

Curriculum Vitae

Prof. B. C. CHAUHAN

Personal Details

Address: Department of Physics and Astronomical Science, School of Physical and Material Sciences
Central University of Himachal Pradesh, Dharamshala, Distt. Kangra (HP) INDIA-176215.

Visiting Associate: (July 2010 to date...)

Inter-University Centre for Astronomy & Astrophysics (IUCAA), Pune (An Autonomous Body of UGC):

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Citizenship Indian

Research:

Core Area:

Solar Neutrinos, Lepton Flavour Mixing, Neutrino Astrophysics and Dark Matter in the Universe

Other Interests:

Indian Knowledge System, History and Philosophy of Science, and Energy Studies.

Professional Qualifications

- **Educational Qualifications:** M. Sc., M. Phil., Ph.D.
- **PDF** (Technical University Lisbon, PORTUGAL): 5 Years.
- **Matric:** 1985 (71%), Govt. High School Nihri, Mandi, HP.
- **B.Sc. (N/M):** 1989 (77%), Govt. Ballabh P.G. College Mandi, HP.
- **M. Sc. (Physics):** 1991 (65%) H.P. University, Shimla, HP.
- **M. Phil. (High Energy Physics):** 1994 (69%) H.P. University, Shimla, HP.
- **Ph.D. (Solar Neutrinos):** 2001, H.P. University, Shimla, HP.
- **PDF (Neutrino Astrophysics):** IST-Technical Univ. Lisbon (2001-2006).

Additional Examinations/ Qualifications

- National Graduate Physics Examination (NGPE) held by Indian Association of Physics Teachers (IAPT) in 1989 at B.Sc. level.
- National level Education Test (NET) held by University Grants Commission (UGC) in 1992, for Lectureship in the Indian Universities/ Colleges.
- Diploma in Yoga-Studies: HP University (1994).
- Principal Yog Teacher, Patanjali Yogpeeth, Haridwar (2007).

- Certificate Course in French Language: HP University (1992).

Employment History

- Permanent Teaching Career: Department of Higher Education (Govt. College Karsog): 1997-2012.
- Post Doctoral Fellow: 2001 -2006.
- Visiting Associateship, IUCAA (2010-.....)
- **Central University of Himachal Pradesh: 2012- till date**

Personal Distinctions

- **Visiting Associateship** of Inter-University Centre for Astronomy & Astrophysics (IUCAA) Pune, (August 2010- ...)
- **Dr. Shyama Prasad Mukharjee Samman** by Yuva Lekhak Manch, Nurpur, Kangra (2019).
- **Ram Narayan Arya Samman** by Indian Foundation for Vedic Science, International Seminar Baba Mastnath University, Rohtak (Oct. 2018).
- **Bharat Shiksha Ratan Award 2012** by Global Society for Health & Educational Growth, at Patel Bhawan, New Delhi.
- **Member, State Higher Education Council (SHEC)**, Govt. of Himachal Pradesh (2019).
- **Member, RUSA** Reconsidering Committee (2017).
- **Member, Task Force**, New Education Policy Implementation, Govt. of Himachal Pradesh (Sept. 2020).
- **Member, Task Force**, New Education Policy Implementation, Shiksha Sanskriti Utthan Nyas, H.P.
- **Member**, University Academic Review Committee, CUHP.
- **Chairman**, CUHP Non-teaching grievance addressing Committee.
- **Member**, NEP Implementation, Progress Monitoring and Advisory Committee for CUHP under Zone-3, Region-3.
- **Mentor** for the Young Faculty Members of UGC system, by NITTTR Chandigarh (Jan. 2021).
- **Member**, Board of Studies, HPTU Hamirpur; Cluster University.
- **Convener/ Member** of several administrative and Managerial committees of CUHP.
- **Member and Advisor**, Syllabus Framing of Vedic Mathematics for Schools, HP School Board of Education (2019-20).
- **Member**, Screening and Selection Committees at the various universities and Institutes.
- **Chief-Guest, Guest of Honor, and honored** in several Academic and Social functions & programmes with wide media coverage.

- **Resource Person** in several educational training programmes at the UGC-HRDC, SCERT, DST-Inspire, National Science Day, schools, and college levels.
- **Judge** at DST-Inspire, National Science Day, schools, and several college levels programmes.
- **Chaired Sessions** in several national conferences and workshops of the research areas.
- **Editorial Board (02):** Journal of Nuclear Physics, Material Science, Radiation, and Applications; Oriental Journal of Physical Sciences.
- **Referee (02)** of Journal of Astronomy and Astrophysics (JOAA); International Journal for Theoretical Physics (IJPT).
- **Award of Post-Doctoral Fellowship** offered by Ministry of Science & Technology (FCT), Government of Portugal in Sept., 2004 (3 years).
- **Award of Post-Doctoral Fellowship** offered by Ministry of Science & Technology (FCT), Government of Portugal in Sept., 2001 (3 years).
- **Award of Research Associateship (RA)** by CTS, I.I.T. Kharagpur in August 2001.
- **Biography published** from U.S.A., in the Millennium Edition (Ed. 2000) of the "Marquis Who's Who in the World".
- **Topped in the Merit list of State College Cadre Commission (1997)**, conducted by the HP Public Service Commission (HPPSC).
- **President**, HP University NET Qualified Student Association (1996-97).
- **Publisher & Editor-In-Chief**, 1st Competition Magazine "Him Competition Vision" launched from Himachal Pradesh (1995-96).
- **Nominated by MHRD**, Govt. of India to United Kingdom (U.K.) for Ph. D. under **Commonwealth Fellowship** Scheme in 1995.
- **HPU Gold Medal** in Certificate course in French Language in 1993.
- **Awards of JRF (1992) & SRF (1994)** of University Grants Commission (UGC) for pursuing M.Phil. and PhD degrees.
- **Got distinction** in National Graduate Physics Examination (NGPE) at B.Sc. level (1989).
- **Was Associated** with Additional Director of Education for project under Nuclear Science & Technology.
- **Talks Telecasted:** Vedic Civilization and Science (Telecasted by the national TV Channel of Portugal in October 2006.)
- **Talk Telecasted:** Bharat Upgrah Ke Kshetar Mein (Talk aired through All India Radio Shimla (AIR) in June 1996.)
- **Visited more than 10 countries including USA, Russia, Germany, Italy, Switzerland, and France.**

Invited Seminars and Invited Conference Presentations

● **International Level:**

- **Invited Lecture:** “Self-Interacting Dark Matter”; International Conference; **CPUH, Hamirpur** (25th February 2023).
- **Invited Lecture** at the 8th HSCA International Conference at **SP University Mandi, Himachal Pradesh, India** (20th – 21st Oct., 2022).
- **Invited Lecture:** International Conference on Theoretical Aspects of Nuclear Physics (Online) in **CUHP** (Feb., 2021).
- **Invited Lecture:** “Tiny and Unseen Matter” at International Workshop on Advancements in Nanomaterials with Futuristic Engineering Applications; Career Point University (18th Jan., 2021).
- **Invited Lecture:** “Revisiting Quark Lepton Complementarity Model- Its Present Status”; 7th HSCA International Conference, Chittkara University, Baddi (Nov.2019).
- **Invited Lecture:** “A Model for Estimating the Unexplained Matter” HSCA International Conference, NIT Hamirpur (October 2018).
- **Invited Lecture:** “Role of Neutrinos as Dark Matter.” International Conference on Science: Emerging Scenario & Future Challenges (SESFC-2018), National Institute of Technology (NIT), **Hamirpur, HP, INDIA**.
- **Talk:** “Light Sterile Neutrinos and Dark sector of Universe.” International Science Congress at Maharaja Agrasen University, **Baddi, SOLAN, INDIA** (1-2 May 2015).
- **Talk:** “Spectral predictions for KamLAND solar mode.” 2nd Scandinavian Neutrino Workshop at AlbaNova University Center, **Stockholm, SWEDEN** (2-6 May, 2006).
- **Talk:** “Subdominant effects in low energy solar neutrino data.” 2nd Xmas Workshop of CFTP in **Lisbon, PORTUGAL** (Dec. 2005).
- **Talk:** “Time Variations and Low Energy Solar Neutrinos.” International conference on Frontiers in Contemporary Physics-III in Vanderbilt University, **Nashville, USA** (2005).
- **Talk:** “Model independent analysis of solar neutrino data.” 1st Xmas Workshop of CFTP in **Lisbon, PORTUGAL**(Dec. 2004).
- **Seminar:** “Solar Neutrino Flux Variations and Solar Magnetic Fields.” at CFIF-Instituto Superior Tecnico, Technical University **Lisbon, PORTUGAL** (June'2004).
- **Poster:** “Time Modulations and Sterile Neutrinos.” International Conference of Neutrino Physics and Astrophysics (Neutrino'2004) in College De France, **Paris, FRANCE**.
- **Talk:** “KamLAND and solar antineutrino spectrum.” International Conference of Non-Accelerator New Physics (NANP'03) in **Dubna, RUSSIA**.

