

## **Dr. D.C. Jhariya**

*FGSI, FISRS, FIAH, FAEG*

### **Assistant Professor**

Department of Applied Geology

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### **Academic Profile:**

1. Completed 6 (Six) Credit Course “Characterization and Engineering of Karst Aquifers” Certified by Ministry of Education and the University of Belgrade, Serbia in Accredited Academic Master Programme of Hydrogeology in June, 2019.
2. Ph.D. completed in Applied Geology (Faculty of Engineering) from Dr. Harisingh Gour Vishwavidyalaya, Sagar, Madhya Pradesh in March, 2013.
2. M.Tech. (Applied Geology) from Department of Applied Geology, Dr. Hari Singh Gour Vishwavidyalaya, Sagar (Madhya Pradesh) Completed in May, 2007.
3. B.Sc. (Geology) From Govt. Autonomous P.G. Collage Chhindwara Madhya Pradesh Affiliated to Dr. Harisingh Gour Vishwavidyalaya, Sagar, Madhya Pradesh Completed in May, 2004.
4. Higher Secondary from Mathura Prasad Higher Secondary School Chhindwara (Madhya Pradesh) Board –M P Board BHOPAL (Class XII) Completed in May, 2001.
5. High School from Jaggannath Higher Secondary School Chhindwara (Madhya Pradesh) (Class X) Completed in May, 1998.

### **Teaching Experience:**

Assistant Professor in the Department of Applied Geology, National Institute of Technology, Raipur (Chhattisgarh) since 09.10.2009 (till date).

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## Research Paper Published in National/International Journals:

- [1] Indhulekha K., Mondal K. C. and **Jhariya, D.C.** (2019). Groundwater prospect mapping using remote sensing, GIS and resistivity survey techniques in Chhokra Nala Raipur district, Chhattisgarh, India. *Journal of Water Supply: Research and Technology—AQUA*, jws2019159, <https://doi.org/10.2166/aqua.2019.159>
- [2] **Jhariya, D. C.**, Kumar Tarun, Pandey, H. K., Kumar S., Kumar Dharmendra, Gautam A. K., Baghel V. S. and Kishore N. (2019) Assessment of groundwater vulnerability to pollution by modified DRASTIC model and analytic hierarchy process. *Environmental Earth Sciences*, Vol.: 78:610, <https://doi.org/10.1007/s12665-019-8608-2>
- [3] Korsu Munna, Guhey R., **Jhariya, D.C.** (2019). Hydrogeochemistry of High Fluoride Groundwater to Understand the Suitability of Groundwater for Drinking and Irrigation Purposes in Granulite Belt Part of Bhopalpatnam Area, Bijapur District, Chhattisgarh, India. *Journal of the Geological Society of India* Vol.94(September 2019):309-318, DOI: 10.1007/s12594-019-1311-9
- [4] **Jhariya D.C.** (2019). Assessment of Groundwater Pollution Vulnerability Using GIS-Based DRASTIC Model and its Validation Using Nitrate Concentration in Tandula Watershed, Chhattisgarh, *Journal of the Geological Society of India* Vol. 93(5), pp. 567-573, DOI: 10.1007/s12594-019-1218-5
- [5] Kumar, T., **Jhariya, D.C.**, Pandey, H.K. (2019). Comparative study of different models for soil erosion and sediment yield in Pairi watershed, Chhattisgarh, India. *Geocarto International*, pp. 1-22. DOI: 10.1080/10106049.2019.1576779.
- [6] Khan, R. and **Jhariya, D.C.** (2019). Assessment of Groundwater Pollution Vulnerability Using Geographical Information System Based Modified DRASTIC Model in Raipur city, Chhattisgarh, India. *Journal of the Geological Society of India*, Vol. 93, pp. 293-304.
- [7] Khan, R. and **Jhariya, D.C.** (2018). Assessment of Land-use and Land-cover Change and its Impact on Groundwater Quality Using Remote Sensing and GIS Techniques in Raipur City, Chhattisgarh, India.

Journal of the Geological Society of India, Vol.92(1), pp.59-66. DOI: 10.1007/s12594-018-0953-3.

