

RESUME



DR. RAKESH BHUTIANI

M.Sc., NET (UGC), NET (ICAR), Ph.D.
FASEA, FICER, FNC, FSERC, FICHE

UGC – SAP, DST – FIST, ISO 9001: 2008

ASSISTANT PROFESSOR

DEPARTMENT OF ZOOLOGY AND ENVIRONMENTAL SCIENCE,

GURUKULA KANGRI (DEEMED TO BE UNIVERSITY)

HARIDWAR – 249404 UTTARAKHAND, INDIA

Name	:	DR. R. BHUTIANI
Designation	:	Assistant Professor
Departmental Address	:	Limnology and Ecological Modeling Lab Department of Zoology and Environmental Science, Gurukula Kangri (Deemed to be University) Haridwar, Uttarakhand, India -249404
Residential Address	:	G-507, Rishabh Tower I, Jurs Country Jwalapur, Haridwar
Address for Correspondence	:	G-507, Rishabh Tower I, Jurs Country Jwalapur, Haridwar
Email	:	rbhutiani@gmail.com , rbhutani@gkv.ac.in
Home Page	:	https://www.rakeshbhutiani.in
Phone (M)	:	+91 (0) 9412072917
Area of Expertise	:	Limnology, Ecological modeling, Aquatic biology, Environmental microbiology, Water and Waste water treatment, Air Pollution



ACADEMIC QUALIFICATION

November 2004	:	Doctor of Philosophy (Ph.D.) in Environmental Science “Limnological status of river Suswa with reference to its mathematical modelling” Gurukula Kangri Vishwavidyalaya, Haridwar, India
October 2001	:	Qualified National Eligibility Test (NET of I.C.A.R) in Environmental Science.
June 2001	:	Qualified National Eligibility Test (NET of U.G.C) in Environmental Science.
August 2000	:	Master of Science (M.Sc.) in Environmental Science Gurukula Kangri Vishwavidyalaya, Haridwar, India
August 1998	:	Bachelor of Science (B.Sc.) in Zoology, Botany and Environmental Science. M.J.P. Rohilkhand University, Bareilly, India

WORK EXPERIENCE

Teaching Experience : 17 Years
Research Experience : 20 Years

RESEARCH CONTRIBUTION

Research Projects: Completed the UGC sponsored Major Research Project (2010-2013) entitled “**A Modeling approach to assess the current status of water quality of River Ganga and its effect on aquatic biodiversity**”

PATENTS FILED

1. Indian Patent Application No. 202011012918
2. Indian Patent Application No. 202011012919

FOREIGN VISITS

Mauritius, Srilanka, Thailand

RESEARCH GUIDANCE AT PH.D. LEVEL

Name of the student	Topic	Year of Award/ Submitted
Mr. Lokesh Sharma	Pre-Ph.D. Course work in progress	2020
Mr. Khushi Ram	Impact of Industrialization on ground water quality at selected sites of Laksar Block in Haridwar (Uttarakhand)	Writing work in Progress
Mr. Faheem Ahamad	Efficiency of some selected plants leaf based absorbents and microbial consortia in waste water treatment	Writing work in Progress
Mr. Varun Tyagi	Characterization and Mitigation of Milk process unit Effluent using phytoremediation	Thesis Submitted (2020)
Mr. Anil Kumar Bisht	Application of Computation techniques in water quality forecasting Model: A case study of Ganga River	Thesis Submitted (2020)
Mr. Mukesh Ruhela	Current status of pollution in river Hindon and its impact on Riparian	2018

	flora.	
Ms. Dipali Bhaskar Kulkarni	Assessment and Impact of Air and Water quality on certain plant species in and Around Integrated Industrial Estate (IEE) Sidcul Haridwar.	2016
Mr. Prashant Tyagi	Recent status of the water quality of river Bhagirathi and Reservoir of Tehri Dam	2014
Ms. Bharti Tyagi	Impact of Tourism on limnological status of river Ganges with special reference to Kumbh Mela at Haridwar	2013

RESEARCH GUIDANCE M.SC./M.TECH/MD DISSERTATION

Name of the student	Topic	Year of Award/ Submitted
Deepshikha Raturi	Analytical and Clinical study to evaluate the efficacy of Vishaghna Dravya on Dushit Vayu and Vataj Pratishayaya.	Work in Progress
Puja Singh	An analytical study of Dushit Jal treated with Dhava (<i>Anogeissus latifolia</i>) and Aragvadha (<i>Cassia fistula</i>) ash	Work in Progress
Biplob Bhabai	Generation and management of biomedical waste in selected Hospitals of City Haridwar, Uttarakhand	2019
Parul Chauhan	Effect of Aragvadh (<i>Cassia fistula</i> Linn.) Pod ash on Water pollution- An Analytical Study	2019
Pradeep Kumar	Comparative study of ambient air quality at selected sites in Haridwar, Uttarakhand	2018
Ravi Kumar	Impact Assessment of STP discharge in River Ganga with special reference to physic-chemical parameters at Haridwar, Uttarakhand	2017
Devendra Prasad	Operation and Physico-Chemical characterization of treated and untreated effluent of sewage treatment plant at 18 MLD STP Jagjeetpur Haridwar, Uttarakhand	2017
Hari Pratap	Physico-chemical characterization of effluent of Neel metal production Ltd. (SIDCUL), Haridwar	2016
Shubham Kumar	Physico-chemical analysis of Sewage water treatment plant At Jagjeetpur Haridwar, Uttarakhand	2016
Kalpana Rausa	Phytoremediation efficiency of water Hyacinth, Canna and Duckweed plants in treatment of sewage waste water.	2015
Madhuri Rausa	Assessment of Phytoremediation efficiency of <i>Eichhornia crassipes</i> and <i>Lemna minor</i> in treatment of industrial waste water	2015
Rahul Malik	Physico-chemical Characterization of River Ganga, at Haridwar	2015
Khushi Ram	Quality Assesment of Ganga River at Haridwar in reference to various physico-chemical parameters	2014
Faheem Ahmad	Impact of KishanSahkari Sugar Mill Effluent on Malin River at Najibabad (U.P.)	2013

Sandeep Singh Rawat	A study on physico-chemical parameters of Song River at Nepali Farm District Dehradun, Uttarakhand, India	2013
Ravi Pratap	A study of wastewater treatment process at Pilakhani Distillery, Saharanpur.	2012
Rajat Kumar	A study on pollution status of Solani River at Shukratal, Muzaffarnagar with reference to its physico-chemical parameters.	2012
Bhanu Pratap Singh	A study of waste water treatment process at Nanauta Distillery, Saharanpur,(U.P.)	2011
Krishan Gopal Sachdeva	A study of physico-chemical parameters of Jagjeetpur Sewage treatment plant Haridwar, Uttarakhand.	2011
Arun Kumar	The Study of Physico-chemical characterization on untreated and treated effluents of R.B.N.S. sugar mill at Laksar(Haridwar).	2010
Nitin Singh	Estimating the efficiency of effluent treatment plant of GKN Drive Line India Pvt. Ltd. Dharuhera, Gurgaon (Haryana).	2009
Vinit Kumar	Comparative Study of some physico-chemical parameters of R.B.N.S Sugar Mill. Laksar (Haridwar) before and after Treatment”	2009

RESEARCH PUBLICATIONS

Research Publications (Published/Accepted/Communicated)	:	109
Research Papers in International Journal (Published/In Press)	:	13
Research Papers in National Journal (Published/In Press)	:	77
Research Papers Communicated	:	06
Chapters in Book (Published)	:	15
General Articles in Magazines (Published)	:	04

(Annexure I)

BOOKS WRITTEN/EDITED

Books (Published)	:	22
-------------------	---	----

(Annexure II)

CONFERENCES/SEMINARS/SYMP./TRAINING/WORKSHOPS /ONLINE COURSES

Research Papers Presented	:	49
Attended	:	04
As Rapporteur/Chairman	:	05
Workshops	:	05
Trainings	:	02
DST-SERC School/Summer School	:	02
Orientation/Refresher Course	:	03
Online courses	:	12

(Annexure III)

INVITED/GUEST LECTURE DELIVERED

1. Delivered an invited lecture on “ **Biotic Communities in Aquatic System**” on 22nd of September 2004 a **six-week training course for lawyers of South Asian Countries (SAARC)**” being organized at Eco- Ashram, Rishikesh from Sept. 18 to October 30 2004.
2. Delivered an invited lecture on “**Pearl Culture**” in Horticulture technology mission programme on 23/01/05.
3. Delivered an invited lecture on “**Apiculture**” in Horticulture technology mission programme on 10/03/05.
4. Delivered an invited lecture on “**Soil and water Pollution in India**” in 15 day training programme for rural and unemployment development organized by “Uttaranchal Mushroom udhyan Vagramodhoyog Swath Sahkarita Ltd. On 25/7/05.
5. Delivered an invited lecture on “**Pesticides and our environment**” in 15 day training programme for rural and unemployment development organized by “Uttaranchal Mushroom udhyan Vagramodhoyog Swath Sahkarita Ltd. On 25/7/05.
6. Delivered an invited lecture on “**Water analysis**” on 24nd of November 2005 a **six-week training course for lawyers of South Asian Countries (SAARC)** being organized at Eco-Ashram, Rishikesh from Sept. 18 to October 30 2004.
7. Delivered an invited lecture on “**Medicinal plants and their role in pharmaceuticals**” on 23rd May 2011 in Regional Seminar on “Current trends in pharmaceutical and biopharmaceuticals industries being organized by Graphic Era University, Dehradun.
8. Delivered an invited talk on “**Ecology and Environment**” during R/04/CATC camp, Purkaji organized by 3 UK CTR NCC, IIT Campus, Roorkee from 2nd July 2012 to 11th July 2012.