- **Poster:** "MSW constraints on the matter density profiles in the solar interior." International Conference of Neutrino Physics and Astrophysics (Neutrino'2002) in Technical University **Munich, GERMANY.**
- **National Level:**
- **Invited Lecture:** Integrated Approach in Science and Technology for Sustainable Future Online at ITM University Gwalior MP on National Science Day (28th Feb., 2022).
- **Invited Lecture:** Interdisciplinary Lecture Event (Online) by Malyagiri Mahavidyalaya, Pallahara, Odisha (1st Sept., 2021).
- **Invited Lecture:** Scientific Culture In Bharata (Online) by VIBHA Haryana on Independence Day (15th August 2021).
- **Invited Lecture:** Development of Scientific Temper at Paradise School on National Science Day (28th Feb., 2022).
- **Invited Lecture:** Culture of Science in Bharata at MLSM Sundernagar under STUTI program of DST (27th Feb., 2022).
- **Invited Lecture:** Science and Art of Human Making by HPYSA Shimla (6th June, 2021).
- **Invited Lecture:** NEP2020, Shiksha Sanskriti Utthan Nyas, H.P. (Jan. 2021)
- **Talk:** Is Geothermal Energy the Main Source to Trigger the Earthquakes? HIMCOSTE, IIT Mandi; November 2018.
- **Invited Lecture:** Indian Culture of Knowledge Tradition HRDC, HPU Shimla Sept//2020.
- **Invited Lecture:** 'Neutrino Dark Matter in National Seminar at Sri Sai University, **Palampur** (23rd Nov. 2017).
- **Panel Discussion:** Religion, Science and World Peace, 4th November 2017.
- **Talk:** National Seminar on Lok-Gathaon Me Itihaas, Th. Jagdev Chand Shodh Sansthan, **Neri, Hamirpur** (2nd Oct. 4th Oct. 2015).
- **Invited DST-Inspire Lecture:** State Children Science Conclave at **SCERT Solan** (8th September, 2015).
- **Talk:** NEEM Seminar on 'Quark Lepton Complementarity and Model Predictions', in **IUCAA, Pune** (28th July 2015).
- **Invited Lecture:** Energy Needs, Geothermal Energy and Environmental Issues; National Conference on 'Emerging Scenario & Future Challenges-III' at Ballabh **PG College Mandi** (11.04.2015-12.04.2015).
- **Invited Lecture:** National Seminar on Environmental Degradation and Natural Resource Management in Western Himalayas; **Govt. College Nalagarh, Solan** (20.02.2015-21.02.2015).

- **Invited Lecture:** Low Energy Solar Neutrinos and Search for Dark Matter Candidate; National workshop on Light from Dark Side of Universe at Banaras Hindu University (**BHU**), **Varanasi (UP)** (17-20, March 2015).
- **Invited Lecture:** Solar Neutrinos- Looking Forward; One Day Workshop on Nuclear Structure and Astrophysics: Looking Forward at MAU, Baddi (11th April 2014).
- **Invited Lecture:** Harnessing Geothermal Energy in India; National Seminar at **Sri Sai University, Palampur** (18th Jan. 2014).
- **Lecture:** Geothermal Energy: A Natural Resource for Sustainable Development; National Seminar on Natural Resource Management: Present needs and our Common Future at **Maharaja Agrasen University, Baddi** (2014).
- **Invited Lecture:** Geothermal Energy; Academic Staff College **HPU Shimla** (05.05.2014). **Invited Lecture:** Radiation Hazards; Academic Staff College **HPU Shimla** (05.05.2014).
- **Talk:** Harnessing Geothermal Energy: Earthquake Disaster Free Himachal; 1st Himachal Science Congress, **Hotel Peterhoff Shimla** (15th October 2014).
- **Poster:** Can Geothermal Power production help in Earthquake Disaster management? National Workshop on Status of natural Hazards in HP at **CUHP TAB Shahpur** (6-8th Nov. 2014).
- **Talk:** Change the Attitude & Save the Environment; A Short-Term Course on Environmental Hazards at National Institute of Technology (**NIT Hamirpur, INDIA**) (09-13 July, 2007).
- **Lecture:** Nuclear Hazards; A Short Term Course on Environmental Hazards at National Institute of Technology (**NIT Hamirpur, INDIA**) (09-13 July, 2007).
- **Seminar:** Solar Neutrinos and Time Modulations; Indian Institute of Science Education and Research (**IISER Kolkata, INDIA**) (16th May, 2007).
- **Seminar:** Solar Neutrinos: Oscillations and Flux Variations; Center for Theoretical Studies (CTS), Indian Institute of Technology (**IIT Kharagpur, INDIA**) (25th Sept., 2007).
- **Seminar:** Neutrino Technology and its Implications; Department of Applied Sciences, National Institute of Technology (**NIT Hamirpur, INDIA**) (9th July, 2007).
- **Seminar:** Solar Neutrinos: Oscillations and Magnetic Moment; Indian Institute of Technology (**IIT Kanpur, INDIA**) (17th Nov., 2006).
- **Seminar:** Time modulations and predictions for BOREXINO; Department of Physics, Himachal Pradesh University (**HPU Shimla, INDIA**) (Oct. 2004).
- **Seminar:** Time modulations in solar neutrino data; Department of Physics, Punjab University Chandigarh (**PU, INDIA**) (Oct. 2004).
- **Talk:** RSFP constraints on solar magnetic fields from solar neutrino observations; XIII th DAE high energy physics symposium in **Punjab University Chandigarh, INDIA** (Dec., 1998 - Jan., 1999).

- **Talk:** Dark Matter Halo: A Fluid Model; IVth Young Astronomer's Meet (YAM'96) in Indian Institute of Astrophysics (IIA) Bangalore, INDIA.
- **Talk:** Implications of solar neutrino experiments for magnetic moment solution of solar neutrino problem; XIth DAE high energy physics symposium in Vishva-Bharti University Shantiniketan, INDIA (Dec. 1994 - Jan. 1995).
- **Talk:** Ancient India: The light House of Knowledge; INACS09 Conference on Delhi University (27th November 2009).

