Prof. (Dr.) Mrityunjay Sharma

Department of Physics, M.P. Govt. Degree College,

Nanakmatta, U.S. Nagar, Uttarakhand

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Academic Record:

1. B.Sc. (PCM) from Meerut College, Meerut (Meerut University, Meerut)

2. M.Sc. in Physics from Govind Ballabh Pant University of Agriculture and Technology, Pantnagar, District-Udham Singh Nagar, Uttarakhand, India.

3. Ph.D. in Physics from University of Delhi, India.

• Working Experience:

1. Teaching Experience: Twenty-four years.

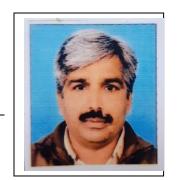
- **a)** Nearly four years teaching experience in Engineering Colleges affiliated with U.P. Technical University, Lucknow.
- **b)** Nine years teaching experience in R.C.U. Government Post Graduate College, Uttarkashi, Uttarakhand.
- c) Over seven years teaching experience in Pt. L.M.S. Government Post Graduate College (autonomous College), Rishikesh, Uttarakhand.
- **d)** Worked in Regional Office, Higher Education (Uttarakhand), Doon University, Dehradun for one year.
- e) Presently teaching in Maharana Pratap Government Degree College, Nanakmatta, Udham Singh Nagar, Uttarakhand since September 03, 2022.

2. Research Experience:

- a) One of the referees of International Journal of Theoretical and Applied Sciences (ISSN No.0975-1718).
- **b)** Coordinated a DST Project sanctioned to the department of Physics, R.C.U. Government Post Graduate College, Uttarkashi, Uttarakhand under the FIST Programme for five years from 2006 to 2011.
- c) Participating in various research activities since 1995 to till date.
- **d)** Worked as a Project Fellow in the UGC Project entitled "Positron Annihilation Studies in Some Simple and Liquid crystalline Systems" for three years from 1997 to 2000 in Department of Physics and Astrophysics, University of Delhi.

• Awards/Achievements/Responsibilities:

- **1.** Received an award for excellence in the field of Education and Research from Forum of Academics for Social justice, University of Delhi.
- 2. Appointed as an Observer in U.P. Technical University Examinations.
- **3.** Appointed as an Evaluator for the evaluation of answer books in U.P. Technical University Examinations.
- **4.** Appointed as Flying Squad member in U.P. Technical University examinations.
- **5.** Worked as an editor for "Him Suman" magazine from year 2005 to 2008.
- **6.** Worked as Associated NCC Officer (ANO)/Care Taker in R. C. U. Government Post Graduate College, Uttarkashi, Uttarakhand for three years.



- 7. Conducted the Quiz Session and attended a Brain Awareness Programme 2015 organized by the Department of Zoology, Pt. L.M.S. Govt. P.G. College, Rishikesh on April 27, 2015.
- **8.** Guided the students and prepared the model test papers of physics in the guidance camp for the Air Force Rally held at Uttarkashi, April 21, 2008.
- **9.** Deputed as judge in the State Level Science Seminar held in G.I.C. Uttarkashi, Uttarkhand, on 28 August 2009.
- **10.** Appointed the Officer Incharge of Video Viewing Team and worked in Media Control and Monitoring Committee in Vidhan Sabha and Lok Sabha Elections.
- 11. Conducted the Quiz Session and attended a Brain Awareness Programme 2017 organized by the Department of Zoology, Pt. L.M.S. Govt. P.G. College, Rishikesh on April 22, 2017.
- **12.** Worked as RUSA Nodal Officer of Pt. L.M.S. Govt. P. G. College, Rishikesh (Dehradun) Uttarakhand from July 2017 to August 2021.
- **13.** Received an appreciation certificate from Hero MotoCorp towards creating a greener and sustainable world.
- **14.** Received Uttarakhand's '**Teacher of the Year'** award on September 05, 2020.
- **Membership:** Lifetime member of Indian Association of Physics Teacher (Membership No.- 10591, L6799).

• Scholarships/Assistantship:

- 1. Awarded "Graduate-Teaching Assistantship" during Masters Degree Programme at G.B. Pant University of Agriculture and Technology, Pantnagar from 1994 to 1996.
- **2.** Received a scholarship as a project fellow in the UGC Project in Department of Physics and Astrophysics, University of Delhi, Delhi from 1997 to 2000.

