

Name	Prof. (Dr.) Surinder Paul	Photograph
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Date of Birth	13.04.1979	
Email	<a href="mailto:surinderpaul79@hpcu.ac.in">surinderpaul79@hpcu.ac.in</a>	
Designation	<b>Professor</b> Department of Nano Science & Materials, School of Physical & Material Sciences, Central University of Himachal Pradesh Dharamshala, H.P - 176215	
Address		Professor, Department of Nano Science & Materials , Central University of Himachal Pradesh (CUHP), Shahpur Campus, Kangra, Himachal Pradesh, India. Pin176206
Educational Qualifications		M.Sc., M.Phill., Ph.D
Specialisation		Material Science, Condensed Matter Physics, Nanotechnology, Solid Oxide Fuel Cell
Scopus ID & Google Scholar ID		<a href="https://www.scopus.com/authid/detail.uri?authorId=55487167900">https://www.scopus.com/authid/detail.uri?authorId=55487167900</a> & <a href="https://scholar.google.com/citations?hl=en&amp;user=I4O64kgAAAAJ&amp;view_op=list_works&amp;sortby=pubdate">https://scholar.google.com/citations?hl=en&amp;user=I4O64kgAAAAJ&amp;view_op=list_works&amp;sortby=pubdate</a>
Teaching Experiences		15 years <sup>+</sup>
Supervision		Ph.D – 02 (Awarded) 02 (In progress) M.Phill- 01(Awarded) PG – 76 (Passed)
Employment History		
<p>Dr. Surinder Paul is currently working as Professor in the Department of Nano Science &amp; Materials at the Central University of Himachal Pradesh. He joined the university in March 2022 as an Associate Professor in the Department of Physics and Astronomical Sciences. He obtained Ph.D. in Physics from IKGPTU Jalandhar, Punjab (India). He has fifteen year teaching experience. His subject of specialization is material Science, Condensed Matter Physics, and Nanotechnology. He is working on developing novel material for energy storage devices.</p>		
Major Research Projects		

1. **Rs 10 Crore** project “Dynamic Research Ecosystem for Advanced Materials (DREAMS)” Partnerships for Accelerated Innovation and Research (PAIR) Under ANRF (Anusandhan National Research Foundation Partnerships) programs.
2. **Rs 73 Lakh**, FIST- Level B project (Fund for Improvement of Science and Technology Infrastructure) project is a program funded by the Department of Science & Technology (DST), Government of India.