- **Regional Level:**

- **Invited Lecture at the Distt. Level Sc. Exhibition & Project Competition** under Inspire awards 'Manak' (January 2020).
- **Invited Lecture:** Indian Contribution to Physics and Mathematics; SCERT, Solan (30th November 2017).
- **Invited Lecture:** On the Discovery of God Particle; Govt. College of Excellence Sanjauli (1st Dec. 2017).
- **Invited DST-Inspire Lecture:** 5-day workshop at Laurent Institute Kathog (7th July 2016).
- **Special Lecture:** On National Science Day celebration function, Dept. of Physics & Astronomical Science, CUHP, 2015.
- **Invited Lecture:** Bhartiya Kal-Ganana ke Vaigyanik Sandarbh; Th. Jadevchand Shodh Sansthan Neri, Hamirpur.
- **Invited Lecture:** Electromagnetic Pollution; SCERT, Solan (13th October 2014).
- **Invited Lecture:** The God's Particle; SCERT, Solan (13th October 2014).
- **Invited Lecture:** Mass, Matter, and Universe; Govt. College Solan (14th October 2014).
- **Invited Lecture:** Neutrino Oscillations; Workshop on Analytical Aspects of Dynamics (11-17 Nov., 2014), CUHP.
- **Invited Lecture:** Structures and Dynamics of Elementary Particles; Workshop on Analytical Aspects of Dynamics at CUHP (11-17 Nov., 2014).
- **Special Lecture:** Science and Technology in Ancient India; Colloquium Series of Physics, Dept. of Physics & Astronomical Science, CUHP (2013).
- **Special Lecture:** Holography as a Fun; Colloquium Series of Physics, Dept. of Physics & Astronomical Science, CUHP (2013).

● **Popular Talks (Only Selected):**

- **Invited Lecture:** Culture of Science in India HIET, Shahpur (February 2019).
- **Talk:** Nobel Prize in Physics 2015: My Experiences with Nobel Laureates; CUHP (04.08.2016).
- **Invited Lecture:** Scientific Culture in India; Laureate Institute of Pharmacy, Kathog (07.07.2016).
- **Invited Lecture:** Nobel Prize in Physics 2015: On Neutrinos; MCM DAV College Kangra (March 2016).
- **Invited Lecture:** Scientific Tradition in Ancient India; B.Ed. College Dharamshala, 2016.
- **Invited Lecture:** Scientific Basis of Bhartiya KalGanana; Nalanda College of Education, 2016
- **Invited Lecture:** Science and Education System in Ancient India; B.Ed. College Dharamshala, 2015.
- **Invited Lecture:** Tradition of Sports in India; at **Workshop at SAI** Hostel Dharamshala (28th Feb. 2015).
- **Special Lecture:** NSS Camp at GSSS, Dughiyari, **Gaggal, Kangra:** Life and Teachings of Sw. Vivekananda (21.11.2014).
- **Invited Lecture:** Education & Science in Ancient India; Regional Centre Dharamshala, HPU.
- **Talk:** Ancient India: The light House of Knowledge; delivered at INACS09 Conference in Delhi University on 27th November 2009.
- **Invited Lecture:** Vedic Civilization and Science; organized by Hindu Community of Portugal for the Youngsters (05.11.2006). (Telecasted by the **National TV Channel** of Portugal.)
- **Invited Lecture:** India: The Cradle of World Civilizations; given at the Universidade Lusofona, Portugal (28.10.2006).
- **Invited Lecture:** Scientific Dating of Janmashtmi, Mahabharat, and Discovery of Dwaraka; given at Lisbon ISKCON Center, on the eve of Krishna Janmashtmi (16.08.2006).
- **Talk:** Science in Vedas; delivered at three days workshop at SujapurTira (HP) on 2nd November 2009.
- **Invited Lecture:** Science in Ancient India; Sarswati Vidya Mandir Samiti of Karsog on 25th June 2008 (3+).

- **Invited Lecture:** Vedic Science; Govt. College Kullu, Govt. College Karsog, Sarswati Vidya Mandir Karsog, Govt. Sr. Sec. School Teban, Govt. Sr. Sec. School Karsog.
- **Talk:** Science, Religion and Truth; Orientation Course for College and University Lecturers at Academic Staff College, HP University Campus, Shimla (1999).
- **Talk:** Bharat Upgrah Ke Kshetar Mein (India in the field of space); All India Radio (AIR) Shimla in June 1996.
- **Invited Lecture:** AIDS: Prevention is the Cure! Delivered to the Students of Govt. College Karsog on the eve of AIDS day celebration on 22nd December 2008.
- **Talk:** Journey into Cosmos and back into Matter; G. C. Karsog for National Science Day Celebration on 6th November 2008.
- **Invited Lecture:** Science and Reality; NSS Students at Govt. College Karsog, Mandi (2000).

Professional Contributions

Professional Visits, Trainings, and Participations (Only selected)

- **IP Awareness/ Training Program** under National Intellectual Property Awareness Mission (NIPAM) (9th Feb., 2022) by Intellectual Property Office, India.
- **National Workshop on Vedic Mathematics** (8th - 12th Nov., 2021) by Center for Vedic Mathematics and Department of Mathematics, CUHP.
- **Vidyarthi Vigyan Manthan(VVM)** State Level Prize Distribution Function by VIGYASA at NIT Hamirpur (14th March 2021, 30 April 2022).
- **Member**, various Screening and Selection Committees at CUHP, Dharamshala.
- **Member**, various Screening and Selection Committees outside the university.
- **National Seminar** on Swatantrta Sangram Mei Himachal Pradesh ka Yogdan, Th. Jagdev Chand Shodh Sansthan, Neri Hamirpur (14th – 15th Feb., 2021).
- **Distt. Level Sc. Exhibition & Project Competition** as a Judge under Inspire awards 'Manak' December 2020, January 2021.
- **Distt. Level Sc. Exhibition & Project Competition** as a Judge under Inspire awards 'Manak' December 2019, January 2020.
- **Brain Storming Session**, STIP policy draft; Nominated Member by the Vice-Chancellor organized by HIMCOSTE, March 2021.

- **Coordinator**, Group V, NEP Task Force, Convened a number of meetings and prepared action plans.
- **Role of Teachers in National Education Policy (NEP)**; CUHP/NITI AYO/ Bhartiya Shikshan Mandal, February 2021.
- **IISF2020**: Young Scientists' Conference December/2020, 6th India International Science Festival, 22nd -25th December 2020.
- **Online Orientation Training for Mentors** for the Non-Technical Higher Education Institutions/ Universities by NITTTR Chandigarh (18th – 28th Jan., 2021).
- **Conference on Science: Emerging Scenario and Future Challenges (SESFC-2018)**, NIT Hamirpur, 2018.
- **3rd Himachal Pradesh Science Congress**, IIT Mandi, 2018.
- **3rd world Ved Vigyan Samelanat** Deccan College Pune (10th Jan.-13th Jan., 2018).
- **Associate Visits** (Since 2010 -) **IUCAA, Pune**.
- **Flying Squad In charge**, HPTU End Semester Exams (Dec. 2017).
- **Rashtriya Abhyas Varg**, Vijnana Bharati at Bhuvneshwar (9-11th, Dec. 2017).
- **Judge for DST-Inspire**, Central School Dharamshala Cantt. (2017).
- **International Conference** on Science: Emerging Scenario & Future Challenges at Dharamshala (SESFC-2016).
- **One Week FDP** (9th-15th June, 2016) on Emerging Trends of ICT in Higher Education at CUHP.
- **Two Day Workshop** (4th -5th April, 2016) on Experimental Physics at **CUHP**.
- **National Seminar** (29th -30th March 2016) on Skill Development in Higher Education at **CUHP**.
- **Workshop** in Computerization Experiments in Physics (17th -19th March 2016) at **CUHP**.
- **CUHP-IUCAA-DST Sponsored Two Week School** (29th Feb.-12th March, 2016) on Gravitation and Astroparticle Physics at **CUHP**.
- **Workshop** (8th January, 2016) on Open Educational Resource Policy (OER) at **CUHP**.
- **Workshop** in Physics Education (16th -18th October 2016) at **CUHP**.
- **National Seminar** on Lok-Gathaon Me Itihaas (2nd Oct.-4th Oct. 2015), Th. Jagdev Chand Shodh Sansthan, **Neri, Hamirpur**.
- **National Conference** on 'Emerging Scenario & Future Challenges-III' (11th -12th April, 2015) at Ballabh **PG College Mandi**.