• Title of the M.Sc. Thesis:

"Magnetic Dynamics of Quasi-2D Antiferromagnets: Effect of Dipole-Dipole Interaction".

• Title of the Ph.D. Thesis:

"Molecular Dynamic Studies in Some Liquid Crystalline Systems Employing Positron Lifetime Spectroscopy".

• Orientation/Refresher/Faculty Development Programs Attended

- 1. Participated in the Faculty Development Program (14 to 28 May, 2006) organized by the Department of Higher Education, Uttarakhand and ICFAI University, Dehradun.
- **2.** Participated in the Orientation Course (27 September to 24 October, 2008) organized by UGC- Academic Staff College, Kumaun University and obtained grade "A".
- **3.** Participated in the Refresher Course (31 January to 25 February, 2011) organized by UGC-Academic Staff College, Jawaharlal Nehru University, New Delhi and obtained grade "A".
- **4.** Participated in the Refresher Course in Quantum Mechanics (28 November to 12 December, 2013) organized by Department of Physics Indian Institute of Technology Roorkee, Uttarakhand.

- **5.** Participated in one-week Short Term Course on Software Technology organized by Human Resource Development Centre (ASC), Kurukshetra University, Kurukshetra, Haryana from 20-10-2016 to 26-10-2016.
- **6.** Participated in the Online Course on Basics of Special Theory of Relativity organized by Indian Institute of Technology, Kanpur, Uttar Pradesh from December 18, 2018 to March 08, 2019.
- 7. Participated in the Online Course on Basics of Quantum Mechanics organized by Indian Institute of Technology, Kanpur, Uttar Pradesh from August 15 to November 18, 2019.
- **8.** Participated in one week online Short-Term Training Program on Resource, Time and Stress Management (with special reference to NEP 2020) organized by Faculty Development Centre, H.N.B. Garhwal University, Srinagar, Uttarakhand from 22-02-2022 to 28-02-2022.
- **9.** Participated in one week online Short-Term Training Program on Curriculum Development with special reference to NEP 2020) organized by Faculty Development Centre, H.N.B. Garhwal University, Srinagar, Uttarakhand from 07-04-2022 to 13-04-2022.
- **10.** Participated in six days Faculty Mentor Development Program under Devbhoomi Udyamita Yojna organized by Entrepreneurship Development Institute of India, Ahmedabad from 14-19 July, 2024.
- **11.** Participated in five days Nurturing Future Leadership Programme organized by Indian Institute of Management, Kashipur from 16-20 December, 2024.

• Training Programs Attended:

- **1.** Attended a "Three Days Yoga Shivir" organized jointly by R.C.U. Government P.G. College, Uttarkashi and Patanjali Yogpeeth, Haridwar, January 7-9, 2010.
- 2. Participated in the Physics Olympiad Exposure Camp-2010 (8 to 10 March, 2010) held at Homi Bhabha Centre for Science Education, Tata Institute of Fundamental Research, Mumbai.
- **3.** Participated in two days face-to-face- training programme under National Disaster Management Authority on "Capacity Building in Disaster Management for Government Officials and Representatives of Panchayati Raj Institutions and Urban Local Bodies at District Level" held at Uttarkashi on 11-12 July, 2012.

• List of Publications:

(a) Books:

- **1.** The book entitled "ENGINEERING PHYSICS" for B. Tech students of various Engineering Colleges and Universities has been published (ISBN: 81-7684-385-7) with Satya Prakashan, New Delhi as a single author in the session 2003-04 and its subsequent second and third editions in session 2004-05 and in year 2007 respectively.
- 2. The book entitled "ENGINEERING PHYSICS-I" for B. Tech first semester students of U.P. Technical University, Lucknow has been published (ISBN: 81-7684-535-3) with Satya Prakashan, New Delhi as a single author in the session 2003-04 and its subsequent second, third and fourth editions in the years 2004-05, 2007 and 2010-11.
- **3.** The book entitled "ENGINEERING PHYSICS-II" for B. Tech second semester students of U.P. Technical University, Lucknow has been published (ISBN: 81-7684-565-5) with Satya Prakashan, New Delhi as a single author in the session 2003-04 and its subsequent second, third and fourth editions in the years 2004-05, 2007 and 2010-11.