## Publication, Book Chapter and Patent

### Research Paper Published in UGC listed and Scopus/SCI indexed journals:

1. Aman Sen, **Surinder Paul\***, R Kumar, AM Mujawar, V Sharma, G Bhargava; *High-Temperature Synergistic Enhancement of Structural, Dielectric, and Electrochemical Properties in BiMnO<sub>3</sub> and Ti-substituted Bi<sub>0.50</sub>Nd<sub>0.50</sub>Mn<sub>1-x</sub>Ti<sub>x</sub>O<sub>3</sub> (x= 0.00, 0.05, and 0.10) Ceramics*, Ceramics International, Elsevier, ISSN 0272-8842, 51, 41680–41693 (2025), <https://doi.org/10.1016/j.ceramint.2025.06.389>
2. Shruti Rialach\*, Sanjeev Gautam, Navdeep Goyal, and **Surinder Paul**; *Novel Tetrapod-Structured Cerium-MOF/GO Edifices in a Redox-Additive Electrolyte for High-Performance Smart Supercapacitors*, Synthetic Metals, Elsevier, 312, 117871 ISSN 0379-6779 (2025). <https://doi.org/10.1016/j.synthmet.2025.117871>
3. Shruti Rialach\*, Sanjeev Gautam, Navdeep Goyal, and **Surinder Paul**; “*De Novo Monolayer Graphene Oxide High-Yield Synthesis and Rietveld Analysis for Advanced Energy Storage Applications*” *Electrochimica Acta*, Elsevier, ISSN 0013-4686, 524, 145976 (2025) <https://doi.org/10.1016/j.electacta.2025.145976>
4. Aman Sen, **Surinder Paul\***, Shruti Rialach, Shaheen, Prerna, Manokamna, P. Sharma, G. Bhargava; “Exploring the multifunctional properties of Ni<sub>1-x</sub>Zn<sub>x</sub>Fe<sub>2</sub>O<sub>4</sub> (x = 0, 0.1, 0.2, and 0.3) ferrites synthesized by sol-gel citrate approach” *Physics of the Solid State*, Springer, ISSN 1063-7834, 2025, Vol. 67, No. 5, pp. 338–349 (2025). <https://doi.org/10.1134/S1063783425600189>
5. Aman Sen and **Surinder Paul\***, *Effective Ca and Ti co-doping in La<sub>0.80</sub>Ca<sub>0.20</sub>Mn<sub>0.80</sub>Ti<sub>0.20</sub>O<sub>3</sub> perovskite as high-performance cathode material for solid oxide fuel cells*; MRS Advances, Springer, ISSN 2059-8521, Vol. 10, pages 1337–1343, (2025). <https://doi.org/10.1557/s43580-024-01102-w>
6. **Surinder Paul \***, Sangeeta Devi, Aman Sen, Shruti Rialach, Manokamna, *Cathode Material for Solid Oxide Fuel Cell: A review*, Indian Journal of Pure & Applied Physics (IJPAP), CSIR, ISSN 0975-1041, Vol. 63, September 2025, pp. 788-795, (2025) . [10.56042/ijpap.v63i9.14279](https://doi.org/10.56042/ijpap.v63i9.14279)
7. A Kaur, A S Nindrayo..., **Surinder Paul**, *Magnetically tailored dielectric behaviour of (1-x)Ba<sub>0.98</sub>Sm<sub>0.02</sub>TiO<sub>3-x</sub>Ba<sub>0.7</sub>Sr<sub>0.3</sub>Fe<sub>12</sub>O<sub>19</sub> ceramic composites*, Processing and Application of Ceramics, ISSN 1820-6131, 18,4,348, (2024); <https://doi.org/10.2298/PAC2404348K>
8. **Surinder Paul\***, Naiem Ahmed, Aman Sen, Shruti Rialach, Sangeeta Devi, Manokamna; *Fabrication and investigation of Nd<sub>1-x</sub>Sr<sub>x</sub>Ti<sub>0.80</sub>Fe<sub>0.20</sub>O<sub>3</sub> (0.10 ≤ x ≤ 0.40) perovskite material for electrode of solid oxide fuel cell*; Indian Journal of Physics; Springer, ISSN 0973 1458, (2024) <https://doi.org/10.1007/s12648->

