

Narinder Singh



Personal Detail

Assistant Professor

Nodal Officer

Department of Physics

Sardar Patel University, Mandi-175001, Himachal Pradesh, INDIA

Mobile No.: 9805336488, 9015044651

Email: narindersingh@spumandi.ac.in ; nst040782@gmail.com

Date of Birth: 04th July, 1982

Category: General

Brief Biography

Narinder Singh obtained his postgraduate degree in 2005 from Panjab University in India. In the same year, he passed the University Grant Commission-National Eligibility Test (UGC-NET) and the Graduate Aptitude Test in Engineering (GATE) with a 93.43 percentile score and a 233rd All India Rank. He spent fifteen years as Assistant Professor in eight different higher education institutions. He recently received his Ph. D. in "*Synthesis and Characterizations of CuS & CuI Nanoparticles and their Nanocomposites with Polypyrrole*" from Indus International University (India) between 2017 and 2021. Presently, he is investigating the structural, optical and electrical properties of inorganic nanomaterials, conducting polymers, and hybrid nanocomposites. Presently, he is also serving as associate member of Editorial Board of 'Chemical Physics' of Benthem Science.

Thesis Title: "*Synthesis and Characterizations of CuS & CuI Nanoparticles and their Nanocomposites with Polypyrrole*" Supervisor: Dr. Manish Taunk.

SHODHGANGA handle ID URI: <http://hdl.handle.net/10603/414117>.

Educational Achievements

1. Gold Medal in Graduation in Himachal Pradesh University, Summer Hill, Shimla, by securing 87.65% marks in 2003.
2. Qualified UGC (NET) examination in 2005 in Physics.

3. Qualified GATE examination in 2005, obtaining 93.43 percentile with 233rd All India Rank.

Publications in International Peer-Reviewed Journals

1. N. Singh, “*Polypyrrole-based emerging and futuristic hybrid nanocomposites*”, Polymer Bulletin (2021) 1-79. **Impact Factor: 2.870 (2021)**.
DOI: [10.1007/s00289-021-03840-5](https://doi.org/10.1007/s00289-021-03840-5).
2. N. Singh, S. Chand, M. Taunk, “*Facile in-situ synthesis, microstructural, morphological and electrical transport properties of polypyrrole-cuprous iodide hybrid nanocomposites*”, Journal of Solid State Chemistry 303 (2021) 122501. **Impact Factor: 3.498 (2020)**.
DOI: [10.1016/j.jssc.2021.122501](https://doi.org/10.1016/j.jssc.2021.122501).
3. N. Singh, M. Taunk, “*In-situ chemical synthesis, microstructural, morphological and charge transport studies of polypyrrole-CuS hybrid nanocomposites*”, Journal of Inorganic and Organometallic Polymers and Materials 31 (2021) 437-445. **Impact Factor: 3.543 (2020)**.
DOI: [10.1007/s10904-20-01747-8](https://doi.org/10.1007/s10904-20-01747-8).
4. N. Singh, M. Taunk, “*Effect of Surfactants on the Structural and Luminescence Properties of γ -CuI Nanocrystals Synthesized by Facile Sonochemical Method*”, ChemistrySelect 5 (2020) 12236-12242. **Impact Factor: 2.109 (2020)**.
DOI: [10.1002/slct.202002777](https://doi.org/10.1002/slct.202002777).
5. N. Singh, M. Taunk, Structural, “*Optical, and Electrical Studies of Sonochemically Synthesized CuS Nanoparticles*”, Semiconductors 54 (2020) 1016-1022. **Impact Factor: 0.674 (2020)**.
DOI: [10.1134/S1063782620090262](https://doi.org/10.1134/S1063782620090262).

6. N. Singh, M. Taunk, “*Structural and Electrical Properties of CuS Nanoparticles and PPy/CuS Hybrid Nanocomposites Chemically Synthesized by Facile Approach*”, Current Materials Science. **Impact Factor: N. A. (2022), Scopus Indexed.**

DOI: [10.2174/2666145415666220614102724](https://doi.org/10.2174/2666145415666220614102724).