- **4.** The book entitled "ENGINEERING PHYSICS" for B. Tech students of Rajeev Gandhi Technical University, Bhopal, M.P has been published (ISBN: 81-7684-647-3) with Satya Prakashan, New Delhi as the first author and three co-authors in the year 2011-12 and its subsequent second edition in 2013-14.
- **5.** The book entitled "ENGINEERING PHYSICS" for B. Tech students of Mahamaya Technical University, Noida, U.P has been published (ISBN: 81-7684-748-8) with Satya Prakashan, New Delhi as a single author in the session 2012-13.
- **6.** The book entitled "Electricity and Magnetism" for B. Sc. Ist Year students of Uttarakhand Open University, Haldwani, Uttarakhand has been published as a co-author with three authors in the year 2017.
- 7. The book entitled "Optics" for B. Sc. IInd Year students of Uttarakhand Open University, Haldwani, Uttarakhand has been published as a co-author in the year 2018.
- **8**. The book entitled "Molecular Dynamic Studies Employing Positron Lifetime Spectroscopy" with ISBN: 978-81-940592-2-6 published with Akshita Publishers and Distributors, New Delhi as a single author during 2019-20.

(b) Chapters/Articles:

- **1.** An article entitled "Positron- A Nuclear Probe" published in magazine "Prerna" during the session 2014-15.
- **2.** An article entitled "Positron Annihilation Technique" published in magazine 'Him Suman' during the session 2015-16.
- **3.** Unit/Chapter-12: "Steady Current" in the book of 'Electricity and Magnetism', written for B.Sc. Ist year students of Uttarakhand Open University (published in 2017).
- **4.** Unit/Chapter 7: "Diffraction of Light" in the book of 'Optics', written for B.Sc. IInd year students of Uttarakhand Open University (published in 2018).

(c) Research Papers Published:

- 1. "Temperature Dependent Studies in Some Homologues of Alkyloxy Cyanobiphenyl Employing Positron Lifetime Spectroscopy", M. Sharma, C. Kaur, K.C. Singh and P.C. Jain, *Int. J. Mod. Phys. B.*, **14** (18), 1927-1938 (2000) (Impact Factor 0.598).
- **2.** "Molecular Dynamics in M18 and EBBA seen by Positron Annihilation Lifetime Spectroscopy", **M. Sharma**, K. Chandramani Singh and P.C. Jain, *Material Science Forum*, **363-365**, 389-391 (2001) (Impact Factor 0.461).
- **3.** "Phase Transformations In Some Homologues of 4-n-Alkyl-4'-Cyanobiphenyls Investigated by Positron Annihilation Spectroscopy", **M. Sharma**, C. Kaur, J. Kumar, K.C. Singh and P.C. Jain, *Journal of Physics: Condensed Matter*, **13**, 7249-7258 (2001) (Impact Factor 1.698).
- **4.** "Role of Dipole-Dipole Interaction on the Magnetic Dynamics of Anisotropic Layered Cuprate Antiferromagnets", **M. Sharma**, Govind, A. Pratap, Ajay and R.S. Tripathi, *Physica Status Solidi* (b), **226** (1), 193-202 (2001) (Impact Factor 0.873).
- **5.** "Positron Lifetime Spectroscopy as a Tool for Studying Molecular Motions in n-p-Ethoxybenzylidene-p-Butylaniline", **M. Sharma**, K. Chandramani Singh and P.C. Jain, *Material Science Forum*, **445-446**, 244-248 (2004) (Impact Factor 0.498).
- **6.** "Study of Molecular Motions in Two Liquid Crystal Forming Compounds Employing Positron Lifetime Spectroscopy", K. Chandramani Singh, **M. Sharma** and P.C. Jain, *Int. J. Mod. Phys. B.*, **20** (14), 2019-2034 (2006) (Impact Factor 0.437).

