

Name of Faculty: Sunil Kumar

Designation: Associate Professor

Department: Environmental Sciences

Institute/University: M.D.U Rohtak

Date of Birth: 09/01/1977

Gender: Male

Mobile Number: 9466256869



#### Educational Qualifications

Degree	Year of Passing	University/Institute	Field of Study
Ph.D	2012	M.D.U Rohtak	Study on Environmental Status of Bhindawas Wetland
PG	2001	G.J.U.S&T Hisar	Spectral analysis of Noise Pollution in Hisar city
UG	1998	M.D.U Rohtak	
M.Tech	2003	G.J.U.S&T Hisar	Defluoridation by Low cost Adsorbents

#### Career Profile

Designation	Institution Served	Duration	
		From	To
Associate Professor	Deptt. of Environmental Sciences, MDU Rohtak	15/01/2021	Till date
Assistant Professor	Deptt. of Environmental Sciences, MDU Rohtak	15-01-2009	14/01/2021
Scientific Assistant	Central Pollution Control Board (CPCB)	10-07- 2008	14-01-2009

Analyst A	Shri Ram Institute for Industrial Research	20-10-2005	09-07- 2008
Guest faculty	Janta Vidya Mandir Ganpat Rai Rasiwasia College, Charkhi Dadri	01-07- 2004	19-10- 2005

#### Training

Session	Title of Programm	Duration	
		From	to
<b>2015-16</b>	<b>National Level Winter School Training Programme in Geospatial Technologies organised by Deptt. of Geography, M.D.U Rohtak</b>	<b>08/12/2015</b>	<b>28/12/2015</b>

#### Projects Undertaken

Title of the Project	Duration	Funding Agency	Status	
			Completed	Progress
Assessment of Environmental status of Bhindawas Wetland, Haryana	2 years	UGC	Completed Date: 01/02/2010 to 01/02/2012	
Assessment of Heavy Metals Contamination in Ground Water and Soil at Gurgoan Urban Area	1 year	RK Fund, MDU Rohtak	Completed Date: March,2020 to March 2021	

#### Research Papers

**Published in Refereed/Peer reviewed Journals**

Title of Paper	Authors	Reference of Journal	Year of Publication
Pollution and dental fluorosis in Matanhail block of Jhajjar District, Haryana, India.	Yadav, J. P., Lata S. and <b>Kumar S.</b>	<i>Intl. J.of Med. Toxicol. &amp; Legal Medicine.</i> 6 (1): 37-42.	2003
Fluoride removal by mixtures of activated carbon prepared from Neem ( <i>Azadirachta indica</i> ) and Kikar ( <i>Acacia arabica</i> ) leaves.	<b>Kumar, S.</b> , Gupta, A. and Yadav, J. P.	<i>Ind. J. Chemical Technology</i> , 14: 355-361. <b>I.F 0.5</b>	2007
Removal of fluoride by thermally activated carbon prepared from neem ( <i>Azadirachta indica</i> ) and kikar ( <i>Acacia arabica</i> ) leaves.	<b>Kumar, Sunil</b> ; Gupta, A. and Yadav, J.P.	<i>J. Environ. Biol.</i> 29(2):227-232 <b>I.F 0.67</b>	2008
Fluoride distribution in underground drinking water sources of Jhajjar district, Haryana, India.	Yadav, J. P., Lata S. and <b>Kumar S.</b>	<i>Environment Geochemistry and Health.</i> 31:431-438. Published online DOI 10.1007/s10653-008-9196-3. <b>I.F 5.1</b>	2008
Indigenous Knowledge of Medicinal plants used by Saperas Community of Khetawas Jhajjat District, Hayana,	Panghal M., Arya V., Yadav S., <b>Kumar S.</b> , Yadav J.P.	<i>J. Ethnobiology and Ethnomedicine</i> , 6:4. <b>I.F 3.41</b>	2010
Trophic State Index and Assessment of Water Quality for Domestic and Agriculture Purpose of Bhindawas Wetland, Jhajjar, Haryana (India).	<b>Kumar S.</b> and Dhankhar R.	<i>Annals of Biology</i> , 28(2): 144-151.	2012
Isonymic Electrophoretic Patterns of <i>Salvadora persica</i> .	Saini S., Yadav J.P. and <b>Kumar S.</b>	<i>Biojournal</i> , 8 (1): 70-75.	2013

