

## CURRICULUM VITAE



1. Name: **NANDIMANDALAM JANARDHANA RAJU**  
*Alexander von Humboldt Fellow*
2. Present Position: **Professor & Dean**
3. Area of Specialization: **Hydrogeology, Environmental Geology,  
Groundwater Pollution (As & F) & Water Resources Management**
4. Address for Correspondence: School of Environmental Sciences      e-mail: [rajunj7@gmail.com](mailto:rajunj7@gmail.com)  
Jawaharlal Nehru University      [rajunj.jnu@nic.in](mailto:rajunj.jnu@nic.in)  
New Delhi – 110 067, India      Phone: 0091-9910629336 (cell)  
0091-11-26704257 (O)
5. Date of Birth: **June 1, 1963**

### 6. Educational Qualification:

- Ph.D. (Hydrogeology), 1991, Sri Venkateswara University, Tirupati.
- M.Phil., (Hydrogeology-First Class), 1990, Sri Venkateswara University, Tirupati.
- M.Sc., (Geology-First Class), 1985, Sri Venkateswara University, Tirupati.
- B.Sc., (Geol.,Phy.&Chem.-First Class), 1983, Sri Venkateswara University, Tirupati.

### 7. Teaching Experience: 30 years

- Handling M.Sc., and M.Phil/Ph.D classes in the School of Environmental Sciences, Jawaharlal Nehru University, New Delhi-110067 since 2009.
- Handled M.Sc., and B.Sc. classes in the Department of Geology, Banaras Hindu University, Varanasi, 2004-2009.
- Handled B.Sc. (Tech) classes (Hydrogeology, Engineering Geology and Geological Map Interpretation) in the Department of Earth Sciences, *University of Asmara, Eritrea, North East Africa* from January 2001-January 2002.
- Handled M.Sc., classes in Geology, S.V. University, 1994-2004.
- Handled B.Tech., Civil Engineering classes in Geology, SVU Eng. College, 1994-2004.

### 8. Research Experience: 35 years including 4 years as Post-Doctoral Fellow

1. **Alexander von Humboldt Fellow, Germany from October 1997 to February 1999.**
2. Research Associate (UGC, New Delhi) from December 1991 to March 1994.

### 9. Research Projects

- AvH Foundation sponsored project “Nutrient fluxes through groundwater into coastal ecosystems: A regional scale”, **2024-2026**, under Indo-German Research group linkage programme with research cooperation Prof. Dr. Nils Moosdorf, Leibniz Centre for Tropical Marine Research (ZMT), Germany. **Principal Investigator (Cost: 50 lakhs)**
- SERB sponsored project “Consumption of atmospheric carbon-dioxide (CO<sub>2</sub>) in water-rock interactions and water quality assessment in the semi-arid Kalangi river basin, Andhra Pradesh, **2024-2026**, **Principal Investigator (Cost: 6 lakhs)**. (under MATRICS scheme)
- NCESS sponsored project “Unravelling Submarine Groundwater Discharge (SGD) zones along the Indian subcontinent and its islands (Mission SGD) – Pilot Study”, **March 2019-December 2021**. **Principal Investigator (cost: 26.11 lakhs)**

- Alternate Hydro Energy Centre (AHEC) sponsored project “Evaluation of likely fear of Arsenic in waters of Uttarakhand: First round survey”, **1<sup>st</sup> January – 31<sup>st</sup> December 2018. Co-Principal Investigator (cost: 4 lakhs)**
- UGC sponsored project “Water Quality in the Swarnamukhi River Basin and Role of Atmosphere CO<sub>2</sub> Consumption in Surface and Subsurface Processes in Water-Soil Interaction, **2013-2016. Principal Investigator (cost: 12 lakhs)**
- UGC sponsored project “Potential fluorosis problems in parts of Sonbhadra District, Uttar Pradesh: its geochemistry, genesis and health implications”, **2008-2011. Principal Investigator (cost: 7 lakhs)**
- DST sponsored project entitled “Identification of arsenic contamination in ground waters in and around Varanasi environs and its mitigation”, **2006-2008. Principal Investigator (cost: 3.5 lakhs)**
- Sorption of oxo-anions on quartz sand/hydrous ferric oxide systems – batch and column tests during Alexander von Humboldt Fellowship, Germany during **1997-1999. PI**

