


## CURRICULUM VITAE

<b>Full Name</b>	Dr. Kuldeep Singh			
<b>Designation</b>	Professor			
<b>Department</b>	Physics			
<b>Institute</b>	Govt. Degree College Dehradun Shahar, Dehradun			
<b>Mobile No.</b>	+91-9412079546			
<b>Email</b>	<a href="mailto:drksingh2010@gmail.com">drksingh2010@gmail.com</a>			
<b>Educational Qualification</b>	Ph.D.(2003), HNB Garhwal University Srinagar Garhwal M.Sc.(1998), HNB Garhwal University Srinagar Garhwal B.Sc.(1996), HNB Garhwal University Srinagar Garhwal			
<b>Teaching Experience</b>	20 Years	<b>Research Experience</b>	25 Years	
<b>Areas of Interest/Specialization</b>				
1. Material Science      2. Radiation Physics				
<b>Membership of Scientific Organizations</b>				
1. Indian Association of Physics Teachers(IAPT), Kanpur, India. 2. National Radon Network Society, New Tehri, India.				
<b>Research Supervision</b>				
Awarded – 02(Supervision – 01, Co-supervision -01, Registered/Ongoing -01),M.Sc. Dissertation - 48				
<b>Research Projects</b>				
1. <b>A Comprehensive Study on Natural Radiation Level in Almora, Bageshwar and Nainital Districts of Uttarakhand.</b> (Grant- Rs.46,26,185, <i>BRNS, Department of Atomic Energy, Mumbai Duration-05 Years, Completed</i> )				
2. <b>A Study on Natural Radiation Level in Champawat and Pithoragarh Districts of Uttarakhand</b> (Rs.39,22,450/-, <i>BRNS, Department of Atomic Energy, Mumbai, Duration -03 Years, Completed</i> )				
3. <b>Measurement and Mapping of Natural Radioactivity in Agricultural soil and Crop/Vegetation across two districts(Haridwar and Dehradun) of Uttarakhand,</b> (Rs. 11,95,750/-, Higher Education Department, Govt. of Uttarakhand, Duration-02 Years, Ongoing)				
<b>Research Publications</b>				
1. <b>Temperature dependence of soft mode frequency and width in Potassium and Sodium Niobate,</b> Vijendra Lingwal, <i>Kuldeep Singh</i> , S.C.Bhatt,N.S.Panwar and B.S.Semwal, , Ind. J. Pure and Appl. Phys, Vol. 38, July 2000. pp. 533-535.( <b>IF:0.923</b> )				
2. <b>Relaxation time and Ultrasonic attenuation in some binary and ternary liquid system,</b> S.C. Bhatt, Harikrishna semwal, Vijendra Lingwal, <i>Kuldeep Singh</i> and B.S.semwal, J. Acous. Soc.Ind., Vol.28 No. 1-4, 2000, pp. 275-278.( <b>IF: 1.819</b> )				
3. <b>Acoustical parameters of some molecular liquids,</b> S.C.Bhatt, Harikrishna Semwal,Vijendra Lingwal, <i>Kuldeep Singh</i> and B.S.Semwal, J Acoust. Soc. Ind., Vol. 28 No. 1- 4, 2000. pp.293-296.( <b>IF: 1.819</b> )				
4. <b>Dielectric Properties of Potassium Sodium Niobate mixed system,</b> <i>Kuldeep Singh</i> , Vijendra Lingwal, S.C.Bhatt,N.S.Panwar and B.S.Semwal, Materials Research Bulletin, Vol.36, pp. 2365-2374 (2001).25 may-2001( <b>IF: 5.6</b> )				
5. <b>Study of Subcell parameters, Grain size and Dielectric properties of Potassium Sodium Niobate mixed system,</b> <i>Kuldeep Singh</i> , Manish Uniyal, S.C.Bhatt and B.S.Semwal, Sri Lankan Journal of Physics, Vol. 2, 13(2001).				
6. <b>Preparation, Characterization and Dielectric studies of <math>K_{1-x}Na_xNbO_3</math>,</b> M.Uniyal, <i>Kuldeep Singh</i> , Sunil Bhatt, S.C. Bhatt, R.P.Pant, D.K.Suri & B.S.Semwal, Ind. J. of Pure & Appl. Phy., Vol. 41, April 2003, pp. 305-309.( <b>IF:0.923</b> )				
7. <b>Theoretical Study of <math>ABO_3</math> type perovskite with reference to <math>KNbO_3</math>,</b> <i>Kuldeep Singh</i> , S.C.Bhatt &				