Ground water suitability for domestic and irrigation purpose at villages of Meham block, ohtak, India.	Amarjeet, Kumar S., Arya S.S. and <b>Kumar S.</b>	<i>International Journal of Research</i> , 2(2):666-680.	2015
Effect of salinity on plant water status, solute accumulation and distribution in wheat ( <i>Triticum aestivum</i> L.) genotypes.	Meenakshi, Anuradha, Shashi, Dhankar S., Kanupriya, Kumar S. and Arya S.S.	<i>International Journal of Research</i> , 2(3):96-109.	2015
Variation in physico-chemical characteristics of water quality of Bhindawas Wetland, Jhajjar, Haryana (India).	<b>Kumar S.</b> and Dhankhar R.	Research Journal Chemical Science , (7):29-34.	2015
Monitoring of Noise Levels at Various Sites during Winter Season at Bhindawas Wetland, Haryana, India.	<b>Kumar S.</b> and Dhankhar R.	Current World Environment , 10(3): 807-812.	2015
Economic value assessment of Bhindawas wetland, Jhajjar Haryana (India).	<b>Kumar S.</b> and Dhankhar R.	Indian Journal of Environmental Sciences , 19(1&2):5-10.	2015
Assessment of floristic and avian faunal diversity of Bhindawas wetland, Jhajjar Haryana (India).	<b>Kumar S.</b> and Dhankhar R.	Plant Archives , 15(2): 733-740	2015
Ground water quality assessment of rural habitation at Meham block, Rohtak, Haryana (India): Focused on fluoride and nitrate.	Amarjeet, Poonam, Kumar S and <b>Kumar S.</b>	International Journal of Pharma and Bio Sciences, 7(2): (B) 568-574.	2016
Relationship between water, urine and serum fluoride and fluorosis in school children of Jhajjar District, Haryana, India.	<b>Kumar S.</b> Lata S., Yadav J. and Yadav J. P.	Applied Water Science, DIO 10.1007/s 13201-016-0492-2. <b>IF 5.41</b>	2017

Analysis of water, sediment quality and total metals accumulation in aquatic vegetation at Bhindawas wetland, Jhajjar Haryana, India.	<b>Kumar S.</b> , Dhankhar R. And Singh S.	Plant Archives, 17(2): 1139-1145	2017
Occurrence of Fluoride in Aqueous Environment : A Review	Yadav S., Bansal S.K and <b>Kumar S</b>	The Konkan Geographer, 17: 113-115	2018
Prevalence of Fluorosis among school going children in district Mahendergarh, Haryana, India	Yadav S., Bansal S. K., <b>Kumar S.</b> and Yadav S.	International Journal of Basic and Applied Research, 8(9): 1349-1363	2018
Fluoride distribution in underground water of district Mahendergarh Haryana, India	Yadav S., Bansal S. K., Yadav S. and <b>Kumar S.</b>	Applied Water Science, 9:62 DOI: 10.1007/s13201-019-0935-7 <b>I.F 5.41</b>	2019
Utilization of unwanted terrestrial weeds for removal of dyes	Singh A., Kumar S., Panghal V., Arya S.S. and <b>Kumar S.</b>	Rasayan Journal of Chemistry, 12(4): 1956-1963	2019
Assessment of change in soil properties before and after flooding due to the rainy season in Bhindawas wetland, Jhajjar, Haryana (India)	<b>Kumar S.</b> and Dhankhar R.	Indian Journal of Science and Technology, 13(20): 2057-2064	2020
Heavy metals toxicity and their remediation through phytotechnology: A review.	Kumar S., Singh A., Vishal, Singh B., Mor V. and <b>Kumar S.</b>	Plant Archives, 20(1): 3174-3186	2020

