PERSONAL DETAILS:

Name: -Dr. Jaspal Singh Chauhan

Father's Name: -(Late) Shri Hukam Singh Chauhan

Mother's name: -Smt. Narayani Devi

Date of birth: -6/09/1984

Sex: - Male

Permanent Address: - Chauhan Bhavan, Village- Tiloth, Distt. - Uttarkashi, Pin code-249193

Present Address: -Associate Professor and Head

Department of Himalayan Aquatic Biodiversity, Old USIC Building Chauras campus, HNB Garhwal University (a central University)Srinagar Garhwal, Uttarakhand. Pin: 246174. Email: jaspal.env@gmail.com

EDUCATIONAL QUALIFICATIONS:

Ph.D. (Environmental Science) **Year:** 2010

Major: Environmental Science | **Minor:** Agrometeorology

University: G. B. Pant University of Agriculture & Technology, Pantnagar, Uttarakhand, India

Thesis: "Studies on groundwater quality and removal of pollution in response to ferti-irrigation by distillery effluent''.

Masters (Environmental Science) **Year:** 2006

University: G. B. Pant University of Agriculture & Technology, Pantnagar, Uttarakhand India

Dissertation: "Biosorption and accumulation of some heavy metals by Brassics juncea"

Graduation (Zoology, Botany, Chemistry) **Year:** 2004

University: H.N.B. Garhwal University, Srinagar**,** Uttarakhand India

EDUCATIONAL ACHIEVEMENTS

- Qualified in **UGC-NATIONAL ELIGIBILITY TEST, 2007** national level examination in **Environmental Science.**
- Qualified in **ARS-NATIONAL ELIGIBILITY TEST, 2008** national level examination in **Environmental Science.**

Areas of Interest/ Specialization

1. Water quality assessment, treatment, and monitoring.
2. Plastic/micro plastic pollution
3. Aquatic Ecology
4. Himalayan Ecology

RESEARCH PROJECT:

- Monitoring the Self-Purification Capacity of River Alaknanda

Funding: University Grants Commission (UGC) – ₹6.00 lakh | Role: Principal Investigator

Highlights: Applied integrated physical, chemical, and biological assessments to evaluate river resilience and developed recommendations for ecological management.

- Microplastics in Drinking Water Treatment and Distribution System, Srinagar Garhwal

Funding: Uttarakhand State Council for Science and Technology (UCOST) – ₹5.24 lakh | Role: Principal Investigator

Highlights: Conducted the first systematic assessment of microplastics in a Himalayan urban water supply system; identified contamination pathways and proposed mitigation measures.

TEACHING EXPERIENCE AND RESEARCH GUIDANCE

- Teaching Experience (15 Years)
- Courses taught: Environmental Science, Aquatic Ecology, Biodiversity, Pollution Monitoring & Assessment, Water Quality Analysis, Climate change.

Research Guidance

- ✓ Ph.D. Scholars: Supervising 4 Ph.D. students in microplastic pollution, riverine ecology, aquatic biodiversity, and water quality dynamics.
- ✓ M.Sc. Dissertations: Guided 24 M.Sc. dissertation students on topics including microplastics, limnology, hot-spring ecology, and freshwater biodiversity.

PUBLICATIONS H index-13, i10-index, Citations-705

RESEARCH ARTICLES Total Publications: 36

1. Warrish, A., Chaturvedi, K., Arya, P., & **Chauhan, J. S.** (2025). Microplastics in Precipitation: Analyzing Altitudinal Influence on Atmospheric Deposition Patterns. *Bulletin of Environmental Contamination and Toxicology*, *115*(6), 80.
2. Rajput, P., Warrish, A., & **Chauhan, J. S.** (2025). Bioplastics and the Environment: Solution or Green Illusion? *Journal of Hazardous Materials: Plastics*, 100012.
3. Bhatt, V., Badola, N., & **Chauhan, J. S.** (2024). Microplastic in fishes: the first report from a Himalayan River—Alaknanda. *Environmental Science and Pollution Research*, *31*(1), 1637-1643.
4. Badola, N., Sobhan, F., & **Chauhan, J. S.** (2023). Microplastics in the River Ganga and its fishes: study of a Himalayan River. *Science of The Total Environment*, *901*, 165924.
5. Bhatt, V., & **Chauhan, J. S**. (2023). Microplastic in freshwater ecosystem: bioaccumulation, trophic transfer, and biomagnification. *Environmental Science and Pollution Research*, *30*(4), 9389-9400.