- [8] **Jhariya, D. C.**, Kumar, T., Pandey, H.K (2018). Watershed prioritization based on soil and water hazard model using remote sensing, geographical information system and multi-criteria decision analysis approach. Geocarto International, pp. 1-21. DOI: 10.1080/10106049.2018.1510039.
- [9] Khan, R. and **Jhariya, D.C.** (2018). Hydrogeochemistry and Groundwater Quality Assessment for Drinking and Irrigation Purpose of Raipur City, Chhattisgarh. Journal of the Geological Society of India, Vol.91(4), pp. 475-482. DOI: 10.1007/s12594-018-0881-2.
- [10] Khan, R. and **Jhariya, D.C.** (2017). Spatial Assessment of Groundwater Quality with Special Reference to Nitrate Pollution in Raipur City, Chhattisgarh State, India using Geographical Information System. International Journal of Advanced Geosciences, Vol.5(1), pp.6-12. DOI: 10.14419/ijag.v5i1.7132}
- [11] Kumar, T. and **Jhariya, D.C.** (2017). Identification of rainwater harvesting sites using SCS-CN methodology, remote sensing and Geographical Information System techniques. Geocarto International, Vol.32(12), pp. 1367-1388. DOI: 10.1080/10106049.2016.1213772
- [12] Khan, R. and **Jhariya, D.C.** (2017). Groundwater quality assessment for drinking purpose in Raipur city, Chhattisgarh using water quality index and geographic information system. Journal of the Geological Society of India, Vol.90(1), pp. 69-76. DOI: 10.1007/s12594-017-0665-0.
- [13] **Jhariya, D. C.**, Kumar, T., Dewangan, R., Pal, D., Dewangan, P. K. (2017). Assessment of Groundwater Quality Index for Drinking Purpose in the Durg District, Chhattisgarh Using Geographical Information System (GIS) and Multi-Criteria Decision Analysis (MCDA) Techniques. Journal of the Geological Society of India. Journal of the Geological Society of India, Vol.89(4), pp. 453-459. DOI:10.1007/s12594-017-0628-5.
- [14] **Jhariya, D. C.**, Kumar, T., Gobinath M., Diwan, P. and Kishore, N. (2016). Assessment of Groundwater Potential Zone Using Remote

Sensing, Geographical Information System and Multi-Criteria Decision Analysis. Journal of the Geological Society of India, Vol.88(4), pp.481-492.

- [15] Kumar, T., Gautam, A. K. and **Jhariya, D. C.** (2016). Multi-criteria decision analysis for planning and management of groundwater resources in Balod District, India. Environmental Earth Sciences. Vol. 75(8), pp. 1-16. DOI: 10.1007/s12665-016-5462-3.
- [16] Khan, R., and **Jhariya, D.C.** (2016). Land Use Land Cover Change Detection Using Remote Sensing and Geographic Information System in Raipur Municipal Corporation Area, Chhattisgarh. SSARSC International Journal of Geo Science and Geo Informatics Vol. 3 Issue 1. pp.1-4.
- [17] Kumar, T., and **Jhariya, D.C.** (2015). Land quality index assessment for agricultural purpose using multi-criteria decision analysis (MCDA). Geocarto International, Vol.30(7) pp. 822-841, DOI: 10.1080/10106049.2014.997304
- [18] **Jhariya, D. C.**, Shrivastava, S., Nage, S. K. and Chatterjee, R. S. (2015). Integrated Remote Sensing and GIS Approach to Groundwater Potential Delineation in the Doon Valley, Uttarakhand, India. SSARSC International Journal of Geo Science and Geo Informatics, Vol. 2 Issue 1, April 2015, pp.1-12 ISSN 2348-6198.
- [19] **Jhariya, D.C.** (2014). Anthropogenic activities and groundwater pollution of Sagar Town in Madhya Pradesh, India. International Journal of Arts and Science, Vol.7, pp. 295-302.
- [20] **Jhariya, D.C.** and Dewangan, R. (2013). Fluoride contamination and its possible sources in the groundwater of Chhattisgarh. Madhya Bharti Research Journal, Vol. LVII,pp.75-85.
- [21] Thakur G.S. and **Jhariya D.C.** (2009). Quality of groundwater in Rahatgarh Block, District Sagar, Madhya Pradesh. Gondwana Geological Magazine, Vol.24 (1), pp.29-34.