9. **Surinder Paul\***, Naiem Ahmed, Manokamna, Aman Sen, Shruti Rialach, Neha Sharma, Sangeeta Devi; *Synthesis and characterization of  $\text{La}_{1-x}\text{Sr}_x\text{Ti}_{0.80}\text{Fe}_{0.20}\text{O}_3$  ( $0.10 \leq x \leq 0.40$ ) perovskite material for electrode of solid oxide fuel cell*; Indian Journal of Physics; Springer, ISSN 0973 1458, (2024) <https://doi.org/10.1007/s12648-024-03230-3>
10. Sanjeev Gautam\*, Shruti Rialach, **Surinder Paul**, and Navdeep Goyal; *MOF/Graphene Oxide Based Composites in Smart Supercapacitors: A Comprehensive Review on the Electrochemical Evaluation and Material Development for Advanced Energy Storage Devices*; RSC advances, Royal Society of Chemistry. 2024, 14, 14311–14339, (2024). <https://doi.org/10.1039/D4RA01027B>
11. Naiem Ahmed\*, Sangeeta Devi, Mohd Arif Dar, Neha Sharma, **Surinder Paul**, *Anode Material for Solid Oxide Fuel Cell: A review*, Indian Journal of Physics; Springer, ISSN 0973 1458, Volume 98, pages 877–888, (2024). <https://doi.org/10.1007/s12648-023-02860-3>
12. Sangeeta Devi, Naiem Ahmed, Neha Sharma, Manokamna, Aman Sen, Shruti Rialach, and **Surinder Paul\***, *Synthesis and Characterization of  $\text{La}_{1-x}\text{Sr}_x\text{Y}_{0.75}\text{Co}_{0.25}\text{O}_3$  ( $0.10 \leq x \leq 0.40$ ) Perovskite for Cathode Material of SOFCs*, Rasayan Journal of Chemistry, ISSN 0974-1496, Vol.-17 (3), (2024). <http://doi.org/10.31788/RJC.2024.1738912>
13. **Surinder Paul**\*, Vikas Anand, Noorjahan, Vikas Duggal, Manokamna, “*Preparation and performance of a  $\text{Sr}^{2+}$  doped  $\text{LaMnO}_3$  cathode for low temperature solid oxide fuel cells*” Materials Today: Proceedings; Elsevier, ISSN 2214-7853, Vol. 103, 374-378 (2024), <https://doi.org/10.1016/j.matpr.2023.09.029>
14. Aman Sen, **Surinder Paul\***, Rajni, Ritika, Ravinder, and Manokamna; *Role of  $\text{Nd}^{3+}$  Substitution on Structural Behaviour of  $\text{Bi}_{1-x}\text{Nd}_x\text{MnO}_3$* ; AIP - Proceeding, ISSN 1551-7616. (Accepted)
15. Sangeeta Devi, **Surinder Paul\***, Naiem Ahmed, Aman Sen, Shruti Rialach, Manokamna; *Synthesis and Characterization of  $\text{La}_{1-x}\text{Sr}_x\text{Y}_{0.50}\text{Co}_{0.50}\text{O}_3$  ( $0.10 \leq x \leq 0.40$ ) Perovskite for cathode of Solid Oxide Fuel Cell*; AIP - Proceeding, ISSN 1551-7616. (Accepted)
16. **Surinder Paul\***, Manokamna, Vikas Duggal, Vivek Sheel Jaswal, Rajesh Kumar, “*Structural, Dielectric and Conductive properties of Ag substituted  $(\text{La}_{0.80}\text{Sr}_{0.20})_{1-x}\text{Ag}_x\text{MnO}_3$  ( $x=0.15$  and  $0.20$ ) cathode material for SOFCs*” Materials Today: Proceedings; Elsevier, ISSN 2214-7853, (2023) <https://doi.org/10.1016/j.matpr.2023.01.302> (In Press)
17. **Surinder Paul\***, “*Structural and Electric properties of Ag modified  $(\text{La}_{0.80}\text{Sr}_{0.20})_{1-y}\text{Ag}_y\text{MnO}_3$  ( $y=0.05$  and  $0.10$ ) perovskite cathode of SOFCs*” Materials Today: Proceedings; Elsevier, ISSN 2214-7853, (2023) <https://doi.org/10.1016/j.matpr.2023.02.418> (In Press)
18. Sangeeta Devi, Manokamna, Rajesh Kumar, **Surinder Paul\***, *Structural, Thermal, Dielectric and Electrical behaviour of Ca doped  $\text{La}_{1-x}\text{Ca}_x\text{Fe}_{0.75}\text{Co}_{0.25}\text{O}_3$  ( $x=0.05$  &  $0.35$ ) ceramic material*, Materials Today: Proceedings; Elsevier, ISSN 2214-7853, (2023), <https://doi.org/10.1016/j.matpr.2022.12.132> (In Press)
19. **Surinder Paul\***, Manokamna, Arun Kumar, D.K.Sharma, A. Singh and Arvind Kumar, “*Modification of structural, thermal, electrical and dielectric properties of  $\text{La}_{0.7}\text{Sr}_{0.3}\text{Fe}_x\text{Mn}_{1-x}\text{O}_3$  ( $x=0.2$  and  $0.3$ ) with Fe doping for cathode application in SOFCs*” Rasayan Journal of Chemistry, ISSN 0974-1496, Vol.-15 (1), Pp 210-216 (2022), <http://dx.doi.org/10.31788/RJC.2022.1516751>