6. Bhandari, M. S., Meena, R. K, Dabral, A., **Chauhan J. S** and Pandey, S. 2022. Exposed Roots of Salvadora oleoides in Aravalli Range Addresses Freeways Constraint: Ecological and Management Perspective. *Journal of Biodiversity Management & Forestry* 11:6pp1-4
7. Pandey, D., Banerjee, T., Badola, N., & **Chauhan, J. S.** (2022). Evidences of microplastics in aerosols and street dust: a case study of Varanasi City, India. *Environmental Science and Pollution Research*, *29*(54), 82006-82013.
8. Badola, N., Bahuguna, A., Sasson, Y., & **Chauhan, J. S.** (2022). Microplastics removal strategies: A step toward finding the solution. *Frontiers of Environmental Science & Engineering*, *16*, 1-18.
9. **Chauhan, J. S.,** Semwal, D., Nainwal, M., Badola, N., & Thapliyal, P. (2021). Investigation of microplastic pollution in river Alaknanda stretch of Uttarakhand. *Environment, Development and Sustainability*, 1-15.
10. Bhandari, M.S., Shankhwar, R., Meena, R.K. Pandey S, Rama Kant, Santan Barthwal, Harish S Ginwal, **Chauhan J.S.** 2021.Past and future distribution pattern of Myrica esculenta in response to climate change scenario. *Model. Earth Syst. Environ*. 7, 1831– 1846.
11. **Chauhan, J.S.,** Kumar, S. Wastewater ferti-irrigation: an eco-technology for sustainable agriculture. *Sustain. Water Resour. Manag*. 6, 31 (2020).
12. **Chauhan, J.S.,** Badwal, T. & Badola, N. Assessment of potability of spring water and its health implication in a hilly village of Uttarakhand, India. *Appl Water Sci* 10, 73 (2020). IF 5.411
13. **Chauhan, J S**; Rai, J P N. 2019. Assessment of the efficiency of fly ash amended soil for distillery effluent treatment. *Nature Environment and Pollution Technology*; Karad Vol. 18, Iss. 1, 281-284.
14. **Chauhan, J.S**., Alok S. Gautam, R.S. Negi. 2018. Natural and Anthropogenic Impacts on Forest Structure: A Case Study of Uttarakhand State. *The Open Environmental Research Journal* (Formerly: The Open Ecology Journal) ISSN: 2590-2776 **—** Volume 15,.pp38- 46.
15. Kotnala, G., Dobhal, S., & **Chauhan, J. S.** (2016). Monitoring the self-purification capacity of the River Alaknanda stretch at Srinagar, Uttarakhand, India. *International Journal of River Basin Management*, *14*(4), 491-498.
16. **Chauhan, J. S.,** & Rai, J. P. N. (2014). Assessment of potability of groundwater around ferti-irrigated area of industrial region. *Octa Journal of Environmental Research*, *2*(4).
17. Singh, B., **Chauhan, J. S.**, & Mohan, A. (2012). A construction of water quality index considering physicochemical properties for drinking purposes in a rural settlement: a case study of Gajraula region, Ganga River Basin (North India). *Water Science and Technology: Water Supply*, *12*(6), 818-828.
18. Singh, B., **Chauhan, J. S**., & Mohan, A. (2012). Hydro-Chemical Assessment of Groundwater Considering Distillery Effluent Irrigation. *Nature Environment and Pollution Technology*, *11*(3), 377.
19. **Chauhan, J. S**., & Rai, J. P. N. (2012). Reuse of distillery wastewater with designed dose and pattern for sugarcane irrigation. *CLEAN–Soil, Air, Water*, *40*(8), 838-843.
20. **Chauhan, J.S.,** & Rai, J. P. N. (2010). Monitoring of Impact of Ferti-irrigation by Post-methanated Distillery

Effluent on Groundwater Quality. *Clean–Soil, Air, Water*, *38*(7), 630-638.

21. **Chauhan, J. S.,** & Rai, J. P. N. (2009). Phytoextraction of soil cadmium and zinc by microbes-inoculated Indian mustard (Brassica juncea). *Journal of Plant Interactions*, *4*(4), 279-287.