- B.S.Semwal, Ind. J. Pure and Appl. Phys, Vol. 43, Oct. 2005. pp. 772-776. (IF:0.923)
8. **Temperature dependence of dielectric properties of sodium potassium niobate Ceramics**, S.C.Bhatt, *K.Singh*, M.Uniyal, Om Prakash, Pankaj K.Singh, R. Sexena & B.S.semwal, Ind. J. Pure and Appl. Phys, Vol. 45, July 2007. pp. 609-612.( IF:0.923)
  9. **Measurement of Radon, Thoron and their progeny in different type of dwelling in Almora district of Kumaun Himalaya Region**, *Kuldeep Singh*, Poonam Semwal, Preeti Pant, G.S. Gusain, Manish Joshi, B. K. Sapra and R.C. Ramola, Radiation Protection Dosimetry, Vol. 171, 31 March 2016, pp. 223-228. <http://doi:10.1093/rpd/ncw063>(IF-1.0)
  10. **Environmental Ionizing Radiation: A Review**, Ankur Kumar, Poonam Semwal, *Kuldeep Singh*, Prakhar Singh and P.P.Pathak, *J. Env. Bio-Sci.*, Vol. 31(2), 16 September 2017, pp. 493-497.
  11. **Correlation of Radon and Thoron exhalation rate with gamma level from soil sample in Tehri Garhwal, Uttarakhand, INDIA**, Poonam Semwal, *Kuldeep Singh*, G.S. Gusain, Ankur Kumar and R.C. Ramola, *J. Env. Bio-Sci.*, Vol. 31(2), 16 September 2017, pp. 499-502.
  12. **Measurement of  $^{222}\text{Rn}$  and  $^{220}\text{Rn}$  exhalation rate from soil samples of Kumaun Hills, India**, Poonam Semwal, *Kuldeep Singh*, T.K Agarwal, Manish Joshi, Preeti Pant, Tushar Kandari and R.C. Ramola, *Acta Geophysica*, , V.66, Issue-5, 21 March 2018, pp.1203-1211. <https://doi.org/10.1007/s11600-018-0124-3>(IF-2.293)
  13. **Indoor inhalation dose assessment for thoron-rich regions of Indian Himalayan belt**, Poonam Semwal, Tarun Kumar Agarwal, *Kuldeep Singh*, Manish Joshi, Gurupad Singh Gusain, Bijay Kumar Sahoo & Rakesh Chand Ramola, *Environment Science and Pollution Research*(2019), 26:4855–4866.19, Dec 2018, <https://doi.org/10.1007/s11356-018-3891-0> (IF-5.19)
  14. **Statistical inferences from measured data on concentrations of naturally occurring radon, thoron, and decay products in Kumaun Himalayan belt**, Ankur Kumar, Prakhar Singh, Tarun Agarwal, Manish Joshi, Poonam Semwal, *Kuldeep Singh*, Parmanad Prakash Pathak & Rakesh Chand Ramola, *Environmental Science and Pollution Research*(2020) 27:40229–40243.13 July 20201. (IF-5.19)<https://doi.org/10.1007/s11356-020-09920-9>
  15. **Quantification of radiological dose and chemical toxicity due to radon and uranium in drinking water in Bageshwar region of Indian Himalaya**, Ankur Kumar, Tushar Arorab, Prakhar Singh, *Kuldeep Singh*, Devendra Singha, P. P. Pathak & R.C. Ramola, *Ground water for sustainable development*, 12(2021)10491(Journal of Elsevier) 6 Oct 2020.( IF-1.075) <https://doi.org/10.1016/j.gsd.2020.100491>
  16. **A review on human exposure to indoor radon concentration and measuring techniques in Garhwal Himalaya, Uttarakhand”**, Taufiq Ahamad, O P Nautiyal, Prakhar Singh, A A Bourai, A S Rana & Kuldeep Singh, *Applied Innovative Research*(CSIR-NISCAIR), Vol. 2, September 2020, pp. 237-244.
  17. **Study of primordial radionuclides and radon/thoron exhalation rates in Bageshwar region of Kumaun Himalaya, India”**, Ankur Kumar, Prakhar Singh, Poonam Semwal, Kuldeep Singh, Mukesh Prasad & Rakesh Chand & R.C. Ramola, *Journal of Radioanalytical and Nuclear Chemistry*, 328(3), 1361-1367(2021) 25 Jan 2021.( IF-1.754)
  18. **Quantification of  $^{222}\text{Rn}/^{220}\text{Rn}$  exhalation rates from soil samples of Champawat region in Kumaun Himalaya, India**, Taufiq Ahamad, Prakhar Singh, O. P. Nautiyal, Manish Joshi, A. A. Bourai, A. S. Rana, Kuldeep Singh, *Journal of Radioanalytical and Nuclear Chemistry*, 330:1485–1495 (2021)22 Aug 2021.( IF-1.754) <https://doi.org/10.1007/s10967-021-07954-y>
  19. **Evaluation of natural radioactivity levels and  $^{222}\text{Rn}$ ,  $^{220}\text{Rn}$  exhalation rate in the soil of the Himalayan belt of Uttarakhand, India**, Poonam Semwal, Ankur Kumar, Kuldeep Singh, Manish Joshi, Tarun Kumar Agarwal and R. C. Ramola, *Journal of Radioanalytical and Nuclear Chemistry* (2021),330:1589-1599. 12 Sept 2021,( IF-1.754) <https://doi.org/10.1007/s10967-021-07978-4>
  20. **Assessment of physicochemical and radon-attributable radiological parameters of drinking water samples of Pithoragarh district, Uttarakhand**, Prakhar Singh, O. P. Nautiyal, Manish Joshi, Ankur Kumar, Taufiq Ahamad, and Kuldeep Singh, *Journal of Radioanalytical and Nuclear Chemistry*, 330:1559–1570(2021)18 Oct.- 2021.( IF-1.754) <https://doi.org/10.1007/s10967-021-08056-5>
  21. **Comparative study of two different water sources in the aspect of radiological exposure to the local population of Bageshwar, India**. Ankur Kumar, Devendra Singh, Poonam Semwal, Tushar Kandari,