9. Delivered an invited talk on “**Ecological modeling as a tool for water quality management**” on 22nd March 2013 in National Seminar on Modelling and its application in science and technology” being organized by IIMT Engineering college , Meerut.
10. Delivered an invited talk on “**Environmental Pollution and its Health Effects**” on 5th March 2016 in International Conference on Recent Advancements in Panchakarma-2016 organized by Deptt. Of Panchakarma Uttarakhand Ayurved University in collaboration with Ministry of Ayush, Govt. of India.
11. Delivered an invited talk on “**Environmental Science**” for B.Com. Students in HEC PG College, Haridwar on 17th November 2016.
12. Delivered an invited talk on “**Water and Waste water analysis**” in Deptt. Of Pharmaceutical Sciences, HNB Garhwal University, Srinagar on 20.04.2017.
13. Delivered an invited talk on “**Solid waste management**” in Smt. Taravati Institute of Bio-medical and Allied Sciences, Roorkee on 10th May 2017.
14. Delivered an invited talk on “ **How to publish research paper in Reputed, High impact factor Research Journals**” on 19.12.2018 in National Workshop on Research Methodology organized by Faculty of Health Science, Gurukula Kangri Vishwavidyalaya, Haridwar.
15. Delivered an invited talk on “**Basics of Ecological Modelling**” on 01.12.2019 in National Conference on Green Development for Environmental Concerns and Sustainable Progress organized by A.S. (P.G.) College Mawana, Meerut.
16. Delivered an invited talk on “**Ecological modelling**” on 20.02.2020 in 8th international Conference on Technology, innovation and Management for sustainable development TIMS-2020, organized by ITM University, Gwalior.
17. Act as Resource person in National Webinar on “**Biodiversity as Sustainable Manager**” held on 5th June 2020, Organized by Eco club, ITM University, Gwalior (M.P.).
18. Act as Resource person in Seven Days Online Faculty Development Programme from 14th to 20th June 2020 on ‘Research Methodology and ICT Tools’ Organized by Dr. Janak Singh Socio Cultural Educational Society Bareilly (U.P.), India.
19. Act as Resource person in Two days Faculty enrichment programme dated 14th and 15 th July 2020 on “How to Write and Publish a good research paper and How to enhance your research profile using different digital identifiers” Organized by Arya Mahila P.G. College, Varanasi
20. Delivered an invited talk on “**Water and its Conservation**” on 29th July 2020 in International Webinar on "Biodiversity conservation through environmental education for sustainable development" organized by Dr. PDBH Government Post Graduate College, Kotdwara, District - Pauri Garhwal, Uttarakhand in collaboration with TRAFFIC- India.

21. Delivered an invited talk on “**Ecology and Ecosystem**” on 10th September 2020 in Two days Webinar on "Importance of Environmental studies for teachers" organized by Dev Sanskriti Vishwavidyalaya, Haridwar, Uttarakhand.
22. Delivered an invited talk on “Ozone Layer Depletion” on 16th September 2020 on International day for the preservation of The Ozone Layer 2020 organized by Eco club, ITM University, and 8 MP BN NCC, Gwalior, MP.
23. Delivered an expert lecture on “**Environment and Ecology**” in Online Student Induction Programme organized by Faculty of Engineering and Technology, Gurukula Kangri Vishwavidyalaya, Haridwar from 14-19 December 2020.
24. Delivered an expert lecture in International webinar on “**Role of Science and Technology in Global health and Food security**” organized by Zoology & Biotechnology Deptt. & Science Committee Govt. Girls’ P.G. College, Ujjain (M.P.) from 1st-3rd March 2021.

AWARDS/PRIZES WON/COMPETITION PARTICIPATED

1. **Fellow Award:** Awarded as fellow of Action for sustainable efficacious development and awareness (FASEA).
2. **Fellow Award:** Awarded as fellow of Society for Environmental Research and Conservation (FSERC).
3. **Fellow Award:** Awarded as fellow of Nature Conservators Society (FNC).
4. **Fellow Award:** Awarded as fellow of International congress of environmental Research (FICER).
5. **Fellow Award:** Awarded as fellow of International council for health and Environment (FICHE).
6. **Junior Young Scientist Award:** Awarded Gold Medal & Certificate for best paper presentation in National seminar on “Management of Aquatic Resources for Biodiversity maintenance and conservation” held on 2-4 Feb. 2004.
7. **Award of Appreciation:** Honored with Appreciation award for outstanding contribution for grand success of National Seminar on Medicinal Plants: Conservation, Cultivation and Utilization on 9th to 11th March 2006”
8. **Award of Excellence:** Honored with Award of Excellence in recognition of the excellent leadership provided to Rotary club of Jwalapur during 2008-09, Presented by Rotary District Governor 2008-09, Rotary International Distt. 3080.
9. **Bharat Excellence Award:** Honored with Bharat Excellence Award for outstanding and extraordinary achievements in chosen field of activity and services rendered to promote greater friendship and India-International co-operation Presented by Friendship Forum of India on 20th July 2011.
10. **Best Teacher Award:** Honored as best Academician award 2012 by Rotary Club Jwalapur.

- 11. Award of Appreciation:** Honored with appreciation award for best performance during 25th All India Congress of Zoology during 17-19 November 2014 by Zoological society of India.
- 12. Research Excellence Award:** Honored with Research Excellence award for outstanding and extra ordinary achievements in Life science field, presented by Integral Technical Society on 4th June 2017.
- 13. Best Researcher Award (Honorable Jury Mention Certificate):** Honored with Honorable Jury Mention Certificate for best research, presented by EET CRS 6th Academic Brilliance Award-2018 on 28 January 2018.
- 14. Research Excellence Award 2019:** Honored with Research Excellence Award for best research, presented by Institute of Scholars, Bangalore.
- 15. Excellence in Research Award-2019:** Honoured with Excellence in Research Award for outstanding performance and lasting contribution in the field of life sciences, presented by IPGA Uttarakhand Branch.
- 16. Outstanding Performance Award-2020:** Honoured with Outstanding Performance Award-2020 for exemplary contribution in Haridwar Literature festival organised by Antah Pravah Society, Haridwar in association with Gurukul Kangri Vishwavidyalaya, Haridwar on 10012 January 2020.
- 17. Prof. H.R. Singh memorial Environment Award- 2020:** Honoured with Prof. H.R. Singh memorial Environment Award for outstanding contribution in the field of Environmental Science, Presented by ASEA, Rishikesh.
- 18. ADG Commendation Card 2020:** Honoured with Uttarakhand most prestigious award of NCC “ADG Commendation Card” for giving outstanding services in NCC, Presented by Additional Director General Major General Sudhir Bahl, NCC Directorate Uttarakhand.
- 19. Achiever Award-NCC Day 2020:** Felicitated with Achiever Award- 2020 for commendable and valuable service to NCC during the year 2020 on occasion of NCC Day.

SEMINARS ORGANIZED

1. Worked as a member of organizing committee of national seminar on “Vedic Agnihotra aur Brahmandh” held on 12.03.04 –14.03.2004.
2. Worked as a member of local organizing committee in International seminar on “Birds and Environment” held on November 21-24, 2004.
3. Worked as a member of organizing committee in National Seminar on “Medicinal plants: conservation, cultivation and utilization” held on 9th to 11th March 2006.

4. Worked as a member of organizing committee in National Seminar on “Medicinal plants: conservation, cultivation and utilization II” held on 9th to 11th March 2007.
5. Worked as organizing secretary of Workshop on Techniques in Water and Waste water Treatment held on 25-26 March 2008.
6. Worked as organizing Secretary of National Seminar on Environmental Management and Biodiversity Conservation” held on 26-27 February 2011.
7. Worked as organizing Secretary of International Conference on “Global Climate Change and Biodiversity Conservation” held on 11-13 November 2011.
8. Worked as a Joint organizing Secretary of National Conference on “Mahamana ke chintan ke paripekshaya mein Bharat ka Abhudaya: Ek Manthan” held on 5-6 January 2013.
9. Worked as Convener of National Conference on Recent Advances in Biosciences and Drug Discovery held on 03-04 March 2014.
10. Worked as Joint organizing Secretary in National Conference on Emerging trends in pharmaceuticals and Life Science held on 04 June 2017.
11. Worked as Convener- Transport Committee in National Conference on: Microbial Inoculants for Agriculture and Environmental Sustainability (MAES-2018) held on September 28-30, 2018.
12. Effectively conducted the Online CTO Orientation capsule on behalf of 31 UK BN NCC, Haridwar wef from 07 December to 19 December 2020.

EDITOR/ASSISTANT EDITOR OF JOURNALS

1. Working as an Executive Editor of Environment Conservation Journal.
2. Working as member of Editorial Board of Biotechnology International Journal.
3. Working as Review Editor in Biogeography and Macro ecology, part of the journal(s) Frontiers in Ecology and Evolution.

ACADEMIC MEMBERSHIPS

1. Life member of “Action for Sustainable Efficacious Development and Awareness” (ASEA).
2. Life member of “Indian Academy of Environmental Sciences” (IAES).
3. Life member of “Nature conservator’s Society” (NATCON).
4. Life member of “Society of Environmental Research and Conservation” (SERC).

5. Founder member of “Green star nature club” (WWF Nature India).
6. Life member of International congress of environmental research (ICER).
7. Life member of Applied and Natural Science Foundation (JANS).
8. Life member of Flora and Fauna.
9. Life member of International Goodwill society of India.
10. Life member of The Indian Science Congress Association (LM No. L23446)
11. Life member of The Indian Science Congress Association (Haridwar Chapter).
12. Life member of International Council for Health and Environment (ICHE).
13. Life member of Institute of Scholars (InSc)

DETAILS OF OTHER ASSIGNMENTS/ADMINISTRATIVE ACTIVITIES IN GKV

(i) Contribution to Teaching/Academic Environment/ Institutional Corporate Life.

1. Have been contributing in framing of curriculum in BOS meeting of UG and PG level from time to time.
2. As member of RDC from time to time.
3. Played a role in introducing new M.Sc. Environmental Science course during the year 2015-16.
4. Have been counseling for students seeking help regarding career opportunities/problems (under the GARBHASTH SCHEME of our institution).
5. Sending students to different Institution/ Industries to familiarize them with the latest developments in related fields.
6. As member of various committees regarding Symposia/ Seminars/ Computation/ Functions etc.
7. Coordinator of Internal Assessment (Theory and Practical) of Department of Zoology and Environmental Science (2015-18).
8. Coordinator of IQAC of Department of Zoology and Environmental Science.

(ii) Administrative activities

1. Currently performing additional duty on the post of Associate NCC Officer of Gurukula Kangri University, Haridwar.
2. Acted as Member of Proctorial Board of the University (2013-2018).
3. Acted as Coordinator (Faculty of Life Science) of Dean Student Welfare of Gurukula Kangri University.