- **7.** "Study of Micro-Environmental Changes in Liquid Crystalline Compounds Employing Positron Annihilation Technique", **Mrityunjay Sharma**, *ESSENCE Int. J. for Environmental Rehabilitation and Conservation*, **VII** (14), 19-25, January 2016 (ISSN: 0975-6272).
- **8.** "Temperature Dependent Phase Transformation Studies in Hexyloxy Cyanobiphenyl Employing Positron Annihilation Technique", **Mrityunjay Sharma**, *International Journal of Advanced Research and Engineering and Applied Sciences*, **6** (8), 23-31, August 2017 (ISSN: 2278-6252).
- **9.** "Study of Structural Changes in 4-n-Nonyloxy-4'-Cyanobiphenyl Employing Positron Lifetime Spectroscopy", **Mrityunjay Sharma**, *International Journal of Engineering Science and Mathematics*, **6** (5), 300-305, September 2017 (ISSN: 2320-0294).
- 10. "Orthopositronium Lifetime and Formation Probability Variation Outcomes in Liquid Crystalline Decyloxy Cyanobiphenyl", Mrityunjay Sharma, International Research Journal of Natural and Applied Sciences, 4 (12), 516-522, December 2017 (ISSN: 2349-4077).
- 11. "Phase Transformation Studies in Heptyl Cyanobiphenyl with the Help of Positron Lifetime Measurement", **Mrityunjay Sharma**, *International Journal of Research in Engineering and Applied Sciences*, 8 (1), 53-58, January 2018 (ISSN: 2249-3905).
- **12.** "Molecular Motions In Hexyloxy Cyanobiphenyl Studied by Positron Annihilation Technique", **Mrityunjay Sharma**, *The Original Source*, **5** (19), Jan-March 2018 (IInd Edition), 2018 (UGC No.46953, ISSN: 2319-6297, Reg. No. 1803/2008).
- **13.** "Positron Annihilation Spectroscopy as a Tool to Investigate Phase Transformations and Complex Structural Changes in 8OCB", **Mrityunjay Sharma**, *International Journal of Management*, *IT and Engineering*, **9** (2), February 2019 (ISSN: 2249-0558).
- **14.** "Phase Transformation Studies in Decyl Cyanobiphenyl Investigated by Positron Annihilation Spectroscopy", **Mrityunjay Sharma**, *Journal of the Gujarat Research Society*, **21** (14), December 2019 (UGC Care, ISSN: 0374-8588).
- **15.** "Role of Positron Annihilation Technique in Detecting Phase Transformations in Hexyl Cyanobiphenyl, **Mrityunjay Sharma**, *Parishod Journal*, **VIII** (X), 1863-1868, January 2020 (UGC Care List, Group-I, ISSN: 2347-6648).
- **16.** "Positron Annihilation Spectroscopy as a Tool to Study Phase Transformation in Octyl Cyanobiphenyl", **Mrityunjay Sharma**, *International Journal of Future Generation Communication and Networking*, **13** (04), 1681-1685, October 2020 (Web of Science Group, Scopus).

(d) Papers Presented in Conference/Symposium/Seminars etc.:

- 1. Paper entitled "Role of Dipolar Interactions in Magnetic Dynamics of Layered Antiferromagnets" by M. Sharma, Amit Pratap, Ajay and R.S. Tripathi, Presented by coauthor in the DAE Solid State Physics Symposium, Kochi, December 27-31, 1997.
- **2.** Paper entitled "Molecular Dynamics in M18 and EBBA Seen by Positron Annihilation Lifetime Spectroscopy" by **M. Sharma**, K. Chandramani Singh and P.C. Jain, was presented by co-author in 12th International Conference on Positron Annihilation, Munich, Germany, August 6-12, 2000.
- **3.** Paper entitled "Study of Molecular Motions in Liquid Crystalline Materials by Positron Lifetime Measurement Technique" by **M. Sharma**, K.C. Singh and P.C. Jain, accepted as an invited talk and presented by co-author in 13th International Conference on Positron Annihilation, Kyoto University, Japan, September 7-13, 2003.