Kuldeep Singh, Manish Joshi & Prakhar Singh, Journal of Radioanalytical and Nuclear Chemistry ,331:1941–1949(2022) 1 march 2022.( *IF-1.754*) <http://doi.org/10.1007/s10967-022-08238-9>

**22. Effective dose estimation of radon, thoron and their progeny concentrations in the environs of Himalayan belt, India**, P. Semwal, T. K. Agarwal, M. Joshi, A. Kumar, K. Singh, & R. C. Ramola, International Journal of Environmental Science and Technology, Volume 20, 4127-4138(2023)(*IF-3.519*), <https://doi.org/10.1007/s13762-022-04118-7> online published on 18 April 2022.

**23. Radiological and hydrochemical attribution in groundwater of Haridwar District, Uttarakhand, India**, Prakhar Singh, Ankur Kumar, Devendra Singh, O.P. Nautiyal, C.P. Saklani, Abhishek Joshi, Kuldeep Singh, Journal of Radioanalytical and Nuclear Chemistry, Published Online: 14 October 2023(*IF-1.754*) <http://doi.org/10.1007/s10967-023-09188-6>

**24. Assessment of exhalation rates of radon and thoron in soil from the Jaunsar-Bawar region of the Indian Himalayas**, Ankur Kumar, Prakhar Singh, , Devendra Singh, Kuldeep Singh, Tushar Kandari, C.P. Saklani, Amar Deep, Journal of Radioanalytical and Nuclear Chemistry, Published Online: 29 February 2024.( *IF-1.754*) <http://doi.org/10.1007/s10967-024-09407-8>

### Chapter Published in an Edited Book

**1. Influence of Geophysical and Neotectonic Activities on radon Concentration and Surface flux Rate in Kumaun Himalaya, India**, Poonam Semwal, *Kuldeep Singh*, Preeti Pant, Tushar Kandari, Alok Sagar Gautam, a *chapter in a book* “Advances in Basic and Applied Sciences”, pp.21-39, 2019. ISBN : 978-93-84866-90-7.