20. **Surinder Paul\***, Manokamna, Arun Kumar, Shubhpreet Kaur, Anupinder Singh, Arvind Kumar, “*Structural, thermal, electrical and dielectric properties of  $\text{La}_{0.7}\text{Sr}_{0.3}\text{Fe}_x\text{Mn}_{1-x}\text{O}_3$  ( $x = 0.10$  and  $0.40$ ) cathode for solid oxide fuel cell*” Materials Today: Proceedings; Elsevier, ISSN 2214-7853, Vol. 56, 1684-1690 (2022). <https://doi.org/10.1016/j.matpr.2021.10.319>
21. **Surinder Paul\***, Manokamna, Arun Kumar, Arvind Kumar, “*Synthesis and Characterization of  $\text{La}_{0.70}\text{Ca}_{0.30}\text{MnO}_3$  System for Solid Oxide Fuel Cell Applications*”, Institute of Physics; IOP conf. series: Materials Science and Engineering, ISSN 1757-899X, Vol. 1225, (2022) 0012054, [doi:10.1088/1757-899X/1225/1/012054](https://doi.org/10.1088/1757-899X/1225/1/012054)
22. Sangeeta Devi, Naiem Ahmed, Manokamna, Anupinder Singh, **Surinder Paul\***, “Study the effect of  $\text{Ca}^{2+}$  doping on Structural, Electrical, Thermal and Dielectric properties of  $\text{La}_{1-x}\text{Ca}_x\text{Fe}_{0.75}\text{Co}_{0.25}\text{O}_3$  { $x = 0.15$  &  $0.25$ } perovskite ceramics for solid oxide fuel cell applications” Materials Today: Proceedings; Elsevier, ISSN 2214-7853, Volume 60, Part 3, (2022), Pages 1989-1993, <https://doi.org/10.1016/j.matpr.2022.01.214>
23. Ankansha, Naiem Ahmed, Manokamna, Anupinder Singh, **Surinder Paul\***, Synthesis and characterization of Zn doped  $\text{Ti}_{1-x}\text{Zn}_x\text{O}_2$  { $0 \leq x \leq 0.25$ } nanoparticles, Materials Today: Proceedings; Elsevier, ISSN 2214-7853, Volume 62, Part 12, (2022), 6385-6390, <https://doi.org/10.1016/j.matpr.2022.03.384>
24. Naiem Ahmed, Manokamna, Anupinder Singh, Neha Sharma, **Surinder Paul\***, Synthesis and Characterization of Co Doped  $\text{Ti}_{1-x}\text{Co}_x\text{O}_2$  { $0 \leq x \leq 0.30$ } Solid Solutions, Materials Today: Proceedings; Elsevier, ISSN 2214-7853, Volume 65, Part 8, (2022), Pages 3288-3292, <https://doi.org/10.1016/j.matpr.2022.05.390>
25. Naiem Ahmed, Sangeeta Devi, Ankansha, Manokamna, Anupinder Singh, **Surinder Paul\***, “Effect of Ni substitution on structural, magnetic and dielectric properties of  $\text{Ti}_{1-x}\text{Ni}_x\text{O}_2$  { $0 \leq x \leq 0.3$ } nanoparticles prepared by sol gel method” Materials Today: Proceedings; Elsevier, ISSN 2214-7853, Volume 60, Part 3, (2022), Pages 2188-2193, <https://doi.org/10.1016/j.matpr.2022.02.440>
26. Manokamna\*, **Surinder Paul**, A. Singh, K.L. Singh, G. Bhargava, A.P. Singh, “*Effect of  $\text{Sr}^{2+}$  doping on the Structural, Thermal, Dielectric and Electrical properties of  $\text{La}_{1-x}\text{Sr}_x\text{Co}_{0.50}\text{Fe}_{0.50}\text{O}_3$  { $0.10 \leq x \leq 0.40$ } Cathode for SOFCs*” Rasayan Journal of Chemistry, ISSN 0974-1496, Vol.14(2), 1019-1027, (2021), <https://doi.org/10.31788/RJC.2021.1426153>
27. Manokamna\*, **Surinder Paul**, A.Kumar, A.Singh, K.L.Singh, G. Bhargav, A.P.Singh “*Role of  $\text{Ba}^{2+}$  substitution on structural, thermal, dielectric and electrical properties of  $\text{La}_{1-x}\text{Ba}_x\text{Mn}_{0.50}\text{Fe}_{0.50}\text{O}_3$  { $0.10 \leq x \leq 0.40$ } cathode for SOFCs*” Materials Today: Proceedings; Elsevier, ISSN 2214-7853, Vol. 45, 4639-4645 (2021), <https://doi.org/10.1016/j.matpr.2021.01.095>
28. Manokamna\*, **Surinder Paul**, A.Singh, K.L. Singh, G. Bhargava, A.P. Singh “*Influence of  $\text{Ba}^{2+}$  substitution on Structural, Dielectric, Thermal and Electrical behavior of  $\text{La}_{1-x}\text{Ba}_x\text{Co}_{0.50}\text{Fe}_{0.50}\text{O}_3$  { $0.10 \leq x \leq 0.40$ } Cathode for SOFC*” Research Journal of Chemistry and Environment, ISSN 0972-0626, Pp 105-113, Volume 25(10), (2021).
29. Manokamna\*, **Surinder Paul**, Arun Kumar, D.K.Sharma, K.L. Singh, G.Bhargava, A.P.Singh, “*Structural, Thermal and Electrical Properties of  $\text{La}_{0.80}\text{Sr}_{0.20}\text{MnO}_3$  Cathode of SOFCs*”, American Institute of Physics (AIP) Proceeding, ISSN 1551-7616, Volume-2369, 020136(1-5) (2021), <https://doi.org/10.1063/5.0061372>
30. Manokamna\*, **S. Paul**, A. Singh, K.L. Singh, A.P. Singh, “*Structural, Thermal, Electrical and*