**Research Paper Published in National/International  
Conferences/workshop:**

- [1] Khan, R. and **Jhariya, D.C.** (2018). GIS-Based Groundwater Quality Index Assessment for Drinking Purpose in Raipur city, Chhattisgrah, India. National Workshop “Groundwater Challengers in India” an INC-IAH initiative. Organized by INC-IAH (Indian Chapter of International Association of Hydrogeologist).
- [2] Khan, R. and Jhariya, **D.C.** (2018). Evaluation of groundwater pollution vulnerability using DRASTIC-model in Raipur city, Chhattisgarh, India. Workshop on Groundwater Management and its issues in Chhattisgarh. Organized by Central Ground Water Board, NCCR, Ministry of Water Resources, River Development & Ganga Rejuvenation. Govt. of India.
- [3] Kumar, T. and **Jhariya, D.C.** (2018). Delineation of groundwater recharge zones using remote sensing and geographical information system techniques in the Pairi Watershed, Chhattisgarh. Workshop on Groundwater Management and its issues in Chhattisgarh. Organized by Central Ground Water Board, NCCR, Ministry of Water Resources, River Development & Ganga Rejuvenation. Govt. of India.
- [4] **Jhariya, D.C.**, Khan, R., Thakur, G.S. (2016) Impact of Mining Activity on Water Resource: An Overview study. National Seminar on Recent Practices & Innovations in Mining Industry. ISBN NO.: 978-93-5258-251-8.
- [5] Rubia and **Jhariya, D.C.** (2015) A Geological study for the Occurrence of Arsenic Contamination in Groundwater in Rajnandgaon District Chhattisgarh, India: A Review. Workshop on Geogenic contamination in Groundwater of Chhattisgarh with special reference to Arsenic. Central Ground Water Board, NCCR, Ministry of Water Resources, River Development & Ganga Rejuvenation. Govt. of India. pp. 92-101.
- [6] Rubia, **Jhariya, D.C.** and Singh, V.K. (2015) Urbanization and its impact on Groundwater: An Overview. Workshop on Groundwater issues and challenges in Chhattisgarh state with special reference to its Conservation, Security and Quality. Central Ground Water Board,

NCCR, Ministry of Water Resources, River Development & Ganga Rejuvenation. Govt. of India.pp.127-136.

- [7] **Jhariya D.C.**, Shandilya A. K. and Dewangan Rakesh (2012). Nitrate Pollution in the Groundwater around Sagar Town, Madhya Pradesh, India. International Conference on Chemical, Ecology and Environmental Sciences (ICEES'2012) March 17-18, 2012 Bangkok.
- [8] Abhaynand Yadav, **Jhariya D.C.**, Md. Qaisarul Haque & Singh Neelratan (2012). Environmental Aspects of water pumping from the wells in Coal Bed Methane potential areas in different coal fields of India. University Grant Commission, New Delhi Sponsored National Seminar on Emerging Trends in Scientific Research 11th to 12th October 2011, Organized by Department of Geology, Govt.V.Y.T.PG. Autonomous College, Durg (Chhattisgarh)
- [9] Nancy Raina, Baghel Devendra, **Jhariya D.C.** and Singh Neelratan (2012). Why there is Very Less Rain in the Ladakh Region? University Grant Commission, New Delhi Sponsored National Seminar on Emerging Trends in Scientific Research 11th to 12th October 2011, Organized by Department of Geology, Govt.V.Y.T.PG. Autonomous College, Durg (Chhattisgarh).
- [10] **Jhariya D.C.**, Shandilya A. K. & Dewangan Rakesh (2011). Assessment of Nitrate concentration in the groundwater in and around Sagar Town, Madhya Pradesh, India. National Workshop on Groundwater pollution around Industrialization clusters: Mitigation and Management, Conducted by the Central Groundwater Board, North Central Chhattisgarh Region, Raipur, Chhattisgarh on 23<sup>rd</sup> February 2011.