- **International Science Congress** (1st -2nd May 2015) at Maharaja Agrasen University (**MAU**) **Baddi, SOLAN, INDIA.**
- **National Conference** on 'Emerging Scenario & Future Challenges-III' (11th-12th April 2015) at Ballabh **PG College Mandi (HP).**
- **National Seminar** on Environmental Degradation and Natural Resource Management in Western Himalayas (20th -21st Feb.2015) at **Govt. College Nalagarh, Solan.**
- **National Seminar** on Recent Trends on Materials, Energy and Environment (18th Jan. 2014) at **Sri Sai University Palampur.**
- **National Seminar** on Natural Resource Management: Present needs and our Common Future (29th – 30th March 2014) at Maharaja Agrasen University (**MAU**) **Baddi, Solan.**
- **Workshop** on Light from Dark Side of Universe (17th-20th March, 2015) at Banaras Hindu University (**BHU**), **Varanasi (UP).**
- **National Science Day** celebration function, Dept. Of Physics & Astronomical Science, **CUHP.**
- **One Day Symposium: Bhartiya Kal-Ganana ke Vaigyanik Sandarbh** at Th. Jadevchand Shodh Sansthan **Neri, Hamirpur.**
- **One Week Workshop** on Analytical Aspects of Dynamics (11th -17th Nov., 2014), Mathematical Society & Department of Mathematics, **CUHP: Neutrino Oscillations.**
- **National Workshop** on Status of Natural Hazards in Western Himalayas (6-8th Nov. 2014), at **CUHP.**
- **1st Himachal Pradesh Science Congress** (15th October 2014): Role of Science & Technology in Sustainable Development, **Shimla, HP.**
- **Colloquium Series** (28th October 2013) of Physics: **Making of Hologram**; Dept. Of Physics & Astronomical Science, **CUHP.**
- **Colloquium Series of Physics Series** (26th August 2013) of Physics: **Science in Ancient India**; Dept. Of Physics & Astronomical Science, **CUHP.**
- **Refresher Course** in IT (April 2-21, 2012) from UGC-Academic Staff College, **HPU Shimla.**
- **Refresher Course** in Physics (Feb. 6- March 2, 2012) from UGC-Academic Staff College, **JNU New Delhi.**
- **Three Day Workshop** (Nov. 21-23, 2011) on Community Based Disaster Management and Plan at Community Hall, Karsog, Mandi (HP)- Organised by **HIPA, Fairlawns, Shimla-12.**

- **Three days Symposium** (Nov. 2-4, 2009) on Historical Study of Katoch Vansh at **Sujanpur Tira (HP)**.
- **International Conference** (NuGoa09 April 08-14, 2009) of Neutrinos at International Centre Goa, **INDIA**.
- **Visit** (Sept. 19 - 26, 2007) to Center for Theoretical Studies (CTS), Indian Institute of Technology (IIT) Kharagpur, West Bengal, **INDIA**.
- **Visit** (August 21 - 29, 2004) to Theory Division at CERN in Switzerland, **GENEVA**.
- **International School** on Neutrino Physics and Astrophysics (NEUPAST) (Sept. - Oct., 2002) at International Center for Theoretical Physics (ICTP), Trieste, **ITALY**.
- **International summer school** (June-July, 1999) on particle physics at International Center for Theoretical Physics (ICTP), Trieste, **ITALY**.
- **Mini-school** (Feb., 1997) on cosmology in Lucknow University Uttar Pradesh, **INDIA**.
- **INDO-FRENCH school** (Jan.-Feb., 1995) on large scale structures in the universe in **IUCAA**, Pune, **INDIA**.
- **UGC-IUCAA joint school** (Nov.-Dec., 1994) on large scale structures in the universe in the University of Mysore, **INDIA**.
- **5th SERC winter school** (Feb., 1994) on nuclear physics in University of Mysore, **INDIA**.
- **Two day workshop** on 'Teaching, Learning & Evaluation' (4-5th February 2011) at Govt. College Karsog, sponsored by University Grants Commission (**UGC**).
- **Visit** (4th -14th January 2011) to Inter University Centre for Astronomy & Astrophysics (**IUCAA**).
- **One-Day workshop** on 'The Role of Open Distance Learning in Knowledge Building Society' (10th Sept. 2010) at GC Karsog, Sponsored by **IGNOU**.
- **One day workshop** (March 26, 2009) on **National Mission on Education** through ICT held in HP University Shimla.
- **Seminars** during a short visit (Sept. 19 - 26, 2007) to Center for Theoretical Studies (CTS), Indian Institute of Technology (IIT) Kharagpur, West Bengal, **INDIA**.
- **Indian Association of Physics Teachers (IAPT) Convention & Symposium** (27-29 Oct., 2007), Himachal Pradesh University (**HPU**) Shimla, **INDIA**.
- **A Short Term Course** on Environmental Hazards (09-13 July, 2007), National Institute of Technology (**NIT**) Hamirpur, **INDIA**.

- **UGC-Academic Staff College** workshop (March 2007) on "Design and Development of Physics Curriculum for Excellence", Himachal Pradesh University (HPU) Shimla, INDIA.
- **Seminars** during a short visit (Nov. 17 - 18, 2006) to Physics Department, Indian Institute of Technology (IIT) Kanpur, Uttar Pradesh, INDIA.
- **2nd Scandinavian Neutrino Workshop** (May 2 - 6, 2006), AlbaNova University Center, Stockholm, **SWEDEN**.
- **2nd Xmas Workshop** of CFTP (Dec. 2005) in Lisbon, **PORTUGAL**.
- **Symposium** in Honour of Gustavo C. Branco (GustavoFest 2005) in Lisbon, **PORTUGAL**.
- **International conference** on Frontiers in Contemporary Physics-III (2005) in Vanderbilt University, Nashville, **USA**.
- **1st Xmas Workshop** of CFTP (Dec. 2004) in Lisbon, **PORTUGAL**.
- **International Conference** of Neutrino Physics and Astrophysics (Neutrino'2004) in College De France, Paris, **FRANCE**.
- **International Conference** of Non Accelerator New Physics (NANP'03) in Dubna, **RUSSIA**.
- **International Conference** of Neutrino Physics and Astrophysics (Neutrino' 2002) in Technical University Munich, **GERMANY**.
- **XIII th DAE high energy physics symposium** (Dec., 1998 - Jan., 1999) in **Punjab University Chandigarh**, INDIA.
- **IVth Young Astronomer's Meet** (YAM'96) in Indian Institute of Astrophysics (IIA) Bangalore, INDIA.
- **XIth DAE high energy physics symposium** (Dec. 1994 - Jan. 1995) in **Vishva-Bharti University Shantiniketan**, INDIA.

Programmes Organized (Only Selected)

Institutional (as Organizer):

- **National Workshop** on the Role of RadhanathSikdar in Freedom Struggle 1st November 2022 (under this we organize 70+ Curtain Raiser and Satellite Programs)
- **Online International Conference** on Theoretical Aspects of Nuclear Physics by CUHP (February2021).
- **International Yoga Day**: 21st June (2015, 2016, 2017, 2018, 2019, 2020)
- **51 Days Yoga Camp**, Online under Yogdhara and CUHP (2May – 21 June 2021).
- **Ek Bharat Shreshth Bharat** Cultural Exchange Program CU Kerala Group Feb., 2020.