- **4.** Abstract of the paper entitled "Positron Annihilation Lifetime Study: A Spectroscopic Tool for the Study of Phase Transformations" by **Mrityunjay Sharma**, published in 3rd Uttarakhand State Science and Technology Congress, IIT, Roorkee, Uttarakhand, 10-11 November, 2008.
- **5.** Paper entitled "Right to Information Act: A Powerful Tool for Social Empowerment" by **Mrityunjay Sharma**, presented in National Seminar on "Role of RTI in Social Empowerment (RRSE 2010), R.C.U. Govt. P. G. College Uttarkashi, November 17, 2010.
- **6.** Paper entitled "Role of Positron Lifetime Measurements in the Study of Phase Transformations in Some Liquid Crystalline Materials" by **Mrityunjay Sharma**, presented in "National Seminar on Recent Trends in Micro and Macro Physics (NSRTMMP-2011), Government. P. G. College, Gopeshwar, Uttarakhand, October 12-13, 2011.
- 7. Paper entitled "Phase Transformation Studies Employing Positron Annihilation Lifetime Measurement" by **Mrityunjay Sharma**, presented in "National Conference on Recent Trends in Materials Science and Nano Structure (RTMSNS-12) at Government. P. G. College, Rudrapur (U.S. Nagar), Uttarakhand, January 03-04, 2012.
- **8.** Paper entitled "Sensitivity of Positron Annihilation towards the Surrounding Environmental Changes" by **Mrityunjay Sharma**, presented in "National Conference on Environmental Conservation and Clean India Programme" at UGC Academic Staff College, Kumaun University, Nainital on December 07, 2014.
- 9. Paper entitled "Potentiality of Positron Annihilation Technique in the Study of Complex Molecular Motion" by **Mrityunjay Sharma** presented in "National Seminar on Recent Development in Physics and Prosperity in Solar Physics Space Science (NSRDPPSPSS-2014)" at M.B. Govt. P.G. College, Haldwani, Nainital, Uttarakhand on December 27-28, 2014.
- **10.** Paper entitled "Study of Surrounding Environmental Changes Employing Positron Annihilation Technique" by **Mrityunjay Sharma** presented in National Seminar on "Development and Ecological Challenges: A Need for Paradigm Shift" at Dr. P.D.B.H. Govt. P.G. College, Kotdwar, Uttarakhand on March 21-22, 2015.
- **11.** Paper entitled "Study of Micro-environmental Changes in Liquid Crystalline Compounds Employing Positron Annihilation Technique" by **Mrityunjay Sharma**, presented in International Conference on Advances in Science, Engineering and Technology, January 29-30, 2016.
- 12. Paper entitled "Positron Annihilation Technique A Non Destructive Probe to Investigate Chemical Structure, Phase Transformations and Molecular Motions" by **Mrityunjay Sharma** presented in National Workshop on "Green Chemistry Practices in Teaching, Research and Industry" at Pt. L.M.S. Govt. P.G. College, Rishikesh, Uttarakhand on March 30, 2016.
- 13. Paper entitled "Effect of Varying Magnetic Field and Time Exposure on the Germination of Seeds of Wheat" by Kulbhusan, S.K. Singhal, G.C. Joshi, Virendra Singh, Madan Singh, Dinesh Yadav and M. Sharma presented in National Workshop on "Green Chemistry Practices in Teaching, Research and Industry" at Pt. L.M.S. Govt. P.G. College, Rishikesh, Uttarakhand on March 30, 2016.
- **14.** Paper entitled "Role of Positron Emission Tomography in Observing Metabolic Process in the Body" by **M. Sharma** presented in National Conference Cum Workshop on "Innovations in Cellular and Molecular Diagnosis A New Era of Prognosis" at Sri Guru Ram Rai Institute of Medical and Health Sciences, Dehradun, Uttarakhand on December 2-3, 2016.