#### **National/International Conferences/Training Organized:**

- [1] Coordinated one-week Short Term Training Programme on "Recent Advancement in Groundwater Development and Management" under Technical Education Improvement Programme (TEQIP) from 8th August 2016 to 12th August 2016 as a Coordinator.

[2] Organizing member of 25th International Cartographic Congress organized by Indian National Cartography Association (INCA) at Dr. Harisingh Gour Vishwavidyalaya, Sagar, (Madhya Pradesh) November 28 to December 1, 2005.

**Details of Sponsored Research Projects:**

S. No.	Title	Cost in Lakh	Duration	Role as PI/CoPI	Agency	Status
1.	Identification of Potential Groundwater Artificial Recharge Zones for Rainwater Harvesting in Raipur Municipal Corporation and Naya Raipur Area, Chhattisgarh	5.00	2016-2019	Principal Investigator	Chhattisgarh Council of Science & Technology (CGCOST)	On-going

**Details of Consultancy Research Projects:**

S. No.	Title	Cost in Lakh	Duration	Role as PI/CoPI	Agency	Status
1.	Water quality study of Jindal Prospecting Lease Area, Dantewara District, Chhattisgarh	2.00	2018 - 2019	Investigator	Jindal Steel and Power Limited	Ongoing
2.	Water audit and ground water harvesting system S.V. Airport, Raipur.	5.00	2017 -18	Co-Investigator	S.V. Airport, Raipur	Completed

<b>3.</b>	Preparation of drainage pattern of industries linked to Ganga River basin and reporting the status of pollution from the industries	24.71	2015-2016	Co- Investigator	Chhattisgarh Environment Conservation Board	Completed
<b>4.</b>	Testing of soil resistivity for the Steel Plant at Tandwa Village Tilda Area Chhattisgarh	0.15	2011	Principle Investigator	Shri Bajrang Power & Ispat Pvt. Ltd., Tilda, Raipur, Chhattisgarh	Completed
<b>5</b>	Testing of soil resistivity Foundation Design at Ramsada Industrial Estate Durg Chhattisgarh	0.12	2010	Principle Investigator	M/S. Chadalava da Infratech Ltd., Durg, Chhattisgarh	Completed

**Training/Workshop/Orientation Course Attendant:**

<b>S.No.</b>	<b>Institution</b>	<b>Training/ Workshop Title</b>	<b>Duration</b>	
			<b>From</b>	<b>To</b>
<b>1</b>	Centre for Karst Hydrogeology, University of Belgrade - Faculty of Mining and Geology, Belgrade, Serbia	International Course and Field Seminar on Characterization and Engineering of Karst Aquifers	27.05.2019	01.06.2019
<b>2</b>	Ravisankar Sukla University, Raipur, Chhattisgarh	Workshop on Groundwater Management and its issues in Chhattisgarh.	17-01.2018	17-01.2018



3	Ravisankar Sukla University, Raipur, Chhattisgarh	Groundwater Challengers in India	13.01.2018	13.01.2018
4	Geological Survey of India, Govt. of India	Geological Mapping and Mineral Exploration	04.06.2016	10.06.2016
5	Institute of Remote Sensing, Dehradun 4, Kalidas Road, Dehradun (Uttarakhand)	Application of Remote Sensing & GIS in Geosciences	05.05.2013	28.06.2013
6	Rajiv Gandhi National Groundwater Training and Research Institute Raipur	Application of Remote Sensing and GIS in Groundwater Studies	09.04.2012	13.04.2012
7	Rajiv Gandhi National Groundwater Training and	Coastal and Island Hydrogeology	12.12.2011	16.12.2011
8	Central Groundwater Board, North Central Chhattisgarh Region, Raipur, Chhattisgarh	Groundwater Development and Management	29.11.2010	03.12.2010
9	Institute of Remote Sensing, Dehradun 4, Kalidas Road, Dehradun, Uttarakhand	Edusat based Training on: Remote sensing, GIS & GPS	29.01.2007	09.04.2007

**Thesis/Dissertation/ Project Guided/Supervised:**

- Ph.D. (Applied Geology)-02 Completed, 08 Undergoing
- M.Tech.(Applied Geology)-07 (Completed)
- B.Tech.(Mining Engineering)- 01 (Completed)

