

Curriculum Vitae

1. Name and Correspondence address: Dr. Gopal Krishan
 Jal Vigyan Bhawan
 Groundwater Hydrology Division
 National Institute of Hydrology,
 Roorkee-247 667 (Uttarakhand)



Personal webpage: <https://sites.google.com/site/gknihrroorkee/>
 Google scholar: <https://scholar.google.co.in/citations?user=aWTcRaEAAA&hl=en>
 Research gate: <https://www.researchgate.net/profile/Gopal-Krishan-2>
 Orchid profile: <https://orcid.org/0000-0002-4514-5815>
 Scopus profile: <https://www.scopus.com/authid/detail.uri?authorId=55963370200>
 Web of Science Researcher id: [F-3893-2014](https://www.scopus.com/authid/detail.uri?authorId=55963370200)

2. E-mails & contact nos. : drgopal.krishan@gmail.com; drgopal.krishan.nihr@gov.in
 +919634254939, +911332249233
3. Institution : National Institute of Hydrology,
 Roorkee- 247 667 (Uttarakhand)
4. Date of Birth : 25-06-1973
5. Gender : Male
6. Category : General
7. Whether differently abled : No

8. Academic Qualifications

Degree	Subjects/ Specialization	Year	Board / University	Division / % marks
M.Sc.	SOIL SCIENCE & WATER MANAGEMENT- Specialization SOIL CHEMISTRY	1997	Dr. YSP UHF, NAUNI, SOLAN(HP)	First / 74.7
PhD	SOIL SCIENCE & WATER MANAGEMENT- Specialization SOIL CHEMISTRY	2001	Dr. YSP UHF, NAUNI, SOLAN(HP)	First
National Eligibility Test	SOIL MICROBIOLOGY/CHEMISTRY/FERTILITY	1999	ICAR	QUALIFIED

9. Work Experience (22 Years)

Sr. No.	Designation	Employer	Funding	Period		Year	Month
				From	To		
1	Scientist-D	NIH, Rke	DoWR, MoJS NDelhi	Sep, 2019	-contd-	2	10

2	Scientist-C	NIH, Rke	DoWR, MoJS NDelhi	Sep, 2015	Sep, 2019	4	0
3	Res. Person	NIH, Rke	Wapcos, Ltd	July, 2015	Sep, 2015	0	1
4	Researcher	BGS, UK	BGS, UK	Oct, 2014	Jul, 2015	0	9
5	Res. Sci. 'C'	NIH, Rke	BGS-DFID	Mar, 2013	Sep, 2014	1	7
6	Res. Sci. 'B'	NIH, Rke	DST-SERC	Jul, 2009	Mar, 2013	3	7
7	Res. Assoc.	IIRS-ISRO	DoS, Bluru	Apr, 2006	Apr, 2009	3	0
8	Res. Assoc.	UHF, Solan	DST, NDelhi	Jun, 2002	Mar, 2006	3	9
9	Res. Assoc.	UHF, Solan	GBPIHED	Aug, 2001	May, 2002	0	9
10	Res. Fellow	UHF, Solan	ICFRE (WB)	Apr, 1997	Mar, 1999	1	11

10. Professional Recognition/ Award/ Prize/ Certificate, Fellowship received by the applicant.

Sr. No.	Name of Award	Awarding Agency	Year
1	Certificates/Letter of appreciation	BIT, Sindri, Jharkhand	2022
2		Suresh Gyan Vihar University Jaipur (Rajasthan)	2022
3	Professional Excellence Award 2021	Aqua Foundation, New Delhi	2021
4	Scholarship for course May 06-June 03, 2021	University of California, Davis, USA	2021
5	Certificates/Letter of appreciation	Amity University, Noida UP	2021
6		Atria Institute of Technology, Bangalore	
7		Akal University, Talwandi Sabo, Punjab	
8		Nehru Institute of Technology, Coimbatore	
9		Shri Venkateshwar University, Gajraula	
10		American Water Resources Association Conference Scientific Impacts on a Historic Landscape American Water Resources Association Montana Section	
11		Atal Bihari Vajpayee Trust Abhav Foundation, Bilaspur, Chattisgarh	
12		Geoethics and GW management congress as member Scientific committee held in Portugal during May 18-22, 2020 jointly organized by International Association of Hydrogeologists (IAH) and International Association for Promoting Geoethics (IAPG)	
13		Department of Agriculture and Department of applied and basic sciences Galgotia University	

14	Best paper award in a National Seminar on Hindi on the topic Water Resources and Environment on the paper entitled "Issues of soil and water in Sunderban"	National institute of Hydrology, Roorkee	2019
15	The Sentinels of Science Awards	PUBLONS	2016, 17, 18
16	BEST PRACTICE RESEARCH AWARD	Bangalore University in International conference and Exhibition on Innovative Technologies and field applications for Sustainable water, wastewater & energy management-SWWEM-16, during 17-19 August, 2016 IISC, Bangalore	2016
17	ITS –DST Travel Support to USA	Department of Science and Technology, New Delhi	2012
18	Certificate of Appreciation	American Water Resources Association, USA	2012
19	Certificate of best presentation in a session-Peas-2012	Faculty of engineering, GKVV, Haridwar	2012
20	Fellow	Society of Earth Scientists (F/486)	2015

11. Publications (List of papers published in SCI Journals, in year wise descending order).

S.No.	Author(s)	Title	Name of Journal	Volume	Page	Year
1	Yadav Basant, Patidar, Nitesh, Sharma, Anupma, Panigrahi, Niranjana, Sharma, Rakesh K., Loganathan V., Krishan, Gopal , Singh, Jaswant, Kumar, Suraj, Parker, Alison	Assessment of traditional rainwater harvesting system in barren lands of a semi-arid region: A case study of Rajasthan (India)	Journal of Hydrology-Regional Studies https://doi.org/10.1016/j.ejrh.2022.101149	42	1011-49	2022
2	MacAllister, DJ., Krishan, G. , Basharat, M., Cuba, D., MacDonald A.M.	A century of groundwater accumulation in Pakistan and northwest India	Nature Geoscience (in press)			2022
3	Krishan G. , Rao, MS, Vasisth Rajesh,	Isotopic assessment of Groundwater salinity: a case study of Southwest (SW) region of Punjab,	Water	14, 133		2022

	Chaudhary, Anju, Singh, Jaswant, Kumar, Amit	India				
4	Krishan G , Taloor AK, Sudarsan N, Bhattacharya P, Kumar S, Ghosh NC, Singh S, Sharma A, Rao MS, Mittal S, Sidhu BS, Vasisth, R. Kour, R.	Occurrences of potentially toxic trace metals in groundwater of the state of Punjab in northern India.	Groundwater For Sustainable Development	15:100 655		2021
5	Krishan G , Kumar B, Sudarsan N, Rao MS, Ghosh NC, Taloor AK, Bhattacharya P, Singh S, Kumar CP, Sharma A, Jain SK, Sidhu BS, Kumar S, Vasisth, R.	Isotopes ($\delta^{18}\text{O}$, δD and 3H) variations in groundwater with emphasis on salinization in the State of Punjab, India	Science of the Total Environment	789: 148051		2021
6	Krishan, Gopal , Sudersan, N, Sidhu BS, Vashisth, Rajesh	Impact of lockdown due to COVID 19 pandemic on Groundwater salinity in Punjab, India: some hydrogeoethics issues,	Sustainable Groundwater Resources Management	7	27	2021
7	Krishan G , Sejwal P, Bhagwat A, Prasad G, Yadav BK, Kumar CP, Kansal ML, Singh S, Sudarsan N, Bradley A, Sharma LM, Muste M.	Role of Ion Chemistry and Hydro-Geochemical Processes in Aquifer Salinization—A Case Study from a Semi-Arid Region of Haryana, India	Water	13(5)	617	2021
8	Krishan, Gopal , Vashisth,	Groundwater salinity and isotope characterization: a case study from south-	Environmental Earth Science	180	169	2021