- **15.** Paper entitled "Positron Annihilation Technique as a Tool to Study Micro Environmental Changes" by **Mrityunjay Sharma**, presented in "National Seminar on Emerging Environmental Concerns and Public Health" at Shaheed Mangal Pandey Govt. Girls P.G. College, Meerut, Uttar Pradesh, December 11-12, 2016.
- **16.** Paper entitled "Positron Annihilation Lifetime Study: A Spectroscopic Tool for the Study of Molecular Motions" by **Mrityunjay Sharma**, presented in National Conference on "Recent Advances in Science and Technology" at Uttaranchal College of Applied and Life Sciences, Uttaranchal University, Dehradun, Uttarakhand, February 27-28, 2017.
- 17. Paper entitled "Study of Various Segmental Motions in M18 Liquid Crystalline Compound Employing Positron Lifetime Measurements" by Mrityunjay Sharma, presented in National Conference on "Recent Advances in Science, Technology and Management" at Phonics Group of Institutions, Roorkee, Uttarakhand, April 29-30, 2017.
- **18.** Paper entitled "Molecular Environment and Molecular Motions Study Employing Positron Lifetime Technique" by Mrityunjay Sharma, presented in National Seminar on "Environment, Climate Change and Sustainable Development" at Govt. Degree College, Saharanpur, Uttar Pradesh, March 18-19, 2018.
- **19.** Paper entitled "Modern Physics and Hindu Philosophy" presented in Haridwar Literature Festival, December 14-16, 2018.
- **20.** Paper entitled "Molecular Modes in Liquid Crystalline Compounds Investigated by Positron Annihilation Technique" by Mrityunjay Sharma, presented in International Conference on "Photonics, Metamaterials & Plasmonics" organized by Laypee Institute of Information Technology, Noida, Uttar Pradesh, February 14-16, 2019.
- **21.** Paper entitled "Positron Annihilation Technique- A medical Diagnostic Tool" by Mrityunjay Sharma, presented as Guest Speaker in Workshop on "Bio-Analytical Tools and Techniques in the Modern Era of Diagnostics" at DNA Labs, Dehradun, Uttarakhand, April 13-14, 2019.
- **22.** Paper entitled "Study of Molecular Motions in Liquid Crystalline Compounds employing Positron Annihilation Technique" by Mrityunjay Sharma, presented in International Conference on "Innovations in Physical Sciences" at C.C.S. University, Meerut, Uttar Pradesh, August 09-11, 2019.
- **23.** Paper entitled "Role of Positron Annihilation Technique in the Investigation of Complex Structural Changes" by Mrityunjay Sharma, presented in International Conference on "Innovations in Science, Engineering and Technology" at Arya Post Graduate College, Panipat, Haryana, November 09-10, 2019.
- **24.** Paper entitled "Micro Environmental Studies of Molecular Motions Using Positron Annihilation Measurements" by Mrityunjay Sharma, presented in International Conference on "Contemporary Issues of Climate Change, Conservation of Biodiversity and Natural Resources in Himalayan Environments" at Govt. Post Graduate College, New Tehri, Uttarakhand, November 14-16, 2019.

(e) Participation in Conference/Symposium/Seminars etc.:

- **1.** Participated in the symposium on "Wildlife Conservation in Urban Environments" organized by School of Environmental Studies, University of Delhi, Delhi, October 6, 2000.
- **2.** Participated in National Seminar on "Natural Resource Conservation in Uttarakhand: Status, Challenges and Solutions" organized by UGC-Academic Staff College, Kumaun University, Nainital, October 10-11, 2008.

- **3.** Participated in National Conferences On "Advances in Biotechnology and its Role in Aquatic Biodiversity Conservation and Fisheries", R.C.U. Govt. P. G. College Uttarkashi from 17th march to 18th march 2010.
- **4.** Participated in one day workshop on Intellectual Property Right held on 21-03-2014 as a member of organizing committee of Govt. P.G. College, Uttarkashi.
- **5.** Participated in International Seminar on "Our Genes and Genomes Past Present and Future" at I.C.F.R.E Dehradun on February 04, 2015.
- **6.** Participated in the National Seminar organized by Commission for Scientific and Technical Terminology at Deen Dayal Upadhyay College, Delhi University on September 18-19, 2015.
- 7. Participated in the Workshop on "Electronic Components: Identification, Testing and Application" at Pt. L.M.S. Govt. P.G. College, on October 10, 2015.
- **8.** Participated in National Conferences On "Current Challenges for Tuburculosis Management on World Tuberculosis Day", at Central Molecular Research Laboratory, SGRR University, Dehradun on 24th march 2018.
- **9.** Participated in a symposium on "Institutional Partnership for Maximizing Impact on Minimal Use of Plastic" jointly organized by Pt. L.M.S. Govt. P.G. College, Rishikesh, AIIMS, Rishikesh and SR Asia on June 05, 2018.
- **10.** Participated in the workshop entitled "Bioinformatics: Basic Tools and its Applications" organized by DNA labs- a centre for applied sciences, Dehradun, Uttarakhand on December 09, 2018.
- **11.** Participated in Workshop On "Job Orientation and Empowerment", at Sridev Suman Uttarakhand University, Rishikesh Campus, Dehradun on 22-08-2019.
- **12.** Participated in three days workshop on e-Granthalaya Software organized by Department of Higher Education, Uttarakhand at M.B.P.G. College, Haldwani from 20-03-2023 to 22-03-2023.