*Dielectric properties of  $La_{1-x}Sr_xMn_{0.50}Fe_{0.50}O_3$  ( $0.10 \leq x \leq 0.40$ ) cathode material for SOFCs* Asian Journal of Chemistry, ISSN: 0970-7077, volume-32,12, Pp 3165-3172 (2020), <https://doi.org/10.14233/ajchem.2020.22965>

31. **Surinder Paul\***, Manokamna, Shubhpreet Kaur, P.S. Malhi, Anupinder Singh, Arvind Kumar “*Structural, Dielectric and Electrical Properties of Fe Doped  $La_{0.7}Ba_{0.3}MnO_3$  Solid Solutions for Cathode Materials*” International Journal of Recent Technology and Engineering ; ISSN: 2277-3878, Vol.8(3) ,Pp 7313-7317 ( 2019), [DOI:10.35940/ijrte.C6011.098319](https://doi.org/10.35940/ijrte.C6011.098319)
32. **Surinder Paul\***, Manokamna, Shubhpreet Kaur, P.S. Malhi, Anupinder Singh, Arvind Kumar “*Effect of Fe Substitution on the Structural, Electrical and Dielectric Properties of  $La_{0.70}Ca_{0.30}MnO_3$  Cathode for SOFCs*” International Journal of Innovative Technology and Exploring Engineering; ISSN: 2278-3075, Vol.9(1), Pp 324-328 (2019), [DOI: 10.35940/ijitee.A4114.119119](https://doi.org/10.35940/ijitee.A4114.119119)

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### Research Paper in other journals:

33. **Surinder Paul\***, D. Kumar, Manokamna, Gagandeep, “*Barium titanate as a ferroelectric and piezoelectric ceramics*” *Journal of Biosphere*, Govt. college Kathua J&K, 2(1) 55-58, ISSN 2278 – 3342 (2013).
34. **Surinder Paul\***, Manokamna, A P Singh, S. Thakur, K. L Singh “*Comparative Structural Study of Microwave and Conventionally Sintered  $La_{0.8}Sr_{0.2}Co_{0.5}Fe_{0.5}O_3$  Cathode Material for Solid Oxide Fuel Cell*” Proceeding ;3rd DAV National Congress Science Technology Engineering Humanities & Management ; ISBN :978-93-5254-976-4; 20-21 May, 2016; Vol-1; Pp 497-501.(oral)
35. Dinesh Kumar Malviya, A.K Shrivastva, **Surinder Paul**, N.A.A. Mundari, “*TiO<sub>2</sub> linked with CdSe using bifunctional surface modifier for solar cell application*” Arni university international journal, Volume 2,issue 2, Pp154-160, ISSN 2278-4241(2013).
36. Devinder Kumar Sharma, Gagandeep, **Surinder Paul**, Rakesh Sharma and Nargis Nelofar “*Crystallographic Analysis of some Structures of Indole Derivatives*” *Journal of Basic and Applied Engineering Research*, p-ISSN: 2350-0077; e-ISSN: 2350- 0255; Volume 5, Issue 5; pp. 363-365 (2018)

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### Book Chapter

1. Vivek Sheel Jaswal, Kusham Lata, Manish Kumar, **Surinder Paul**; Quantification and Identification Tools of Major Bioactive Moieties in Spices; in Taylor & Francis e-book “Anticancer Spices”, Jenny Stanford Publishing, eBook ISBN9781003534662, page 17, 2024.
2. **Surinder Paul**, Bandna Bharti, Rajesh Kumar, Chapter-7: “Role of Ferrite Materials in Renewable Energy Harvesting” in book “Engineered Ferrites and Their Applications” in Part of the book series: Materials Horizons: From Nature to Nanomaterials, Publisher: Springer Nature, ISSN: 2524-5384, Page 113-132, 2023.  
[https://doi.org/10.1007/978-981-99-2583-4\\_7](https://doi.org/10.1007/978-981-99-2583-4_7)

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### Paper Presented Oral/Poster in Conferences/Participation in conference:



