org/10.1063/5.0017863> .
20. **Devi A.**, Kumar A, Singh A. and Ahluwalia P. K, “A comparative study on phonon spectrum and thermal properties of graphene, silicene and phosphorene”, *AIP Conference Proceedings*, **2019**; 2115, 030386.

21. Arun Kumar, **Anjna Devi**, Ripan Kumar, Amarjeet Singh, P.K. Ahluwalia, “First principle study of structural, electronic and magnetic properties of GeC nanoribbon”, AIP Conference Proceedings, **2019**,2115 (1); 030376.
22. **Devi A.** and Singh A., “Thermal properties of black phosphorene and doped phosphorene (C, N & O): A DFT study”, *AIP Conference Proceedings*, **2018**, 1942, 090042.

FDP/Refresher/Orientation/Workshop and Conference Attended (Year 2022 onward):

1. Attended in FDP on AI-TOOLS in January **2026**.
2. Completed 12 week refresher course in physics entiteld “Physics of Materials” at NPTEL through SWAYAM portal Ministry of Education Government of India august **2025**.
3. Attended Online one Week National workshop on Role of Nanotechnology in environmental Remediation at Maharaja Agrasen University, Center of Excellence in Nanotechnology, Solan, Himachal Pradesh on 6th -12th November, **2024**.
4. Attended Online two week *Refresher Course in Physics* organised by UGC-Human resource development centre UNIVERSITY OF JAMMU, JAMMU-180006, held from 7th October, 2024 to 19th October, **2024**.
5. Attended online one week Faculty Development Programme on “*Academic Research Writing*” at Teaching Learning Centre Ramanujan College, University of Delhi, from 01 – 07 January, **2024**.
6. Attended a lecture on “ Powering Hydrogen Progress via Sustainable Energy Technology” on 17th January, **2024**, organized by American Society of Chemistry (ACS).
7. Attended online one week national workshop on “*Nanomaterials for Sustainable Future*”, at MAHARAJA AGRASEN UNIVERSITY, on 30th October - 04 November **2023**.
8. Attended online 4-Week Faculty Induction/Orientation Programme for “*Faculty in Universities/Colleges/Institutes of Higher Education*” from 20 January – 18 **Feburary, 2023** at Teaching Learning Centre Ramanujan College, University of Delhi.
9. Attended ACS webinar on “*ACS PhD Hour: Thinking Beyond Academia*” on dated 20th **December, 2022**, organized by American Society of Chemistry (ACS).
10. Attended ACS webinar on “*Affordable clean water using advanced materials*” on dated 30th **November, 2022**, organized by American Society of Chemistry (ACS)

Paper Presented in International Conferences (Year 2022 onward):

1. Presented and submitted paper entiteled “Atomic Pathways of GaAs Nanoribbon Curling into Nanotubes: A Simulation Study”in December **2025**.
2. Presented paper in Second International Conference on “Recent Trends in Applied Physics & Material Science (RAM 2024)” entitled “Graphene-Graphulereene Heterostructure: A Novel materials for High-Performance Capacitors ” held at Bikaner Technical University, Bikaner on dated November 15-16, **2024**.
3. Presented paper titled “Thermal stability and electronic properties of NbX₂ (X= S, Se, Cl, Br) Monolayers using *Ab-initio* approach.” on dated 23rd to 25th September, 2024 in “Recent Trends in Energy Harvesting”, ICRTEH-**2024**, held at Madanapalle Institute of Technology & Science, Andhra Pradesh.
4. Presented Oral presentation in workshop of Ab-initio Many-Body Methods and Simulations with the Yambo Code | (SMR 3694) entitled “*Thermal Stability of NbX₂ (X= S, Se, Cl, Br) Monolayers and Their Electronic Properties using Ab-initio approach.*” held at International Centre for Theoretical Physics (ICTP), Italy on 04 Apr 2022 - 08 Apr **2022**.
5. Presented a Paper in the International Conference on Recent Advancements in Nanotechnology for Sustainable Development ICRANS-22) entitled “*Computational insight into structural, electronic and thermal properties of novel two-dimensional NiXO (X= Cl, Br) monolayers: ab initio perspective*” held at Maharaja Agrasen University, Baddi, India, (Virtually on Microsoft Teams) during November 11- 12, **2022**.
6. Presented Oral presentation of the paper entitled “*Optical properties of triangular nanoflakes of Cr_mSe_n*”, in the international conference on Advanced Materials & Devices for Futuristic Applications organised by Department of Physics, Chandigarh University Mohali held on dated 23-24 November **2021**.

Invited talk in national/international Conferences

1. Talk on “Dimensionality and strain dependent properties of TMDC monolayers” in National Workshop on “Nanomaterials ModellingNMM-2022) Using Quantum Espresso” during 18-21 April 2022 organized by Dept. of Physics, Swami Vivekanand Govt. College Ghumarwin, Himachal Pradesh, India.

Research citations/indexing (Till Nov-2024):

- ORCID: (<https://orcid.org/0000-0002-9336-2240>)
- Research Gate;
citations = 134
h-index = 8
<https://www.researchgate.net/profile/Anjna-Devi>

- Google Scholar;
citations = 130
h-index = 7
i10- index = 4
<https://scholar.google.com/citations?user=hklPha0AAAAJ&hl=en>
- Web of Sciences;
- ResearcherID: [AAV-4720-2021](#)
citations = 58
h-index = 4
<https://www.webofscience.com/wos/author/record/AAV-4720-2021>

Award and Appreciation received:

1. Appreciation certificate of ACS peer reviewer, 2025