(f) Served as Expert/Resource Person/Chair Person/Referee etc.

- 1. One of the referees of International Journal of Theoretical and Applied Sciences (ISSN No.0975-1718).
- **2.** Appointed as an expert of physics for interviews of Post Graduate Teachers at various schools.
- **3.** Delivered lectures and organized sessions as Resource Person in the Six Days Workshop jointly organized by School of Sciences, Uttarakhand Open University, Haldwani and R. C. U. Govt. P. G. College, Uttarkashi from 24-05-2014 to 29-05-2014.
- **4.** Delivered a lecture as an Expert on May 16, 2015 in the Workshop organized by Uttarakhand Open University at U.O.U. Campus, Dehradun from May 15 to May 16, 2015.
- **5.** Delivered a lecture as an Expert on July 11, 2015 in the Workshop organized by Uttarakhand Open University at S.G.R.R. P.G. College Dehradun from July 06 to July 11, 2015.
- **6.** Delivered a lecture as an Expert in the National Seminar organized by Commission for Scientific and Technical Terminology at Deen Dayal Upadhyay College, Delhi University on September 18-19, 2015.
- **7.** Delivered a lecture as an Expert in the Workshop on "Electronic Components: Identification, Testing and Application" at Pl. L.M.S. Govt. P.G. College, on October 10, 2015.

- **8.** Delivered lectures and organized sessions as Resource Person in the Seven Days Workshop jointly organized by School of Sciences, Uttarakhand Open University, Haldwani and Pt. L.M.S. Govt. P. G. College, Rishikesh from April 27 to May 03, 2017.
- **9.** Delivered lectures and organized sessions as Resource Person in the Seven Days Workshop jointly organized by School of Sciences, Uttarakhand Open University, Haldwani and Pt. L.M.S. Govt. P. G. College, Rishikesh from November 16 to 22, 2017.
- **10.** Delivered a lecture as a Resource Person in the Workshop on "Teaching and Learning through ICT" organized by IQAC Cell of Pl. L.M.S. Govt. P.G. College on April 06, 2018.
- **11.** Delivered lectures and organized sessions as Resource Person in the Seven Days Workshop jointly organized by School of Sciences, Uttarakhand Open University, Haldwani and Pt. L.M.S. Govt. P. G. College, Rishikesh from April 26 to May 02, 2018.
- **12.** Delivered lectures and organized sessions as Resource Person in the Seven Days Workshop jointly organized by School of Sciences, Uttarakhand Open University, Haldwani and Pt. L.M.S. Govt. P. G. College, Rishikesh from November 26 to December 02, 2018.
- **13.** Delivered lectures and organized sessions as Resource Person in the Seven Days Workshop jointly organized by School of Sciences, Uttarakhand Open University, Haldwani and Pt. L.M.S. Govt. P. G. College, Rishikesh from April 25 to May 01, 2019.
- **14.** Delivered lectures and organized sessions as Resource Person in the Seven Days Workshop jointly organized by School of Sciences, Uttarakhand Open University, Haldwani and Pt. L.M.S. Govt. P. G. College, Rishikesh from November 18 to 24, 2019.
- **15.** Delivered lecture in National Physics Lecture Series-2021 organized by Department of Physics, Radhey Hari Govt. P.G. College, Kashipur, Udham Singh Nagar, Uttarakhand from August 16 to 20, 2021.

(g) Workshop/Conference/Seminars etc. Organized

- **1.** Organized one day workshop on Ek Bharat Shershtha Bharat on December 15, 2019 as an organizing secretary.
- **2.** Worked as a coordinator of online state level 'Sanskritik Samagam' program on August 14, 2020.
- **3.** Worked as an Organizer of state level 'Uttarakhandi Evam Dakshin Bhartiya Vyanjan Pratiyogita' on August 19, 2020.
- **Citation:** M. Sc. Thesis is cited in *Physical Reveiw B*, **60** (9), p.6775 (1999).