**2. Study of mathematical Model for Decay Product Concentrations of Radon and Thoron in Indoor Environment**, Poonam Semwal, Ankur Kumar, Kuldeep Singh, Tushar Kandari, Preeti Pant & Alok Sagar Gautam, a *Chapter in a book* “Air Quality, Climate Change and the Environmental Effects Referring to the Pandemic”, , pp. 61-73, 2021. ISBN: 978-93-84866-93-8

### Research Publications in Conference Proceedings

**1. Theoretical Investigation of Potassium niobate pure and mixed crystals**, *Kuldeep Singh*, Vijendra Lingwal, S.C.Bhatt,N.S.Panwar and B.S.Semwal, Proceeding of the International Workshop on Preparation and chracterization of technologically important crystals, Feb. 28-March 2,2001, pp 392, NPL, New Delhi.

**2. Variation of conductivity with temperature and frequency in sodium niobate pure and mixed system**, *Kuldeep Singh*, Manish Uniyal, S.C.Bhatt, N.S.Panwar and B.S.Semwal, Proceedings of NCRTC- 2001, PP. 113-118.

**3. Polarizability cole-cole plots for PSN (K1-xNaxNbO3) system**, *Kuldeep Singh*, Manish Uniyal, S.C. Bhatt & B. S. Semwal, Proceedings of the DAE-BRNS National Laser Symposium –Dec. 19-21, 2001,pp. 105-106, CAT INDORE.

**4. Dielectric Properties of Orthorhombic PSN (K1-xNaxNbO3) system**, *Kuldeep Singh*, Manish Uniyal, S.C.Bhatt & B. S. Semwal, Proceedings of the DAE-BRNS National Laser Symposium – Dec. 19-21, 2001,pp. 107-108, CAT INDORE.

### Short Term courses or Training Programs Attended

**1. School on Ultrahigh vacuum Techniques**, 6-10,September- 1999, Solid State Physics Laboratory, New Delhi

**2. International School on Crystal Growth Methods and Processes**, 24 Jan-04 Feb.-2000, Crysatl Growth Centre, Anna University, Madras.

**3. SERC School on Precesion Physical Measurement and Measurement Science**, 4-23, December- 2000, National Physical Laboratory New Delhi

**4. Introduction to Microprocessor and Interfacing**, 28 May – 2 June- 2001, USIC, Garhwal University, Srinagar (Garhwal)

**5. Preparation , Characterization and Experimental studies**, 7-22, June- 2001, Material Science Research Center, IIT Madras