1. One week FDP on Big Data Analytics organised by Electronics & ICT Academy, IIT Guwahati, Assam in association with Central University of Himachal Pradesh, Dharamshala supported by Ministry of electronics and information technology, Govt. of India on 10th to 14th February, 2025 (**Participation**)
2. **National Workshop** on the theme Role of Nanotechnology for Environmental Remediation organised by the Maharaja Agrasen University under the aegis of Centre of Excellence in Nanotechnology and Navyug Kanya Mahavidyalaya, Lucknow in association with SAIF-CIL, Panjab University, Chandigarh from 6th November to 12th November, 2024 (**Online, Participation**)
3. **SPARC Workshop** on Catalysis for Energy and Environment Technology (SWCEET)– 2024 sponsored by Scheme for Promotion of Academic and Research Collaboration (SPARC), an initiative of Ministry of Human Resource Development, Government of India, held at the Department of Physics, Central University of Rajasthan, Ajmer, Rajasthan during Sept.09 – 13, 2024 ( **Participation, Poster Presentation**).
4. **International Conference** on Advances in Smart Sensor, Signal Processing and Communication Technology (ICASSCT 2024), 22 - 23, March 2024 sponsored by department of Science and Technology, Government of India, Goa University, Goa, India (**Oral Presentation**).
5. One week **Faculty Development Program (FDP)** on Rietveld Refinement of X-Ray Diffraction (RRD) organized by the Centre for Advanced Computational Research, Delhi from 14th – 20th February 2024 via Online Mode.
6. **International Conference** on Recent Advances in Materials and Manufacturing organized by the Department of Mechanical Engineering, Velalar College of Engineering and Technology, Erode, Tamil Nadu, India held during 29 - 30, December 2023(**Online, Oral Presentation**).
7. **International Conference** on Recent Trends in Materials Science & Devices 2023 organised by Research Plateau Publishers & Sat Kabir Institute of Technology & Management Bahadurgarh, Haryana, India, 29 - 31, December, 2023 ( **Invited Talk** ).
8. One Week **National Workshop**, Nanomaterials for Sustainable Future held at Maharaja Agrasen University, Baddi, India, during October 30th to November 04, 2023(**Online, Participation**).
9. **International Conference** on Advances in Materials, Mechanics, Mechatronics & Manufacturing (IC4M2023), Organised by Yajurvedam an association for educational empowerment & social welfare, held **online** on April 15-16, 2023 in Madhya Pradesh, India (**Oral Presentation**).
10. **Workshop** on Plagiarism and Reference Management, Central University of Himachal Pradesh, 06 March, 2023 ( **Participation** )
11. **National Workshop** on Electro spinning (NEW 2023), Department of Physics GNDU Amritsar, 27-28 February, 2023 ( **Participation** )
12. **International Conference** on "Emerging Scenario of Science, Technology and Innovation-2023" (ESSTI-2023) which is going to be held on 24-25 February, 2023 at Career Point University, Hamirpur,

**H.P (Oral Presentation).**

13. **International Conference** on Recent Advances in Materials and Manufacturing (ICRAMM 2022) held at the Department of Mechanical Engineering, Velalar College of Engineering and Technology, Erode, Tamil Nadu, India, 8-9 December, 2022 **(Oral Presentation).**
14. **International Conference** on Nanotechnology: Opportunities & Challenges, Department of Applied Sciences & Humanities, Faculty of Engineering & Technology, Jamia Millia Islamia, New Delhi, India on 28-30 November, 2022 **(Poster Presentation).**
15. **National Conference** on Frontiers in Chemical Science, Central University of Himachal Pradesh & Indian societies of analytical sciences- Delhi Chapter, 4-5 November, 2022 **(Poster Presentation).**
16. **International Conference & Exposition** on Mechanical, Material and Manufacturing Technology (ICE3MT2022), 28-29 October, 2022, CVR College of Engineering, Hyderabad, India **(Oral Presentation).**
17. **International Online Conference** on Nano Materials Mahatma Gandhi University, Kottayam, Kerala, India 12th to 14th August 2022, **(Invited Talk)**
18. **International Online Conference** on Nano Materials Mahatma Gandhi University, Kottayam, Kerala, India 12th to 14th August 2022, **(Chaired a Session)**
19. **National conference and workshope** on NEP 2020, 29-30 June 2022, Sardar Patel University, Mandi H.P **(Participation).**
20. **International Conference** on Materials Science and Sustainable Manufacturing Technology (ICMSSMT), 20-21 May, 2022, Coimbatore, Tamil Nadu, India **(Paper Presentation).**
21. **International faculty development program** on research methods, Feb.6, 2022 to Feb.26, 2022 at Arni University, Indora, Himachal Pradesh (Participation).
22. **International Conference** on Applied Research and Engineering, ICARAE -2021, Cape Town, Western Cape, South Africa, 7335, 26-28 November 2021(Paper Presentation).
23. **International conference** of multidisciplinary aspects of materials in engineering, ICMAME- 2021, University institute of engineering & technology, Panjab University, Chandigarh, 8-9 October 2021(Paper Presentation).
24. **National conference** on advances in basic and applied sciences; Career Point University Hamirpur ; April 7-8,2017 (oral)
25. **National Congress** Science Technology Engineering Humanities & Management ; DAVIET, 20-21 May,2016 (oral)
26. **National congress** on science, Technology and Management; DAVIET ; 7-8 Nov. 2014 (poster)
27. **National conference** on recent trends in chemical and environmental sciences; Arni university Indora H.P; 27-28 Feb.2014 (Oral).
28. **Workshop** on Recent advances & futuristic trends in nanotechnology; DAVIET: 24<sup>th</sup> March 2012(Participation).
29. **National Conference** “Emerging trends in medical biotechnology & nanotechnology”; Arni University Indora; 3-4<sup>th</sup> Dec.2011 (Poster Presentation).