	Rajesh, Sudersan, N, Rao, M.S.	west Punjab, India				
9	Lapworth, Dan; O Dochartaigh, Brighid, Nair, Tarun, O'Keefe, Jimmy, Krishan, Gopal ; MacDonald, Alan, Khan, Mohseen, Kelkar, N, Choudhry, S, Krishnaswamy, J, Jackshon, CR.	Characterising groundwater-surface water connectivity in the lower Gandak 1 catchment, a barrage regulated biodiversity hotspot in the mid-Gangetic basin	Journal of Hydrology	594	125 923	2020
10	Kaushal, Abhishek Anand, Krishan Gopal , Pandey Govind	Recovery efficiency of an aquifer storage and recovery (ASR) experiment from saline aquifer under controlled conditions	Current World Environment	15(3)	441-445	2020
11	Tiwari, KK, Krishan, Gopal , Anjali, Prasad, Gokul, Mondal, NC, Bhardwaj, Vinay	Evaluation of fluoride contamination in groundwater in a semi-arid region, Dausa District, Rajasthan, India	Groundwater for Sustainable Development	11	100 465	2020
12	Krishan, Gopal , Prasad, Gokul, Anajli, Kumar, C.P., Patidar, Nitesh, Yadav, Brijesh, Kansal, M.L., Singh, Surjeet, Sharma Mohan, Lalit, Bardley, Allen, Verma,	Identifying the seasonal variability in source of groundwater salinization using deuterium excess- a case study from Mewat, Haryana, India	Journal of Hydrology- Regional Studies	31	100 724	2020

	S.K.					
13	Gopal Krishan	Water sector scientific imperatives for COVID-19	Current World Environment	15	5-7	2020
14	Krishan, Gopal, Ghosh, N.C., Kumar, C.P., Sharma Mohan, Lalit, Yadav, Brijesh, Kansal, M.L., Singh, Surjeet, Verma, S.K., Prasad, Gokul	Understanding stable isotope systematics of salinity affected groundwater in Mewat, Haryana, India	J Earth Syst Sci	129	109	2020
15	Krishan, Gopal, Singh, Surjeet, Thayyen, Renoj J., Ghosh, N.C., Rai, S.P. & Arora, Manohar	Understanding river – subsurface water interactions in upper Ganga basin, India	International Journal of River Basin Management	DOI: 10.1080/15715124.2019.1683853		2019
16	Singh, S., Ghosh, N.C., Krishan, G., Kumar Sumant, Gurjar, Suman, Sharma, MK	Development of indices for surface and ground water quality assessment and characterization for Indian conditions	Environ Monitoring and Assessment	191	182	2019
17	Debnath, P, Das, Kousik, Mukherjee, Abhijit, Ghosh, NC, Rao, Someshwar, Kumar, Sudhir, Krishan, Gopal, Joshi, Gopal	Seasonal-to-diurnal scale isotopic signatures of tidally-influenced submarine groundwater discharge to the Bay of Bengal: Control of hydrological cycle on tropical oceans	Journal of Hydrology	571	697-710	2019
18	Lapworth, Dan; Das, Prerona; Shaw, Ashok; Mukherjee,	Deep urban groundwater vulnerability in India revealed through the use of emerging organic contaminants and	Environmental Pollution	240	938-949	2018

	Abhijit; Civil, Wayne; Petersen, Jade; Gooddy, Daren; Wakefield, Oliver; Finlayson, Andrew; Krishan, Gopal ; Sengupta, Probal; MacDonald, Alan	residence time tracers				
19	Saranya, Krishan, Gopal , Rao, MS, Kumar, Sudhir, Kumar, Bhishm	Controls on water vapor isotopes over Roorkee, India: Impact of convective activities and depression systems	Journal of Hydrology	557	679-687	2018
20	Singh, Surjeet, Ghosh, N C, Gurjar, Suman, Krishan, Gopal , Kumar, Sumant, , Barwal, Preeti	Index-based assessment of suitability of water quality for irrigation purpose under Indian conditions	Environment Monitoring and Assessment	190	29	2017
21	Lapworth DJ, Krishan G , MacDonald AM, Rao MS	Groundwater quality in the alluvial aquifer system of northwest India: new evidence of the extent of anthropogenic and geogenic contamination	Science of the Total Environment	599-600	1433-1444	2017
22	Bonsor HC, MacDonald AM et al	Hydrogeological typologies of the Indo-Gangetic basin alluvial aquifer, South Asia	Hydrogeology Journal	25	1377-1406	2017
23	MacDonald, Alan, Bonsor, Helen , Ahmed, Kazi, Burgess, William, Basharat, Muhammad,	Groundwater quality and depletion in the Indo-Gangetic basin from ground observations.	Nature Geosciences SPRINGER-NATURE	9	762-766	2016

	Calow, Roger, Dixit, Ajaya, Foster, Stephen, Krishan, Gopal et al.					
24	Lapworth DJ, MacDonald AM, Krishan G , Rao MS, Gooddy DC, Darling WG.	Groundwater recharge and age-depth profiles of intensively exploited groundwater resources in northwest India	Geophysical Research Letters	42(18)	755-756	2015
25	Krishan Gopal . Rao, M.S. and Kumar C.P.	Estimation of Radon concentration in groundwater of coastal area in Baleshwar district of Odisha, India	Indoor and Built Environment	24(8)	114-115	2015
26	Krishan, Gopal , Rao, M.S., Kumar, C.P., Kumar, Sudhir, Rao, M. Ravi, Anand.	A study on identification of submarine groundwater discharge in northern east coast of India	Aquatic Procedia	4	3-10	2015
27	Purushothaman, P., Rao, M. S., Rawat, Y. S., Kumar, C.P., Krishan, Gopal and Parveen, T.	Evaluation of hydrogeochemistry and water quality in Bist-Doab region, Punjab, India.	Environmental Earth Sciences	72(3)	693-706	2014
28	Krishan, Gopal , Rao, M.S., Kumar, Bhishm, Kumar, C.P.	Possibility of using isotopic composition of ground level vapour (Glv) for monitoring arrival and withdrawal of southwest monsoon.	Current Science	108(5)	784-786	2014
29	Krishan Gopal . Rao, M.S. and Kumar C.P.	Radon Concentration in Groundwater of East Coast of West Bengal, India	Journal of Radioanalytical and Nuclear Chemistry	303 (3)	222-225	2014
30	Purushothaman, P., Rao, M. S., Kumar, B., Rawat, Y. S., Krishan, G. and Devi, Pooja.	Comparison of two methods for ground level vapour sampling and influence of meteorological parameters on its stable isotopic composition at Roorkee, India.	Hydrological Processes.	28(3)	882-894	2012
31	Krishan, Gopal , Srivastav,	Quantifying the underestimation of soil organic carbon by Walkley	Current Science	96	113-113	2009

	S.K.; Kumar, Suresh,; Saha, S.K. and Dadhwal, V.K.	and Black technique- an example from Himalayan landscape and Central Indian soils.			6	
32	Velmurugan, A.; Krishan, Gopal ,; Swarnam, T.P,; Dadhwal, V.K.; Kumar, Suresh and Saha, S.K	Harmonizing soil organic carbon estimates in historical and current data	Current Science	97	554-558	2009
33	Krishan, Gopal , Kushwaha, S.P.S and Velmurugan, A.	Land degradation mapping in upper catchment of river Tons	Journal of Indian Society of Remote Sensing.	37	49-59	2009

12. Detail of patents (NIL)

S.No	Patent Title	Name of Applicant(s)	Patent No.	Award Date	Agency/Country	Status