4. Acted as Chairman (Selection committee) of Sports team selection of the University from time to time.

(iii) Extension and Field activities

As Associate NCC Officer of the University

1. Attended and successfully completed **NCC Pre commission Course** at NCC officers training academy from 13 July 2009 to 10 October 2009.
2. Attended the **Search and rescue course** at National Civil Defence College, Nagpur from 11-09-2009 to 12-09-2009.
3. Participated the **football championship** held at NCC officers training academy, Kamptee.
4. Attended and participated in **All India NCC Shivaji Trail Trek Camp-2010** held at Sontali (Kohlapur) from 23rd Nov. 2010 to 06th December 2010.
5. Attended and Participated in **Combined annual training camp of NCC** at Purkaji from 02 July 2012 to 11 July 2012.
6. Attended and Participated in **Combined annual training camp of NCC** at Roorkee from 25 June 2013 to 04 July 2013.
7. Attended and participated in combined **annual training camp of NCC** at Roshanabad, Haridwar from 17 June 2015 to 26 June 2015.
8. Participated in **International Day of Yoga** on 21st June 2015 organized by NCC Directorate Uttarakhand.
9. Successfully complete **One month Refresher Course** PT-I/123 at NCC officers training academy, Kamptee for promotion from Lieutenant to Captain.
10. Attended and Participated in **Combined annual training camp of NCC (R/10)** at Shantikunj, Haridwar from 03 Jan. 2019 to 12 Jan. 2019.
11. Attended and participated in Army Attachment **camp of NCC** at 2/5 GR Dehradun, from 16 September 2019 to 30 September 2019.

OTHER ACHIEVEMENTS

1. Winner of National Level Debate Competition related to environment organized by:
 - a. Jawaharlal Nehru National Youth Center, Bareilly (1995).
 - b. Environment and Forest Department, Govt. of India (1996)
 - c. Forest Department and G.S.N.C, Bareilly (1997)

d. Paryavaran Sanchetna, Dept. of Environment Sc., Bareilly College Bareilly.

2. Participated in poster presentation contest in national environmental awareness campaign, Hardwar (1998-1999).
3. Participated in Cultural Programme Organized by G.K.V. Hardwar (1999).
4. Participated in Quiz Competition of the Programme “Khel Khel mein badlo Duniya” telecast by Delhi Doordarshan” (2003).
5. Presented the research paper in the Young Scientist Award session in National Seminar on “Environmental Health Concerns (2005).

I hereby declare that all the above statements are true and correct to the best of my knowledge.

Place: Haridwar

(RAKESH BHUTANI)

Annexure I

LIST OF RESEARCH PUBLICATIONS

In International Journals (Published/Accepted)

1. **Rakesh Bhutiani** and D. R. Khanna (2007): Ecological Status of river Suswa: Modelling DO and BOD. *Environmental monitoring and assessment*. Vol. 125: 183-195.(Scopus Indexed, IF: 1.67) (pISSN:0167-6369, eISSN:1573-2959).
2. D.R. Khanna, P. Sarkar, AshutoshGautam and **R. Bhutiani**(2007):Fish scales as bio-indicator of water quality of river Ganga. *Environmental Monitoring and Assessment*. Vol. 134: 153-160(Scopus Indexed, IF: 1.67) (pISSN:0167-6369. eISSN: 1573-2959).
3. **R. Bhutiani**, D.R. Khanna and Kumar S. Chandra (2009): Light-limited population dynamics of *Bacillariophyceae*: modeling light and depth effects. *The Environmentalist* 29:93-105.(pISSN: 2194-5403, eISSN:2194-5411).
4. D.R. Khanna, **R. Bhutiani** and Kumar S. Chandra (2009): Effect of the euphotic depth and mixing depth on phytoplanktonic growth mechanism. *International Journal of Environmental Research*, 3(2):223-228(ISSN-1735-6865) (IF: 1.100).
5. D.R. Khanna, **R. Bhutiani** and Kumar S. Chandra (2012): A Recursive Approach for numerically identified DO-BOD interaction and Kinetic formulation for water quality probability. *International Journal of Environment and Waste management* Vol. 10 No. 4 pp. 391-399. (eISSN:1478-9868,pISSN: 1478-9876)(Scopus Indexed).
6. **R.Bhutiani**, D.R.Khanna, Bharti Tyagi, Prashant KumarTyagi and Dipali Bhasker Kulkarni (2015): Assessing environmental contamination of River Ganga using correlation and multivariate analysis. *Pollution* Vol 1(3):265-273.(eISSN:2383-4501, pISSN:2383-451X).
7. Rintone N. Lohe, BhartiTyagi, Vikas Singh, Prashant Kumar Tyagi, D.R. Khanna and **R. Bhutiani** (2015): A comparative study for air pollution tolerance index of some terrestrial plant species. *Global Journal of Environmental Science and management*, Vol. 1(4):315-324(eISSN:2383-3866, pISSN: 2383-3572).
8. **R. Bhutiani**, D.R.Khanna, Dipali Bhasker Kulkarni and Mukesh Ruhela (2016): Assessment of Ganga River Ecosystem at Haridwar, Uttarakhand, India with reference to Water Quality Indices. *Applied water Science*, Springer. 6(2):107-113. DOI 10.1007/s13201-014-0206-6. (eISSN:2190-5495, pISSN: 2190-5487).
9. **R. Bhutiani**, Dipali Bhasker Kulkarni, D.R. Khanna and Ashutosh Gautam (2016): Water quality, pollution source apportionment and health risk assessment of heavy metals in groundwater of an industrial area in north India. *Exposure and Health*. 8(1): 3-18. (eISSN: 2451-9685, pISSN:2451-9766). (IF: 4.762).
10. **R. Bhutiani** and D.R. Khanna (2016): DO-BOD modeling of River Ganga from Devprayag to Roorkee, India using BMKB model. *Pollution* 2 (1):25-34.(eISSN:2383-4501, pISSN:2383-451X).

11. **R. Bhutiani**, Dipali Bhasker Kulkarni, D.R.Khanna and Ashutosh Gautam (2017): Geochemical distribution and environmental risk assessment of heavy metals in groundwater of an industrial area and its surroundings, Haridwar, India. *Energy Ecology and Environment*. 2(2): 155-167. DOI 10.1007/s40974-016-0019-6. (e-ISSN: 2363-8338, pISSN:2363-7692).
12. M. Ruhela, **R. Bhutiani** , F. Ahamad, D.R. Khanna (2019): Impact of Hindon River Water on Selected Riparian Flora (*Azadirachta indica* and *Acacia nilotica*) with special Reference to Heavy Metals. *Pollution* 5(4):749-760. <https://dx.doi.org/10.22059/poll.2019.275662.583> (Scopus indexed).
13. **Rakesh Bhutiani**, Dipali B. Kulkarni, D.R. Khanna, Varun Tyagi, Faheem Ahamad (2020): Spatial and Seasonal variations in Particulate matter and gaseous pollutants around Integrated Industrial Estate (IIE), SIDCUL, Haridwar: A Case study. *Environment Development and Sustainability*. <https://doi.org/10.1007/s10668-021-01256-9> (e-ISSN: 1573-2975, pISSN: 1387-585X). (IF: 2.19).

In National Journals of International Repute (Published/Accepted)

14. **Rakesh Bhutiani** and D.R. Khanna (2002). Bioremediation of pulp and paper mills effluent using microbial consortia. *Jr. Nature env. & Poll. Tech.* 1(4): 361-363.(eISSN:2395-3454, pISSN:0972-6268) (Scopus Indexed, IF-1.621).
15. **Rakesh Bhutiani** and D.R. Khanna (2002), Physico–chemical analysis of a fertilizer plant. *Jr. Natcon* 14(2): 347-349.(ISSN: 0970-5945).
16. D.R. Khanna, **Rakesh Bhutiani** and ManojTrivedi(2002). Impact of paper mills effluent on Hindon River Saharanpur (UP).*Him. Jr. Env. Zool*Vol. 16(1): 125- 128.(ISSN: 0970-2903).
17. D.R. Khanna, **Rakesh Bhutiani** and P. Kumar (2003). Characterization of a treated distillery effluent. *Jr. Nature env. & Poll. Tech.*, Vol 2(1): 113-114.(eISSN:2395-3454, pISSN:0972-6268) (Scopus Indexed, IF-1.621).
18. D.R. Khanna and **Rakesh Bhutiani** (2003).Ecological status of Sitapur pond at Haridwar (Uttaranchal) India, *Ind. J. Env.& Ecopl.* 7(1) 175-178 (ISSN: 0972-1215).
19. D.R. Khanna, **Rakesh Bhutiani**(2003).Limnological status of Satikund pond at Haridwar (U.A) “*Indian J. Env. Sc.* 7(2): 131-136(ISSN: 0971-8958).
20. D.R. Khanna, **Rakesh Bhutiani**(2003): Limnological characteristics of river Ganga at Haridwar (Uttaranchal), *U.P. J. Zool.* 23(3): 179-183 (ISSN: 0256-971X).
21. **Rakesh Bhutiani**, D.R. Khanna and P. Sarkar (2003), Waste management strategy of a fertilizer Plant. *Env. Cons. Jr.* 4(1-3): 109-122.(eISSN:2278-5124, pISSN:0972-3099).
22. **Rakesh Bhutiani** and D.R. Khanna (2004): Yagyaaivam Paryavaran Sangrakshan *Gurukul Shodh Bharti* pp 169-171(ISSN: 0974 – 8830).