BOOK:

Ravindra Soni, Deep Chandra Suyal, Lourdes Morales-Oyervides, Jaspal Singh Chauhan (2023) *Current Status of Fresh Water Microbiology.* Springer Nature

BOOK CHAPTER:

1. Vaishali, B., & **Chauhan, J. S.** (2024). Algae as Bioindicators and Hyperaccumulator of Heavy Metals in Freshwater Springs. *The PLANTA Research Book Series*, *5*(2), 1630-1636.
2. **Chauhan, J. S.** (2023). Introduction to Environmental Biotechnology. In Environmental Biotechnology (MEVE-013). Indira Gandhi National Open University, New Delhi. http://egyankosh.ac.in//handle/123456789/95583
3. Environmental Biotechnology for Solid Waste Management. In Environmental Biotechnology (MEVE-013). Indira Gandhi National Open University, New Delhi. http://egyankosh.ac.in//handle/123456789/95585
4. Bhatt, V., Badola, N., Semwal, D., & **Singh Chauhan, J.** (2023). Status of Microplastic Pollution in the Freshwater Ecosystems. In *Current Status of Fresh Water Microbiology* (pp. 161-179). Singapore: Springer Nature Singapore.
5. Kumar, S., & **Chauhan, J. S.** (2022). Application of plant-based nanoparticles in wastewater decontamination. In *Nano-biotechnology for Waste Water Treatment: Theory and Practices* (pp. 89-113). Cham: Springer International Publishing.
6. Maurya, A. P., **Chauhan, J.S.**, Yadav, D. K., Gangwar, R., & Maurya, V. K. (2021). Nutraceuticals and their impact on human health. In Preparation of Phytopharmaceuticals for the Management of Disorders (pp. 229-254). Academic Press.
7. **Chauhan, J.S**. and Maurya V. K. 2018 Micro-Algae as an Effective Tool for Wastewater Treatment and Management. In: The role of photosynthetic microbes in agriculture and industry Keshawanand Tripathi, Narendra Kumar and Gerard Abraham editor, Nova Science Publishers, Incorporated,
8. **Chauhan, J. S**., Singh, B., Mohan, A. and Rai, J.P.N. (2008). Ferti-irrigation: Potential for wastewater reuse in agriculture. In: Information Technology and Environmental Management, MD Publication, New Delhi. pp 263-268.
9. **Chauhan, J. S**., Singh, B. and Rai, J.P.N. (2008). Soil carbon sequestration: A potential approach to climate change mitigation. In: Ecosystem Diversity, Daya Publication, New Delhi. pp 253-263.ISBN- 9788170355946
10. **Chauhan, J. S.,** Singh, B. and Rai, J.P.N. (2008). Reuse of treated effluent in agriculture and its impact on ground water. In: Abstract book of 3rd J & K Science Congress.
11. **Chauhan, J. S.,** Rama Pal and Rai, J.P.N. (2008). Fungal mediated phytoremediation of contaminated soil. In:

Souvenir of 3rd Uttarakhand State Science and Technology Congress.

12. Saraswat, S., Tewari, S., **Chauhan, J.S.** and Rai, J.P.N. (2007). Phytoremediation: An essential component of environmental biotechnology. In: Environmental Biotechnology, APH Corporation, New Delhi. pp 193-208. ISBN 8131301850

AWARDS/ HONORS

- Awarded the "**NESA Environmentalist of the Year – 2020**" by the National Environmental Science Academy (NESA), New Delhi.
- Received the "**Dr. M.A. Haniffa Award**" for Best Paper Presentation for the research titled "Investigation of Microplastics in the Common Fishes of River Ganga, Uttarakhand" at the International Conference on Recent Trends in Aquaculture 2022, organized by the Department of Zoology, St. Xavier's College, Tamil Nadu, on 25th March 2022.

MEMBERSHIPS OF SCIENTIFIC ASSOCIATION

1. National Environmental Science Academy.
2. The Asia Society of Researchers.
3. International Society for Development and Sustainability.
4. The International Society for Environmental Information Sciences.
5. IUCN Commission on Ecosystem Management.
6. International Environment Forum (IEF).

ADMINISTRATIVE ROLE AND DUTIES

1. Serving as Head of the *Department of Himalayan Aquatic Biodiversity*, H.N.B. Garhwal University.
2. Serving as a member of the editorial board of journals: Scientific Reports, Discover Water, Aquatic Life Sciences, PLANTA – Research Book Series, *and BioThink-National Academy of BioSciences.*
3. Acting as Chairperson of the *Board of Studies*, Department of Himalayan Aquatic Biodiversity, H.N.B. Garhwal University, from 3rd April 2021 to present.
4. Served as a Member of the *Waste Management Policy Committee*, H.N.B. Garhwal University, in 2023.
5. Served as a Member of the *Screening Committee for Regular Faculty Appointments*, Department of Himalayan Aquatic Biodiversity, H.N.B. Garhwal University, in 2023.
6. Serving as a Member of the *Academic Council*, H.N.B. Garhwal University, since 2022.