**6. Course on “Direct Trainer Skills**, 12-16, September-2005, Uttaranchal Academy of Administration, Nainital.

**7. Faculty Development Progarm**, 23 April - 7 May- 2006, Department of higher Education

- Uttarakhand & ICFAI University Dehradun at Govt. P.G. College Rishikesh
8. **4- Week Orientation Program**, 3-30, April- 2007, UGC Academic Staff College H.P. University Shimla
  9. **Edusat Training Program for Nodal Officers**, 30 Nov. – 1 Dec.-2010, USAC, Dehradun & ISRO with Department of Higher Education Uttarakhand at Doon University Dehradun.
  10. **One day Advocacy Program for Awareness on PC-PNDT Act**, 30<sup>th</sup> December- 2011, Women’s Cell, MKP(P.G.) College Dehradun at Govt. P.G. College New Tehri.
  11. **Refresher course in Physics**, 28 Nov.- 17 Dec.-2011, UGC Academic Staff College, University of Rajasthan- Jaipur
  12. **National Training Programme on “RET Screen Software for Evaluation of Renewable Energy Projects**, 22<sup>nd</sup> September- 2012, Department of physics, DAV(PG) College Dehradun, Uttarakhand
  13. **Refresher course in Quantum Mechanics**, 28 Nov.- 12 Dec.-2013, Department of Physics, IIT Roorkee
  14. **Radon Training Workshop 2014**, 22 -26, Sept.-2014, Bhaba Atomic Research Center Mumbai
  15. **Training Program on “Professional Development of Teachers**, 15-20, March-2017, NIT, Kurukshetra, Haryana
  16. **One Week Workshop on “Radiochemistry and Application of Radiosotopes**, 17-23, February- 2020, Department of Chemistry, Guru Nanak Dev University, Amritsar(Punjab)
  17. **5 Days Faculty Development Programme in “R Programming” (Online)**, 15-19 June-2020., Uttarakhand Science Education and Research Centre, Department of Information & Science Technology, Govt. of Uttarakhand with IIT Mumbai, Spoken Tutorial & School of Computer Science & IT, Uttarakhand Open University, Haldwani
  18. **4 days Gyanotkarsh Program**, 6-8 November 2023, Department of Higher Education Uttarakhand & UCOST Dehradun

#### **Organized/Co-ordinated Programmes/Conferences/Workshops**

1. Organized a three days workshop as **Organizing Secretary** on “**Development of low cost experiments to inspire inquiring spirit among students**”, Oct.- 28-30, 2013, At Govt. P.G. College New Tehri.
2. Organized a three days National Symposium as **Organizing Secretary** on “**Mind, Matter and Mathematics: A Dialogue-2014**”, “March 12-14, 2014, HNBSU Campus Badshahi Thaul Tehri Garhwal.
3. Organized a three days First National Conference as **Organizing Secretary** on “**Radiation Awareness and Detection in Natural Environment (RADNET-I)**”, June 15-17, 2015, HNBSU Campus Badshahi Thaul Tehri Garhwal.
4. **Co-Ordinated** Technical sessions during 9<sup>th</sup> USSTC-2015, 26-28 February-2015, at UCOST Dehradun.
5. Organized as **Coordinator** the **World Earth Day Programme** -2015, at Govt. P.G. College New, Tehri Garhwal.
6. **Co-Ordinated** Technical sessions during 10<sup>th</sup> USSTC-2016, 10-12 February-2016, at UCOST Dehradun.
7. **Co-Ordinated** Technical sessions during 11<sup>th</sup> USSTC-2017, 02-04 March-2017, at UCOST Dehradun.
8. Worked as a **Member of Local Organising committee** in organizing three days Second National Conference on “**Radiation Awareness and Detection in Natural Environment (RADNET-II)**”, September 25-27, 2017 at GKV Haridwar.
9. **Co-Ordinated** Technical sessions during 12<sup>th</sup> USSTC-2018, 07-09 March-2018, at UCOST Dehradun.
10. **Co-Ordinated** Technical sessions during 13<sup>th</sup> USSTC-2019, 26-28 February-2019, at UCOST Dehradun.
11. **Co-Ordinated** Technical sessions during 14<sup>th</sup> USSTC-2020, 27-29 February-2020, at UCOST Dehradun.
12. Organised One day workshop as **Organizing secretary** on “**Conservation of Renewable Energy Sources for sustainable development**”, December 2, 2019 at Govt PG College New Tehri.
13. Organised One day workshop as **Organizing secretary** on “**Awareness on Intellectual Property**”