23. Mukesh Ruhela, **R. Bhutiani** and Aradhana (2004): Rain water Harvesting. *Env. Cons.* Vol. 5 No. (1-3). Pp 21-34(eISSN: 2278-5124, pISSN: 0972-3099).
24. D.R. Khanna and **Rakesh Bhutiani**(2005): Fish ecology of a lake at Hardwar Distt. (U.A) with special reference to its economics *J. Aqua cult.*6 (1): 17-24(ISSN: 0972-2262).
25. **R. Bhutiani**, D.R.Khanna and Shachindra Pandey (2005): Biodiversity conservation: The need of the hour. *Journal Aquacult*, 6(1): 117-120. (ISSN: 0972-2262).
26. **R. Bhutiani** and D.R. Khanna (2005): Water in Vedas. *Gurukul Shodh Bharti*, Vol-3 pp: 225-231.(ISSN: 0974 – 8830).
27. D.R. Khanna and **R. Bhutiani** (2005): Benthic fauna and its ecology of river Ganga from Rishikesh to Haridwar (Uttaranchal) India. *Env. Conser. Jr.* 6(1): 33-40.(eISSN:2278-5124, pISSN:0972-3099).
28. D.R. Khanna, J. Ashraf, BeenaChauhan and **R. Bhutiani** (2005): “Physico-Chemical analysis of PanvDhoi River at Saharanpur” (U.P.). *Env. Conser. Jr.* 6(2): 89-94.(eISSN:2278-5124, pISSN:0972-3099).
29. D.R. Khanna, Shikha Singhal and **R. Bhutiani** (2005):”*Gambusiaaffinis* and *Poecilia reticulate*: The Larvivorous fishes as breeding control of mosquito. *J. Comp. Toxicol. Physiol.* Vol. 2 (I&II) 91-95.(ISSN-0972-8651).
30. D.R. Khanna, **R. Bhutiani** and Kumar S. Chandra (2005): Modeling to assess effect of light on phytoplanktonic growth dynamics: A Review. *Env. Cons. Journal* 6(3): 103-107.(eISSN:2278-5124, pISSN:0972-3099).
31. D.R. Khanna, **R. Bhutiani** and Kumar S. Chandra (2006): Numerical Identification of BOD₅ and DO Profiles Using Beck Modified KhannaBhutiani (BMKB) Model. *Env. Cons. Jr.* 7(1&2): 89-94.(eISSN:2278-5124, pISSN:0972-3099).
32. **R. Bhutiani** and A.K. Chopra (2006): Environmental Degradation: Causes and Control. *Journal of Mountain Research* Vol. 1: 51-56. (pISSN:0974-3030).
33. **R. Bhutiani**, D.R. Khanna and Kumar S. Chandra (2006): Concept of Mathematical Modeling In Predicting Environmental Quality *Journal of Mountain Research* Vol. 1: 103-108.(pISSN:0974-3030).
34. D.R. Khanna, S.K. Pathak, **R. Bhutiani** and Kumar S. Chandra (2006): Study of Water quality of River Suswa near Raiwala, Uttaranchal. *Env. Cons. Journal* Vol. 7 (3): 79-84.(eISSN:2278-5124, (pISSN:0972-3099).
35. D.R. Khanna and **R. Bhutiani** (2006-07): Suswa- MatsayajaiveVividhdhataaiwamAakhet. *Jal Chari* Vol 13:57-61.
36. D.R. Khanna, Vikas Singh, **R. Bhutiani**, Kumar Satish Chandra, Gagan Matta and Dheeraj Kumar (2007): A Study of biotic and abiotic factors of Song River at Dehradun, Uttarakhand. *Env. Cons. Jr. Vol. 8 No.(3) : 117-126.*(eISSN:2278-5124, pISSN:0972-3099).

37. D.R. Khanna, **R. Bhutiani**, S.K. Pathak, Prashant Tyagi and Bharti Tyagi (2008): Effect of tourism on the physico-chemical parameters of stream Nalhota at guchu Pani, District Dehradun (India): *Env. Cons. Jr.* Vol-9No. (3):109-115.(eISSN:2278-5124, pISSN:0972-3099).
38. Khanna, D.R. ,Rajni Rana, J. Ashraf, **R. Bhutiani** and Gagan Matta (2009). "Analysis of water quality of Paniyala state fish pond with special reference to physico-chemical characteristics". *J. Comp. Toxicol. Physiol.* 6 (I) 18 – 29.(ISSN-0972-8651).
39. Khanna, D. R.,**R. Bhutiani** and Gagan Matta(2009). "Environmental Management System". *J. Comp. Toxicol. Physiol.* 6 (I) 10 - 17.(ISSN-0972-8651).
40. Khanna, D. R., J. Ashraf, Beena Chauhan, **R. Bhutiani**, Gagan Matta and V. Singh (2009): Water quality analysis of PanvDhoi River in reference to its physic-chemical parameters and heavy metals." *Env. Cons. Jr.* Vol. 10 No. (1&2):159-169(eISSN:2278-5124, pISSN:0972-3099).
41. D.R. Khanna, **R. Bhutiani**, Gagan Matta, Dheeraj Kumar and Vikas Singh (2010): "Phytoplanktonic status of river Ganga Near Haridwar City" *J. Exp. Zoology* Vol. 13, No. 1, pp 133-136.(eISSN:0976-1780, pISSN:0972-0030) (Scopus Indexed).
42. D.R. Khanna, **R. Bhutiani**, Gagan Matta, Dheeraj Kumar ,Vikas Singh and Neeraj (2010):Ecology of River Ganga at Foot Hills of Garhwal Himalayas (Uttarakhand)*J. Exp. Zoology* Vol. 13, No. 1, pp 115-119.(eISSN:0976-1780, pISSN:0972-0030) (Scopus Indexed).
43. D.R. Khanna, **R. Bhutiani**, G.Matta, V.Singh, P.Tyagi and B.Tyagi (2010):Water quality characteristics of River Tons at District Dehradun, Uttarakhand (India). *Env. Cons. J.* , 11(1&2):119-123.(eISSN:2278-5124, pISSN:0972-3099).
44. D.R.Khanna, **R. Bhutiani** and Dipali Bhaskar Kulkarni (2011).A study on pollution status and its impact on water quality of River Ganga at Haridwar. *Environment Conservation Journal.* Vol 12(1&2):9-15. (eISSN :2278-5124, pISSN:0972-3099).
45. D.R. Khanna, Shivom Singh, NeetuSaxena, **R. Bhutiani**, GaganMatta and Dipali Bhasker Kulkarni (2011). Physico-chemical and microbiological characterization of the ground water across the city Bareilly (U.P.) India. *Journal of Applied and natural Science.* Vol. 3 No. 2:315-318.(eISSN:2231-5209, pISSN:0974-9411).
46. D.R. Khanna, **R. Bhutiani**, GaganMatta, Vikas Singh and GauravBhadauriya (2011): Physico-chemical property of River Ganga at foothills of Garhwal Himalayas. *Environment Conservation Journal.* Vol 12(3):163-168. (eISSN:2278-5124, pISSN:0972-3099).
47. D.R. Khanna, **R. Bhutiani**, GaganMatta, Vikas Singh and Gaurav Bhadauriya (2012): Study of planktonic diversity of river Ganga from Devprayag to Roorkee, Uttarakhand (India). *Environment Conservation Journal.* Vol 13(1&2):211-217.(eISSN:2278-5124, pISSN:0972-3099).
48. D.R. Khanna, **R. Bhutiani**, GaganMatta, Vikas Singh and FouziaIshaq (2012): Seasonal variation in physico-chemical characteristics status of River Yamuna in Doon Valley of Uttarakhand. *Environment Conservation Journal.* Vol 13(1&2):119-124.(eISSN:2278-5124, pISSN:0972-3099).

49. D.R. Khanna, **R. Bhutiani**, Gagan Matta, Vikas Singh and Fouzia Ishaq (2012): Physico-chemical and microbiological status of River Asan in Dehradun, Uttarakhand. *Environment Conservation Journal*. Vol 13(1&2):145-150. (eISSN: 2278-5124, pISSN: 0972-3099).
50. D.R. Khanna, **R. Bhutiani**, Bharti Tyagi, Prashant Kumar Tyagi and Mukesh Ruhela (2012): Assessment of water quality of River Ganges during Kumbhmela 2010. *Environment Conservation Journal*. Vol 13(3):165-169.(eISSN:2278-5124, pISSN:0972-3099).
51. D.R. Khanna and **R. Bhutiani** and Mukesh Ruhela (2013): Fish diversity and their limnological Status of Ganga river system in foothills of Garhwal Himalaya, Uttaranchal, India. *Journal of Environmental research and development*. Vol. 7 No. 4: 1374-1380.(eISSN:2319-5983, ;pISSN(PARIS):0973-6921)(IF-1.613).
52. D.R. Khanna, **R. Bhutiani**, Bharti Tyagi, Prashant Kumar Tyagi and Mukesh Ruhela (2013): Determination of water quality index for the evaluation of surface water quality for drinking purpose. *International journal of science and engineering*. Vol 1(1):09-14. (eISSN:2302-5743, pISSN:2086-5023)(IF-0.2085)
53. D.R. Khanna, **R. Bhutiani** and Mukesh Ruhela (2013): Limnological status of river Suswa at Raiwala (Dehradun). *BioJournal*Vol.1 No. 1 pp 53-61(ISSN:0970-9444).
54. D.R. Khanna, N.S. Nigam and **R. Bhutiani** (2013): Monitoring of ambient air quality in relation to traffic density in Bareilly City (U.P.), India. *Journal of Applied and Natural Science* 5 (2): 497 - 502..(eISSN:2231-5209, pISSN:0974-9411).
55. D.R. Khanna, R. Bhutiani and Dipali Bhaskar Kulkarni (2013): Seasonal variation in ground water quality in and around Integrated Industrial Estate (IIE) Haridwar, India. *Environment Conservation Journal* 14(3):33-40. (eISSN:2278-5124, pISSN:0972-3099).
56. D.R. Khanna, **R. Bhutiani** and Neetu Saxena (2014): An approach to mathematical models as a tool for water and air quality. *Journal of Applied and Natural Science* 6 (1): 304-314.(eISSN:2231-5209, pISSN:0974-9411).
57. **R. Bhutiani**, D.R. Khanna and Sandeep Rawat (2014): Recent trend in physico-chemical parameters of Song river at Nepali farm district Dehradun, Uttarakhand, India. *International Journal of Researches in Biosciences, Agriculture & Technology*. May 2014 Issue-2, Volume-II pp 34-44. . (eISSN:2347-517X).
58. **R. Bhutiani**, D.R. Khanna, Prashant Kumar Tyagi and Bharti Tyagi (2014): Application of CCME WQI to evaluate feasibility of potable water availability: A case study of Tehri Dam reservoir. *Environment Conservation Journal*. 15 (1&2):13-19.(eISSN:2278-5124, pISSN:0972-3099).
59. Randhir Singh, Ashok Kumar Gupta, D.R. Khanna, Udit Mohan, Suhas, Prem Singh, **R. Bhutiani** and Varun Tyagi (2014): Physicochemical investigation and quality assessment of groundwater (Handpump) of Baghpat District, Uttar Pradesh, India. *International Journal of Researches in Biosciences, Agriculture & Technology*. May 2014 Issue-2, Volume-II pp 775-783.(eISSN:2347-517X).