### Member of Organising committee of Conference /Workshop:

1. Member of Organising committee in the “**National Conference** on Nurturing Young Minds For Scientific Innovations-2025” organised by School of Life Sciences, Central University of Himachal Pradesh, Dharamshala, H.P, India, in collaboration with Himalayan Life Science Society, at Shahpur campus of Central University of Himachal Pradesh on 15-16 May, 2025.
2. Member of Organising committee in the **workshop** on “Recent trends in nanomaterial’s synthesis & their applications” organised by Department of Physics & Astronomical Science, Central University of Himachal Pradesh, Dharamshala, H.P, India on 14<sup>th</sup> November 2024.
3. Member of Organising committee in the **five day workshop** cum exhibition of on “Plasma Science and Technology” organised by Department of Physics & Astronomical Science, Central University of Himachal Pradesh, Dharamshala, H.P, India on 09 -13<sup>th</sup> October 2023.

### Patent/ Design

1. N.S.A. Sankar, Y. Pal, S. P. Tatte, U. Yadav, S. S. Rafik, G.N. Rao, **S. Paul**, T. C. J. Kumar, T. Meenakshi, V. S. Kushwah, S.Gopinath, J.P. Patra; “Implementation of novel techniques to measure the efficiency photovoltaics of nanostructured solar cells”; Application No.202241073253 , Publication Date : 06/01/2023.  
<https://ipindiaservices.gov.in/PublicSearch/PublicationSearch/ApplicationStatus>
2. Y. Pal, S. P. Tatte, R. Sivasamy, M. K. Ghosh, M. Dhonde, N. Sharma, **S. Paul**, Y. A. Pund, B. G.M. Shah, K. K. Kumar, P. Malviya; “Systematic approach to analyse the commercial applications of indoor photovoltaics based on flexible perovskite solar cells”; Application No. 202311007065, Publication Date : 17/03/2023.  
<https://ipindiaservices.gov.in/PublicSearch/PublicationSearch/ApplicationStatus>
3. Dr. Sham Singh, Dr. Kalpana Singh, **Dr. Surinder Paul**, Dr. A. C. Pandey, Dr. Shriram Lahauriya, Dr. Anoop Kumar Singh, Namarta Thakur, Dr. Amita Rani; Design number 447383-001 “SOLAR WIND EFFECT ANALYZER DEVICE” published on dated 30/05/2025 page no. 53543.  
<https://search.ipindia.gov.in/IPOJournal/Journal/Patent>