- **Ek Bharat Shreshth Bharat** Cultural Exchange Program CU HP Group January 2020.
- **National Workshop** In Silico Approach for Modeling New Materials at CUHP (14th Jan. – 19th January, 2019).
- **USI-CUHP National Conference** at CUHP (8th Nov. – 10th November, 2017).
- **CUHP-IUCAA Two Week School** on Gravitation and Astroparticle Physics at CUHP (29th Feb.-12th March, 2016).
- **World Spiritual Conference** to be held on 14th -16th March, 2012 as International Coordination Committee member, Funded by Dept. of Higher Education, Govt. of Haryana (INDIA).
- **Two-Day Workshop** (24th-25th Dec., 2011):History and Folklores of Temples of Karsog Area.
- **Two-Day Workshop** (4th-5th Feb., 2011): Competence Building: Teaching, Learning & Evaluation and Office Procedure, Funded by UGC.
- **One Day Silver Jubilee Workshop** (10th Sept., 2010): The Role of Open Distance Learning in Building Knowledge Society, Funded by IGNOU.
- **Hindi Divas** (14th Sept., 2010): Popularization of Hindi as the National Language, Funded by IGNOU.
- **National Science Day/ Science Function(s)** every year since (1998-2001 and 2006-2010); Funded by State Science, Technology & Environment Department, Shimla (HP).
- **Career Counseling** Programmes time to time.

Others:

We provide good health and educate people of hilly area about their rights, duties and ancient heritage. We do programmes of general scientific awareness and career growth among the masses:

- Arranged various Community Connect Programmes on Energy Saving and environmental cleanliness in the five adopted villages of CUHP.
- Unnat Bharat Abhiyan
- Swachh Bharat Abhiyan
- Several Camps on Yoga and Health awareness.
- Science Popularization Shows to the Secondary level students.
- Programmes on Vedic Science and Ancient Wisdom.
- Organic Farming & other traditional techniques for Agriculture and Horticulture.

- Motivational Programmes on Open and Distance Learning targeting to the poor & deprived section of the society in the rural area of HP.

Teaching (20 Years+)

- Quantum Mechanics, Particle Physics, Quantum Field Theory
- Accelerator and Reactor Physics
- History and Philosophy of Science
- Earth Science System
- Science of Yoga
- Indian Knowledge System and Practices
- Community Connect
- Physics of UG Classes.

Doctoral Thesis Supervision

- **Completed (03)**
 - **In Progress (04)**
 - M. Phil. Thesis (03)
 - Research Projects (50+)
 - Ph.D. Thesis Evaluation (07)
-

University Administration

- **Director, Shahpur Campus, CUHP (2021...)**
- **Coordinator**, CUHP Campus, TAB Shahpur (2019).
- **Dean**, School of Physical & Material Sciences, CUHP (17th July 2017-2020).
- **Dean**, School of Mathematics, Computers & Information Sciences, CUHP (2019).
- **Head**, Department of Physics & Astronomical Science, CUHP (19th April 2015 to April 2020).
- **Head**, Department of Mathematics, CUHP (2019).
- **Head**, Department of Library, and Information Science, CUHP (2019).
- **Head**, Department of Computer Science, CUHP (2019).
- **Director**, Computer Centre, CUHP (2019).
- **Provost**, Central University of Himachal Pradesh (April 2017-2021).
- **Planning & Development Officer**, CUHP (2015- 2020).
- **Member Secretary**, Planning and Development Board, CUHP (2015 - 2020).
- **Chairman**, Non-teaching Employees' grievance committee of CUHP.
- **Co-Chairman**, NEP2020 Implementation Committee of CUHP.

- **Chairman** of number of academic/ non-academic committees time to time.
- **Hony. Director**, Community Development Cell, CUHP (2015-2020).
- **Nodal Officer/ Project Investigator**, Unnat Bharat Abhiyan, CUHP (2015-2020).
- **Nodal Officer**, Swachh Bharat Abhiyan, CUHP (2016-2020).
- **Nodal Officer**, Ek Bharat Shreshth Bharat, CUHP (2016-2020).
- **Nodal Officer**, International Yoga Day Celebration, CUHP (2017-).
- **Convener**, CUHP, Transport Service (2021)
- **Chairman**, Yogdhara Club, CUHP (2014 -).
- **Co-ordinator, Steering Committee for NAAC** accreditation of Govt. College Karsog, Mandi (Peer Team Visit during May 4-5, 2011.)

College Administration

(Govt. College Karsog, HP Govt. Department of Higher Education)

- **Officiated as Principal** (Time to Time), **In-charge**, Dean Academics and Dean Student Welfare (2010-2012), **President**, Save Energy Club; **Convener, UGC** Funds (75 Lacs.) Utilization Committee (2010-12); **In-charge, UGC** Network Resource Centre (2010-12); **Head, Physics Department** (1997-2001; Dec., 2006 -2012); **Co-ordinator, IT Center** (2007-12); **President, 'Wonder Science Club'** (1999-2000; 2007- 2011); **Editor, 'Science Section'** of Kamaksha Magazine (2007-2011); **Team Leader** for Developing, Designing & Launching of the **College Website: www.gckarsog.org**; **Active Member**: Student Council and Grievance Committee, College Advisory Body, Library Committee, Hostel Committee, etc; **Convener/ Member** of several important functioning Committees in the College; **Co-ordinator, Old Students' Association (OSA)** (2009-12); **Staff Secretary, Govt. College Karsog**, Mandi (1999-2001).
- **Coordinator, Steering Committee** of NAAC at Govt. College Karsog (June 2007-11).
- **Executive Member, Internal Quality Assurance Cell (IQAC)** GC Karsog (2011-12)
- **Co-ordinator, IGNOU Study Center**, Govt. College Karsog (June 2008-2012).
- **Member, Enquiry Committee(s)** and Inspection Team (s) of HP Govt. time to time.

Others

- **Director**, Ram Singh Thakur Itihas Shodh Sansthan, Neri, Hamirpur (HP).
- **Vice-President, VIGYASA** [A Unit of **Vijynana Bharati (VIBHA)**] Himachal Pradesh.
- **President**, Saraswati Vidya Mandir Executed Committee, Karsog (2011-12).
- **Principal Yog Teacher**, Patanjali Yog Peeth Haridwar, Uttrakhand (INDIA).
- **Vice-President**, Himachal Govt. College Teachers Association (HGCTA Local Unit: 2010-12).

- **Co-ordinator**, Organization of Govt. Officers, Bharat Swabhiman Trust, Hardwar, Mandi District, HP (2010-12).
- **Co-ordinator**, Indian Foundation for Vedic Sciences (IFFVS) for North-West India (2007-...).
- **Co-ordinator**, IFFVS for Portugal (2005-2006).
- **Tehsil Prabhari** (President), Patanjali Yog Samiti, Karsog, Mandi (HP) (2010-2012).
- **Chief-Advisor**, 'Nihri KshetraJevik Krishi Kisan Sangh', Nihri, Mandi (H.P.).
- **Member**, **Baal-Vridha Ashram**Talyahar, Mandi (HP) (2008-...).
- **President**, **Amity Club** – A social group of Class-I Gazetted Officers in Karsog, Mandi (1999-2001).

Research Projects and Income

- UGC-Major Research Project (2009-2011) as Co-PI (8 Lacs).
- UGC-Major Research Project (2015-2018) as PI (11.7 Lacs).
- Project under Unnat Bharat Abhiyan (UBA 1.0), (2017-18) as PI (3.5 Lacs).