60. D.R. Khanna, **R. Bhutiani**, Varun Tyagi and Faheem Ahmed (2014): Impact of Sugar mill effluent on physico-chemical properties of Malin River in Nazibabad District. *Indian Journal of Scientific research*. Special Edition, pp: 5-10.(eISSN:2250-0138, pISSN:0976-2876).
61. **R. Bhutiani** and D.R. Khanna (2014): Qualitative studies on planktonic diversity of River Ganga at Haridwar. *Biotechnology International*. 7(4):101-108.(eISSN:0974-1453).
62. **R. Bhutiani**, D.R. Khanna and Arun Kumar (2015): Physico-Chemical Characterization of Sugar Mill Effluent. *Indian Journal of Scientific research and Technology*. 3(2):13-16.(eISSN:2250-0138, pISSN:0976-2876).
63. Rishi Kumar Shukla, Anirudh Porval, Abha Shukla, Deepak Painuly, Jashbir Singh, Vineet Kumar, **Rakesh Bhutiani** and Swati Vats (2015): Phytochemical screening, total phenolic content determination and antimicrobial activity of *Ocimum gratissimum* root. *Journal of Chemical and Pharmaceutical Research*, 7(8):1052-1056. (ISSN: 0975-7384).
64. **R. Bhutiani**, D.R. Khanna, Varun Tyagi and Faheem Ahamad (2015): Removal of turbidity in dairy waste water through aquatic macrophytes. *International Journal of Research – GRANTHAALAYAH*, 3(9):1-3(eISSN:2350-0530, pISSN:2394-3629)(IF-2.035).
65. Ashok Kumar, D.R. Khanna and **R. Bhutiani** (2015): Seasonal variations in physico-chemical parameters of River Beas, Himachal Pradesh with special reference to planktonic population. *Environment Conservation Journal*. 16(3):127-131.(eISSN:2278-5124, pISSN:0972-3099).
66. **R. Bhutiani**, D.R. Khanna, Khushi Ram, Faheem Ahamad and Varun Tyagi (2016): Quality assessment of Ganga River at Haridwar with reference to various physico-chemical parameters. *Biotechnology International*. 9(1) 17-24. (eISSN:0974-1453).
67. **R Bhutiani**, DR Khanna, V Tyagi, F Ahamad (2016): Utilization of free floating macrophytes for milk process unit wastewater treatment. *Environment Conservation Journal*, 17(1&2):187-193. (eISSN:2278-5124, pISSN:0972-3099).
68. **R. Bhutiani**, DR Khanna, Shubham, Faheem, Ahamad (2016): Physico-chemical analysis of Sewage water treatment plant at Jageetpur Haridwar, Uttarakhand. *Environment Conservation Journal*, 17(3):133-142. (eISSN:2278-5124, pISSN:0972-3099).
69. Anil Kumar Bisht, Ravendra Singh, **R. Bhutiani**, Ashutosh Bhatt and Krishan Kumar (2017): Water quality modelling of the River Ganga using artificial neural network with reference to the various training functions. *Environment Conservation Journal*, 18(1&2):41-48. (eISSN:2278-5124, pISSN:0972-3099).
70. **R. Bhutiani**, Mukesh Ruhela and Faheem Ahamad (2017): Limnological characterisation of Hindon River at at NCR (Uttar NCR (Uttar Pradesh) India. *Environment Conservation Journal*, 18(1&2):219-229. (eISSN:2278-5124, pISSN:0972-3099).
71. **R. Bhutiani**, Hari Pratap, Faheem Ahamad, Paritosh Kumar and Pankaj Dutt Kaushik (2017) : Efficiency assessment of effluent treatment plant (ETP) treating an automobile industry effluent (Sidcul) Haridwar. *Environment Conservation Journal*, 18(1&2):95-102. (eISSN:2278-5124, pISSN:0972-3099).

72. Anil Kumar Bisht, Ravendra Singh, Rakesh Bhutiani and Ashutosh Bhatt (2017): An Investigation of Assessment and Modelling the Water Quality of Rivers Based on Artificial Neural Networks-An Initiative towards the River Ganga. International Journal on Future Revolution in Computer Science & Communication Engineering. Vol. 3 Issue 8: 17-23 (ISSN: 2454-4248).
73. Mukesh Ruhela, **Rakesh Bhutiani** and Faheem Ahamad (2017): Pollution Status of River Hindon from Ghaziabad to Noida with Special Reference to Heavy Metals. International Journal of Advance Engineering and Research Development. Vol. 4 Issue 8: 540-548. (ISSN: 2348-4470).
74. Ritu Vishnoi Singhal, Govind Singh Rajwar and Rakesh Bhutiani (2017): Effect of different growth nutrients and soil composition on the growth of *emblica officinalis* gaertn, a medicinal plant. International Journal of Engineering & Science Research, Vol. 7 Issue 11: 143-154.
75. Anil Kumar Bisht, Ravendra Singh, Ashutosh Bhatt, Rakesh Bhutiani (2017) "Modelling and forecasting of Ganga river water quality variables using soft computing-an outline", 2ND International Symposium on Internet of Things: Smart Innovation & Usages (IOT-SIU 2017), IEEE-ACM, 28-Feb-)1 March 2017 organized by faculty of Engineering and Technology, M.J.P. Rohilkhand University, Bareilly (U.P.), India.
76. **Rakesh Bhutiani**, Faheem Ahamad (2018): Efficiency assessment of Sand Intermittent Filtration technology for waste water Treatment. International Journal of Advance Research and in Science and Engineering. Vol. 7 Issue 3: 412-421. (ISSN: 2319-8354).
77. R. Bhutiani, Faheem Ahamad, Varun Tyagi and Khushi Ram (2018): Evaluation of water quality of River Malin using water quality index (WQI). *Environment Conservation Journal*, 19 (1&2): 191-201. (eISSN:2278-5124, pISSN:0972-3099).
78. **R. Bhutiani**, Khushi Ram, Varun Tyagi, Faheem Ahamad and Pankaj Kaushik (2018): Assessment of Ground water quality of Laksar block in district Haridwar, Uttarakhand. *Environment Conservation Journal*, 19(3):123-128. (eISSN: 2278-5124, pISSN: 0972-3099).
79. Anil Kumar Bisht, Ravindra Singh, **Rakesh Bhutiani**, Ashutosh Bhatt (2019): Artificial Neural Network based water quality forecasting model for River Ganga. International Journal of Engineering and Advanced Technology, 8(6):2019 (ISSN: 2249-8958) (**Scopus indexed**).
80. S Bhardwaj, M Ruhela, **R Bhutiani**, F Ahamad, R Bhardwaj (2019): Distillery spent wash (DSW) treatment methodologies and challenges with special reference to incineration: An overview. *Environment Conservation Journal*, 20(3):135-144. <https://doi.org/10.36953/ECJ.2019.20318>
81. **R Bhutiani**, N Rai, PK Sharma, K Rausa, F Ahamad (2019): Phytoremediation efficiency of water hyacinth (*E. crassipes*), Canna (*C. indica*) and duckweed (*L. minor*) plants in treatment of sewage water. *Environment Conservation journal* 20(1&2): 143-156. <https://doi.org/10.36953/ECJ.2019.1008.1221>

82. **R Bhutiani**, K Ram, F Ahamad (2019): Assessment of suitability of ground water quality in and around Laksar, Haridwar, Uttarakhand on the basis Water Quality Index (WQI). *Environment Conservation journal* 20(1&2): 41-46. <https://doi.org/10.36953/ECJ.2019.1008.1207>
 83. P. Chauhan, RC Tiwari, **R Bhutiani**, F Ahamad (2019): Study of Aragvadha (*Cassia fistula* Linn.) with special reference to phyto-pharmacological properties: An overview. *Environment Conservation journal* 20(1&2): 133-138. <https://doi.org/10.36953/ECJ.2019.1008.1219>
 84. **R Bhutiani**, N Rai, N Kumar, M Rausa, F Ahamad (2019): Treatment of industrial waste water using Water hyacinth (*Eichornia crassipus*) and Duckweed (*Lemna minor*): A Comparative study. *Environment Conservation journal* 20(1&2): 15-25. <https://doi.org/10.36953/ECJ.2019.1008.1203>.
 85. **Rakesh Bhutiani**, D.R. Khanna , Ravi Kumar, Khushi Ram and Faheem Ahamad (2019): Impact assessment of sewage treatment plants' effluent discharge on the quality of Ganga river at Haridwar, Uttarakhand. *J. Mountain Res.* Vol. 14 (2), (2019), 77-83. ISSN: 0974-3030.
 86. Tyagi, S., Dubey, R. C., Bhutiani, R., & Ahamad, F. (2020). Multivariate Statistical Analysis of River Ganga Water at Rishikesh and Haridwar, India. *Analytical Chemistry Letters*, 10(2), 195-213. <https://doi.org/10.1080/22297928.2020.1756405>.
 87. Anupama Kumari, R. C. Tiwari, Ved Bhushan Sharma, Shashikant Tiwari, Rakesh Bhutiani (2020): In vitro antioxidant activity, total phenolic and flavonoid contents of aqueous and alcoholic extract of bilwadi agad. *International Journal of Pharmaceutical research*. Jan - Jun 2020 | Supplementary Issue 1 1157-1161. <https://doi.org/10.31838/ijpr/2020.SP1.184>. (Scopus Indexed).
 88. Varun Tyagi and Rakesh Bhutiani (2020): Efficiency of Aquatic Macrophytes for Treatment of Milk Processing Unit Effluent – A Case Study. *Journal of Indian Water Works Association*. Oct-Dec.2020 Vol. LII No. 4 pp- 290-294.
-
89. Sweta Bhardwaj, D.R. Khanna, Mukesh Ruhela, Rakesh Bhutiani, Rahul Bhardwaj, Faheem Ahamad (2020): Assessment of the soil quality of Haridwar Uttarakhand India: A comparative study. *Environment Conservation journal* 20(3): 155-164 <https://doi.org/10.36953/ECJ.2020.21319>.
-
90. Mukesh Ruhela, Binod Kumar Jena, Sweta Bhardawaj, **Rakesh Bhutiani** and Faheem Ahamad (2021): Efficiency of *Pistia stratiotes* in Treatment of Municipal Solid Waste Leachate in an Upwards Flow Constructed Wetland System. *Ecology environment and conservation*: 27 (February Suppl. Issue): pp. (S236-S245). (Scopus Indexed).
 91. **Bhutiani, R.**, Faheem Ahamad, & Ruhela, M. (2021). Effect of composition and depth of filter-bed on the efficiency of Sand-intermittent-filter treating the Industrial wastewater at Haridwar, India. *Journal of Applied and Natural Science*, 13 (1), 88-94. <https://doi.org/10.31018/jans.v13i1.2421>. (Scopus Indexed).
-