**Research Areas:**

- Hydrogeology
- Environmental Geology
- Water Resource Management
- Remote Sensing and GIS

**Foreign Visits:**

- [1] Visited Serbia for the attending International Course and Field Seminar on Characterization and Engineering of Karst Aquifers organized by Centre for Karst Hydrogeology, University of Belgrade - Faculty of Mining and Geology, Belgrade, Serbia during 27 May 2019-01 June 2019.
- [2] Visited Hong Kong for the attending and Research Paper Presentation in the 247<sup>th</sup> International conferences on Engineering and Natural Science (ICENS) held at Hong Kong during 27-28 August 2017.
- [3] Visited USA for the attending International Conference and Research Paper Presentation in the International conference held from dated 23 May, 2016 to 27 May, 2016 at Harvard Medical School, Harvard University, 77 Avenue Louis Pasteur, Boston, Massachusetts.
- [4] Visited Malaysia 4th International Conference on Advances in Social Sciences (ICASS) (Kuala Lumpur) held at Kuala Lumpur 218 Jalan Ipoh, 51200 Kuala Lumpur during 27th and 28th December, 2014.
- [5] Visited Italy for the attending International Conference and Research Paper Presentation held at the Ca' Foscari University of Venice, Santa Croce 2161, 30135 Venice, Italy, from 30 June to 3 July 2014.
- [6] Visited in Bangkok (Thailand) for the attending International Conference and Research Paper Presentation during March 17-18, 2012.

**Professional/Recognition/Responsibilities/Award/Honors/Achievements/:****❖ Editor/Reviewer:**

- [1] Environmental Earth Sciences.

- [2] Water Resources Management  
ISSN: 0920-4741 (Print) 1573-1650 (Online)
- [3] Geocarto International  
ISSN: 1010-6049(Print) ISSN: 1752-0762(Online)
- [4] Journal of Water Supply: Research and Technology—AQUA
- [5] SSARSC International Journal of Geo Science and Geo Informatics –  
ISSN 2348-6198
- [6] Journal of Water Resource Engineering and Management (JoWREM)  
eISSN: 2349-4336
- [7] Journal of Geotechnical Engineering (JoGE)  
eISSN: 2394-1987
- [8] International Journal of Geological and Geotechnical Engineering
- [9] International Journal of Water Resources Engineering

❖ **Membership:**

- [1] Lifetime Member, Geological Society of India
- [2] Lifetime Member, Indian Association of Hydrologists
- [3] Member, International Association for Promoting Geoethics (IAPG)
- [4] Member, International Association of Hydrogeologists
- [5] Lifetime Member, South Asian Association of Economic Geologists
- [6] Lifetime Member, India Society of Remote Sensing
- [7] Lifetime Member, India Society of Geomatics
- [8] Member, International Association of Geoscience Diversity
- [9] Honorary Lifetime Fellow Member, Scientific Society of Advanced  
Research and Social Change
- [10] Lifetime Member, Geological Association and Research Centre  
Balaghat, Madhya Pradesh

❖ **Best Paper/ Poster Presentation award:**

- [1] A poster entitled "Development of the web based spatial decision support system for soil conservation measure" presented in National conference on Farmers First for conserving soil and water resource in eastern region (FFCSWR-2019) which was held at Sunabeda, Korput, Odisha during 06<sup>th</sup>-08<sup>th</sup> February, 2019. Based on effective presentation and excellent works, research paper was adjudged as the best poster of the conference.
- [2] A research paper entitled "Groundwater Potential Study Using Remote Sensing and GIS Techniques in Durg district of Chhattisgarh, India" presented in an 4th International Conference on Advances in Social Sciences (ICASS-2014) which was held at Kuala Lumpur, Malaysia during 27<sup>th</sup>-28<sup>th</sup> December, 2014. Based on effective presentation and excellent works, research paper was adjudged as the best Paper Presentation of the conference.