#### 10. Award/ Distinction

- UGC-Research Associate, New Delhi, 1991.
- **Alexander von Humboldt Fellow, Germany, 1997.**
- DST-Young Scientist Project Scheme, New Delhi, 1997.
- INSA-Brazil Bilateral Exchange Programme during 2005-2006.
- Guest Professorship - Martin Luther University, Halle, Germany, 2012
- Dr Sudarshan Pani-Dr (smt) Rama Dwivedy Medal, ISAG, India, 2013
- **Humboldt Ambassador Scientist, Germany (1<sup>st</sup> Nov 2018 to 31<sup>st</sup> Oct 2024)**
- **National Geosciences Award -2018, Ministry of Mines, Government of India, 2018**
- Erasmus Mundus Staff Collaboration with Freie University Berlin, Germany (*17-24<sup>th</sup> July 2023*)

#### 11. Positions Held in Jawaharlal Nehru University (JNU)

- **Warden/Chief Warden, Jhelum/Sutlej Hostel (2012-2018)**
- **Chief Proctor (May 25, 2023 to January 5, 2024)**
- **Dean, School of Environmental Sciences - 2 years (*January 8, 2024 to January 7, 2026*)**

#### 12. Training Courses Attended

- International GIS Training in 3D Hydrogeology and Environmental Geology, **Halle University, Germany** from 4-8<sup>th</sup> August 2008.
- Groundwater flow Modelling in Hydrogeology, **Halle University, Germany** from 18-22<sup>nd</sup> August 2008.
- Participated UGC sponsored 47<sup>th</sup> Orientation course at Banaras Hindu University, Varanasi during 6<sup>th</sup> Dec 2007 to 2<sup>nd</sup> Jan 2008.
- Participated Training Course on the Use of Artificial Tracers in Unconsolidated Rocks at **Munich University, Germany** from 7-8<sup>th</sup> September 2001.
- Participated Summer Course on “Groundwater Modelling an Introduction with PC” at **Bremen University, Germany** from 14.9.98 to 18.9.98.
- Participated DST sponsored training course on “Late Quaternary Climate and Coastal Changes” at Andhra University, Visakhapatnam from 20-29<sup>th</sup> January, 1997.
- Participated National Workshop on the present status of degradation of environment of the Eastern ghats – The Problems and perspectives, Aruku valley, Visakhapatnam from 28-30<sup>th</sup> August, 1990.
- Participated course on” Hydrogeological and Geophysical Surveys under joint auspices of State Groundwater Department and Society of Training and Employment Promotion (STEP), Cuddapah from 6.4.1987 to 5.10.1987.

### 13. Technical Report

- A technical report on “Hydrogeological aspects of Water Harvesting Structure (check dam) of Ambala region, Haryana. Submitted to PHD Rural Development Foundation, New Delhi, **2017**
- A Report on Hydrogeological Aspects of Amara Raja Factory Premises, Submitted to Amara Raja Batteries, Tirupati, Chittoor District, **2002**.
- A Report on “Selection of Water Sources along the Swarnamukhi River Course, Submitted to M/s Lanco Industries, Srikalahasti, Chittoor District, **2001**.
- A technical report on “Detailed Hydrogeological surveys conducted at Ravalapalli village, Khajipet mandal, Cuddapah district of A.P. Submitted to Andhra Pradesh State Groundwater Department, Hyderabad, **1987**.

### 14. Consultancy & Extension Work

- Technical Consultant for **Hindustan Coca-Cola Beverages** (HCCB) to review the hydrogeological and environmental assessment reports for its adequacy and accuracy of the work (**May 2014-April 2016**).
- Selection of New Bore well sites under the Save the Crop Programme in Chittoor District, Andhra Pradesh, **January, 2004**.
- Selection of suitable sites for the construction check dams & percolation tanks (for Artificial Recharge of Groundwater) in the drought prone Chittoor District, Andhra Pradesh, **Sep. 2003, DWMA (The District Water Management Agency)**.
- Selection of Sub-surface Dams in the Swarnamukhi River basin for Groundwater Development under the Swarnamukhi River Rejuvenation Programme, during **2000-2001**.

### 15. Memberships/Fellowships in Professional Bodies

- Life Member in the *International Association for Mathematical Geosciences, USA*
- Life Member in *The National Academy of Sciences, India (NASI)*, Allahabad
- Associate Fellow of *Andhra Pradesh Akademi of Sciences (APAS)*, Hyderabad
- Member in *International Association of Hydrological Sciences (IAHS)*, UK
- Member in *International Association of Hydrogeologists (IAH)*, UK
- Life member in *The Indian Science Congress Association (ISCA)*, Kolkata.
- Life member in *Indian Association of Hydrologists (IAH)*, Roorkee.
- Fellow in the *Geological Society of India*, Bangalore.
- Life member in Indian Society of Applied Geochemists, Hyderabad
- Life member in Ocean Society of India, Cochin.