92. Bhutiani, R. , Ahamad, F. , & Khushi Ram. (2021). Quality assessment of groundwater at Laksar Block, Haridwar in Uttarakhand, India using Water Quality Index: A case study. *Journal of Applied and Natural Science*, 13(1), 197-203. <https://doi.org/10.31018/jans.v13i1.2435> (Scopus Indexed).
-

Chapters in Books (published)

93. D.R. Khanna and **Rakesh Bhutiani** (2003): Fish and their ecology of river Ganga at Gohri Ghat Garhwal (Uttaranchal). *Proc. of national seminar. Fish Diversity in protected habitats*. Nature Conservator Publication 8: 291-298. (ISBN: 81-900-467-6-4).
94. A. Kumar, Rajeev Rajput, V. Singhal, Mukesh Ruhela and **R. Bhutiani** (2005): Effect of pulp and paper mill's effluent on biodiversity of river Gola, In: *Aquatic Biodiversity in India: The present Scenario*: Ed. D.R. Khanna, G. Prasad and A.K. Chopra pp. 297-303. (ISBN: 81-7035-367-X).
-
95. N.Rai, Shaheen Ansari, Sachin Chauhan, Mukesh Ruhela and **R. Bhutiani** (2005): Biotic communities in Aquatic System In: *Aquatic Biodiversity in India: The present Scenario*: Ed. D.R. Khanna, G. Prasad and A.K. Chopra. Pp. 184-201. (ISBN: 81-7035-367-X).
96. Harish Chauhan, D.R. Khanna and **R. Bhutiani** (2007): An approach to cure Paralysis and arthritis using *Sida cordifolia* by Panchakarma. In: *Medicinal plants: Conservation, Cultivation and Utilization* eds. Edited by Chopra et al. pp. 419-424. (ISBN: 81-7035-486-2).
-
97. D.R. Khanna, **R. Bhutiani**, G. Matta, Prashant Tyagi and Bharti Tyagi (2011): Physico-chemical Characterization of Untreated and Treated Effluents of R.B.N.S Sugar Mills at Laksar (Haridwar). In: *Water Pollution and management* eds. Edited by Malik et al. pp. 268-276. (ISBN: 97-8817-6222273).
98. D.R. Khanna, Dheeraj Kumar, **R. Bhutiani**, Gagan Matta and Vikas Singh (2013): Evaluation of construction industry role and its related activity in the changing climate circumstances. In: *Biodiversity conservation and Environmental Management* eds Edited By Khanna et al. pp 37-42. (ISBN: 978-81-7622-262-4).
99. D.R. Khanna and **R. Bhutiani** (2015): Vayu Prodooshan Niwarak, Agnihotra. In: *Sarswatabhinandan granth* eds Edited by Dr. Indranath Jha. pp 113-118. (ISBN: 978-93-83754-02-1).
-
100. **R. Bhutiani**, D.R. Khanna, Rahul Malik, Faheem Ahamad and Varun Tyagi (2017): Physico-chemical Characterization of River Ganga at Haridwar, Uttarakhand. In: *Water Biology* eds Edited by D.R. Khanna and R. Bhutiani pp 143-159. (ISBN: 978-93-5056-888-0).
101. **R. Bhutiani**, D.R. Khanna, Faheem Ahamad and Varun Tyagi (2017): Assessment of Water Quality Status of Malin River at Najibabad, Bijnor (U.P.). In: *Water Biology* eds Edited by D.R. Khanna and R. Bhutiani pp 281-307. (ISBN: 978-93-5056-888-0).
-
102. Anil Kumar Bisht, Ravendra Singh, **Rakesh Bhutiani**, Ashutosh Bhatt (2017): Artificial neural network based prediction model for estimating the water quality of the river Ganga", 3RD International Conference On Advances in Computing, Communication and automation, (ICACCA 2017), IEEE, 15-16 September 2017 organized by Tula's Institute Engg. and Management College, Dehradun. Uttarakhand, India, ISSN: 978-1-5090-6785-5.
-

103. Anil Kumar Bisht, Ravendra Singh, Ashutosh Bhatt, **Rakesh Bhutiani** (2017): “Development of an Automated Water Quality Classification Model for the river Ganga”, 3rd International Conference on Next Generation Computing Technologies (NGCT 2017), SPRINGER, 30th – 31st Oct 2017 organized by University of Petroleum and Energy Studies, Dehradun, India, ISSN: 1865-0929. https://doi.org/10.1007/978-981-10-8657-1_15.
104. Anil Kumar Bisht, Ravendra Singh, Ashutosh Bhatt, **Rakesh Bhutiani** (2019) “Application of Predictive Intelligence in Water Quality Forecasting of the River Ganga Using Support Vector Machines”, Handbook of Research on Predictive Intelligence Using Big Data and Internet of Things, **IGI Global USA (Scopus)**.
105. **Rakesh Bhutiani** and Faheem Ahamad (2019): A case study on changing pattern of agriculture and related factors at Najibabad region of Bijnor, India. In: Contaminants in Agriculture and Environment: Health Risks and Remediation. Published by: Agro Environ Media, Publication Cell of AESA, Agriculture and Environmental Science Academy pp 236-247. DOI: 10.26832/AESA-2019-CAE-0158-018.
106. Inderjeet tyagi, Vikas Kumar, Koamud Tyagi, **Rakesh Bhutiani**, Faheem Ahamad, Nitish Kumar and Kailash Chandra (2020): Physico-chemical analysis of East Kolkata Wetlands and its future aspects. In: Biodiversity profile of East Kolkata Wetlands Edited by Kailash Chandra, C. Raghunathan and A.A. Mao. Published by Director, Zoological Survey of India, Kolkata and east Kolkata wetlands management authority, Department of Environment, Govt. of West Bengal (ISBN: 978-81-8171-547-0)
107. Priyanka, Ramesh Chandra Tiwari and **Rakesh Bhutiani** (2021): Green tea and its effects with special reference to ayurvedic concept about tea and rasayana. In: Green Tea Edited Nishant Rai and Jigisha Anand, Nova Publications. Pp: 99-109.
108. Faheem Ahamad, **Rakesh Bhutiani** and Mukesh Ruhela (2021): Environmental Quality Monitoring using Environmental Quality Indices (EQI), GIS and Remote Sensing: A review. In: GIScience for the Sustainable Management of Water Resources. AAP-CRC Publisher Imprint (In Press).

General articles (published)

109. RakeshBhutiani (1996), Ways to fetch water, *VigyanParidhi*, 7(2): 21-23.
110. RakeshBhutiani (1997), Endangered Animal –Tiger, *VigyanParidhi*, 8(2) 19-20.
111. RakeshBhutiani(2000) Ganga Pollution (Slow Poisoning), *VigyanParidhi*, 11(1&2):17-19.
112. Rakesh Bhutiani and Anil Singh (2001): Endangered fauna of India, *The Green Trend*, March-April combined issue, pp-12.

Research papers in International/ National Journals/Books (Communicated)

1. Anupama Kumari, R.C. Tiwari, Ved Bhushan Sharma, Shashikant Tiwari, **Rakesh Bhutiani** (2020): Evaluation of Antimicrobial Activity of Aqueous and Alcoholic Extract of *Bilwadi agad* against Bacterial strains. (Communicated).

2. Inderjeet Tyagi, Kaomud Tyagi, **Rakesh Bhutiani**, Kailash Chandra and Vikas Kumar (2020): Bacterial Diversity Assessment of World's Largest Sewage Fed Fish Farms with Special Reference to Water Quality: A Ramsar Site. (Communicated).
3. Mukesh Ruhela, **Rakesh Bhutiani** and Faheem Ahamad (2020): Seasonal assessment of Hindon River: A multivariate statistical approach (Communicated).
4. Mukesh Ruhela, Kaberi Sharma, **Rakesh Bhutiani**, and Faheem Ahamad (2021): Impact of mining on the air and water quality: A periodical assessment of Bailadila Chhattisgarh India. (Communicated)
5. Faheem Ahamad , **Rakesh Bhutiani** , Mukesh Ruhela and Nishant Rai (2021): Non-Timber Forest Products: Current Status and Development (Communicated)

Annexure II

BOOKS WRITTEN/EDITED

Published

1. D.R. Khanna and **R. Bhutiani** (2004): Water analysis at a Glance. Pub. By ASEA Rishikesh. Pp 1-116. (ISBN:81-87468-06-8)
2. **R. Bhutiani** and Rajeev Rajput (Associate Editors) of the Book "Aquatic Biodiversity in India: The present Scenario" (2005) Edited by D.R. Khanna, A.K. Chopra and G. Prasad. Daya Publishing House New Delhi Pp 365.(ISBN: 81-7035-367-X).
3. D.R. Khanna and **R. Bhutiani**(2006):Limnological Modeling, Daya publishing House, New Delhi. Pp 1-301.(ISBN: 81-7035-449-8)
4. A.K. Chopra, D.R. Khanna, G.Prasad, D.S. Malik and **R. Bhutiani**(2007):Medicinal Plants: Conservation, Cultivation and Utilization. Daya Publishing House, New Delhi Pp-1-434. (ISBN: 81-7035-486-2)
5. D.R. Khanna, A.K. Chopra, G. Prasad, D.S. Malik and **R. Bhutiani** (2007): Aushadhiye Padap: Sangrakshan, Samvardhan Aiwam Upyogita. Daya Publishing House, New Delhi Pp- 1-310.(ISBN: 81-7035-492-7)
6. D.R. Khanna and **R. Bhutiani** (2007): Laboratory Manual of Water and Wastewater Analysis. Daya Publishing House New Delhi pp. 1-184. (ISBN: 978-81-7035-528-1)
7. D.R. Khanna, A.K.Chopra, G.prasad, D.S. Malik and **R. Bhutiani** (2008):Multifacial Application of Drug plants. Daya publishing House, New Delhi.(ISBN: 978-81-7035-550-2)
8. D.R. Khanna, A.K.Chopra, G.prasad, D.S. Malik and **R. Bhutiani** (2008):Phytochemicals Daya publishing House, New Delhi.(ISBN: 978-81-7035-549-6)