7. N. Singh, “*Quantum Dot Sensitized Solar Cells (QDSSCs): A Review*” International Journal of Research and Analytical Reviews, 9 (2022), 509-5199.

Conference Proceedings

- N. Singh, M. Taunk, “*Effect of Ascorbic Acid on the Size of CuS Nanoparticles*”, Proceeding of International Conference on Mathematics in Space and Applied Sciences, Knowledge and Research, 2019 (190-191), ISBN: 978-81-942641-8-7.

Research Reviewer

1. Reviewed one research paper of ‘Polymer Bulletin’ of Springer Nature.
2. Reviewed one research paper of ‘Journal of Nanoparticle Research’ of Springer Nature.
3. Reviewed one chapter of book American Chemical Society (ACS).

Books Authored

1. Authored (as a single author) one text book of undergraduate class (Final Year) titled ‘Weather Forecasting’ published by R. D. Publication, a national publisher, 2020. ISBN: 978-93-84594-58-9.
2. Co-authored one text book of undergraduate class (First Year) titled ‘Mechanics’ published by R. D. Publication, a national publisher, 2018. ISBN: 978-93-84594-76-3.

Skills and Expertise

Nanomaterials, nanostructures, inorganic nanomaterials, polypyrrole, transition metal chalcogenides, transition metal oxides, 2D materials, conducting polymers, hybrid nanocomposites, structural, optical and electrical properties of nanostructures, material

characterizations, low temperature physics, semiconducting properties, solar cells, chemical synthesis, energy storage devices.

Paper Presentations in National Conferences/National Seminars **07**

1. Presented a paper entitled "*Photoremediation: A novel approach is Clean Contaminated Soil*" in One-Day National Conference on 'Emerging Trends in Life Sciences' organized by Department of Biotechnology on 12th March, 2016 held at JCDAV College, Dasuya, Hoshiarpur (Punjab).
2. Presented a paper entitled "*Electrochromism in Tungsten Oxide Films*" in the CSIR sponsored National Conference on Recent Trends in Experimental and Theoretical Physics-2017 w. e. f. 23rd to 24th November, 2017 at Sri Sai University, Palampur (H. P.).
3. Presented a paper entitled 'RUSA: Issues & Implications' at two days workshop on "*Himachal Pradesh Mein Uchch Shiksha Ki Dasha aur Disha*" conducted by Himachal Pradesh Mahavidalya Shaikshik Sangh (HPMSS affiliated to ABRSM) held from 03rd to 04th November, 2018 at Sangti, Shimla (H.P.).
4. Presented a paper entitled "*Nanoparticle Synthesis of Copper Sulfide by Chemical Method*" in 1st National Conference on Recent Advances in Sciences, held on 16th February, 2019 at Thakur P. G. College of Education, Dhaliara (H. P.).
5. Presented a paper entitled "*A Facile and Green Chemical Synthesis, Structural, Morphological and Electrical Properties of CuS Nanoparticles and PPy/CuS Hybrid Nanocomposite*" in Recent Trends of Innovations in Basic & Applied Science, held on 22nd October, 2021 at IEC University Baddi (H. P.).
6. Presented a paper entitled "*Corona Virus Pandemic & Our Mental Health*" in Human Values in Diverse Culture, held on 11th December, 2021 at Government College Nadaun, Hamirpur (H. P.).
7. Presented a paper entitled "*The National Education Policy and Higher Education: Strengths, Weaknesses and Challenges*" in National Seminar on The New National Education Policy of India: Challenges and Future Prospects, w. e. f. 29th-30th December, 2021, sponsored by Indian Council of Social Science Research (ICSSR), New Delhi

organized by S. V. Government College Ghumarwin and Government College Bilaspur (H. P.).