### 16. Foreign Visits

- Dubai, UAE, **26-28<sup>th</sup> Feb. 2024** (for International conference)
- Freie University, Berlin, Germany **17-24<sup>th</sup> July 2023** (For Erasmus Staff Mobility for Teaching program)
- Kathmandu, Nepal, **16-19<sup>th</sup> October 2022** (for International conference)
- United Arab Emirates University, Al Ain, UAE, **1<sup>st</sup> April 2022** (for International Collaboration)
- Martin Luther University, Halle, **Germany**, **5<sup>th</sup> August – 4<sup>th</sup> November 2021** (for AvH Revisit Research Program)
- Alexander von Humboldt Foundation’s ‘9<sup>th</sup> Bonn Humboldt Award Winners’ Forum’, Bonn, Germany, **16-20<sup>th</sup> October 2019**.
- Alexander von Humboldt Anniversary Alumni Conference, Berlin, **Germany**, **25-28<sup>th</sup> June 2019** (on the occasion of 250<sup>th</sup> birthday of Alexander von Humboldt)
- Mississippi State University, Mississippi, **USA**, **21-31<sup>st</sup> March 2018** (for International Collaboration: 21<sup>st</sup> century Indo-US Research Initiative 2014 of JNU, India and Mississippi State University, USA under the project “clean energy and water research).

- Mississippi State University, Mississippi, **USA**, 13-21<sup>st</sup> April **2017** (for International Collaboration: 21<sup>st</sup> century Indo-US Research Initiative 2014 of JNU, India and Mississippi State University, USA under the project “clean energy and water research”).
- Mississippi State University, Mississippi, **USA**, 3-15<sup>th</sup> February **2016** (for International Collaboration: 21<sup>st</sup> century Indo-US Research Initiative 2014 of JNU, India and Mississippi State University, USA under the project “clean energy and water research”).
- Martin Luther University, Halle, **Germany**, 1<sup>st</sup> July – 26<sup>th</sup> September 2015 (for AvH Revisit Research Program)
- National Taiwan University, Taipei, Taiwan, 19-22 April 2015 (for International Humboldt Conference)
- Chiang Mai University, Chiang Mai, Thailand, 16-24 March 2014 (Summer School - DAAD Program)
- Martin Luther University, Halle, **Germany**, 22<sup>nd</sup> May – 20<sup>th</sup> June 2012 (for Guest Professorship)
- Martin Luther University, Halle, **Germany**, 22<sup>nd</sup> April – 20<sup>th</sup> July 2011 (for AvH Revisit Research Program)
- Toyama city, Toyama, **Japan**, 26<sup>th</sup> Oct. – 1<sup>st</sup> Nov. 2008. (for IAH2008 International Congress)
- Martin Luther University, Halle, **Germany**, 1 - 31<sup>st</sup> August 2008 (for AvH Revisit Research Programme)
- Federal University of Fluminense, Niteroi, **Brazil**, Nov. 2005 to Jan. 2006 (for INSA Bilateral Exchange Program)
- Cairo, **Egypt** 2-4<sup>th</sup> November 2001. (for Humboldt Colloquium)
- Assiut University, Assiut, **Egypt**, 6<sup>th</sup> November 2001. (for interaction with Humboldt Faculty of Earth Sciences)
- Ludwig Maximilian University, Munich, **Germany**, 10-14<sup>th</sup> September 2001. (for IAH 2001 International Congress)
- Asmara University, **Eritrea**, NE Africa, Jan. 2001- Jan. 2002 (for Assistant Professorship III)
- Heidelberg University, Heidelberg, **Germany**, Oct. 1997- Feb. 1999. (for Alexander von Humboldt Fellowship)