9. D.R. Khanna, **R. Bhutiani**, GaganMatta (2012): Water and waste water management Vol. I. Daya publishing House, New Delhi.(ISBN: 978-81-7035-749-0)
10. D.R. Khanna, **R. Bhutiani** and GaganMatta (2012): Water and waste water management Vol. II. Daya publishing House, New Delhi.(ISBN: 978-81-7035-750-6)
11. D.R. Khanna, AshutoshGautam, **R. Bhutiani** and Gagan Matta (2012): Ethnobotanical wisdom and Microbial studies on medicinal plants. Daya publishing House, New Delhi.(ISBN: 978-81-7035-710-0)
12. D.R. Khanna, **R. Bhutiani**, GaganMatta and Vikas Singh (2013): Biodiversity conservation and environmental management. Biotech Books, New Delhi.(ISBN: 978-81-7622-262-4)
13. D.R. Khanna, A.K. Chopra, GaganMatta, Vikas Singh and **R. Bhutiani** (2013): Impact of Global Climate Change on Earth Ecosystems. Biotech Books, New Delhi.(ISBN: 978-81-7622-273-0)
14. D.R. Khanna, A.K. Chopra, GaganMatta, Vikas Singh and **R. Bhutiani** (2013): Environmental Biotechnology. Biotech Books, New Delhi. (ISBN: 978-81-7622-271-6)
15. D.R. Khanna, A.K. Chopra, GaganMatta, Vikas Singh and **R. Bhutiani** (2013): Environmental Pollution assessment and control techniques. Biotech Books, New Delhi.(ISBN: 978-81-7622-279-2)
16. D.R. Khanna, A.K. Chopra, GaganMatta, **R. Bhutiani**andVikas Singh (2013): Environmental Technology. Astral International Pvt. Ltd., New Delhi.(ISBN: 978-81-7035-823-7)
17. D.R. Khanna, A.K. Chopra, **R. Bhutiani**, Gagan Matta and Vikas Singh (2013): Sustainable approaches for environmental conservation. Biotech Books, New Delhi.(ISBN: 978-81-7622-280-8)
18. D.R. Khanna, A.K. Chopra, **R. Bhutiani**, Gagan Matta and Vikas Singh (2013): Floral diversity and their conservation. Biotech Books, New Delhi.(ISBN: 978-81-7622-286-0)
19. D.R. Khanna, A.K. Chopra, **R. Bhutiani**, Gagan Matta and Vikas Singh (2013): Animal diversity and their conservation. Biotech Books, New Delhi.(ISBN: 978-81-7622-287-7)
20. D.R. Khanna, A.K. Chopra, Gagan Matta, **R. Bhutiani** and Vikas Singh (2013): Environmental management. Astral Internatinal Pvt. Ltd, New Delhi.(ISBN: 978-81-7035-822-0)
21. D.R. Khanna, A.K. Chopra, Vikas Singh, **R. Bhutiani** and Gagan Matta (2013): Climate change effects on agriculture and economy. Biotech Books, New Delhi.(ISBN: 978-81-7622-278-5).
22. D.R. Khanna and **R. Bhutiani** (2017): Water Biology. Discovery Publishing House, New Delhi. (ISBN: 978-93-5056-888-0).

Annexure III

CONFERENCES/SEMINARS/SYMP./TRAININGS/WORKSHOPS

Research Papers Presented

1. Presented the research paper in “National Conference on status of Indian environment, on May 27-28, 2001, organized by Action for sustainable efficacious development and awareness (ASEA), Rishikesh and dept. of zoology and Env. Sc., G.K.V. Hardwar.
2. Presented the research paper in “National symposium on status of India’s faunistic diversity and environment”, on Dec. 29-31, 2001, organized by Dept. of Zoology and env. Sc, G.K.V, Hardwar
3. Presented the research paper in “National seminars on environmental hazards and future generations” on May 11-12, 2002, Organized by Chinmaya degree college BHEL, Hardwar.
4. Presented the research paper in “National Seminar on relevance of biosphere reserves, national parks and sanctuaries (protected habitats) in present context”, on May 25-26,2002, organized by organized by Dept. of zoology and env. Sc, G.K.V, Hardwar and Nature conservators (India), Muzaffarnagar.
5. Presented the research paper in National symposium on “Biodiversity and Sustainable use of bioresources” on 10- 12th Oct. 2002 organized by Dept. of Limnology, Barkatullah Univ. Bhopal.
6. Presented the research paper in National symposium on “Recent trends in life sciences with special reference to wild life and conservation” on 16- 19 Nov. 2002, organized by P.G. dept. of Zoology, Nature conservation society and Indian society of life sciences, Kanpur.
7. Presented the research paper in National seminar on Alternative Fuels in new millennium for India on 8th Feb. 2003, organized by Chinmaya Degree College of Sciences BHEL, Haridwar.
8. Presented the research paper in National symposium on “Management of Aquatic Resources for Biodiversity maintenance and conservation” on 2-4 Feb. 2004, organized by Deptt. of Zoology, Jai Narayan Vyas University, Jodhpur and Nature Conservator (India), Muzaffarnagar.
9. Presented the research paper in National Seminar on “Vedic AgnihotraaurBrahmandh” on 12-14 March 2004, organized by Deptt. of Sanskrit, G.K.V, Hardwar.
10. Presented the research paper in International Seminar on “Contribution of Vedas to the World”on 27-30 January 2005, organized by Deptt. of Veda, G.K.V, Hardwar.
11. Presented the research paper in IV DST SERC School on “Mathematical Modelling of Ground water pollution” on 2-30 May 2005, Organized by UVCE-CAS Department of Mathematics, Bangalore University Bangalore.
12. Presented the research paper in National Conference on Environmental Concerns in health hazards, organized by Department of Zoology D.A.V. College Dehradun.
13. Presented the research paper in National Seminar on Uttaranchal meinmatsayikikisambhavnai”, on 28-29 October 2005 organized by Central fisheries Education Institute Mumbai and H.N. B. Garhwal University Srinagar.

14. Presented the research paper in National Seminar on “Practices for Energy Conservation” on 14th December 2005, organized by Department of Environmental science, Guru Nanak Khalsa College, Yamuna Nagar.
15. Presented the research paper in National seminar on “ Medicinal plants: Conservation, Cultivation and Utilization” on 9-11th March 2006, organized by Department of Zoology and Environmental Science, Gurukul kangri University, Haridwar.
16. Presented the research paper in National seminar on “ Medicinal plants: Conservation, Cultivation and Utilization II” on 9-11th March 2007, organized by Department of Zoology and Environmental Science, Gurukul Kangri University, Haridwar.
17. Presented the research paper in 3rd J & K State Science Congress 2008 on 26- 28 Feb. 2008 organized by University of Jammu, Jammu.
18. Presented the research paper in National Seminar on Global Warming: Its impact on Environment, Economy, Society and politics on December 27-28 2008, organized by S.M.J. N Degree College, Haridwar.
19. Presented the research paper in conference on Knowledge Economy: Touching Environmental Issues” organized by Action for sustainable, efficacious development and awareness and IIT Roorkee on 29th October 2009.
20. Presented the Research paper on national Seminar on Impact of trends in climate change on biodiversity and faunistic systems on 19-20 February 2010 organised by Department of Zoology and Environmental Science Gurukul Kangri University Haridwar.
21. Presented the research paper on International congress on Environmental research on September 16-18, 2010 organized by University of Mauritius, Mauritius.
22. Presented the Research paper on national Seminar on Environmental management and Biodiversity Conservation on 26-27 February 2011 organized by Omkarananda Institute of Management and Technology, Rishikesh.
23. Presented the Research paper on national Seminar on New innovations in parasitological research on 29-30 March 2011 organized by Department of Zoology, D.A.V. (P.G.) College, Dehradun.
24. Presented the Research paper on International conference on Role of Mathematics in Science and Technology on 13-14 May 2011 organized by Department of Mathematics, Graphic Era University, Dehradun.
25. Presented the Research paper on National Conference on Biodiversity vis-à-vis Environmental degradation in Hilly terrain on 15-16 May 2011 organized by Department of Zoology, D.B.S. (P.G.) college Dehradun (U.K.)

26. Presented the research paper on World Congress for Man and Nature “Global Environmental Change and Biodiversity conservation” 9-11 November 2011, Organised by Deptt. of Zoology and Environmental Science , Gurukula Kangri University Haridwar.
27. Presented the research paper on International Conference on Global innovations, strategies and policies in physical education and sports science” February 2012, Organised by Deptt. of Physical education and Sports , Gurukula Kangri University Haridwar.
28. Presented the research paper on International Conference on Environment and Humanity Eco revolution 2012, 18-20 August 2012 at Colombo, Srilanka, and Organised by Econeeds foundation.
29. Presented the research paper in National Seminar on Status of Environment and Biodiversity: RIO +20 and Role of Space Technology, 2-3 November 2012 at Department of Zoology and Environmental Science, Gurukula Kangri University, Haridwar.
30. Presented the research paper in National Conference on “Mahamana ke chintan ke paripekshaya mein Bharat ka Abhudaya: Ek Manthan” held on 5-6 January 2013 at Gurukula Kangri University, Haridwar.
31. Presented the Research Paper in National Conference on “Economic Upgradation: Environmental Degradation” held on 24-25 January 2014 at Omkarananda Institute of Management and Technology, Rishikesh.
32. Presented the Research Paper in National Conference on “Innovations in Science and Technology for inclusive development” held on 16 February 2014 organised by The Indian Science Congress, Haridwar Chapter at Gurukula Kangri University, Haridwar.
33. Presented the Research Paper in national Conference on Recent Advances in Biosciences and Drug Discovery held on 03-04 March 2014 organised by Deptt. of Pharmaceutical Sciences, Faculty of Ayurved and Medical Sciences, Gurukula Kangri University, Haridwar.
34. Presented the Research Paper in International Conference on “International congress on science and technology for society (ICSTS), organised by Vishwashanti multipurpose society in Bangkok, held on 23-25 May 2014.
35. Presented the Research Paper in 5th National Conference on Present Innovative Approaches and New Paradigm in Physical Education” organised by Deptt. of physical education and sports , Gurukulakangri University, Haridwar on 29th August 2014.
36. Presented the Research Paper in National Seminar on Environmental stress and its Remedies” organised by Department of Zoology, Kamla Raja Girls Post graduate (Autonomous) College , Gwalior (M.P.), on 30 and 31st October 2014.
37. National Seminar on Threats to Biodiversity and Ecosystems: Impact of Developmental Projects and Climatic Change and 25th All India Congress of Zoology” Gurukula Kangri University, Haridwar, on 17-19 November 2014.