13. Books/Reports/Chapters/General articles etc.

S.No	Title	Author's Name	Publisher	Year of Publication
Book				
1	Isotope Hydrology (Book)	Krishan, Gopal and Rao, M.S.	Lambert Publishing House, Germany . pp. 513	2013
2	Advances in Hydrology and Climate Change Historical Trends and New Approaches in Water Resources Management	Surendra Kumar Chandniha, Anil Kumar Lohani, Gopal Krishan , Ajay Krishna Prabhakar,	Apple Academic Press pp 487	2022
Reports				
1	Assessment of saline and freshwater zone in Faridkot, Fazilka and Muktsar districts of Malwa region of Punjab	Krishan, Gopal and Rao, MS.	Department of Agriculture and Farmers Welfare, Punjab	2021
2	Impact of proposed dams on salinity of river Mahadayi	Krishan G et al	DoWRRDGR, MoJS, Govt. of India	2021
3	Expansion of salinization in	Krishan G et al	Punjab State	2021

	aquifers of Punjab		Farmers and Farm Workers Commission, Govt. of Punjab	
4	Understanding aquifer systems of Indian Sundarbans	Krishan G., Dasgupta P., and McKenzie, A	The India-UK Water Centre. 31pp. Wallingford, UK and Pune, India	2020
5	Country-wide capacity building program on "Bank filtration for sustainable drinking water supply	Ghosh, NC, Krishan, Gopal	DST, New Delhi	2018
6	Investigation of Physical Groundwater Table and Ascertaining its Fluctuation and Trend in Stretch from Chainage 59+600 m to 67+300 m in Rewari to Dadri of CTP-14 Package of Western Dedicated Freight Corridor Project	Ghosh, NC, Krishan, Gopal , Singh, Surjeet, Gurjar, Suman	submitted to L&T, Limited, Faridabad	2018
7	Impact of Metro Railroads Viaduct on Groundwater Recharge in NCT Delh	Krishan, Gopal , Ghosh, NC, Ranade, Ashwini, Chaudhry, Anju	Submitted to DMRC, New Delhi	2018
8	Groundwater recharge source in deep aquifer using isotopes in Punjab	Krishan, Gopal , Rao, MS, Ghosh, NC, Kumar, Sudhir, Rai, SP	Report submitted to DWSS, SAS Nagar, Mohali, Punjab.	2017
9	The use of environmental isotopes to assess sustainability of intensively exploited aquifer systems in north eastern parts of Punjab, India	Rao, M.S. Krishan, Gopal , Kumar, Sudhir and Kumar, C.P	Report submitted to IAEA, Vienna (F 3.30.19; Research Contract 17429	2016
10	Groundwater Resources in the Indo-Gangetic basin- Resilience to climate change and abstraction.	MacDonald AM, Bonsor HC, Taylor R, Shamsudduha M, Burgess WG, Ahmed KM, Mukherjee A, Zahid A, Lapworth D, Gopal K , Rao MS, Moench M, Bricker SH, Yadav SK, Satyal Y, Smith L, Dixit A, Bell R, van Steenburgen F, Basharat M, Gohar MS, Tucker J, and Maurice L.	Technical Report. NERC Open Research Archive, BGS-UK	2015
11	Intensive Groundwater	Lapworth, Dan,	Technical Report.	2014

	Exploitation in the Punjab – an Evaluation of Resource and Quality Trends.	Krishan, Gopal , Rao, MS, MacDonald, Alan	NERC Open Research Archive, BGS-UK	
12	Hydro-geological assessment of Ghar area for artificial recharge and water management planning.	Garg, P.K., Kumar, Bhishm, Kumar, CP, Rao, MS, Krishan, Gopal , Agarwal, Rajesh, Ahmed, Tanvir.	Technical Report. National Institute of Hydrology, Roorkee	2014
13	Groundwater dynamics of Bist Doab, Punjab using isotopes.	Rao, MS, Kumar, Bhishm, Kumar, CP, Kumar, Sudhir, Krishan, Gopal .	Technical Report. National Institute of Hydrology, Roorkee	2014
14	National Programme on Isotope Fingerprinting of Waters of India.	Rao, MS, Kumar, Bhishm, Kumar, CP, Kumar, Sudhir, Krishan, Gopal .	Technical Report. National Institute of Hydrology, Roorkee	2014
15	Indo-gangetic groundwater resilience project- Punjab case study. In: Report of IBG-Groundwater Resilience Project (eds. H.C. Bonsor and A.M. MacDonald)	Krishan, Gopal , Rao, M. S., Lapworth, D.J. and MacDonald, A.M.	BGS Internal Report, IR/13/060. http://nora.nerc.ac.uk/505660/1/IR13060.pdf	2013
16	Forest and land degradation assessment in upper catchment of river Tons, Uttarkashi.	Kushwaha S.P.S., Singh, I.J., Velmurgan, A., Gopal Krishan and Nandy, S	Technical Report, Indian Institute of Remote Sensing, Dehradun.	2007
Book Chapters				
1	Hydrogeology, Groundwater Regimes and Quality Issues in Punjab.	Krishan, Gopal , Nagar, Anoop, Angurala, M L., Rana, Rakesh, Sudarsan, N.	In: Chandniha, SK, Lohani, AK, Krishan, G and Prabhakar, A. (Eds). Advances in Hydrology and Climate Change-Historical trends and new approaches in water resources management. Apple Academic Press. 409-428	2022
2	Groundwater Salinity— Impacts and Possible Remedial Measures and Management Solutions	Krishan, G , Prakash, J, Dasgupta, P, Mackenzie, A, Devi, Thiyam Thampasana.	In: Lama et al (Eds.), Transforming Coastal Zone for Sustainable Food	2022

			and Income Security. 52: Springer	
3	Groundwater Resources in Punjab and Bist Doab Area : An Appraisal and Overview	Krishan, Gopal , Rao, MS, Ghosh, N.C.	In: A. Mukherjee (eds) Riverine System: Hydrology, Hydrosocial and Hydro-heritage Connectivity. Springer, Cham	2022
4	During and post COVID-19: Challenges in water sector and ethical issues	Krishan, Gopal , Kulshrestha, Umesh	In: Advances in Geoethics and Groundwater Management : theory and practice for a sustainable development65:3 19-321	2021
5	Sustainable and year-round drinking water production by bank filtration in Haridwar, India	Sandhu C, Grischek T, Kimothi PC, Sharma SK, Kumar S, Uniyal HP, Ghosh NC, Krishan G , Kumar P, Mehrotra I	In: Zheng Y, Ross A, Villholth KG, Dillon P (eds) Managing Aquifer Recharge: A Showcase for Resilience and Sustainability. Paris, UNESCO	2020
6	Groundwater salinity in north west of India: a critical appraisal	Krishan, Gopal , Bisht, Mamta, Ghosh, N.C., Prasad, Gokul	Singh R., Shukla P., Singh P. (eds) Environmental Processes and Management. Water Science and Technology Library, vol 91. Springer, Cham	2020
7	Identification and Planning of Water Quality Monitoring Network in Context of Integrated Water Resource Management (IWRM)	Singh S., Krishan G. , Ghosh N.C., Jaiswal R.K., Thomas T., Nayak T.R.	Singh V., Yadav S., Yadava R. (eds) Environmental Pollution. Water Science and Technology Library, vol 77. Springer, Singapore	2018
8	Hydrologic regimes under climate change in Indo-Gangetic basin and their	Krishan, Gopal and Lohani, A.K.	Horticultural Sciences- perspectives and	2017

	impact on fruit production		applications (Editor : K V Peter). Brillion Publishing, New Delhi. 10: 257-273	
9	Assessment of groundwater level in southwest Punjab, India. In: Hydraulics, Water resources, Coastal & Environmental Engineering-Hydro 2014 (Editors: H.L. Tiwari, S. Suresh, R.K. Jaiswal)	Krishan, Gopal , Rao, M.S., Lohani, A.K., Kumar, C.P., Takshi, K.S., Tuli, N.K., Loyal, R.S. and Gill, G.S.	Excellent Publishing House, New Delhi. 23: 248-254.	2014
10	Groundwater fluctuation and trend in Amritsar, Punjab, India. In: Geo-statistical and Geospatial approaches for the characterization of natural resources in the environment: challenges, processes and strategies (Editor: N. Janardhana Raju)	Krishan, Gopal , Lohani, A.K., Rao, M.S., Kumar, C.P. and Takshi, K.S..	Capital Publishing House, New Delhi Pp. 108-111. (ISBN. 978-93-81891-25-4).	2014
11	Application of isotopes of water vapour in climate studies – A world perspective. In: Climate Change and Himalayan Ecosystem indicator, Bio and Water Resources. (Eds. J. Sunderasan, Pankaj Gupta, K.M. Santosh and Ram Bhoojh).	Krishan, Gopal , Rao, M.S. and Kumar, C.P.	Scientific Publishers, India. 10: 119-127	2013
12	Remote Sensing for Soil Fertility Evaluation and Management. In: Bioresources for Sustainable Plant Nutrient Management (Ramesh Chandra and K.P. Raverkar, Editors).	Krishan, Gopal , Saha, S.K., Kumar, Suresh and Patel, N.R.	Satish Serial Publishing House, New Delhi, pp 509-533. (ISBN.978-93-81226-88-9)	2012
13	Identification of recharge zones and sources of springs in mountainous region using isotopes.	Kumar, Bhishm; Rai, S. P.; Krishan, Gopal and Rawat, Y. S.	In: Drinking Water: Source, Treatment & Distribution. Edited by Rajendra Dobhal, Thomas Grischek, H.P.	2011