Column studies of adsorption by using dead biomass of <i>Eichhornia crassipes</i> for Hexavalent Chromium	<b>Kumar S.</b> and Dhankhar R.	Research Journal of Chemistry and Environment, 24(10): 31-38	2020
Assessment of heavy metals contamination in drains water and aquatic plants of Rohtak and Bahadurgarh (Haryana), india	Kumar S., Singh A., Panghal V. and <b>Kumar S.</b>	Plant Archives, 20(2): 6421-6427	2020
Lead (Pb) phytoremediation potential assessment of <i>Brachiaria mutica</i> L (para grass) and <i>Cyperus rotundus</i> L (nut grass) from aqueous solution	<b>Kumar S.</b> , Kumar J., Singh S., Kumar S. and Arya S. S.	Plant Archives, 20(2):6051-6056	2020
Optimization of experimental factors for Hexavalent Chromium removal by dead biomass of water Hyacinth	<b>Kumar S.</b> and Dhankhar R.	Rasayan Journal of Chemistry, 13(4):2376-2384	2020
Isotherm, Kinetics and Thermodynamic Studies of Hexavalent Chromium Adsorption by Using Dead Biomass of <i>Eichhornia crassipes</i>	<b>Kumar S.</b> and Dhankhar R.	Oriental Journal of Chemistry 36( ):915-922	2020
Adsorption of chromium (Cr <sup>6+</sup> ) on the dead biomass of <i>Salvinia molesta</i> (Kariba weed) and <i>Typha latifolia</i> ( broadleaf cattail) isotherm, kinetic and thermodynamic study	Singh A, <b>Kumar S</b> , Panghal V	Applied Water Science, 11, 149. <a href="https://doi.org/10.1007/s13201-021-01481-7">https://doi.org/10.1007/s13201-021-01481-7</a> <b>I.F 5.41</b>	2021
Soil heavy metals contamination and ecological risk assessment in Rohtak urban area, Haryana (India)	Panghal V, Singh A, Kumar R, Kumari G, Kumar P, <b>Kumar S.</b>	Environmental Earth Science, 80, 731. <a href="https://doi.org/10.1007/s12665-021-10028-7">https://doi.org/10.1007/s12665-021-10028-7</a> <b>I.F 3.1</b>	2021

Application of Aquatic Plants Dead Biomass in Remediation of Heavy Metals Pollution By Adsorption: A Review,	Singh A, <b>Kumar S.</b>	Indian Journal of Science and Technology, 15(16): 729-735	2022
Usability of <i>Brachiaria mutica</i> (para grass) and <i>Cyperus rotundus</i> (nut grass) as bioadsorbents for the removal of methylene blue from aqueous solution: isotherms, kinetics, and thermodynamics studies	Arora, D, Arora, A, Singh, Agarwal R, <b>Kumar S.</b>	Sustainable Water Resource Management, <b>8</b> , 139. <a href="https://doi.org/10.1007/s40899-022-00734-w">https://doi.org/10.1007/s40899-022-00734-w</a>	2022
Assessment of Groundwater and Surface Soil using Multivariate Statistical Techniques and Contamination Indices: A case Study of Gurugram Millennium City, Haryana, India	Panghal V, Bhateria R, Kumar R, Arya SS, Kumar S.	Journal of Geological Society of India <b>I.F 1.45</b>	2023