#### 17. Conferences/ Seminars/ Short Term Courses/Workshops Organized

1. Coordinator for the 6<sup>th</sup> Refresher Course in ‘Environmental Studies (IDC)’ under the aegis of UGC-Human Resource Development Centre, Jawaharlal Nehru University, New Delhi during **22<sup>nd</sup> August to 3<sup>rd</sup> September 2022**.
2. Organized the 3<sup>rd</sup> meeting (PAC) of Expert Committee for Young Scientist-Earth & Atmospheric Sciences during **28-30<sup>th</sup> September 2016**.
3. Organizing 16<sup>th</sup> International Association for Mathematical Geosciences Conference on “Geostatistical and Geospatial Approaches for the Characterization of Natural Resources in the Environment: Challenges, Processes and Strategies”, School of Environmental Sciences, Jawaharlal Nehru University, New Delhi, during **17-20<sup>th</sup> October 2014** ([www.jnu.ac.in/conference/iamg2014](http://www.jnu.ac.in/conference/iamg2014)).
4. Organized an International German Alumni Summer School India on Millennium Goals and Traditional Knowledge for Sustainable Development and Biodiversity Conservation in India, School of Environmental Sciences, Jawaharlal Nehru University, New Delhi, during **17-25<sup>th</sup> April 2013**.
5. Organized a Indo-German Partnering Post-Kolleg Workshop on “3D GIS and Hydrogeological Flow Modelling” School of Environmental Sciences, Jawaharlal Nehru University, New Delhi, during **10-12 February 2013**.
6. Organized International Humboldt Kolleg (IHK2013) on “Management of Water, Energy and Bio-resources in Changing Climate Regime: Emerging Issues and Environmental Challenges”, School of Environmental Sciences, Jawaharlal Nehru University, New Delhi, during **8-9 February 2013 (IHK2013)**.
7. Organized a Training Programme on “Hydrogeochemical modeling assessment and management of urban & coastal groundwater”, School of Environmental Sciences, Jawaharlal Nehru University, New Delhi, during **17-23<sup>rd</sup> October 2011**.
8. Organized a short-term Training Programme on “GIS application in Hydrogeology and Environmental Geology” in the School of Environmental Sciences, Jawaharlal Nehru University, New Delhi, during **16-18<sup>th</sup> February 2010**.
9. Organized a Training Programme on “Artificial Recharge to Groundwater” in the Department of Geology, Banaras Hindu University, Varanasi, during 20-21<sup>st</sup> October 2005.

#### 18. Invited Lectures/Talks Delivered:

- Delivered talk on “Management of water resources in the semi-arid regions” in the UGC-Malviya Mission Teacher Training Centre, S.V. University, Tirupati **on 08.12.2023**.

- Delivered talk on “Climate impact on water resources and rainwater harvesting” in the Department of Hydrogeology, Freie University, Berlin on **18.07.2023**
- Delivered talk on ‘Groundwater hydrology and groundwater management’ in Department of Geology, S.V. University, Tirupati on 25<sup>th</sup> January 2023.
- Delivered Lecture on “Water resources management” in UGC-Human Resources Development Center of online Faculty Induction Program -10, JNU on **3<sup>rd</sup> November 2022**.
- Delivered talk on ‘Water resources management and artificial recharge structures’ in Department of Environmental Sciences, GITAM University, Visakhapatnam on **7<sup>th</sup> December 2021**.
- Delivered talk on “Climate change and Rainwater harvesting” in Martin Luther University, Halle, Germany on **18<sup>th</sup> October 2021**.
- Delivered talk on ‘water conservation and rainwater harvesting’ in UGC-Human Resources Development Centre of 4<sup>th</sup> online Refresher Course in Environmental Studies, JNU on **8<sup>th</sup> September 2020**.
- Delivered talk on ‘Climate change impacts on groundwater resources’ in UGC-Human Resources Development Centre of 1<sup>st</sup> online Refresher Course in Earth System and Exo-Meteorology, Osmania University, Hyderabad on **18<sup>th</sup> August 2020**.
- Delivered talk on ‘Arsenic and Fluoride in the Aquatic Environment: Geochemistry and Health Effects’ in the Facebook Live Series, Students for Development, Delhi on **6<sup>th</sup> May 2020**.
- Delivered talk on “Impact of climate change on water resources and rainwater harvesting systems” in the Department of Applied Geology, National Institute of Technology, Raipur on 23.8.2017.
- Delivered talk on “Manifestation of Arsenic contamination in groundwater with emphasis on its occurrence and movement and As in Gangetic plains”. National Groundwater Training & Research Institute, Raipur on 22.8.2017.
- Delivered talk on “Impact of climate change on water resources: Rainwater harvesting” at Department of Civil and Environmental Engineering, Mississippi State University, USA on *18<sup>th</sup> April 2017*.
- Delivered talk on “Management of water resources for sustainable development” in the Kamala Nehru College, New Delhi on 27<sup>th</sup> February 2017.
- Delivered talk on “Water resources management and Rainwater harvesting in Inspire Internship Sciences Camp-2017, Kurnool on 29<sup>th</sup> January 2017.
- Delivered talk on “Climate change impact on Groundwater resources” in Gitam University, Visakhapatnam, Andhra Pradesh on 27<sup>th</sup> January 2017.
- Delivered talk on Water resources management and Rainwater harvesting in Inspire Internship Sciences Camp-2014, Hissar on 27.12.2014
- Delivered talk on Arsenic and Fluoride Geogenic Contamination in Groundwater in the Academic Staff College of 18<sup>th</sup> Refresher Course in Environmental Sciences, JNU, 7.3.2013
- Delivered talk on Water resource management in the Academic Staff College of 18<sup>th</sup> Refresher Course in Environmental Sciences, JNU, 6.3.2013
- Delivered Lecture on “Water management in hard rock terrains” in the short term course on Remote Sensing and GIS Applications in Earth Sciences, S.V. University, Tirupati on 24.3.2013
- Delivered talk on “Water resources management: Inconveniences and Remedies” in INSPIRE INTERNSHIP SCIENCE CAMP-2012, Tirupati on 16.10.2012
- Delivered talk on “Water conservation and Rainwater harvesting” in Kamala Nehru College, New Delhi on 12.10.2012.
- Delivered talk on “Management of water resources for sustainable development” in the Kamala Nehru College, New Delhi on 25<sup>th</sup> January 2012.
- Delivered talk on “Research Methodologies and Interpretations in Hydrogeochemistry” at the Department of Geology, Aligarh Muslim University on 14.12.2012
- Delivered talk on “Artificial Recharge methods for water development” in INSPIRE INTERNSHIP SCIENCES CAMP-2011, Tirupati 11.12.2011
- Delivered talks on “Artificial recharge & Rainwater harvesting and Groundwater prospecting” in the Department of Geology, Lucknow University, Lucknow on 21<sup>st</sup> November 2008.
- Delivered lectures on Hydrogeology topics in the Centre of Advanced Study in Geology, Department of Geology, Lucknow University, Lucknow during 17– 19<sup>th</sup> February 2007.