			Uniyal, D.P. Uniyal and C. Sandhu, , Bishen Singh Mahendra Pal Singh ISBN : 8121108133. 8:61-74	
14	Organic Farming in Himalayan Region. In: Sustainable Land Resource Management	Tripathi, D; Krishan, Gopal and Raina, J.N.	in Himalayan Region: Land degradation, Water management, Soil fertility and Organic farming. (Eds. J.N. Raina, I.P. Sharma, R. Bawa and D. Tripathi). Bishen Singh Mahendra Pal Singh. 20: 265-279.	2006
15	Soil Bioresources in Agriculture. In: Bioresource Technology (Ed. G. Tripathi).	Sharma, Uday; Krishan, Gopal and Talatam, Satya Narayan.	CBS, Publishers, New Delhi, India. 44-56.	2002
General articles				
1	Development of riverbank filtration demonstration sites in India for enhancing drinking water production.	Sandhu, C, Grischek, T, Krishan, G , Sharma, SK, Rohel, RK, Saini, R, Dost, S.	Everything about Water. 67-71	2021
2	Bharat ke Punjab rajya mein bhoojal pradooshakon fluoride, iron aur nitrate prabhawit kshetron ka maanchitran	Krishan, Gopal and Chaudhary, Anju	Jal Chetna., 10(1): 50-54	2021
3	Bharat ke dakshin paschimi kshetron mein bhoojal lavanta: ek mahatavapoom mulyankan	Krishan, Gopal and Saini, Naresh	Pravahini (NIH), 28, 40-45	2021
4	Jal Sansadhanon par COVID 19 ka prabhav and chunautiyan	Krishan, Gopal and Chaudhary, Anju.	Pravahini (NIH). 27, 50-54	2020
5	Bharat ke ardh shusk kshetra dakshini Punjab mein lavanikaran evam jalgrasan	Mittal, Sanjay and Krishan, Gopal	<i>Jal Chetna.</i> , 8(1): 39-41	2019
6	Variability in groundwater level	Krishan, Gopal and Rao, M.S.	Geography and You. 101: 22-29.	2017
7	Soil organic carbon	Kumar, Suresh,;	<i>Contact.</i> (Volume	2007

	sequestration in Himalayan landscape. An example from SW Garhwal Himalaya.	Srivastav, S.K.,; Dadhwal, V.K. and Krishan, Gopal.	9 No. 2). Published from IIRS, Dehradun.	
8	Heavy metal pollution in soil.	Tripathi, D; Uday Sharma and Gopal Krishan.	<i>Kisan World.</i> 30 : 49.	2003

14. Any other Information (maximum 500 words)

Current projects and collaboration
LIST OF PROJECTS (As PI)

Sr.No.	Name of the project	Funding agency	Duration
1	Provision of an authoritative overview assessment of the occurrence and status of groundwater resources in the Indo-gangetic basin (IGB)	BGS, UK under DFID	October 2014 to July, 2015
2	Monitoring of groundwater level and fluctuations in Bist-Doab, Punjab	NIH + BGS	Jan., 2016 to Nov., 2017.
3	Baseline hydrological hydro-geological data collection and analysis in Mewat, Haryana	NIH+ Sehgal Foundation, Gurgaon+IITR	Mar., 2016 to Mar., 2017
4	Groundwater recharge source in deep aquifer using isotopes in Punjab	Department of Water Supply and Sanitation, Punjab (World Bank)	May 2017-July, 2017
5	Groundwater fluctuations and conductivity monitoring in Punjab-New evidence of groundwater dynamics in Punjab from high frequency groundwater level and salinity measurements	BGS, UK	December, 2017-- continuing
6	Assessment of impacts of groundwater salinity on regional groundwater resources, current and future situation in Mewat, Haryana – possible remedy and resilience building measures	PDS (National Hydrology Project)	December, 2017- continuing
7	Impact of Metro Railroads Viaduct on Groundwater Recharge in NCT Delhi	DMRC, New Delhi	May, 2018 to August, 2018
8	Expansion of salinization of aquifers in Punjab	PSFC, Punjab	March, 2019 to December, 2020
9	Assessment of Saline and Freshwater Zone in Faridkot, Fazilka and Muktsar Districts of	DoAFW, Punjab	March, 2019 to March, 2021

	Malwa Region of Punjab		
10	Understanding aquifer system of Sunderbans	IUKWC	June, 2019 to February, 2020
11	Understanding impact of proposed dams construction on salinity in Mahadayai river	Ministry of Jal Shakti	July, 2020 to May, 2021
12	Expansion of River Bank Filtration technique in India	Federal Ministry of Education and Research, Germany	July, 2020 to June, 2023
13	Partitioning evapo-transpiration into Evaporation and Transpiration fluxes using stable isotopes of Oxygen and Hydrogen	DST-SERB	April, 2021 to March, 2024

LIST OF PROJECTS (As Co-PI)

Sr.No.	Name of the project	Funding agency	Duration
1	Pey Jal Suraksha	MoWR, RD & GR, N. Delhi	September, 2015 to March, 2021
2	Country-wide Capacity Building Program on "Bank Filtration for Sustainable Drinking Water Supply"	DST, New Delhi	February, 2016—March, 2018 (organized a training at PHED Shillong-during Sep, 2017)
3	Study of river - aquifer interactions and groundwater potential in the upper Ganga basin up to Dabrani.	NMSHE, DST	March 2016 to September, 2021
4	Feasibility of Managed Aquifer Recharge in NCT, Delhi	Desired by Secretary, WR, RD & GR	February, 2017 to July, 2017
5	Future Secular Changes and Remediation of Groundwater Arsenic in the Ganga River Basin-FAR GANGA	DST-Newton Bhabha-NERC- India-UK Water	January, 2018-Contd
6	Impact of Rainwater Harvesting on Groundwater Quality in India with Specific reference to Fluoride and Micro-pollutants	DST-Newton Bhabha-NERC- India-UK Water	January, 2018-Contd
7	Ganges Aquifer Management in the context of Monsoon Runoff conservation for sustainable River Ecosystem Services- A Pilot study	PDS (National Hydrology Project)	January, 2018-contd
8	Hydro-geochemical Evolution and	PDS (National	January, 2018

	Arsenic Occurrence in Aquifer of Central Ganges Basin	Hydrology Project)	to September, 2021
9	Investigation of Physical Groundwater Table and Ascertaining its Fluctuation and Trend in Stretch from Chainage 59+600 m to 67+300 m in Rewari to Dadri of CTP-14 Package of Western Dedicated Freight Corridor Project	L&T Faridabad	June, 2018 to December, 2018

Skills

- Soil Sciences; Isotope Hydro-meteorology ; Hydro-geochemistry; Water quality studies