### Book Chapter

1. Kumar S. (2017). Air Pollution Monitoring, Modeling and Control. In B.R Gurjar and P. Kumar (Ed). Environmental Science and Engineering Vol.3: Air and Noise Pollution (pp 1-31) Studium Press LLC.ISBN 1-62699-091-3
2. Arya S. S., Devi S., Ram K., **Kumar S.**, Kumar N., Mann A., Kumar A., Chand G. (2019). Responses and Utilization of Halophytes. In M. Hasanuzzaman et al. (Eds.) Ecophysiology, Abiotic Stress Responses, 271-287, Springer Nature Singapore Pvt Ltd.
3. Mamta, Kumar A., Kumar N., **Kumar S.**, Monika, Heena, Arya S. S. (2020) Salinity: Distribution and Impacts on Plants. In S. Gurumurthy and S.S. Jinus(Eds.) Management of Abiotic Stress in Crop Plants, 41-73, IP Innovative Publication Pvt. Ltd
4. Yadav, N. Monika, Kumar A., Kumar N., Mamta, Heena, **Kumar S.**, Arya S..S (2022). Impacts on Plant Growth and Development Under Stress. In: Vaishnav, A., Arya, S., Choudhary, D.K. (eds) Plant Stress Mitigators. Springer, Singapore. [https://doi.org/10.1007/978-981-16-7759-5\\_4](https://doi.org/10.1007/978-981-16-7759-5_4)
5. Monika, Yadav N. Monika, Kumar A., Kumar N., Mamta, Heena, **Kumar S.**, Arya S..S (2022). Arbuscular Mycorrhizal Fungi: A Potential Candidate for Nitrogen Fixation. In: Vaishnav, A., Arya, S., Choudhary, D.K. (eds) Plant Stress Mitigators. Springer, Singapore. [https://doi.org/10.1007/978-981-16-7759-5\\_11](https://doi.org/10.1007/978-981-16-7759-5_11)
6. Singh A., **Kumar S.** (2023) Utilization of Aquatic Plants Dead Biomass in Adsorption of Heavy Metals from Wastewater, In Grace A.N., Sonar p., Bhardwaj P., Chakravorty A.(eds) Handbook of Porous Carbon Materials, 655-668, Springer Nature Singapore Pvt Ltd.

### E modules

1. Kumar S. (2020) Climate Change and Rain Fall Pattern, SWAYAM, Environmental Education in Teachers Training Institutes (Course ID-5284) Module No. 48 (d)
2. Kumar S. (2020) Minor Forest Produce and Economic Growth, SWAYAM, Environmental Education in Teachers Training Institutes (Course ID-5284) Module No. 48 (f)

### Published in Conferences/Seminar Proceedings

1. **Kumar S.**, Kumar K. and Bishnoi M. Spectral Distribution of noise level at various traffic sites of Hisar city, Haryana. Proceeding of National Seminar on Environmental Challenges:Sustainable Development p. 185-191:2010, organized by Department of Environmental Sc. M D U Rohtak.
2. **Kumar, S.** and Gupta, A. Defluoridation by thermally activated carbon prepared from Neem Removal of fluoride by thermally activated carbon prepared from neem (*Azadirachta indica* ) and kikar ( *Acacia arabica* ) leaves through column process. Proceeding of National Conference on Multidisciplinary Approach in Frontier Area of Environmental Science and Engineering. p. 236-234: 2011 organized by Department of Environmental Sc. & Engg G.J.U.S.& T Hisar on 3-4 March.
3. Kumar S. and **Kumar S.**, Constructed wetlands an alternative technology for wastewater treatment: A Review: In Proceeding of National Seminar on Next Generation Sciences: Vision 2020 and Beyond. P. 377-389:2014. Organized by Department of Zoology, M.D.U. Rohtak on March 08, 2014.
4. **Kumar S.**, Fluoride problems and its health effects: A Review: In Proceeding of National Seminar on Next Generation Sciences: Vision 2020 and Beyond. P. 464-475:2014. Organized by Department of Zoology, M.D.U. Rohtak on March 08, 2014.



