

## Profile

Name	Dr. Sansar Chand
Designation	Assistant Professor in Physics
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Academic Qualifications	M.Sc., PhD Physics (NITJ/IUAC New Delhi) M.Sc. Physics (Specialization Nanophysics) from Central University of Punjab, Bathinda. PhD Physics (Radiation Physics) from Dr. B R Ambedkar National Institute of Technology Jalandhar (NITJ/IUAC (Inter University Accelerator Centre) New Delhi) CSIR NET, GATE 2017, GATE 2020, GATE 2021, GATE 2022, IAPT Examination (Graduate Level), HPSET Physics, CUCET
Teaching Experience	Working as Assistant Professor in College Cadre w.e.f. July 15, 2023
Induction/Orientation/ Refresher Courses	<ul style="list-style-type: none"><li>• Attended Faculty Development on “Control Techniques for Renewal Energy System ( CTRES 2024)” during 8-12 th July 2024 by Netaji Subhash University of Technology, New Delhi.</li><li>• Attended national workshop on Material</li></ul>

Design and Processing and presented a paper on “Studies of  $\text{Ca}_{10}\text{K}(\text{PO}_4)_7:\text{Dy}$  phosphor for applications in radiation dosimetry using energetic ion beams and ionizing radiations” held on May 8-10 at JNU New Delhi (2023).

- Oral presentation on “Thermoluminescence properties of  $\text{NaCaPO}_4:\text{Dy}$  phosphor for radiation dosimetric applications” held during April 27-29 at IUAC-SSR workshop on Recent Advances in Biological Effects of ionizing radiation and its implications in Health and Medicine (2023).
- Oral presentation on “Thermoluminescence studies of “ $\text{NaCaPO}_4:\text{Dy}$  phosphor for Dosimetric Applications” at in SSNTD-2022 organized by NIT Kurukshetra (2022)
- Presented a poster at the International Symposium on Semiconductor Materials and Devices organised by Dept. of Physics NITJ, Semiconductor Society of India (SSI) and Society for Semiconductor Devices (SSD) from October 31<sup>st</sup> - 2<sup>nd</sup> November (2020).
- Poster presentation on “Some Recent Advances of Phosphate Materials for

	<p>Thermoluminescent Dosimetric Applications” at International Conference on Advances in Physical, Chemical and Mathematical Sciences (ICAPCM-2020) held during February 13-16 organized by RTMNU Nagpur (2020)</p> <ul style="list-style-type: none"><li>• Poster Presentation on “Recent Developments in Phosphate Materials for Thermoluminescent Dosimetry” at National Symposium on SSNTDs and Their Applications held during October 18-20 at Khalsa College Amritsar, Punjab, India (2019)</li><li>• PhD teaching programme on “ Ion sources” held from August 16-September 15, at IUAC New Delhi (2018).</li><li>• PhD teaching programme on “Vacuum Techniques” held from October 2018- November 2018 at IUAC New Delhi.</li><li>• PhD Teaching Programme on “Ion beam Induced Modifications in Solids” February 17 -March 16 at IUAC New Delhi, (2019).</li><li>• Short Term Course on “Material Characterization Techniques” held during June 17-21, at Dr. B R Ambedkar National Institute of Technology Jalandhar, Punjab, India (2019).</li><li>• National workshop on “Raman and</li></ul>
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	<p>Fluorescence Based Low Cost Indigenous Spectroscopy in India”, held on January 14, at Amity University Haryana (2019).</p> <ul style="list-style-type: none"> <li>• Short term course on “Current Trends in Condensed Matter Physics” from September 25 – 29, organised by Department of Physics Dr. B R Ambedkar National Institute of Technology Jalandhar, Punjab, India (2020).</li> <li>• Attended a Short Term course on “Advanced Energy Materials” from Oct. 12- Oct. 16 organized by the Department of Physics NIT Jalandhar, (2020).</li> <li>• Participated in 4th National School on Heavy Ion Radiation Biology (NSHIRB 2021) from August 17-20, conducted by Inter University Accelerator Centre (IUAC), New Delhi (2021).</li> <li>• Participated in Short Term Course on New Generation Functional Materials and Their Applications (NFMA-2021) held on February 3-7 organized by NIT Hamirpur (2021).</li> </ul>
<p>Research Paper/ Publication</p>	<p>1.Chand, S., Mehra, R., &amp; Chopra, V. (2020). Recent Developments in Phosphate Materials for their TLD Applications. Luminescence, <a href="https://doi.org/10.1002/bio.3960">https://doi.org/10.1002/bio.3960</a> (SCI Scopus)</p>