Publications

Authored Books

- **A Textbook on the Knowledge System of Bharata**, Published by Garuda Prakashan, New Delhi (2023).
- **The History and Culture of Science in Bharata**, Under Publication by Garuda Prakashan, New Delhi.
- **A Monograph**: "An Essence of Hinduism"; Dedicated to NRI Hindus (2006).
- **Proceedings**: Two Day Workshop on Teaching, Learning & Evaluation and Office Procedure; Sponsored by UGC 2010.
- **Monthly Magazine**: First Competition Magazine of Himachal Pradesh 1996-97: *Him Competition Vision* (**05 Issues Published**). (**Publisher and Editor-in-Chief**).

Published Papers

i) Papers with Impact Factor 5 and above: 08

- Simran Arora, Monal Kashav, Surender Verma, B.C. Chauhan, "Muon (g-2) & W- boson mass Anomaly in a Model based on Z4 symmetry with vector like fermions", Progress of Theoretical & Experimental Physics, Volume 2022, November 2022, 113B06. Impact factor – 7.49
- Scalar dark matter in the A4-based texture one-zero neutrino mass model within the inverse seesaw mechanism. Rishu Verma, Monal Kashav, Surender Verma, and **B. C. Chauhan**; PTEP123B01 (2021). *Impact Factor*=7.49.
- Quark-Lepton Complementarity predictions for $\Theta_{23}^{\text{PMNS}}$ and CP violation. Gazal Sharma and **B. C. Chauhan**; JHEP 1607 (2016) 075; *Impact Factor*=6.22.

- Quark-Lepton Complementarity, neutrino and standard model data predict $\Theta_{13}^{\text{PMNS}} = 9^\circ$.
Bhag C. Chauhan, Marco Picariello, Joao Pulido and E. Torrente-Lujan; Euro. Phys. J. C50 (2007) 573; *Citations: 42, Impact Factor=5.25.*
- ^7Be neutrino signal variation in KamLAND.
Bhag C. Chauhan; JHEP 02 (2006) 035; *Citations: 3, Impact Factor=6.22*
- Low energy solar neutrinos and spin flavor precession.
Bhag C. Chauhan and Joao Pulido and R. S. Raghavan; JHEP 07 (2005) 051; *Citations: 10, Impact Factor=6.22.*
- SNO, SuperKamiokande data, antineutrinos and sterile neutrinos.
Bhag C. Chauhan and Joao Pulido; JHEP 12 (2004) 040; *Citations: 6, Impact Factor=6.22.*
- LMA and sterile neutrinos: a case for resonant spin flavor precession?
Bhag C. Chauhan and Joao Pulido; JHEP 06 (2004) 008; *Citations: 21, Impact Factor=6.22.*

ii) Papers with Impact Factor between 2 and 5: 17

- Simran Arora, Monal Kashav, Surender Verma, B.C. Chauhan, "Muon (g-2) in U(1) Le – Lu Scotogenic Model Extended with Vector like Fermion", Physica Scripta, Impact Factor – 3.081
- Rishu Verma, Ankush Choudhary, B.C. Chauhan, "Dark Matter and (g-2) in ISS (2,3) based Gauged U(1) Le – Lu symmetric Model", submitted manuscript in Physics of the Dark Universe. Impact factor - 4.92
- Ankush Choudhary, Rishu Verma, Sahil Kumar, B.C. Chauhan, "Leptogenesis and Neutrinoless Double Beta Decay in the Scotogenic Hybrid Texture of Neutrino Mass Matrix", submitted manuscript in Journal of Cosmology and Astroparticle Physics. Impact factor -3.05
- Scotogenesis in hybrid textures of neutrino mass matrix and neutrinoless double beta decay.
Ankush, Monal Kashav, Surender Verma, **B.C. Chauhan**; PLB 824 (2022) 136796. *Impact Factor=4.77*
- CP Phase Analysis Using Quark-Lepton Complementarity Model in 3+1 Scenario.
Gazal Sharma, **B. C. Chauhan** and Surender Verma; XXIII DAE HEP Symposium (pp 1087-1092) May 2021.
- Quark-lepton complementarity model based predictions for $\theta_{23}^{\text{PMNS}}$ with neutrino mass hierarchy.
Gazal Sharma, Shankita Bhardwaj, **B. C. Chauhan** and Surender Verma; XXII DAE-HEP Symp. Springer Proc. in Physics 203 [Part of Springer Nature; Peer Reviewed, 2018]
- Search for Sterile Neutrino Signal in the ^7Be Solar Neutrino Measurement with KamLAND. Ashish Sharma, Govind Singh, Gazal Sharma, Shankita Bhardwaj, Surender Verma and **B. C. Chauhan**; XXII DAE-HEP Symp. Springer Proc. in Physics 203 [Part of Springer Nature; Peer Reviewed, 2018]
- Bounds on Sterile Neutrino Component in the Solar Neutrino Flux. Govind Singh, Ashish Sharma, Gazal Sharma, Shankita Bhardwaj, Surender Verma and **B.C. Chauhan**; XXII DAE-HEP Symp. Springer Proc. in Physics 203 [Part of Springer Nature; Peer Reviewed, 2018]
- Probing CP Violation in Neutrino Oscillation Experiments and Leptonic Unitarity Quadrangle; Surender Verma, **B.C. Chauhan**, Shankita Bhardwaj and Gazal Sharma; XXII DAE-HEP Symp. Springer Proc. in Physics 203 [Part of Springer Nature; Peer Reviewed, 2018]
- A New Paradigm of Science.
B. C. Chauhan; Int. J. Rec. Sc. Studies 6 (3), 2912 (2015); ISSN 0976-3031; *Impact Factor=3.908*
- Computational Holographic Imaging using 2D Scalar Wave.

Zoltan Batiz and **Bhag C. Chauhan**; Int. J. Engg. Sc. Res. Tech. 3(8), 584 (2014); ISSN 2277-9655; *Impact Factor*=3.449.

- Two Gallium data sets, spin flavour precession and KamLAND.
Bhag C. Chauhan, Joao Pulido and Marco Picariello; J. Phys. G: Nucl. Part. Phys. 34 (2007) 1803; *Citations: 4, Impact Factor*=2.84.
- Gallium data variability and KamLAND.
Joao Pulido, **Bhag C. Chauhan** and Marco Picariello; Nucl. Phys. Proc. Suppl. 168 (2007) 137; *Citations: 2, Impact Factor*=3.95.
- Neutrino mass matrices with vanishing determinant.
Bhag C. Chauhan, Joao Pulido and Marco Picariello; Phys. Rev. D73 (2006) 053003; *Citations: 11, Impact Factor*=4.86.
- Bounds on antineutrinos and sterile neutrinos from SNO and Superkamiokande data.
J. Pulido and **Bhag C. Chauhan**; Nucl. Phys. B (Proc. Suppl.) 145 (2005) 145; *Citations: 3, Impact Factor*=3.95.
- Time modulations and sterile neutrinos.
Bhag C. Chauhan and Joao Pulido; Nucl. Phys. B (Proc. Suppl.) 143 (2005) 488; *Impact Factor*=3.95.
- KamLAND, solar antineutrinos and the solar magnetic field.
Bhag C. Chauhan, Joao Pulido and E. Torrente-Lujan; Phys. Rev. D68 (2003) 033015; *Citations: 23, Impact Factor*=4.86.
- MSW constraints on the matter density profiles in the solar interior.
S. Dev, Jyoti Dhar Sharma and **B.C. Chauhan**; Nucl. Phys. B (Proc. Suppl.) 118 (2003) 456; *Impact Factor*=3.95.
- Resonant Spin Flavor Precession of solar neutrinos after SNO NC data.
Bhag C. Chauhan and Joao Pulido; Phys. Rev. D66 (2002) 053006; *Citations: 32, Impact Factor*=4.86.
- RSFP constraints on neutrino parameters and solar magnetic fields from solar neutrino data. **B.C. Chauhan**, U.C. Pandey and S. Dev; Phys. Rev. D59 (1999) 083002; *Citations: 9, Impact Factor*=4.86.