**Rights**", December 3, 2019 at Govt. P.G. College New Tehri.

14. Organised One day **Webinar** as **Organizing Secretary** on the topic "कोविड-19 के दौर में चुनौतियाँ और अवसर" on 12 June-2020.
15. Organized International Webinar as **Organizing Secretary** on "Impact of Covid-19 on Academic and Research Activities" during 19-20 June-2020.
16. Organized three days Third National Conference(Online) as **Convener** on "Radiation Awareness and Detection in Natural Environment (RADNET-III), March 18-20, 2021, Organised by Department of Physics, Govt. P.G. College New Tehri & HNBGU Campus Badshahi Thaul Tehri Garhwal.
17. Organized three days First International Conference as **Convener** on "Radiation Awareness and Detection in Natural Environment (RADNET-IV), March 2-4, 2023, Jointly Organised by Dolphin PG Institute of Biomedical and Natural Sciences, Dehradun & Govt. Degree College Dehradun Shahar Dehradun.
18. **Chaired a session** during National Conference on Recent advances in Theoretical and Experimental Sciences(NCRATES-2023), 29-30 September 2023, organized by Bhakt Darshan Govt. P. G. College Jaiharikhal(Uttarakhand)
19. Organized a three days workshop as **Organizing Secretary** on "Development of low cost experiments to inspire inquiring spirit among students", Oct.- 28-30, 2013, At Govt. P.G. College New Tehri.
20. Organized a three days National Symposium as **Organizing Secretary** on "Mind, Matter and Mathematics: A Dialogue-2014", "March 12-14, 2014, HNBGU Campus Badshahi Thaul Tehri Garhwal.
21. Organized a three days First National Conference as **Organizing Secretary** on "Radiation Awareness and Detection in Natural Environment (RADNET-I)", June 15-17, 2015, HNBGU Campus Badshahi Thaul Tehri Garhwal.
22. **Co-Ordinated** Technical sessions during 9<sup>th</sup> USSTC-2015, 26-28 February-2015, at UCOST Dehradun.
23. Organized as **Coordinator** the World Earth Day Programme -2015, at Govt. P.G. College New, Tehri Garhwal.
24. **Co-Ordinated** Technical sessions during 10<sup>th</sup> USSTC-2016, 10-12 February-2016, at UCOST Dehradun.
25. **Co-Ordinated** Technical sessions during 11<sup>th</sup> USSTC-2017, 02-04 March-2017, at UCOST Dehradun.
26. Worked as a **Member of Local Organising committee** in organizing three days Second National Conference on "Radiation Awareness and Detection in Natural Environment (RADNET-II)", September 25-27, 2017 at GKV Haridwar.
27. **Co-Ordinated** Technical sessions during 12<sup>th</sup> USSTC-2018, 07-09 March-2018, at UCOST Dehradun.
28. **Co-Ordinated** Technical sessions during 13<sup>th</sup> USSTC-2019, 26-28 February-2019, at UCOST Dehradun.
29. **Co-Ordinated** Technical sessions during 14<sup>th</sup> USSTC-2020, 27-29 February-2020, at UCOST Dehradun.
30. Organised One day workshop as **Organizing secretary** on "Conservation of Renewable Energy Sources for sustainable development", December 2, 2019 at Govt PG College New Tehri.
31. Organised One day workshop as **Organizing secretary** on "Awareness on Intellectual Property Rights", December 3, 2019 at Govt. P.G. College New Tehri.
32. Organised One day **Webinar** as **Organizing Secretary** on the topic "कोविड-19 के दौर में चुनौतियाँ और अवसर" on 12 June-2020.
33. Organized International Webinar as **Organizing Secretary** on "Impact of Covid-19 on Academic and Research Activities" during 19-20 June-2020.
34. Organized three days Third National Conference(Online) as **Convener** on "Radiation Awareness and Detection in Natural Environment (RADNET-III), March 18-20, 2021, Organised by Department of Physics, Govt. P.G. College New Tehri & HNBGU Campus Badshahi Thaul Tehri Garhwal.
35. Organized three days First International Conference as **Convener** on "Radiation Awareness and

**Detection in Natural Environment (RADNET-IV)**, March 2-4, 2023, Jointly Organised by Dolphin PG Institute of Biomedical and Natural Sciences, Dehradun & Govt. Degree College Dehradun Shahar Dehradun.

36. **Chaired a session** during National Conference on Recent advances in Theoretical and Experimental Sciences(NCRATES-2023), 29-30 September 2023, organized by Bhakt Darshan Govt. P. G. College Jaiharikhal(Uttarakhand).