Professional association

- Member “American Chemical Society (ACS)” - 31386588
- Member for International Association for Water Energy, Environment Society (IAWEES) - 5020
- Member International Association of Hydrogeologist (IAH)- 141319
- Member International Association of Hydrological Sciences (IAHS) - 17349
- Life Member Association of Global Groundwater Scientists LM-AGGS-133
- Fellow Society of Earth Scientists (F/486)
- 2015 : Life member “Indian Association of Hydrologists (IAH-1878)”
- 2012 : American Water Resources Association (member ship no. 55384)
- 2008 : Indian Society of Remote Sensing (C-3299)
- **Full Members of the SCOR Working Group on Global Groundwater Fluxes to the Ocean for year 2015**
http://scor-int.org/Annual%20Meetings/2015EC/NEExT_SGD.pdf
- Co Editor in Chief of the Journal: **Current World Environment**
- Reviewer of the Journals: **Plos One, Journal of Hydrology, Applied Radiation and Isotopes, Hydrological Sciences, Quaternary International, Science of Total Environment (Elsevier), Hydrological Processes, Arabian Journal of Geosciences (Springer), Journal of Earth System & Science (Springer), Sustainable Water Resource Management (Springer), Applied Water Science (Springer), Journal of Irrigation and Drainage Engineering (ASCE), Environmental System Research (Springer) etc.**
- Member **Organizing committee** International Conference on Earth Sciences and Geo science organized by SCIFED Limited, 27 Old Gloucester Street, London, UK E : contact@scifed.com organized during August 13-14, 2018 at Amsterdam, Netherlands
- Andalas University, Padang, Indonesia, and CAFET-INNOVA TECHNICAL SOCIETY (CITS) Hyderabad, INDIA held during 29th -31st August, 2017 at Andalas University, Padang, Indonesia
- Member **Technical committee** 4th International Conference on Earth Sciences and Engineering (ICEE-2017) jointly organized by Andalas University, Padang, Indonesia, and CAFET-INNOVA TECHNICAL SOCIETY (CITS) Hyderabad, INDIA held during 29th -31st August, 2017 at Andalas University, Padang, Indonesia
- Member **Advisory committee** International Conference On Recent Trends And Developments In Environmental Sustainability organized by Environment Matters (NGO), National Institute of Technical Teachers Training and Research (NITTTR), Institution of Water & Environment (India) Punjab Chapter at NITTTR, Chandigarh on May 20, 2016
- Member **Technical committee** International Conference on “Innovative trends in civil engineering for sustainability (ICICES-2016)” organized by Department of Civil Engineering, Toc H Institute of Science & Technology (TIST) Arakkunnam, Ernakulam, Kerala, India In Technical Collaboration with CAFET-INNOVA TECHNICAL SOCIETY (CITS) Hyderabad, INDIA In Association with Indian Concrete Institute (ICI) ISTE - TIST Chapter and Indian Green Building Council (IGBC) held during 8-9 January, 2016 at Toc H Institute of Science & Technology (TIST) Arakkunnam, Ernakulam, Kerala, India
- Member **Advisory committee** National Conference on “Innovations in Civil Engineering (NCICE-2016)” held during 8-9 January, 2016 at Govt. college of Engineering, Karad, Maharastra
- Member **Technical committees** of international Conferences “ICWRCOE-2015” held at NITK, Suratkhal, Mangalore during March 12-14, 2015; “ICEE-2015” held at NIT-Coimbatore during March 20-21, 2015; “ICEE-2016” held at NIT-Coimbatore during June 17-18, 2016

- Member **Advisory committee** National Conference on “ Advances in Civil and Structural Engineering” Sponsored by Technical Education Quality Improvement Programme (TEQIP Phase II) held during 18-19 April, 2014 at Govt. college of Engineering, Karad, Maharashtra
- Member **Coordination and Editorial committee** of international conference “Advances in Water Resources Development and Management-2013” held during Oct. 23-27, 2013 at PU, Chandigarh
- Member **coordination committee** of Regional workshop on “Water availability and management in Punjab” held at PU Chandigarh during Dec. 13-15, 2010

Research interests

- Application of stable isotopes for –Monitoring of south-west monsoon using air moisture isotopes, tracking recharge sources, surface water-ground water interaction
- Sub-marine groundwater discharge using Radon as tracer
- Emerging organic contaminants in groundwater
- Urban groundwater quality and use
- Water resources (integrated approach) – recharge, water quality, vulnerability and impact of climate variability
- Soil Chemistry

Trainings

Sr. No.	Title of training	Date/duration	Place	Sponsored
1	Legal and institutional framework for dam safety in India	March 9-11, 2022	online	NWA, Pune
2	Artificial Recharge Techniques of Groundwater	January 24-28, 2022	online	NGWRTI, Raipur
3	Big data applications	January 17-21, 2022	online	NWA, Pune
4	International Cooperation in Water Sector of India	June 07- September 27, 2021	online	NWA, Pune
5	Introduction to Household Water Treatment and Safe Storage (HWTS)	September, 2021 to October, 2021	online	CAWST, Canada
6	Hydrological Modelling for extreme weather events for Urban cities	September 28-30, 2021	On line	DHI, India; Univ. of Copenhagen, Vidya Bhawan Society
7	Physical and mathematical modelling techniques for ports and harbours development	September 21-22, 2021	On line	CWPRS, Pune
8	Training workshop "River basin sediment monitoring and management"	04-09-2021 to 10-09-2021	On line	UNESCO-ISI
9	Erosion control	28-07-2021	On line	International Geosynthetics

				Society
10	Distance Learning on Flood Forecasting, Modelling and Disaster Management	13-07-2021 to 20-07-2021	On line	NWA, Pune
11	Purpose Oriented Training through Distance learning Program on 'Hydrologic Modelling System (HEC-HMS)	26-07-2021 to 30-07-2021	On line	NWA, Pune
12	Introduction to Groundwater, Watersheds, and Groundwater Sustainability Plans	06-05- 2021 to 03-06-2021	On line	University of California, Davis, USA
13	Managed Aquifer Recharge MAR-WEB	14-04- 2021 to 19-05-2021	On line	DAAD Academic exchange service, HTWD, Geramy
14	Inter state river water disputes in India	19-10- 2020 to 08-02-2021	On line	NWA, Pune
15	In-Depth Training: Sanitary Surveys-Filtration and Disinfection	31-08- 2020 to 03-09-2020	e-learning training course	US EPA
16	RS Applications in Agricultural Water Management	03-08-2020 to 07-08-2020	e-learning training course	IIRS-ISRO
17	Hands on Virtual Training on Water Budgeting in Google Earth Engine (GEE)!	24-06-2020 to 01-07-2020	e-learning training course	World Bank (NHP)
18	Advance technologies in water and waste water management	18-05-2020 to 19-05-2020	e-learning training course	Punjab govt. (water Digest)
19	Basics of Groundwater Flow Modeling	02-12-2019 to 06-12-2019	Rajiv Gandhi National Ground Water Training & Research Institute, Raipur	NHP

20	Remediation and management of polluted groundwater sites	16-05-2016 to 29-05-2016	DOH, IIT-Roorkee	GIAN, MHRD
21	Groundwater modeling using iMod	08-03-2016 to 10-03-2016	o/o Project Officer, Ganga River Basin Planning Project Team Mohan Singh Place, N. Delhi	MoWR, RD, GR
22	QIP Workshop on "Modelling, Fate and Transport of Soil-Water Pollutants"	13-02-2016	DOH, IIT-Roorkee	IIT-Roorkee
23	Groundwater Modeling Using MODFLOW and MIKE SHE (GWM - 2015)	02-02-2015 to 06-02-2015 5 days	National Institute of Hydrology (NIH), Roorkee, (Uttarakhand)	BGS, UK
24	Advanced soft Computing Techniques in Hydrology and its Application	29-10-2012 to 02-11-2012 5 days	National Institute of Hydrology (NIH), Roorkee, (Uttarakhand)	DST-IWIN Project
25	Hydrological Investigation Techniques for Water Resource Development & Management	27-08-2012 to 30-08-2012 4 days	-do-	Purpose driven studies Hydrology Project-II
26	Hydrological Investigations in Conservation and Management of Lakes	26-03-2012 to 28-03-2012 3 days	-do-	NIH (MoWR)
27	Isotope Hydrology	19-12-2012 to 24-12-2012 6 days	-do-	DST-SERC, New Delhi
28	Hydrological Investigations in Conservation and Management of Lakes	01-03-2011 to 03-03-2011 3 days	-do-	NIH (MoWR)
29	Advanced techniques for hydrological investigations	16-08-2010 to 21-08-2010 6 days	-do-	DST-IWIN Project
30	Application of Remote Sensing & GIS in Agriculture and Soils	05-05-2008 to 27-06-2008 8 weeks	IIRS, Dehradun	NNRMS, ISRO, Bangalore
31	Gram++ & DSS for Bioenergy Resources	15-01-2005 to 22-01-2005 8 days	IIT-Roorkee, Roorkee (uttarakhand)	NRDMS, DST, New Delhi
32	22nd FAI-NR Fertilization Orientation Course	24-11-1995 to 25-11-1995	Dr. Y.S. Parmar University of Horticulture and	Fertilization Association of India

		2 days	Forestry, Nauni, Solan (HP)	
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Lectures/Talks Delivered