2. Chand, S., Mehra, R., & Chopra, V. (2022). Recent advancements in calcium based phosphate materials for luminescence applications. *Journal of Luminescence*, 119383. (SCI, Scopus)
3. Chand, S., Mehra, R., & Chopra, V. (2023). Thermoluminescence dosimeter (TLD) studies of  $\text{Ca}_{10}\text{K}(\text{PO}_4)_7$ : Dy phosphor for applications in radiation dosimetry. *Luminescence*. Chand, S., Rani, R., & Yadav, K. (2016) (SCI, Scopus)
4. Chand, S., Rani, R., & Yadav, K. (2016). Effect of Concentration of Ti Doping on Optical Properties of  $\text{Zn}_{1-x}\text{Ti}_x\text{O}$  (where  $x = 0.0, 0.1, 0.3, 0.5, 0.7$  and  $0.9$ ) Thin Films Deposited by Spray Pyrolysis. *Asian Journal of Engineering and Applied Technology*, 5(1), 12-14.
5. Mehra, R., Kaur, S., Chand, S., Charan, C., & Mehta, M. (2021). Dosimetric assessment of primordial radionuclides in soil and groundwater of Sikar district, Rajasthan. *Journal of radioanalytical and nuclear chemistry*, 330, 1605-1620. (SCI, Scopus)
6. Rahim, A., Khan, S., Rani, A., Abida, K., Mehra, R., & Chand, S. (2023). Estimation of  $^{226}\text{Ra}$ ,  $^{232}\text{Th}$  and  $^{40}\text{K}$  activity from the Soil Samples of Ganderbal and Budgam Districts of Jammu and Kashmir, India. *Journal of the*

	<p>Geological Society of India, 99(12), 1767-1775. (SCI, Scopus)</p> <p>7. Mahur, A. K., Sharma, R. L., Mehra, R., Chand, S., Singh, H., &amp; Sharma, S. (2024). Natural radioactivity, radon exhalation rates and radiation doses in the soil samples collected from the vicinity of Kolaghat thermal power plant, West Bengal, India. Journal of Radioanalytical and Nuclear Chemistry, 1-8. (SCI, Scopus)</p> <p>8. Rahim, A., Khan, S., Mehra, R., Chand, S., Majeed, I., &amp; Ahmed, R. (2024). Age-dependent dose assessment of uranium exposure in groundwater of Ganderbal and Budgam districts in Jammu and Kashmir. Water Supply, ws2024185.( SCI, Scopus)</p>
Others	<ul style="list-style-type: none"> <li>• Worked as President, Physical Science Society, NIT Jalandhar from Feb 2022-Feb 2023.</li> <li>• Worked as Head, Web Development Committee, Physical Science Society, NITJ, Sept.2019-Feb. 2022,</li> <li>• JRF 2018-2020</li> <li>• SRF 2020-2023</li> </ul> <p><b>Ongoing research project:</b> “Dosimetric</p>

	<p>investigation of some energy independent calcium based phosphate materials for TLD applications” funded by IUAC New Delhi</p> <ul style="list-style-type: none"><li>• Awarded Certificate in Physics of Semiconductors by IIT Kanpur</li><li>• Awarded certificates on Radiation protection, Nuclear Security and other course modules by IAEA, Vienna, Austria.</li></ul> <p><b>Life Member:</b> Nuclear Track Society of India</p>
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