- Delivered a talk on Water management studies in the Department of Geochemistry, Federal University of Fluminense, Rio de Janeiro, Brazil, 2005.
- Delivered lecture on “Rainwater harvesting structures to recharge groundwater” in the Training programme on ‘Artificial Recharge to Groundwater’ held in BHU, Varanasi.
- Lecture delivered on Artificial Recharge on the Water Conservation Day to the high school students in the S.V.U. Campus School, Sri Venkateswara University, Tirupati, 2002.
- Delivered a talk on Rainwater Harvesting Structures to NCC students in S.V. Agricultural University Campus, Tirupati during their training programme, 2000.

## 19. Reviewer (Journals)

- Environmental Monitoring and Assessment; Hydrogeology Journal; Indian Journal of Geochemistry; Current Science; Journal of The Geological Society of India; Food and chemical toxicology; Medical Practice and Reviews; Journal of Oceanography and Marine Science; International Journal of Water Resources and Environmental Engineering; Environmental Earth Sciences; Journal of Earth System Sciences; Natural Resources Research; Water Resources Management; Groundwater for Sustainable Development; Contaminant Hydrology; Arabian Journal of Geosciences; Applied Water Science; Quaternary International.

## 20. Editorial Boards

- Associate Editor, Natural Resources Research, Springer Journal

## 21. Member (Expert) in National Committees

- Expert committee member of Andhra Pradesh Coastal Zone Management Authority (APCZMA), Vijayawada, Andhra Pradesh for 3 years (**November 2023 to November 2026**)
- Expert committee of Board of studies of the Department of Environmental Sciences, Central University of Himachal Pradesh, Dharamshala from **26.06.2023 to 25.06.2026**.
- Expert committee member to evaluate applications of UGC Fellowship and Research Grant (FRG), IUAC, New Delhi from **09.05.2023 to 12.05.2023**.
- Expert committee member of Syllabus Sub-committee for framing the Curriculum and Syllabi for M.Sc Applied Geology, from **04.05.2023 to 03.05.2025**.
- Advisor on the selection committee for recruitment to the posts of Scientists in ICAR, New Delhi, **12.12.2022**
- Expert committee member for the 2<sup>nd</sup> expert committee meeting held at Osmania University, Hyderabad. **24-25<sup>th</sup> August 2022**.
- Expert committee member for the 1<sup>st</sup> expert committee meeting held at IIT Patna, **3-5<sup>th</sup> August 2022**.
- Expert committee member on ‘Earth and Atmospheric Sciences’ under Science & Engineering Research Board (SERB), **2022-2025**
- Expert member of Board of Studies of the Department of Geology, Yogi Vemana University, Kadapa from **2021 to 2024**.
- Expert committee member for ‘SERB Women Excellence Award’, of the Science & Engineering Research Board, DST, **February 2022**.
- Chairman in Earth and Atmospheric Sciences on the Scheme ‘SERB-POWER (*Promoting Opportunities for Women in Exploratory Research*) Grant of the Sciences & Engineering Research Board’, Department of Science and Technology, **January, 2022**.
- Expert committee member for ‘SERB Mathematical Research Impact-Centric Support Scheme (MATRICS) of Science & Engineering Research Board, November 2021
- Expert committee member for CSIR ‘Earth Sciences Selection Board for the selection of SRAs’, Council of Scientific and Industrial Research, **June 2021**.
- Expert member in **Earth and Atmospheric Sciences on the Scheme “SERB-POWER (*Promoting Opportunities for Women in Exploratory Research*) Grant of the Sciences & Engineering Research Board, Department of Science and Technology, January 2021**.
- Expert member of Board of Studies of the Department of Environmental Studies, GITAM University, Visakhapatnam for a period of three years (**March. 2018- Feb. 2021**).