1. Delivered a lecture on "Characteristics of groundwater, and type and function of aquifers- a case study on ASR" in a training course Jointly organized by IIT Roorkee, NIH Roorkee, KINDAI University, and Pusan National University Management of Groundwater Quantity and Quality with special focus on MAR Jun 06-10, 2022
2. Delivered a tutorial on "Estimation of Soil Hydraulic Properties" in a training course Jointly organized by IIT Roorkee, NIH Roorkee, KINDAI University, and Pusan National University Management of Groundwater Quantity and Quality with special focus on MAR Jun 06-10, 2022
3. Delivered a lecture on "Soil and water investigations" in a training course organized by NIH Roorkee on Water Resources Planning and Management", for Maharashtra Engineers Training Academy, Nashik during Arill 15-25, 2022 at NIH Roorkee
4. Delivered a lecture on "Chemical processes in SW-GW interaction" in a training course organized by NIH Roorkee on Groundwater Management and Modeling under NHP during March 21-25, 2022
5. Delivered a lecture on "Geospatial technology in water sector" in DST sponsored Winter School in Geospatial Science and Technology (Level 1) program (Online mode) organized by Suresh Gyan Vihar University, Jaipur (Rajasthan) on January 22, 2022
6. Delivered a lecture on "Need & requirements by funding agencies in research proposal " in a training course organized by NIT Manipur on Technical Writing in Research & Funding Opportunities during October 18-22, 2021
7. Delivered a lecture on "Research opportunities and funding agencies" in a training course organized by NIT Manipur on Technical Writing in Research & Funding Opportunities during October 18-22, 2021
8. Delivered a lecture on "Soil and water investigations" in a training course organized by NIH Roorkee on Water Resources Planning and Management" for Maharashtra Engineers Training Academy during October 4-16, 2021 at NIH Roorkee
9. Delivered a lecture on "Environmental traces in identification of polluted sites" in a training course organized by Department of Hydrology, IIT- Roorkee on 'Applied solute transport modelling for management of polluted land sites' during March 15-19, 2021
10. Delivered a lecture on "Chemical processes in SW-GW interaction" in a training course organized by NIH Roorkee on Groundwater Management and Modeling under NHP during March 8-12, 2021
11. Delivered a lecture on "Soil and soil related problems" in a training course organized by NIH Roorkee on Principles of Groundwater Hydrology under NHP during February 24-26, 2021
12. Delivered a lecture on "Environmental tracers in salinity studies " in a training course organized by NIH Roorkee on Groundwater salinity issues and management solutions under NHP during February 17-19, 2021
13. Delivered a lecture on "Basics of groundwater salinity, origin, impact and management solutions" in a training course organized by NIH Roorkee on Groundwater salinity issues and management solutions under NHP during February 17-19, 2021
14. Delivered a lecture on "Case studies on salinity studies from Punjab, Haryana and Sunderban" in a training course organized by NIH Roorkee on Groundwater salinity issues and management solutions under NHP during February 17-19, 2021
15. Delivered a lecture on "Environmental tracers in groundwater investigations " in a training course organized by NIT Manipur on Advanced Techniques on Hydrological Modeling and Hydraulic Structures under during December 26-30, 2020
16. Delivered a lecture on "Groundwater dynamics- storage, depletion and response to climatic variability " in a training course organized by NIT Manipur on Advanced Techniques on Hydrological Modeling and Hydraulic Structures under during December 26-30, 2020
17. Delivered a lecture on ""GROUNDWATER SALINITY-origin, possible remedial measures and management solutions " in a training course organized by DRC-Kakinada on Water quality and stable isotope characterization for salinity studies under NHP during December 21-23, 2020

18. Delivered a talk on "Groundwater crisis: a threat to water security" in an International webinar on theme "Advances in water and transport industry for sustainable development" organized by Shri Venkateshwar University, Gajraula on October 23, 2020
19. Talk delivered in a IUKWC sponsored Virtual User Engagement Initiative (UEI) on topic "Groundwater resilience to climate change and abstraction in the Indo-Gangetic basin" hosted by on September 09, 2020
20. Talk delivered in a Live webinar on topic "COVID-19 CHALLENGES IN WATER SECTOR" hosted by Atal Bihari Vajpayee Trust Abhav Foundation, Bilaspur, Chattisgarh on June 12, 2020
21. Talk delivered in a Live webinar on topic "COVID-19 IMPACT ON WATER RESOURCES " hosted by School and Agriculture and school and Basic and Applied Sciences, Galgotia University on May 17, 2020
22. Formulation of Research Objectives in a national workshop on Research Methodology in Physics on February 15, 2020 at Khalsa College Patiala
23. Environmental tracers in water resource management in a workshop on Assessment and management of groundwater resources under changing climatic conditions under NAHEP on February 06, 2020 at PAU, Ludhiana
24. Understanding aquifer systems of Sunderbans in a webinar on Sunderbans- The case of Water, water everywhere but not a drop to drink? on February 04, 2020 at NIH Roorkee organized by IUKWC.
25. Soil carbon pools and dynamics: assessment tools at department of Hydrology, IIT Roorkee in brain storming session on Role of Wetlands in Carbon/Nitrogen sequestration and its impact on In-situ bioremediation of NAPL pollutants on January 22, 2020
26. Salinity remedial measures during special meeting on water conservation and livelihood enhancement programme for Indian Sunderbans at Department of Panchayats and Rural Development salt lake Kolkata 700106 on September 19, 2019
27. Groundwater salinity and remedial measures in context of Sunderbans at India-UK one-day workshop on "The influence of the monsoon of freshwater availability for Agriculture in the Sunderbans region of West Bengal, India, under current and climate change conditions" Jointly organized by Department of Agricultural Meteorology and Physics, BCKV and India-UK water Centre, Indian Institute of Tropical Meteorology (IITM), Pune, India on September 03, 2019
28. GW measurement techniques and data analysis in a training course on "Groundwater issues of Punjab with special emphasis on groundwater salinity organized during July 16-18, 2019 at Forest complex Mohali under NHP
29. Salinity experiment demonstration in a training course on "Groundwater issues of Punjab with special emphasis on groundwater salinity organized during July 16-18, 2019 at Forest complex Mohali under NHP
30. GW level fluctuations: A Case Study of Punjab in a training course on "Groundwater issues of Punjab with special emphasis on groundwater salinity organized during July 16-18, 2019 at Forest complex Mohali under NHP
31. Uses of environmental tracer in field investigations: examples from Punjab studies in a training course on "Groundwater issues of Punjab with special emphasis on groundwater salinity organized during July 16-18, 2019 at Forest complex Mohali under NHP
32. Measures of salinity remediation in a training course on "Groundwater issues of Punjab with special emphasis on groundwater salinity organized during July 16-18, 2019 at Forest complex Mohali under NHP
33. Groundwater salinity in a training course on "Groundwater issues of Punjab with special emphasis on groundwater salinity organized during July 16-18, 2019 at Forest complex Mohali under NHP
34. Tracer experiments for groundwater analysis in a training course on "Applied groundwater flow and contaminant transport modelling" TEQIP is being organized during June 24-28, 2019 at Department of Hydrology, IIT-Roorkee
35. Groundwater monitoring practices, applications and challenges in Punjab at University College London on February 13, 2019
36. Application of Isotopes in South West Monsoon studies, at CEH conference hall Wallingford, UK on February 06, 2019
37. Groundwater fluctuations and monitoring in Punjab, at Lyell Centre, BGS, UK on January 30, 2019
38. Fundamentals of Soil Science and soil engineering - Galgotias University, Greater Noida January 27, 2019
39. Groundwater salinity status of Mewat- State IOWA University Faculty and Students at Sehgal Foundation, Gurgaon, January 11, 2019
40. RBF in extreme environments along Yamuna River in Indo-German Workshop on Riverbank Filtration for Sustainable Water Supply in India – Vision 2030 at Dehradun on December 17, 2018