#### **Delivered Talk/Paper presentation in Seminars/Workshops/Symposium**

1. Presented paper in “**DAE-BRNS National Laser Symposium(NLS –2001)**” held at Centre for Advanced Technology(CAT) Indore, during 19-21, December- 2001.
2. Presented paper National Seminar on “**Social Discrimination**”, held at Ram Nagar P.G. College Ram Nagar, Barabanki(U.P.) during 13-14, March-2011.
3. Presented paper in National seminar on “**Recent Trends in Micro and Macro Physics (NSRTMMP-2011)**”, held at Govt. P.G.College Gopeshwar(Chamoli) during 12-13, October-2011.
4. Presented paper in National Conference on “**Recent Trends in Interdisciplinary Research and Astrophysics Space Science(NCRTIRASS-2012)**”, held at MB PG College Haldwani, Uttarakhand during 3-4, November-2012.
5. Presented paper in National seminar on “**Recent Development in Physics & Prosperity in Solar Physics- Space Science(NSRDPPSPSS-2014)**”, held at MB Govt. PG College Haldwani(Nainital) during 27-28, December-2014.
6. Presented paper in National Seminar on “**New Horizons in Theoretical and Experimental Physics (NHTEP-2015)**”, held at Govt. PG College Gopeshwar, Chamoli during 19-20, February-2015.
7. Presented paper in “**5th International Geo-Hazard Research Symposium**”, held at Taiwan during 17-20, October-2016.
8. Presented paper in “**XXXII Annual IAPT Convention 2017 and National Symposium on Recent Trends in Physics at Different Scales**”, held Gurukula Kangri Vishwavidyalaya Haridwar, during, 29-31, October-2017.
9. Presented paper in **International Conference on “Climate Change and Disaster Risk Reduction**” held at HNB Garhwal University SRT campus Badshahi Thaul, Tehri Garhwal, during 26-28, October-2018.
10. Presented paper in **International Conference on “Contemporary Issues of Climate Change, Conservation of Biodiversity and Natural Resources in Himalayan Environment**”, held at Govt. P.G. College New Tehri during 14-16, November-2019.
11. Delivered **Invited talk** on “**Ancient and Modern Science**” during National Workshop on “**Science and Mathematics: An Augmentation from Ancient to Contemporary India**” organized by VSK Govt. P.G. College Dakpathar, Dehradun, 1-2 March,2024.

#### **Participation Seminars/Workshops/Symposium/Webinars**


1. Participated in XIth National Seminar on “**Ferroelectrics and Dielectrics**” organised by Department of Physics, University of Jammu, Jammu during 1-3, November- 2000.
2. Participated in International conference on “**Advanced materials**”, organised by Department of Physics, University of Meerut, Meerut during 26-28, December-2000.
3. Participated in International workshop on “**Recent advances in Nanotechnology of Magnetics fluids**”, organised by National Physical Laboratory, New Delhi during 22-24 January-2003.
4. Participated in Workshop on “**Physics from Atom to Galaxy: Theoretical and Technical Status**”, Organised by Department of Physics, HNB Garhwal University, Srinagar(Garhwal) during 9-11, October-2006.
5. Participated in National workshop on “**Development of reservoir fisheries and Conservation of Aquatic Biodiversity with Particular Reference to Tehri Dam Project(Uttarakhand).**”, organised by Department of Zoology, Govt. P.G. College New Tehri during 1-2, December- 2007.
6. Participated in National Seminar on “**RREST & Workshop on Solar Photovoltaic Systems**”, Organised by Department of Physics, HNB Garhwal University, Srinagar(Garhwal) during 26-28 March-2008.