- Expert member of Board of Studies of the Department of Geology, Mizoram University, Mizoram for a period of three years (**Sep. 2016- Aug. 2019**).
- Expert selection committee member for faculty posts in the Department of Geology, Mizoram University (**7<sup>th</sup> May 2018**).
- Expert selection committee member for faculty posts in the Department of Environment Science, Central University of Rajasthan (**7<sup>th</sup> December 2015**).
- Expert committee member for UGC-NET examination for Environmental Sciences, CBSE (**14-18<sup>th</sup> April 2015**).
- Expert committee member for Merit Promotion under Advancement Scheme (CAS) at ICAR-Indian Agricultural Research Institute, New Delhi, Government of India (**4<sup>th</sup> March 2015**).
- Special Invitee for *National Groundwater Estimation Committee* to **REVIEW AND REVISE THE GROUNDWATER ESTIMATION METHODOLOGY (GEC-97)**, Government of India (**7<sup>th</sup> January 2015**).
- Expert committee member for spot study on *Revival of Sasur Khaderi-2 Rivulet and its Origin Thithora Lake in District Fatehpur, Uttar Pradesh* for **PRIME MINISTER'S AWARDS FOR EXCELLENCE IN PUBLIC ADMINISTRATION, 2013-14**, Government of India (**24<sup>th</sup> November 2014**).
- Expert committee for the State Eligibility Test 2014 of Telangana & Andhra Pradesh Government at Hyderabad (**31<sup>st</sup> Oct.-2<sup>nd</sup> Nov. 2014**).

## 22. International Collaborative Research

- A joint Alexander von Humboldt collaborative research programme with Prof. Wolfgang Gossel, Department of Hydrogeology and Environmental Geology, Martin Luther University, Halle, Germany on Hydrogeological and Environmental geochemical modeling aspects of Delhi urban & Andhra Pradesh coastal groundwater systems.
- A joint Alexander von Humboldt collaborative research programme with Prof. Peter Wycisk, Department of Hydrogeology and Environmental Geology, Martin Luther University, Halle, Germany on Hydrogeological and Environmental geochemical modeling aspects of urban & coastal groundwater systems and its 3D models studies.
- A joint INSA-Brazil collaboration research programme with Prof. S.R. Patchneelam, Department of Geochemistry, Federal University of Fluminense, Niteroi – RJ, Brazil on Radioisotope activities for the determination of age and resident time of groundwater and sediments and also advanced radioisotope application in estimating submarine groundwater discharge into the coastal aquifers to understand the coastal saline and groundwater relationships.
- A joint Alexander von Humboldt collaborative research programme with Prof. Margot Isenbeck Schroeter, Department of Environmental Geochemistry, Heidelberg University, Germany on chromium and arsenic contamination in Gangetic alluvium to understand major occurrence, process of contamination and sorption behavior of groundwater chromium and arsenic with sediments in Gangetic alluvium.

## 23. Research Guidance:

- Ph.Ds. (Awarded): **14**                      Ph.Ds (under supervision): **04**
- M.Phil (Awarded): **10**
- Master level dissertations: **23**
- Post-doctoral Fellows: **05**
- Foreign and Indian students: **02**

### Post-doctoral Fellows

1. **Dr Neelratan Singh (1.1.2016 to 31.10.2019)**. Tectono-geomorphic and climatic controls on the evolution of landscapes in Shyok and Nubra valleys, Ladakh Himalaya. J&K. India. NPDF, SERB (No. YSS/2015/001185).
2. **Dr. Shyam Ranjan (29.7.2019 to 28.07.2022)**. Delineating the moisture sources at Chandra Basin, Western Himalaya using a novel tool: water stable isotopologues and lagrangian trajectory model. CSIR-Pool Scientist (No. 13(9059-A)/2019-pool).
3. **Dr. Hemant Kumar Singh (20.3.2020 to 19.3.2023)**. Geochemistry and simulation reactive and heat transfer modeling of the Himalayan geothermal system. (UGC-D.S. Kothari Post-Doctoral Fellowship (No. F.4-2/2006(BSR)/ES/19-20/0019).