❖ **Resource person/ Keynote Speaker/ Chaired Session**

- [1] Delivered Invited talk entitled " Groundwater: A Valuable but Diminishing Resource" in the 169th Foundation Day Celebration of GSI scheduled from 4th - 6th March, 2019 organized by Government of India Ministry of Mines Geological Survey of India Central Region, Nagpur State Unit: Chhattisgarh, Raipur
- [2] Attended and delivered Invited talk entitled " SandMIS: An Android Based Sand Mining Monitoring Information System" in the State Level Conference on "Sand Replenishment Study" scheduled on dated 5th January 2019 organized by Directorate of Geology and Mining, Raipur, Chhattisgarh, Govt. of Chhattisgarh
- [3] Keynote presentation entitled " Groundwater: It is a Resource not a Source " in 2nd National Conference on "Current Practices in Mining and Allied Industries" CPMAI on 6th -7th October 2018, at Department of Mining Engineering of Government College of Engineering, Keonjhar

- [4] Delivered guest lecture entitled "Basic Hydrogeology" from dated 08th Feb 2018 dated 09th Feb 2018 in the office of Executive Engineer, Rural Engineering Service, Mandla, Govt. of Madhya Pradesh
- [5] Delivered guest lecture entitled "Basic Hydrogeology" on dated 01st Feb 2018 in the office of Executive Engineer, Rural Engineering Service, Dindori, Govt. of Madhya Pradesh.
- [6] Chaired session in the Workshop on Groundwater Management and its issues in Chhattisgarh. Organized by Central Ground Water Board, NCCR, Ministry of Water Resources, River Development & Ganga Rejuvenation. Govt. of India on January 17th, 2018 at Ravisankar Sukla University, Raipur, Chhattisgarh
- [7] Delivered guest lecture entitled "Ozone Layer Depletion – Causes, Effects and Solutions" on date 16th September 2016 in the World Ozone Day at Chhattisgarh Science Centre, Raipur, Govt. of Chhattisgarh, Raipur Chhattisgarh.
- [8] Chaired session in the International Conference dated on 23 May 2016 at Harvard Medical School, 77 Avenue Louis Pasteur, Boston, Massachusetts.
- [9] Chaired session in the International Conference held at the Ca' Foscari University of Venice, Santa Croce 2161, 30135 Venice, Italy, on dated 30 2014.

#### ❖ **Recognition /Responsibilities**

- [1] Prof. In-charge, Go Green Committee, NIT Raipur.
- [2] Coordinator, Ek Bharat Shreshtha Bharat (EBSB) Cell, NIT Raipur
- [3] Member, Quality Circle Committee, National Institute of Technology, Raipur
- [4] Member, Cultural Committee, NIT Raipur
- [5] Assistant Superintended Examination, National Institute of Technology, Raipur (Chhattisgarh) during the Examination of Years 2011, 2012, 2013, 2014, 2017, 2018 and 2019.

- [6] TEQIP Coordinator, Department of Applied Geology, NIT Raipur
- [7] Member, Departmental Academic Committee (DAC), Department of Applied Geology, NIT Raipur
- [8] Member, Departmental Grievance Committee, Department of Applied Geology, NIT Raipur
- [9] Member, Departmental Purchase Committee, Department of Applied Geology, NIT Raipur
- [10] Member, Departmental Purchase Committee, Department of Mining Engineering, NIT Raipur
- [11] Member, Departmental Grievance Committee, Department of Mining Engineering, NIT Raipur
- [12] Member, PhD, Departmental Guidance Committee, Department of Computer Application, NIT Raipur
- [13] Member, PhD, Departmental Guidance Committee, Department of Applied Geology, NIT Raipur
- [14] Member, PhD, Departmental Guidance Committee, Department of Mining Engineering, NIT Raipur
- [15] Member, PhD, Departmental Guidance Committee, Department of Architecture, NIT Raipur
- [16] Member, PhD, Departmental Guidance Committee, Department of Civil Engineering, NIT Raipur
- [17] Served as Corporals, NCC-Junior Division, Jaggannath Higher Secondary School Chhindwara (Madhya Pradesh) 24 M.P. Battalion Chhindwara during 1997-98.
- [18] Representation NIT Raipur as a player in Badminton and Chess Games in the Inter-NIT sports competition for Faculty and Staff member during 2019.