iii) Papers with Impact Factor between 1 and 2: 06

- Investigating Sterile Neutrino Flux in the Solar Neutrino Data.
Ankush, Rishu Verma, Gazal Sharma and **B. C. Chauhan**; Advances in High Energy Physics, Vol. 2019, 2598953; *Impact Factor* = 1.740.
- CP violation phase analysis via non-trivial correlation of quarks and leptons in 3+1 scenario.
Gazal Sharma and **B. C. Chauhan**, Modern Physics Letters A, Vol. 33, No. 1 (2019) 1950316; *Impact Factor*=1.34.
- Investigating the sterile neutrino parameters with QLC in 3 + 1 scenario.
Gazal Sharma and **B. C. Chauhan**, Advances in High Energy Physics, Vol. 2019, 10 pages, (2019) 4685198. *Impact Factor*=1.740.
- Predictions from non trivial quark-lepton complementarity.
Marco Picariello, **Bhag C. Chauhan**, Joao Pulido, Emilio Torrente-Lujan; Int. J. Mod. Phys. A22, 5860 (2008); *Citations: 4, Impact Factor*=1.09.
- RSFP constraints on the twisting profiles of the solar magnetic fields from solar neutrino data.

U.C. Pandey, **B.C. Chauhan** and S. Dev; Mod. Phys. Lett. A13 (1998) 3201; *Citations: 3, Impact Factor=1.34.*

- RSFP predictions for transverse solar magnetic field distributions from solar neutrino data.
B.C. Chauhan, U.C. Pandey and S. Dev; Mod. Phys. Lett. A13 (1998) 1163; *Citations: 6, Impact Factor=1.34.*

iv) Papers in Indexed Journals: 08

- Texture One Zero Model Based on A4 Flavour Symmetry and its Implications to Neutrino-less Double Beta Decay.
Rishu Verma, Monal Kashav, Ankush, Gazal Sharma, Surender Verma and **B. C. Chauhan**; J. Nucl. Phy., Mat.Sc., Rad. and Appl. (2021); Impact Factor = 0.654
- Dark Matter and Neutrinos.
Gazal Sharma, Anu and **B.C. Chauhan**, Physics Education, Volume 32, Number 4, Article Number: 7, (Sep.-Dec.2016).
- Holographic Principle and Quantum Mechanics.
Zoltan Batiz and **Bhag C. Chauhan**; NeuroQuantology 7, (2009) 657; ISSN 1303 5150.
- Scientific Developments in Ancient India.
Bhag C. Chauhan, 'Vedic Science', Vol.8, No. 3 (2008) 34; ISSN No. 0975-0312.
- Spectral Predictions for KamLAND Solar Mode.
Bhag C. Chauhan; Phys. Scr. T127 (2006) 14; ISSN 1402-4896; *Impact Factor=1.30.*
- A natural explanation of Be/B neutrino anomaly in the framework of RSFP scenario.
B.C. Chauhan and S. Dev; J. Phys. Soc. Jpn. 66 (1997) 917; *Impact Factor=1.585. Citations:2*
- KamLAND and solar antineutrino spectrum.
Bhag C. Chauhan, Joao Pulido and E. Torrente-Lujan; Physics of Atomic Nuclei 67 (2004) No. 6, c. 1-3; ISSN 1063-778; *Impact Factor= 0.510; Citations: 3.*
- RSFP constraints on neutrino parameters and the twisting structure of solar magnetic fields from the solar neutrino data.
S. Dev, J. D. Sharma, U. C. Pandey, S. P. Sud and **B.C. Chauhan**; Pramana J. Phys. 61 (2003) 67.

v) Papers in Refereed Journals with ISSN/ISBN Numbers: 12

- Bharatiya Khagol-Shashtr Evam Kal Ganana, Pav Mani Patrika, Gurukul Prabhat Ashram, Meerut.
- Bharatiya Kal-Ganana Ka Vaigyanik Svarup, Ratradev Patrika, AryaNagar, Surajkund Road, Meerut (Accepted for publication).
- Bhartiya Kal Ganana: Vaigyanik Kasauti Par; **B.C. Chauhan**, Nav Chaitanya, p39 (2016).
- Archaeological Study of Mamel Shiv Temple.
B. C. Chauhan; Itihas Diwakar 12(1) (2019); **ISSN 2250-2769.**
- Manu and Manali ki Aitihāsikta: Ek Vaigyanik Avlokan.
B. C. Chauhan; Itihas Diwakar 11(3) (2018); **ISSN 2250-2769.**
- Ancient India: The Cradle of knowledge & Information.
B. C. Chauhan; Itihas Diwakar 9(3), (2016); **ISSN 2250-2769.**
- Geothermal Tourism Potential in Himachal Pradesh.
Arun Bhatia and **B.C. Chauhan**, Amity Research Journal in Tourism, Aviation and Hospitality, 01, Jan-June 2016.
- Science in Ancient Indian Scriptures: Bhumi Sukt (Atharv Ved) and Heat inside Earth.

- **B. C. Chauhan**; Itihas Diwakar 8(2) 21 (2015); **ISSN 2250-2769**.
- Geothermal Energy and Earthquakes in Western Himalayas.
B. C. Chauhan; IJSRSET 1(1), 188 (2015); **ISSN: 2394-4099**.
- An Empirical Model to Attain Peace & Prosperity.
B.C. Chauhan; IJMPSR 2, 2(1), 51 (2014); **ISSN: 2348-5736**.
- Earthquake and Geothermal Energy.
S.P. Kapoor and **B.C. Chauhan**; Uni. J. Geo. Sc. 2(5), 141 (2014); **ISSN: 2331-9615**.
- Mamleshwar Mahadev Temple of Karsog.
B. C. Chauhan; Itihas Diwakar 4 (4), 17 (2012); **ISSN 2250-2769**.

Chapter in Books with ISSN/ISBN Numbers: 06

- Mandi Janapadiya Mala Gatha ke Aitihāsik Sutra.
B. C. Chauhan and Roshani Devi; Itihas Lekhan mein Lokgathaon ka Yogdan; Itihas Shodh Sansthan Neri, Hamirpur (2021); ISBN- 978-81-955194-4-6.
- Master Mitrasen Thapa
Col. Durga Singh Thapa and B. C. Chauhan; **Svaraj Sangharsha ke Naipathya Nayak**; ; Itihas Shodh Sansthan Neri, Hamirpur (2021); ISBN- 978-81-955194-1-5.
- Physics and Phenomenology of Dark Matter.
Gazal Sharma, **B.C. Chauhan** and Debasish Majumdar; "Physics in New Dimensions", p69, Bharti Publications (2017); ISBN- 978-81-933475-7-7.
- Physics of Neutrinos: The Elusive Particles.
Govind Singh, **B.C. Chauhan** and Debasish Majumdar; "Physics in New Dimensions", p33, Bharti Publications (2017); ISBN- 978-81-933475-7-7.
- Geothermal Energy: A Natural Source for Sustainable Development.
B.C. Chauhan; Managing our Resources: Perspectives and Planning, ch.8, p76; Bharti Publications (2014) ISBN: 978-93-81212-85-1 (2014).
- Light Sterile Neutrinos and Dark Sector of Universe.
B.C. Chauhan; Proceedings of International Conference on Recent Trends in Basic and Applied Sciences, May 1-2, 2015, p3; ISSN: 2395-3373.