4. **Dr. Arbind Kumar Patel (1.2.2021 to 31.1.2023)**. Co-occurrence of anthropogenic biomarkers posing a threat on potable drinking water of Delhi: A nexus between rapid urbanization, population growth and sustainable water management. NPDF, SERB (No. PDF/2020/002823/EAS)
5. **Dr. Hemant Kumar Singh (1.4.2023 to 31.3.2026)**. Hydrogeochemistry and reactive flow modelling of the Uttarakhand Himalayan geothermal system. CSIR-Senior Research Associateship (No. 13(9262-A)/2023-POOL).

Internships (Foreign and Indian students)

1. **Rupam Mondal**, 3<sup>rd</sup> Year BS-MS degree student, Department of Earth Sciences in IISER, Kolkata, India joined for 2 months internship (**19.05.2023 to 21.07.2023**)
2. **Ms Uzanu Romane**, M.Sc student, Department of Hydrogeology and Environmental Geology, University of Poitiers, France joined for six months internship (**1.2.2018 to 31.7.2018**). (**Country: France**)

Title of Ph.D thesis awarded:

1. **Sangita Dey (2010)**. Hydrogeological and hydrogeochemical studies with reference to fluoride contamination in the Panda River basin, Sonbhadra district, U.P, India.
2. **Prahlad Ram (2010)**. Hydrogeological investigation with special emphasis on groundwater pollution of lower Varuna basin, Varansi district, U.P, India.
3. **Musarrat Parween (2014)**. Persistent toxic substances and carbonaceous materials in fluvial ecosystem of river Yamuna in Delhi region.
4. **Shubhra Singh (2015)**. Municipal Solid Waste Characterization in Varanasi environs: An Impact Assessment on Groundwater and Soil.
5. **Priyanka Patel (2016)**. Water Quality and CO<sub>2</sub> consumption rate from Geochemical Weathering Processes in the Swarnamukhi River basin, Andhra Pradesh, India.
6. **Sadaf Nazneen (2016)**. Nutrient Biogeochemistry in Chilika Lake, Odisha, East Coast of India.
7. **Arif Ahamad (2019)**. Potentially toxic elements (PTEs) in the groundwater, soil and road dust from the industrial area in the Sonbhadra district, Uttar Pradesh, India.
8. **Sughosh Madhav (2019)**. Impact of Textile effluents on groundwater and soil quality in Panipat and Bhadohi environs, India.
9. **Prerna Joshi (2021)**. Geochemical assessment of wetlands of Delhi.
10. **Karuna Rao (2023)**. Sources, sequestration, transformation and fate of sedimentary organic carbon in Coringa mangroves, Andhra Pradesh, India: A multi-proxy approach.
11. **Monica S Shamurailatpam (2023)**. Role of Bio-albedo on the glacier health in the Chhota Shigri glacier, Himachal Pradesh.
12. **Sarvagya Vatsal (2023)**. Assessing the debris role on glacier dynamics and water resources potential in Chandra-Bhaga basin, Western Himalaya.
13. **Shilpi Gupta (2023)**. Impact of Bandhwari landfill leachate on groundwater resources of Delhi super group, Haryana: Isotopic signatures and contaminant transport modelling.
14. **Kalyan Biswal (2024)**. Understanding the solute acquisition processes and runoff sources in cold glacial catchment of the Himalayas.

Title of M.Phil thesis awarded:

1. **Sadaf Nazneen (2011)**. Defluoridation of water using phytoremediation method.
2. **Priyanka Patel (2013)**. Hydrogeochemistry for the assessment of groundwater quality in western parts of Gurgaon region, India.
3. **Arif Ahamad (2014)**. Impact of Municipal Solid Waste Disposal site on Groundwater Resources in and around Bhalswa Region, New Delhi.
4. **Sughosh Madhav (2014)**. Hydrogeochemical study for the Assessment of Groundwater Quality in Trans-Varuna Region of Varanasi City, Uttar Pradesh.