38. Presented the Research Paper in National Conference on “Science and Technology for Human Development” organized by The Indian Science Congress Association: Haridwar Chapter and Deptt. of Ancient Indian History, culture and Archaeology, GKV, Haridwar on 20 and 21st March 2015.
39. Presented the Research Paper in National Seminar on “Yogic management of Life style Disorders” organized by Deptt. of Human Consciousness and yogic science, GKV, Haridwar on 30 and 31st March 2015.
40. Presented the Research Paper in National Conference on “Science and Technology for indigenous development in India” organized by Indian Science Congress Association: Haridwar Chapter and FET, GKV, Haridwar on 28 - 30 September 2015.
41. Presented the research paper in National Conference on Recent Advances in Biological and Pharmaceutical Sciences (RABPS-2015) organized by Indian Pharmacy Graduate Association, Uttarakhand State Branch on 05 Dec. 2015.
42. Presented the research paper in National Conference on “Sustainable Development and Climate Change” organized by Department of Environmental Science, Amity University, Madhya Pradesh, Gwalior on 18, November 2016.
43. Presented the research paper in National Conference on “Science and Technology for National Development” organized by The Indian Science Congress Association: Haridwar Chapter and Deptt. of Chemistry, GKV, Haridwar on 20 - 22 November 2016.
44. Presented the research paper in National Conference on “Recent Trends on Green Chemistry and Sustainability” organized by Deptt. Of Chemistry and Environment Science, Graphic Era University, Dehradun on 22 - 23 March 2017.
45. Presented the research paper in National Conference on “Emerging trends in Pharmaceuticals and Life Science” organized by IPGA and IDPL, Rishikesh on 4th June 2017.
46. Presented the research paper in 7th National Conference on “Implications of management theories on literature Education, Social science and Cultural issues ” organized by Faculty of Management studies (FMS) Gurukula kangri Vishwavidyalaya, Haridwar on 30 September 2018.
47. Presented the research paper in National Conference on “Science and Technology for National Development” organized by The Indian Science Congress Association: Haridwar Chapter and Deptt. of Chemistry, GKV, Haridwar on 20 - 22 November 2016.
48. Presented the research paper in National Conference on “Status of upcoming trends in Biodiversity Conservation” organized by Department of Botany Chaman Lal Mahavidyalaya, Landhaura, Haridwar on 06 January 2019.
49. Presented the research paper in National Conference on “Science and Technology: Rural Development” organized by Department of The Indian Science Congress Association, Haridwar Chapter during February 15-16, 2020.

Seminars Attended

50. Attended the Seminar on “Present Eco-status of Ganga Water” on March 12th, 1999, organized by Dept. of Zoology & Env. Sc., G.K.V. Haridwar.
51. Attended National seminar on “Biotechnology for Health, Agriculture and Industry” on 19-20 Sept. 2003, organized by Academy of Plant Science, India, Muzaffarnagar.
52. Attended the National seminar on Intellectual Property Rights in Developing Countries on September 27-28 2008 organised by S.M.J.N. College, Haridwar.
53. Attended the National Seminar on Advances in Natural products chemistry and sustainable development 04-05 June 2011 organized by Department of Environment Science, Graphic Era University, Dehradun.

As Rapporteur/Co-ordinator/Chairperson

54. Chaired One Session as Rapporteur in the National Seminar on “ Medicinal Plants: Conservation, Cultivation and Utilization’ held in the department of Zoology and Environmental Science, Gurukul Kangri University Haridwar from 9th to 11th March 2006.
55. Chaired one session as coordinator in International Congress on Environmental Research held in University of Mauritius, Mauritius from 16-18 September, 2010, Reduit (Mauritius).
56. Chaired One Session as Chairperson in the National Seminar on “Environmental management and biodiversity conservation’ held Omkarananda Institute of Science and Technology, Rishikesh on 26th to 27th February 2011.
57. Co-chaired one session in Environmental Science section in the National Conference on Recent Advances in Biosciences and Drug Discovery held on 03-04 March 2014 organized by Deptt. of Pharmaceutical Sciences, Faculty of Ayurveda and Medical Sciences, Gurukula kangri University, Haridwar.
58. Chaired One Session in Environment Science Section in 8th International Conference on Technology, innovation and Management for sustainable development TIMS-2020, organized by ITM University, Gwalior.
59. Co-chaired the session in “ Medicinal plants mega Conference and Exhibition 2021” held on January 26, 2021 organised by Department of pharmaceutical Science, Gurukula Kangri Deemed to be University, Haridwar

Workshops

60. Attended the Workshop cum Training course on “DNA- Vaccines” 21-30th Oct. 2002 Conducted by NATP.ToE at Indian Veterinary Research Institute, Izatnagar, Bareilly.

61. Attended the National Workshop on Solid waste management on 10 April 2007 organised by Department of Zoology and Environmental Science, Gurukul Kangri University, Haridwar.
62. Attended the Faculty Development program, a workshop on Novel Ideas in Biotechnology-NRIB, 23-24 December 2011 and presented the project entitled “A modelling approach to assess-----planktonic dynamics” organized by Uttarakhand State biotechnology programme (USBD) , Dehradun.
63. Attended the one week National workshop on “Taxonomic keys and identification tools of different groups of flora and fauna” from 29th October to 3rd November 2012, organized by Department of Zoology and Environmental Science, Gurukula Kangri University, Haridwar.
64. Attended the ten days National workshop on “Research Methodology in Sciences and Technology” from 04 October to 13th October 2018, organized by Department of Zoology and Environmental Science, Gurukula Kangri Vishwavidyalaya, Haridwar.

Trainings

65. One month vocational training in “Environment and Pollution Control Section” of Indian Farmer’s Fertilizers Cooperative Ltd.
66. Attended 5 day Training Course on “Application of Isotope in Hydrology and Water Resources” from 29th Feb. to 04 March 2016, Organized by National Institute of Hydrology, Roorkee (Ministry of Water Resource RD and GR, Govt. of India).

DST-SERC School/Summer School

67. Attended the IV DST SERC School on “Mathematical modeling in Ground Water Pollution” 2 – 30 May 2005 organized by UVCE-CAS Department of Mathematics Bangalore University, Bangalore.
68. Attended the Summer School in Fish Biotechnology from 7 August to 27 August 2007 organized by National Bureau of fish Genetic Resources, Lucknow.

Refresher/Orientation Course

69. Attended the General Orientation Course from 22.02.2010 to 20.03.2010 and obtained A Grade organized by UGC Academic Staff College University of Jammu.
70. Attended the UGC Sponsored Refresher Course from 08-10-2010 to 28-10-2010 and obtained A Grade organized by UGC Academic Staff College, Punjabi University, Patiala.

71. Attended the UGC Sponsored Refresher Course in Environmental Science from 07-03-2014 to 27-03-2014 and obtained A Grade organized by UGC Academic Staff College, Amravati University, Amravati.

Online Courses (Webinars/conferences/FDP)

72. Successfully completed off campus outreach certificate program entitled “Application of Remote Sensing and GIS for Natural Resources” organized by Indian Institute of Remote Sensing (ISRO) Deptt. of Space, Govt. of India, Sponsored by National Natural Resources management System (NNRMS) from January 27 to March 27, 2015.
73. Successfully completed off campus outreach certificate program entitled “Basics of Remote sensing, Geographical Information System and Global Navigation Satellite System” organized by Indian Institute of Remote Sensing (ISRO) from August 22, 2016 to November 18, 2016.
74. Participated in Online Quiz on “Self Assessment of Communication Skills” on 13th June 2020 organized by Lords Institute of Engineering and Technology, Hyderabad.
75. Participated in Online Quiz on “Research Methodology” on 16th May 2020 organised by Department of Mathematics Keral Verma Subharti College of Science, Swami Vivekanand Subharti University, Meerut.
76. Participated in online National Webinar on” Personal Responsibility in Challenging Times” dated 22 May 2020, Organised by Faculty of management studies, Gurukula Kangri Vishwavidyalaya, Haridwar.
77. Participated in online National Webinar on” How to be a transformational leader-Leadership principles for next millennium” dated 28 May 2020, Organised by Faculty of management studies, Gurukula Kangri Vishwavidyalaya, Haridwar.
78. Participated in World Honey bee Day Celebration and National E-Seminar on Bio-prospecting through Apiculture: Post Covid-19 Scenario in India, on 20 May 2020, Organised by R.T. M. University, Nagpur.
79. Successfully completed Online One week Faculty Development Programme on ” Technical Skill Development: Need of the Hour” from 23-27 May 2020 organised by Shaheed Mangal Pandey, Government Girls (P.G.) College, Meerut, U.P.
80. Successfully completed Online One week Faculty Development Programme on ” Recent Advances in Science and Technology” from 21-27 May 2020 organised by RPS Group of Institutions, Mahendergarh, Haryana.
81. Successfully completed Online One week Faculty Development Programme on ” Environmental Impacts of Covid-19 Pandemic: Challenges and Future Research” from 27 May-1st June 2020 organized by University School of Environmental Management, Guru Gobind Singh Indraprastha University, Delhi.

82. Participated in Online three days webinar on “National Education Policy” 2020 conducted from 19 Nov. to 21 Nov. 2020 organised by 78 UK BN NCC Haldwani.
83. Participated in the Webinar on “ Effective Methods and Strategies for Quality Research Paper Writing and Academic Publishing” held on October 24th 2020 Organized by Himalayan School of management Studies Swami Rama Himalayan University.