Papers / Listed in Archives only: 11

- Model independent constraints on Solar Neutrinos.
Lalsingh, **Bhag C. Chauhan**, Ravidutt, Kuldeep Kumar and S. Dev; hep-ph/1102.4917.
- Green's Function Formalism of Holography with Arbitrary Mass, Spin, and Dimensionality.
Zoltan Batiz and **Bhag C. Chauhan**; Physics: Optics/1109.4996.
- Ancient India: The Light House of Knowledge; **B.C. Chauhan**; Proceedings of INECS 2009.
- Neutrino Dipole moment and Solar Experiments.
M. Picariello, **Bhag C. Chauhan**, C.R. Das, Fernandez-Melgarejo, D. Montanino, J. Pulido, E. Torrente-Lujan; hep-ph/0907.0637.
- A Tempt to Measure Reality; **Bhag C. Chauhan**; physics/0602051.

- Solar Neutrinos: Spin Flavor Precession and LMA.
Joao Pulido, **Bhag C. Chauhan** and R. S. Raghavan; 12th Lomonosov Conference on Elementary Particle Physics; [hep-ph/0511341]; *Citations: 2*
- Neutrino mass matrices with vanishing determinant and theta (13).
Bhag C. Chauhan, Joao Pulido and Marco Picariello; hep-ph/0510272; *Citations: 2*.
- Neutrino transition magnetic moments and the solar magnetic field on the light of the KamLAND evidence.
V. Antonelli, **B.C. Chauhan**, J. Pulido and E. Torrente-Lujan; Published in the proceedings of 8th International Workshop on Topics in Astroparticle and Underground Physics (TAUP 2003), Seattle (USA) [hep-ph/0310264].
- SCIENCE: A Solid Whole.
Bhag C. Chauhan; physics/0301069.
- Solar magnetic field profiles: A natural consequence of RSFP scenario.
Bhag C. Chauhan, hep-ph/0204160; *Citations: 9*.
- Science In Trauma; **Bhag C. Chauhan**; FISIST/21-2002/CFIF, physics/0210088.

Abstracts Published in Conference Abstract Proceedings: 36

- Hybrid Seesaw model based on A4 Symmetry and relic density of dark matter.
Rishu Verma, **B. C. Chauhan** and Surender Verma; DAE DAE-BRNS HEP Symposium, 2020.
- Imprints of Sterile Neutrino CP violation phases in DUNE and T2K.
Gazal Sharma and **B. C. Chauhan**; DAE DAE-BRNS HEP Symposium, 2020.
- SNO Constraints on Sterile Neutrino Flux in Solar Neutrino Data.

Ankush, Rishu Verma, and **B. C. Chauhan**, The 7th HSCA International Conference at CHITKARA UNIVERSITY, Himachal Pradesh, India (2019).
- Planck Mission Constraints on Relic Density of Neutrinos.

Rishu Verma, Ankush, and **B. C. Chauhan**, The 7th HSCA International Conference at CHITKARA UNIVERSITY, Himachal Pradesh, India (2019).
- Revisiting Quark Lepton Complementarity Model-Its Present Status.

Gazal Sharma and **B. C. Chauhan**), The 7th HSCA International Conference at CHITKARA UNIVERSITY, Himachal Pradesh, India (2019).
- Model Independent Search for Sterile Component in the Solar Neutrino Flux.
Gazal Sharma, Ashish Sharma and **B. C. Chauhan**, International Conference SESFC-2017 at Manali, 1-3 July, 2017.
- Investigating the existence of sterile neutrino parameters with QLC in 3 +1 Scenario.
Gazal Sharma, Ankush, and **B. C. Chauhan**, XXXII Annual IAPT Convention and Symposium on Recent Trends in Different Scales, India (2017).
- Neutrino Mixing Angles predicted in the light of a Quark-Lepton Complementarity Model
Gazal Sharma, Ashish Sharma and **B. C. Chauhan**; International Conference SESFC-2017 at Manali;
1-3 July, 2017.
- Model Independent Search for Sterile Neutrinos.
Gazal Sharma, Lal Singh and **B. C. Chauhan**, International Conference SESFC-2016 at Dharamshala, 11-13 June, 2016.

- Samgoshthi: Ithaas Lekhan mein Lok Gathaon ka Yogdan, 2-4 October 2015, p23.
- Energy Needs, Geothermal Energy and Environmental Issues. Proceedings of National Seminar on 11-12 April 2015 by Him Science Congress at Ballabh College Mandi (HP).
- Low Energy Solar Neutrinos and Search for Dark Matter Candidate. Proceedings of the workshop on Light from Dark Side of Universe (17-20, March 2015) at Banaras Hindu University, Varanasi (UP).
- Thermal Power of Earth: A Source of Green Energy. Proceedings of ICSSR sponsored National Seminar on 20-21 February 2015 at Govt. College Nalagarh, Solan.
- Can Geothermal Power production help in Earthquake Disaster management? Proceedings of National Workshop on Status of natural Hazards in HP (6-8th Nov. 2014), at CUHP.
- Harnessing Geothermal Energy: Earthquake Disaster Free Himachal, Proceedings of 1st Himachal Science Congress, Shimla (15th October 2014).
- An Imperative Course of Science; **B.C. Chauhan**; Conference BHU Proceedings of AISSQ-2014.
- Geothermal Energy: A Natural Resource for Sustainable Development, p45; Proceedings of National Seminar on Natural Resource Management: Present Needs and our Common Future by Youth for Sustainable Development and MAU, Baddi, March 2014.
- Geothermal Tourism Potential in HP, p5; Proceedings of National Seminar on Natural Resource Management: Present Needs and our Common Future by Youth for Sustainable Development and MAU, Baddi, March 2014.
- Harnessing Geothermal Energy in India, IL5; Proceedings of National Seminar on Recent Trends in Materials, Energy & Environment by Sri Sai University, Palampur; Jan. 2014.
- Ancient India: The Light House of Knowledge.
B.C. Chauhan; Proceedings of Conference 'INECS' at DU on 27th November 2009.
- Model independent predictions for ${}^7\text{Be}$ neutrino signal in KamLAND.
Bhag C. Chauhan and Kuldeep K. Sharma; International Workshop on Theoretical High Energy Physics (15-20 March 2007) at IIT Roorkee, INDIA.
- QLC Predictions for θ_{13} .
Bhag C. Chauhan, Marco Picariello, Joao Pulido and E. Torrente-Lujan; 17th DAE-BRNS High Energy Physics Symposium (11-15 Dec. 2006) at IIT Kharagpur, INDIA.
- Time Variations and Low Energy Solar Neutrinos. International conference on Frontiers in Contemporary Physics-III (2005) in Vanderbilt University, Nashville, USA.
- Solar antineutrino bounds and magnetic field: spin flavor precession after KamLAND.
J. Pulido, **Bhag C. Chauhan** and E. Torrente-Lujan; Electronic version of JHEP as proceedings of the conference (AHEP-2003).
- Science and Human Consciousness. 12th International Congress of Logic Methodology and Philosophy of Science, **B.C. Chauhan**; Oviedo (Spain) August 7-13, 2003.
- MSW constraints on the matter density profiles in the solar interior.
S. Dev, **B.C. Chauhan** and J.D. Sharma; XIVth symp., (2000-01), INDIA.
- A re-examination of the solar neutrino problem in the RSFP scenario with solar magnetic fields.
- S. Dev, J.D. Sharma and **B.C. Chauhan**; XIVth DAE symp., (2000-01), INDIA.
- RSFP constraints on the neutrino electromagnetic properties and twisting solar magnetic fields.
B.C. Chauhan, Jyoti Dhar and S. Dev; XIIIth DAE symp., (1998-99), INDIA.
- RSFP constraints on solar magnetic fields from solar neutrino observations.
B.C. Chauhan, U.C. Pandey and S. Dev; XIIIth DAE symp., (1998-99), INDIA.

- Implications of solar neutrino observations for the twisting profiles of the solar magnetic fields in the RSFP scenario.
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