41. Isotopes in Hydrograph Separation- Examples from Gangetic Region - DST-SERB training course on “Application of isotopes in water resource management” at CWRDM, Kozhikode July 30 to August-04, 2018
42. Use of isotopes in bank filtration technique-few case studies - DST-SERB training course on “Application of isotopes in water resource management” at CWRDM, Kozhikode July 30 to August-04, 2018
43. Application of isotopes in groundwater management at GIAN training course on “Applied Groundwater Flow and Transport Modeling with MODFLOW” at DOH, IIT-Roorkee, July 30, 2018
44. Design, operation and maintenance of Bank Filtration sites in a training course on “Hydrology, Water Resources Management and Climate Change” for participants from the Pacific Island Countries is being organized during June 25-July 20, 2018 at NIH, Roorkee
45. Protocol for groundwater and surface water sampling, monitoring and assessment in a training course on “Hydrology, Water Resources Management and Climate Change” for participants from the Pacific Island Countries is being organized during June 25-July 20, 2018 at NIH, Roorkee
46. Environmental tracers in groundwater contamination studies in an Indo-UK workshop on “Bioremediation of LNAPL Polluted Groundwater” during 26-27 March, 2018 at Department of Hydrology, IIT-Roorkee
47. Investigation of RBF sites in Agra Mathura in a training course on “Bank filtration for sustainable drinking water supply” during 05-09 March, 2018 at NIH, Roorkee organized in association with HTWD, Germany; UJS, Dehradun; UCOST, Dehradun; DST, New Delhi
48. Groundwater quality in northwest India in India UK Water sponsored UEI 1: Improving freshwater monitoring frameworks and data for research and management during January 23-25, 2018 at Kochi, Kerala. http://www.iukwc.org/sites/www.iukwc.org/files/images/Gopal_K-UEI.pdf
49. Tracers Techniques in soil and groundwater contaminant investigations in a training course on “Investigation, remediation and management of soil and groundwater contaminated sites” during 20-22 November, 2017 at Department of Hydrology, IIT-Roorkee sponsored by Central Pollution Control Board, New Delhi
50. Integrated Watershed Management, Introduction to integrated planning, conjunctive use and rainwater harvesting in a training course on “Basic Hydrology” during 06-10 November, 2017 at IMTI, Kota, Rajasthan organized by Water Resources Department, Rajasthan under NHP.
51. Groundwater Hydrology: basic concepts, aquifer properties, aquifer mapping, groundwater flow concepts in a training course on “Basic Hydrology” during 06-10 November, 2017 at IMTI, Kota, Rajasthan organized by Water Resources Department, Rajasthan under NHP.
52. Preliminary investigations to develop RBF sites in Agra Mathura area of UP, India in a training course on “Bank filtration for sustainable drinking water supply” during 18-22 September, 2017 at PHED, Shillong jointly organized by NIH, Roorkee; PHED, Shillong; HTWD, Germany; UJS, Dehradun; UCOST, Dehradun; DST, New Delhi
53. Groundwater fluctuations – case studies in a training course on “*Groundwater Hydrology under NHP*” during August 21-25, 2017 at NIH-Roorkee
54. Environmental tracers in groundwater investigation in a training course on “*Groundwater Hydrology under NHP*” during August 21-25, 2017 at NIH-Roorkee
55. Preliminary investigations to develop RBF sites in Agra Mathura area of UP, India in a training course on “Bank filtration for sustainable drinking water supply” during 06-10 February, 2017 at Goa jointly organized by NIH, Roorkee; HTWD, Germany; UJS, Dehradun; UCOST, Dehradun; DST, New Delhi
56. Environmental tracers in groundwater investigation in a GIAN training course on “Integrated modelling of subsurface flow and transport in porous media – Challenges and Opportunities” during January 02-14, 2017 at IIT-Roorkee
57. Environmental tracers in groundwater investigation in a training course on “*Identification of Contaminated Sites and its Treatment Technologies, Interferences and Data management using GIS - Hands-on-Training*” during November 14-18, 2016 at IIT-Roorkee sponsored by CPCB, New Delhi
58. Preliminary investigations to develop RBF sites in Agra Mathura area of UP, India in a training course on “Bank filtration for sustainable drinking water supply” during 12-16 September, 2016 at NIH, Roorkee jointly organized by NIH, Roorkee; HTWD, Germany; UJS, Dehradun; UCOST, Dehradun; DST, New Delhi
59. Environmental tracers in groundwater investigations in Faculty Development Programme on “Environmental science and engineering, in Civil Engineering” in Civil Engineering” funded by TEQIP-II at IFTM University, Moradabad, August 30, 2016

60. Radon measurements in groundwater and applications in Faculty Development Programme on “Environmental science and engineering, in Civil Engineering” in Civil Engineering” funded by TEQIP-II at IFTM University, Moradabad, August 30, 2016
61. Environmental tracers in groundwater investigations at GIAN training course on “Remediation and management of polluted groundwater sites” at DOH, IIT-Roorkee, May 21, 2016
62. Isotopes for groundwater investigation in semi-arid alluvial regions- case studies from Punjab, India DST-SERB training course on “Isotope Hydrology” at CWRDM, Kozhikode March 14-19, 2016
63. Radon measurement in groundwater- case studies north east coast and Gangetic basin (Haridwar) India DST-SERB training course on “Isotope Hydrology” at CWRDM, Kozhikode March 14-19, 2016
64. Analysis of air moisture isotopes and its application in hydrology - in context of climate change training course on “Climate Resilient Fruit Production Technology, at SKUAST, Jammu November 30-December 1, 2015
65. Hydrologic Regimes under Climate Change in Indo-Gangetic Basin (IGB) and impact assessment in training course on “Climate Resilient Fruit Production Technology, at SKUAST, Jammu November 30-December 1, 2015
66. Advanced Techniques to understand the Response of Groundwater Resources to Sustained Abstraction in training course on “Integrated Water Resources Development and Management” during November 30, 2015 to December 5, 2015 at National Institute of Hydrology, Roorkee sponsored by MoWR, RD GR, New Delhi
67. Advanced Techniques to understand the Response of Groundwater Resources to Sustained Abstraction in training course on “Integrated Water Resources Development and Management” during September 28-October 3, 2015 at National Institute of Hydrology, Roorkee sponsored by MoWR, RD GR, New Delhi
68. Analysis of air moisture isotopes and its application in hydrology - in context of climate change training course on “Water Resources Investigations and Management in Coastal Regions”, at DRC-NIH-Kakinada, AP during February 3-7, 2014

Key note/Talks Delivered

1. Groundwater Making Invisible Visible - some case studies to Association of Young Researchers in Agriculture and Hydrology (SYAHI) on July 06, 2022
2. Groundwater challenges in India and way forward online presentation on occasion of World Water Day, March 22, 2022 organized by BIT, Sindri, Jharkhand
3. Demonstration of Riverbank Filtration in India for domestic water security on July 31, 2021 in a brain storming session on “Water crisis in Himalayas with reference to RBF Technology: opportunities and challenges” organized by Uttarakhand Council of Science and Technology, Dehradun
4. Water Resources of India, Challenges and way forward on July 08, 2021 in a Faculty Development Programme organized by Amity University, Noida
5. Groundwater crisis: a threat to water security on June 29, 2021 in a Faculty Development Programme organized on Advances in Civil Engineering by Department of Civil Engineering, Atria Institute of Technology, Bangalore
6. Groundwater problems of south-west Punjab on June 12, 2021 online organized by Akal University, Punjab under Faculty Development Programme
7. Groundwater conditions of Punjab on May 07, 2022 at Punjab Vidhan Sabha, Chandigarh
8. Water-Elixir of life online presentation on occasion of World Water Day, March 22, 2021 organized by Nehru Institute of Technology, Coimbatore
9. Expansion of salinization in aquifers in Punjab at PAU, Ludhiana on March 17, 2021
10. Groundwater salinity- impacts and possible remedial measures and management solutions in a seminar in ISCA webinar International symposium on coastal agriculture transforming coastal zone for sustainable food and income security organized by Indian Society of Coastal Agricultural Research in collaboration with ICAR-CSSRI Karnal during March 16-19, 2021
11. Groundwater dynamics- storage, depletion, management and climate variability 7th annual international virtual convention organized by Suresh Gyan Vihar University during November 04-07, 2020
12. Application of isotopes in groundwater salinity studies at department of Hydrology, IIT Roorkee in IGWC 2019 during Oct 21-24, 2019