Paper Presentations in International Conferences (in India)

03

1. Presented a paper entitled "*Effect of Ascorbic Acid on the Size of CuS Nanoparticles*" in the International Conference on Mathematics in Space and Applied Sciences, held during 29th-30th November, 2019, sponsored by National Board for Higher Mathematics (NBHM), Mumbai and Defence Research and Development Organization and organized by the Department of Mathematics, NSCBM Govt. College, Hamirpur, Himachal Pradesh, India.
2. Presented a paper entitled "*Sonochemical Synthesis, Structural, Morphological and Electrical Properties of γ -CuI Nanocrystals*" in the International Conference on Recent Trends in Bio and Material Science, held during 10-11 October, 2022, organized by Him Science Congress Association and Sardar Patel University, Mandi, Himachal Pradesh, India.
3. Presented a paper entitled "*in-Situ Chemical Oxidative Synthesis, Microstructural, Morphological and Electrical Properties of Polypyrrole/Cuprous iodide Hybrid Nanocomposites*" in the International Conference on Recent Advancement in Nanotechnology for Sustainable Development, organized by Maharaja Agrasen University, Baddi, Himachal Pradesh, India.

Workshop/Training/Orientation

1. Attended two weeks Induction Training Program at SCERT Solan w. e. f. 26th November to 8th December, 2012 organized by Department of Higher Education, Himachal Pradesh.
2. Completed the 36th Orientation Program sponsored by UGC-HRDC, Punjabi University, Patiala w. e. f. 21st May to 19th June, 2018 and obtained 'A' grade.

Faculty Development Programs

1. Completed one week Faculty Development Program titled “Development and Management of MOOCs and Online Courses using LMS-Moodle” organized by Guru Angad Dev Teaching Learning Centre SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) w. e. f. 30th June to 04th July, 2020, and obtained A⁺ grade.
2. Completed two weeks Faculty Development Program equivalent to a Refresher Course titled “Digital Tools for 21st Century” organized by Guru Angad Dev Teaching Learning Centre SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) w. e. f. 10th December to 23rd December, 2020.

Refereshher Courses

1. Completed SWAYAM ARPIT (inter-disciplinary) Course entitled “*Claimat Change: A Guide For Teachers of all Disciplines*” with a “B” grade, co-ordinated by Indian Institute of Science Education and Research (IISER), Pune, w. e. f. 01.09.2019 to 09.02.2020.
2. Completed SWAYAM ARPIT (intera-disciplinary) Course entitled “*Introduction to Quantum Physics & its Applications*” with a “D” grade, co-ordinated by Indian Institute of Technology (IIT), Bombay, w. e. f. 03.09.2019 to 31.12.2019.

Life Membership of Professional Bodies

- Life time member of Punjab Science Congress (PSC).

Additional Duties Performed

Co-ordinator of NAAC and IQAC committee, Co-ordinator of BCA Department, Care Taker officer (CTO) of NCC, Rover leader of Rover & Ranger unit, Superintendent to conduct University Examinations, Paper setter and evaluator of undergraduate, post-undergraduate and Ph. D. courses, Presiding Officer in MLAs, MPs and Municipality Elections, Convenor of

Website, Internet, Online Admission Committee, member of Member of Discipline & Anti-Ragging Committee, Admission Committee, Prize Distribution Committee, RUSA Committee, CSCA Election Conduct Committee, Stock Verification Committee, Career Guidance and Placement Cell Committee etc.

Youtube Channel

Started a Youtube channel named '*NT BYTES*' to educate undergraduate and postgraduate students. Link of channel is: <https://www.youtube.com/channel/UC7ONTbCIKZC-QgqXIFtnSiA/featured>.

Web/Researcher Identifier

1. **Orcid ID:**
<https://orcid.org/0000-0002-5342-8751>.
2. **Publication on Google Scholar:**
<https://scholar.google.com/citations?user=jqunuMEAAA AJ&hl=en>.
3. **Publication on Research Gate:**
<https://www.researchgate.net/profile/Narinder-Singh-21/research>
4. **Vidhwan ID & URL:**
<https://vidwan.inflibnet.ac.in/profile/318379>
5. **Web of Science ID & URL:**
<https://www.webofscience.com/wos/author/record/HDM-0700-2022>