### Membership as Academic and Professional bodies

#### Status of Membership

#### Academic / Professional Body



Member	<b>Academic Council</b> , Central University of Himachal Pradesh, Dharamshala, HP-176215 from 27-10-2022 to 26-10-2025.
Member	<b>Board of Study (BOS)</b> , Department of Nano Science and Materials, Central University of Himachal Pradesh, Dharamshala, HP-176215
Member	Director research nominated member in the <b>Departmental Research Committee (DRC)</b> of department of Plant Sciences, CUHP Dharamshala HP-176215
Member	Director research nominated member in the <b>Departmental Research Committee (DRC)</b> of department of Chemistry and Chemical Sciences, CUHP Dharamshala HP-176215
Member	<b>Him Science Congress Association (HSCA)</b> , head office Sardar Patel University Mandi, Himachal Pradesh. Registration No. HSCA-LM-421
Member	<b>External member, Board of Study (BOS)</b> , Physics department Arni university, Kathgharh Indora , Kangra ,H.P
<b>Membership in different committees in CUHP</b>	
Convener	<b>Swachhta, Jal and Urjja Sarankshan Committee</b> , Central University of Himachal Pradesh, Dharamshala, since 06 September, 2022 onwards.
Coordinator (Patent)	<b>Coordinator (Patent)</b> , in Research and Development Cell, Central University of Himachal Pradesh, Dharamshala, since 15 September, 2023 onwards.
Convener	<b>All activities</b> , Department of Physics and Astronomical Science, Central University of Himachal Pradesh, Dharamshala.
Member	Shahpur <b>campus beautification committee</b> during NAAC team visit. No: 1-17/CUHP/2016/NIRF/IQAC/ 3777-78 dated 22 June, 2023
Convener	<b>Swachhta pakhwada</b> from 01 September to 15 September, 2023; Shahpur campus Central University of Himachal Pradesh, Dharamshala.
Convener	<b>Swachhta hi Sewa</b> from 15 September to 30 September; Shahpur campus Central University of Himachal Pradesh, Dharamshala.
Member	<b>Outreach Activities in CUHP</b> , member from department of Physics and Astronomical Science, Central University of Himachal Pradesh, Dharamshala, since 22 September, 2023.
Coordinator	<b>Viksit Bharat @ 2047 : Voice of Youth Consultation</b> , from 12 December to 25 December, 2023; Shahpur campus Central University of Himachal Pradesh, Dharamshala.
Chairman	<b>Stock verification of inventory items</b> in the department of Physics and Astronomical Science, office order dated 14-03-2024.
Coordinator	Departmental <b>Cultural Exchange and Educational Tour</b> , office order PMS/1-3/Gen.Corr./PUHP/21/ 2281) dated 19-03-2024
Chairman	Accommodation Committee, National Convention, Indian association of Physics Teachers held at Rainbow International School in collaboration with CUHP dated 16-10-2024 to 18-10-2024.

Coordinator	विश्वविद्यालय में “पंच प्राण पहल” से संबंधित समस्त गतिविधियों के आयोजन एवं इनकी देख-रेख हेतु परिसर स्तर पर समन्वयक, कार्यालय आदेश संख्या:-11/हि.प्र.के.वि./शै./2010/खंड-XII/6438-44 दिनांक <b>11.11.2024</b>
Coordinator	विश्वविद्यालय में “पंच प्राण पहल” से संबंधित समस्त गतिविधियों के आयोजन एवं इनकी देख-रेख हेतु परिसर स्तर पर समन्वयक, कार्यालय आदेश संख्या: 1-1/हि.प्र.के.वि./शै./2010/खंड -XII/7626-32 दिनांक <b>19.12.2025</b>
Chairman	Departmental Research Lab <b>Purchase Committee</b> —constituted vide Office Order No. PAS/2-13/CUHP/2023/122 dated 29.04.2025
Convener	<b>Jam-Session on Drug Abuse and Drug Demand Reduction</b> at Central University of Himachal Pradesh in association with District Welfare Office Kangra held on 28.04.2025
Coordinator	On the occasion of <b>International Yoga Day</b> , Yoga Study Centre of Himachal Pradesh Central University organized 3 days yoga training program in Shahpur campus of CUHP from 4-6-2025 to 6-6-2025
In- Charge	Departmental In-charge of <b>Internal Quality Assurance Cell (IQAC)</b> constituted vide office Order No. NSM/2-13/(office order)/CUHP/25/23 dated 04.11.2025
Coordinator	Departmental coordinator for <b>community outreach</b> activities constituted vide office Order No. NSM/2-13/(office order)/CUHP/25/29 dated 04.11.2025
In- Charge	Departmental In-charge of <b>M. Tech. Lab</b> constituted vide office Order No. NSM/2-13/(office order)/CUHP/25/25 dated 04.11.2025
Member	Member of departmental technical committee for procurements constituted vide office Order No. NSM/2-13/(office order)/CUHP/25/21 dated 04.11.2025
<b>Journal Reviewer: Manuscript Reviewed</b>	
1. Scientific Report, Publisher Springer Nature : 02 Manuscript in 2025 2. Ionics, Publisher Springer Nature : 04 Manuscript in 2025 3. Semiconductors, Publisher Springer Nature : 03 Manuscript in 2025 4. The Journal of Space Safety Engineering; Publisher Elsevier : 02 Manuscript in 2024 5. Materials Today: Proceedings; Publisher Elsevier : 01 Manuscript in 2022	
<b>Prize/ Certificate/Award</b>	
1. <b>Third Position</b> in 200 meter race, held on 03 January, 2023 organized by CUHPTA at Shahpur Campus , Shahpur CUHP. 2. <b>First Position</b> in हिन्दी पखवाड़ा के अंतर्गत आयोजित “आशुभाषण”, held on 19 September,2023 CUHPTA at Shahpur Campus , Shahpur CUHP.	