13. Application of isotopes in water resources management at National seminar on “Forest and Tree-Based Land Use Systems for Livelihood, Nutritional and Environmental Security”, from Dec. 21st - 23rd 2016 at NAU, Navsari, Gujarat
14. Decision support system for natural resource system at National seminar on “Forest and Tree-Based Land Use Systems for Livelihood, Nutritional and Environmental Security”, from Dec. 21st - 23rd 2016 at NAU, Navsari, Gujarat
15. Groundwater conditions in Punjab at International Conference on Recent Trends and Development in Environmental Sustainability (RTDES-2016), 20th May, 2016 at Chandigarh, India

16. Guidance of M.E./M.Tech./Ph.D. Thesis

P.hD

S. No.	Title of PhD Thesis	Scholar/Department University	Period
1	Groundwater quality studies in dynamic aquifer system of Bist-Doab Punjab-a case study from Talwara region, Hoshiarpur district, Punjab, India	Ms Ravneet Saini, CSIR-JRF, Chandigarh PU,	2015- left in 2017 due to personal reasons
2	Assessment of impact on groundwater after the closure of mining activities in and the Aravalli hills of District, Haryana, India	Ms Deepa Ahuja, UGC-JRF, Chandigarh PU,	2015-2019
3	Hydrochemical and isotopic study of groundwater in Awash river basin (Ethiopia) & Bhatsa and Kalu river basins, Western Deccan volcanic province (India)	Mr. Biruk Teshome Desta, Department of Earth Sciences, IIT-Roorkee	2017-2022
4	Assessment of Spatial and Temporal distribution of groundwater level and groundwater quality of Ghazipur district, Uttar Pradesh	Mr. P. Yadav, Department of Agriculture and Farm Engineering, BHU. Varanasi	2018-continuing

M.Tech

S. No.	Title of M.Tech/M.Sc. Thesis	Scholar/Department University	Period
1	Spatial Hydro-chemical evaluation of groundwater in Mewat, Haryana	Mr. Vikas Saini (M.Tech, KU, Kurukshetra)	January 2016 to May, 2016
2	Hydro-geochemical Analysis of Mewat (Nuh) district, Haryana	Mr. Abhishek Das, Department of Hydrology, IIT-Roorkee	July 2016 to May, 2017

3	Assessment of declination of groundwater levels and its potential causes in Kurukshetra, Haryana	Mr. Yeshwant Das, Dept. of Earth Sciences, IIT-Roorkee	September, 2017- May, 2018
4	Groundwater salinity experiment- in different sand soil ratios	Mr. Ashutosh Kumar Yadav, MMMUT, Gorakhpur	January, 2019- May, 2019
5	Determination of recovery rates using Aquifer Storage Recovery (ASR) under controlled conditions	M.Tech Thesis of Mr. Abhishek Anand Kaushal, MMMUT, Gorakhpur	January, 2020- June, 2020
6	Feasibility of ASR technique in saline aquifer of Mewat, Haryana	M.Tech Thesis of Mr. Jay Prakash, NIT Manipur	July, 2020 to May, 2021
7	Synthesis of complex hydrogeological conditions for riverbank filtration in Agra and Guwahati, India	Mr Joshua Subhash Nainan, TU Dresden, Germany	October, 2021 to March, 2022

M.Sc.

S. No.	Title of M.Sc. Thesis	Scholar/Department University	Period
1	Groundwater conditions in Mewat, Haryana	Ms Priyanka (MSc- TERI university)	May 2016 to July, 2016
2	Groundwater status of New Delhi	Ms Sakshi Sharma (MSc- SD college, KLDVA, Roorkee)	Feb 2017 to April, 2017
3	Groundwater quality evaluation for drinking and irrigation purposes in Mewat, Haryana	Mr Radhey Shyam, Dept of Geography, Central University, Haryana, Mahendergarh	January, 2021 to July, 2021
4	Hydro-geological evaluation of deeper aquifers of southwest Punjab, India	Ms Alisha Annmary George Department of Earth Science in Kerala University of Fisheries and Ocean Studies (KUFOS)	Jan 2021 to Aug 2021
5	Hydro-geological evaluation of shallow aquifers of southwest Punjab, India	Ms Revaty V Dinesh Department of Earth Science in Kerala University of Fisheries and Ocean Studies (KUFOS)	Jan 2021 to Aug 2021
6	Mapping groundwater salinity coastal and inland-case study from Punjab	Mr. Amalraj Padikal Department of Coastal Disaster Management, Pondicherry University, Port Blair, Andaman	Feb 2022 to June 2022

7	A study on Management solutions for groundwater salinity- An experiment under controlled conditions	Ms Gayathri BS Marine Geology Cochin University of Science and Technology, Kochi, Kerala	Mar 2022 to June 2022
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CV Raman Fellow

1	Potential of River bank Filtration in Ghana	Mr. David Saka, PhD student of Environmental Engineering Department, University of Energy and Natural Resources, Sunyani, Ghana, West Africa, CV Raman Fellow	September 2017- March, 2018
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DAAD Fellow

1.	Experiment on grading of EC and mixing of fresh water with saline water	Mr. Johannes M. Medick, (HTWD, Germany)	November 2018- January, 2019
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B.Tech. Summer Interns

1.	Groundwater assessment of Haryana on the basis of historical data (1949-74)	Mr. Vinayak Dhiman, (Quantum school of Technology, Roorkee)	June 2017-July, 2017
2.	Groundwater assessment of Haryana on the basis of historical data (1949-74)	Mr. Bhuvneshwar Pratap Singh, (Quantum school of Technology, Roorkee)	June 2017-July, 2017

Citation Indices (as on 27-06-2022)

1	Citations	2519
2	h-index	26
3	I10 index	71

<https://scholar.google.co.in/citations?user=aWTcRaEAAAJ&hl=en>

TRAININGS/SEMINARS/WORKSHOPS/SYMPOSIUM/MASS AWARENESS ACTIVITIES

Organized

Trainings

Sr. No.	Title of training	Date/duration	Place	Sponsored
1	Groundwater salinity issues and management solutions	17-02-2021 to 19-02-2021	online	NHP
2	Groundwater issues in Punjab with special emphasis on salinity	16-07-2019 to 18-07-2019	Forest complex, Mohali	NHP

Workshops/Symposium/Seminars

Sr. No.	Title of workshop/symposium/Seminars	Date/duration	Place	Sponsored
1	Sunderbans- The case of Water, water everywhere but not a drop to drink'?	February 04, 2020	NIH, Roorkee	IUKWC
2	Understanding aquifer systems of Sunderbans- special emphasis on ASR using saline aquifers to improve farmers livelihood	December 09, 2019	Salt lake, Kolkata	IUKWC
3	8th International groundwater conference "IGWC 2019- Sustainable management of soil and water resources" (Joint Organizing Secy)	October 21-24, 2019	DOH, IIT Roorkee	NHP, DHI, ICAR, DST
4	Regional workshop on Groundwater Recharge, Reduction in Soil Salinity- solutions and way forward for Indian Sunderbans"	August 07, 2019	ICAR-CSSRI, Canning town, West Bengal	IUKWC
5	Community workshop on participatory groundwater	August 03, 2019	Karakoti, Sunderabn, West Bengal	IUKWC

	management (PGWM)			
6	Community workshop on participatory groundwater management (PGWM)	June 14, 2019	Gosaba, Sunderabn, West Bengal	IUKWC
7	Community workshop on participatory groundwater management (PGWM)	June 13, 2019	Sandeshkhali, Sunderabn, West Bengal	IUKWC
8	Indo-German Workshop on Riverbank Filtration for Sustainable Water Supply in India – Vision 2030	December 17, 2018	Dehradun	DST
9	Training on River Bank Filtration	September 18-22, 2017	PHED, Shillong	DST

Mass awareness activities/programmes

Sr. No.	Title of activity	Date/duration	Place	Sponsored
1	Water Conservation	August 11, 2021	Shiksha Sadan Inter College, Mehwad Kalan, Roorkee	NIH
2	Water Conservation and water security	October 07, 2021	Saraswati Govt. Girls Inter College, Jhabrera	NIH
3	Water Conservation and water security	December 20, 2021	Atal Utkrisht Govt. Girls Inter College, Bhauri	NIH
4	Water Conservation and water security	March 15, 2022	Govt. Girls Inter College, Ramnagar	NIH
5.	Save water save life	May 28, 2022	Govt. Inter college Kunja Bahadurpur, Bhagwanpur	NIH