INVITED LECTURE, RESOURCE PERSON, PANELIST

- Acted as a Resource Person in the Faculty Induction (Guru Dakshta) Programme under the Malaviya Mission Teacher Training Programme (MMTTP) of UGC, organized by the Malaviya Mission Teacher Training Centre, H.N.B. Garhwal University, Srinagar (Garhwal), Uttarakhand, on 11th September 2025.

- Acted as a Resource Person in the Faculty Induction (Guru Dakshta) Programme under the Malaviya Mission Teacher Training Programme (MMTTP) of UGC, organized by the Malaviya Mission Teacher Training Centre, H.N.B. Garhwal University, Srinagar (Garhwal), Uttarakhand on 5th June 2025.
- Delivered a Keynote lecture on the topic "*Microplastic Pollution: An Invisible Crisis with Visible Consequences*" in the Webinar for World Environment Day–2025 Campaign organized by the Captain Srinivasa Murthy Central Ayurveda Research Institute (CSMCARI), Chennai, on 4th June 2025.
- Delivered an expert lecture on the topic "*Climate change and the Himalaya*" in the Workshop on "Sustainable Development in a Changing Climate (SDCC–2025): Local Actions, Global Impact" held on 22nd 23rd May 2025, organized by the Department of Civil Engineering, G.B. Pant Institute of Engineering & Technology, Pauri Garhwal.
- Delivered a keynote address on the topic "*Flash Floods: A Regional Impact of Climate Change in Western Himalaya, India*" at the 6th World Congress on Disaster Management under the theme "Strengthening Climate Action and Disaster Resilience" organized by the G.B. Pant Institute of Engineering & Technology, Pauri Garhwal held on 6th November, 2023.

TRAINING AND WORKSHOP

- Successfully completed the NPTEL–AICTE Faculty Development Programme titled "*An Introduction to Climate Dynamics, Variability and Monitoring*", during Jul-Oct 2024.
- Participated in the NEP 2020 Orientation & Sensitization Programme under the Malaviya Mission Teacher Training Programme of University Grant Commission, organized by Malaviya Mission Teacher Training Centre, Ramanujan College, University of Delhi, held from 5th-14th August 2024.
- Completed the ARPIT Course for Career Advancement Scheme (CAS) titled "*Climate Change: A Guide for Teachers of All Disciplines*", organized by IISER, Pune under the aegis of Ministry of Education (PMMMNMTT), held from 1st December 2020 to 31st March 2021.
- Participated in a one-week Faculty Development Programme on "*Psychological Skills for Effective Teaching and Learning*", organized by Teaching Learning Centre, Ramanujan College, University of Delhi under the Ministry of Education (PMMMNMTT), from 1st–7th June 2021.
- Attended a one-week National Faculty Development Programme on "*How to Improve Quality in Higher Education Institutions (HEIs)*", organized by Guru Angad Dev Teaching Learning Centre, S.G.T.B. Khalsa College, University of Delhi under the PMMMNMTT scheme of MHRD, Government of India, from 27th January–2nd February 2021.
- Participated in an online Faculty Development Programme on "How to Improve Quality in Higher Education Institutions (HEIs)", organized by IQAC, Jain Kanya Pathshala (PG) College, from 29th May–3rd June 2020.
- Completed a Short-Term Training Programme on "*Open Educational Resources in Higher Education: Prospects and Challenges*", organized by Faculty Development Centre (FDC), H.N.B. Garhwal University, Uttarakhand, from 17th–23rd December 2019.