7. Participation in Regional Seminar on “**Intellectual property and Innovation management in Knowledge era**”, organised by the corporation in collaboration with UCOST Dehradun, during 12-13, August-2010.
8. Participated in National Conference on “**Conservation of Aquatic Biodiversity, Development of Cold Water Fisheries Fish Biotechnology and Emerging Trends in Fresh Water Environments**”, organised by Department of Zoology, Govt. P.G. College New Tehri during 25-27 November – 2010.
9. Participated in 7<sup>th</sup> International Workshop on “**Neutrino-Nucleus interactions in the Few-GeV Region(Nuint11)**”, organised by Department of Physics, HNB Garhwal University Srinagar Garhwal during 7-11, March-2011.
10. Participated in one day seminar on “**Environment and Livelihood**”, jointly organised by National Bank for Agriculture and Rural Development, Tehri Garhwal & Department of Geography, Govt. P.G. College New Tehri, on 16 September-2011.
11. Participated in Seventeenth National Symposium on “**Solid state Nuclear track Detectors and Their Applications(SSNTD-17)**”, Organised by Department of Physics, The M.S.university of Baroda, Varodara, Gujrat during 17-19, October-2011.
12. Participated in National Conference on “**Role of Mathematical and Physical sciences in Engineering and Technology**”, organised by Department of Mathematics and Physics, Govt. Degree College Karanprayag(Chamoli) during 21-22, October-2011.
13. Participated in Workshop on “**Advances in Physics & Role of Experiments in Physics Teaching**”,organised by Department of Physics, GKV Haridwar on 05 November-2011.
14. Participated in Workshop on “**Role of Low cost in Physics Teaching**”, organised by DAV Centenary Public School, Jagjeetpur, Khankhal, Haridwar on 06 November-2011.
15. Participated in the state level workshop on “**Traditional Knowledge systems and its various dimensions**”, organised by Govt. P.G. College New Tehri, Tehri Garhwal on 19 March-2012.
16. Participated in “**Third International Geo-Hazard Research Symposium(IGRS-2012)**”, organised by Department of Physics, HNB garhwal University Badshahi Thaul Campus Tehri Garhwal during 10-14 June-2012.
17. Participated in Workshop on “**The Physics and Mathematics of the Universe**”, organised by Gurukul Kangri Vishwavidyalaya, Haridwar(Uttarakhand) during 11-12, March-2013.
18. Participated in National Seminar on “**Uttarakhand Disaster: Contemporary Issues of Climate Change and Development with a Holistic Approach**”, organised by Sri Dev Suman Uttarakhand University, Badshahi Thaul, Tehri Garhwal during 25-27 October-2013.
19. Participated in Seminar on “**Light & Light Based Technologies(SLT-2016)**”, organised by Optical Society of India & Doon University Dehradun during 13-14, February-2016.
20. Participated in Workshop on “**An interactive Programme Among University Teachers, School teachers and Students for Encouragement of Science Education and Research in Uttarakhand**”, jointly organised by Department of Physics, Govt. P.G. College New Tehri & HNBSGU Campus Badshahi Thaul Tehri Garhwal during 28-29 February-2016.
21. Participated in Workshop on “**Smart Materials for Future Applications(SMFA-2016)**”, organised by Department of Applied Science & Humanities, THDC Institute of Hydropower Engineering & Technology, Tehri Garhwal during 12-13 May-2016.
22. Participated in Workshop on “**Low Cost Experiments & Hands on Training in Physics**”, by Department of Physics, GKV Haridwar(Uttarakhand) during 19-20, September-2016.
23. Participated in National Conference on “**Holistic Approach Towards Quality Enhancement in Higher Education**”, organised by IQAC Cell, Pt. L.M.S. Govt. P.G. College Rishikesh during 29-30, January-2019.
24. Participated in International Conference on “**Material Science and Applications(ICMSAA-19)**”,organised by Department of Physics, HNB Garhwal University(A Central University) Srinagar Garhwal, Uttarakhand during 25-27 November-2019.
25. Participated in an E- International Symposium on “**Synthesis and Characterization of Smart Materials and Their Potential Applications**” organised by University School of Basic and Applied Sciences, Guru Govind Singh Indraprastha University New Delhi during 14-17 June-2020.

26. Participated in an International E-Conference on “**Recent Advances in Physics: A Promise to Society**”, organized by Govt. P.G. College Bazpur, Uttarakhand during 24-25 June-2020.
27. Participated in one day seminar on “**North west & Central Himalayan Natural Disasters**”, jointly organized by Vigyan Bharti(Uttarakhand) and Doon University Dehradun on 26 March-2023.

### **Awards**

Conferred **Young Scientist award-2013** by Uttarakhand State Council for Science & Technology(UCOST) Dehradun.



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