- Participated in a Short-Term Training Programme on "*Research Methodology for Teachers*", organized by FDC, H.N.B. Garhwal University, Uttarakhand, from 10th–16th December 2018.
- Participated in a Refresher Course on "*Man, Nature and Society*", organized by HRDC, Kumaun University, Nainital, Uttarakhand, from 15th May–3rd June 2017.
- Attended a National Workshop on "*Popularization of Remote Sensing Based Maps and Geospatial Information*", organized by ISRS and ISRO, on 11th August 2017.
- Attended a Two-Day Workshop on "*Climate Change and Global Warming*", organized by DKD Group, H.N.B. Garhwal University, Srinagar (Garhwal), on 27th–28th December 2016.
- Participated in an Orientation Programme, organized by HRDC, Lakshmibai National Institute of Physical Education, Gwalior, from 2nd–29th February 2016.
- Participated in a Five-Day Training Programme on "*Integrated Lake Basin Management (ILBM) Approach for Conservation and Management of Lakes*", organized by National Institute of Hydrology, Roorkee, Uttarakhand, from 10th–14th November 2014.
- Participated in a National Training Programme on "*Application of Remote Sensing and GIS in Agriculture*", organized by
  G.B. Pant University of Agriculture & Technology, Pantnagar, Uttarakhand, from 8th–22nd May 2013.

PRESENTATIONS

- Presented paper "Evaluating the Susceptibility of Central Himalayan Groundwater to Microplastic Contamination in the Scientific Colloquium (Online) on "Microplastics: Occurrence, Repercussions & Mitigation" held at ICMR-NIREH, Bhopal during August 22-23, 2025.
- Presented paper "Assessment of vulnerabilities of Central Himalayan Springs towards Microplastic pollution" in the international conference on MICRO 2024, organized by UNESCO, held in Arrecife (Lanzarote, Spain), 23rd-27th Sep, 2024.
- Presented paper "Investigation of microplastics in the drinking water treatment plant at Srinagar Garhwal, Uttarakhand" in the international conference on MICRO 2022 organized by UNESCO, Spain. 14-18 Nov, 2022.
- Presented paper "Investigation of microplastics in the commercially available fishes at Srinagar Garhwal, Uttarakhand" in the international conference on Sustainability & Environmental perseverance in the Era of COVID-19 19 organized by Amity University, Gwalior. February 17, 2022.
- Presented paper "Flash flood: a regional impact of climate change in western Himalaya, India" at the International Webinar on Renewable Energy & Climate Change organized by Frontiers Meetings Ltd., March 08-09, 2021.
- Presented paper "Investigation of Microplastics in the fishes of river Alaknanda" in the day conference on Techno-scientific Challenges and Sustainable Solutions for Living during Changing Environment (TCSE-2021) organized by National Environmental Science Academy (NESA) and Indian Agricultural Statistics Research Institute (IASRI). January 29- 30, 2021.
- Presented paper "Assessment of Sustainability of wastewater in Agriculture" in the National conference on

Environment Resources and Development of the Indian Himalaya, organized by the Department of Geography. October 27, 2018.

- Presented paper "lysimeteric assessment of ferti-irrigation on the sugarcane yield" in an international seminar on The Himalayan Challenge: towards interdisciplinary dialogues for sustainability and development. (29th November to 1st December,2017) organized by Sri Dev Suman Uttarakhand University.
- Presented paper 'Reuse of wastewater for crop' in the international seminar on sustainable development: challenges and strategies organized by the Department of Economics, Government PG College Chamoli, Uttarakhand. (21-22 October 2016).
- Presented a paper in a national conference on 'Natural resource management. Avenues & application (NRMAA) organized by Uttaranchal (PG) college of Biomedical Science & Hospital, Dehradun (18th- 19th March 2016).
- Presented paper 'Status of Environmental Science in Education System' in national conference on crop diversity and entrepreneurship development in the Himalayan Environment on 29th September -1st October 2016, organized by the Department of Botany, RCU Government PG College, Uttarkashi.
- Presented paper "Arbuscular mycorrhizae assisted removal of Cd and Pb from soil by Zea mays" in the national conference on the status of land resources; challenges and solutions with special reference to U.P., on 16th September 2015, organized by the Department of Environmental Science, Bareilly College, Bareilly.
- Presented paper 'Assessment of the efficiency of flyash amended soil in effluent treatment' in national seminar on climate change, resources, biodiversity & environmental challenges: issues and strategies for sustainable development, organized by the Department of Geography, HNBGU, Srinagar, on 28-30, 2015.
- Presented paper 'Assessment of water quality of River Alaknanda stretch at Srinagar, Uttarakhand, India' in national seminar on R&D perspective for rejuvenation of river Ganga, organized by National Institute of Hydrology, Roorkee, Uttarakhand.
- Presented paper 'Land use change over Udham Singh Nagar and its impact on environment' in a two-day (May 21-22, 2013) workshop on geospatial technology for natural resource management at GB Pant University of Agriculture and Technology, Pantnagar, Uttarakhand.