5. **Sumeet Tsering (2015).** Hydrogeochemical studies for the Assessment of Groundwater Quality in central parts of Sonitpur district, Assam.
6. **Sugandha Agnihotri (2016).** Estimation of Rooftop Rainwater Harvesting Potential of Non-Residential Buildings of JNU campus, New Delhi, India.
7. **Amit Kumar Singh (2016).** Hydrogeochemistry and Groundwater Quality studies in Kachnarwa-Parwakodari region of Sonbhadra district, UP, India.
8. **Jyoti Kushwaha (2018).** Groundwater chemistry and assessment of saltwater impact on freshwater aquifers in southern part of Puri district, Odisha, India.
9. **Krati Sharma (2021).** Evaluation of groundwater quality with special emphasis on nitrate pollution and its human risk assessment in the southeastern part of New Delhi, India.
10. **Anshula Dhiman (2022).** Assessment of selective contaminants of emerging concern (CECs) in the Ganga River basin, India

#### Master Level dissertation

1. Characterization of seawater intrusion, heavy metal contamination and associated health risk along the coastal aquifers of Puri district, India (**Samikhya Mohapatra 2023, JNU**)
2. Hydrogeochemical processes and heavy metal pollution of surface and groundwater in the Yamuna river basin, Delhi-NCR (**Padmaja Mohanty 2023, JNU**)
3. Identification of groundwater potential zones using remote sensing techniques in the east and west Imphal, Manipur. (**Yengkhom Sonia Devi 2022, JNU**)
4. Groundwater quality assessment by using geochemical and multivariate statistical approach in the Swarnamukhi River basin, Andhra Pradesh, India. (**Tonili Monica Awomi 2021, JNU**).
5. Hydrogeochemistry for the assessment of groundwater quality in eastern part of Delhi, India (**Michelle Lalhruaizeli 2020, JNU**)
6. Hydrogeochemistry parameters for assessment of groundwater quality in Bhalswa and Gaziapur landfill sites in NCT, Delhi (**Naorem Bebenita Devi, 2020, JNU**)
7. Hydrogeochemical assessment of groundwater and its quality in part of Hindon-Yamuna river confluence, Greater Noida, Uttar Pradesh, India. (**Sorish Raj Srivastav 2019, JNU**)
8. Hydrogeochemical assessment of groundwater quality in Shiv vihar colony, Delhi (**Sudhanshu Shekhar 2018, JNU**)
9. Hydrogeochemical Assessment of Groundwater Quality in Eastern part of Saharsa district, Bihar, India (**Akanksha Roy 2016, JNU**)
10. Hydrogeochemistry for the assessment of spring water quality in Almore town, Uttarakhand, India (**Prerna Joshi 2014, JNU**)
11. Hydrogeochemistry of the groundwater quality in the vicinity of Okhla landfill site, New Delhi (**Avli Verma 2014, JNU**)
12. Hydrogeological assessment of groundwater quality of Terai region, Nepal (**Deepa Gurung, 2013, JNU**)
13. Hydrogeological study of groundwater in and around of Salt Lake, Kolkata, West Bengal, India (**Sumeet Tsering 2013, JNU**)
14. Hydrogeochemical studies for the Assessment of Groundwater Quality in JNU New Campus, New Delhi, India (**Anurag Chaudhary 2012, JNU**)
15. Evaluation of groundwater quality in Chopan block, Sonbhadra district, UP, India. (**Priyanka Patel, 2011, JNU**)
16. Aquatic geochemistry of lower Varuna River basin, Varansi district using graphical and multivariate statistical analysis (**Varuna Yadav 2010, JNU**)
17. Hydrogeochemistry and occurrence of fluoride in and around Ramgarh ares, Sonbhadra district, UP. (**Alok Kumar, 2009 BHU**).
18. Spacial variability of groundwater chemical quality in Kachhnarwa to Wyndhamganj area of Sonbhadra district, UP (**Maloshree Bhattacharya 2009, BHU**)
19. Chemical quality of groundwater in and around Kon area, Sonbhadra district, UP. (**Santosh K Chaudhari 2009, BHU**).

20. Evaluation of hydro-geochemical parameters in Nagwa-Dasashwamedh area, Varanasi City, *Department of Geology*, BHU. (**Vinay Nabiyal 2008, BHU**)
21. Hydrogeochemical studies in and around Kachnarva area, Sonbhadra district, *Department of Geology*, BHU. (**Janmejy Singh 2007, BHU**).
22. Hydrogeochemical investigations in and around Ram Nagar area, Varanasi city, *Department of Environmental Sciences*, BHU (**Sneha Singh 2007, BHU**)
23. Hydro-geochemical investigation in BHU Campus, *Department of Geology*, BHU, Varanasi. (**Tushar Sainger 2006, BHU**)

## 24(a). Research Publications - (\*Corresponding author)

1. Soumya K Nayak and N. Janardhana Raju\* (2024). Unravelling the signatures of submarine groundwater discharge and seawater intrusion along the coastal plains of Odisha, India: A multi-proxy approach. **Environ Geochem Health. Accepted**
2. Jyoti Kushwaha, N. Janardhana Raju\* and S. Madhav and A.K. Singh (2024). Evaluation of hydrogeochemical processes and saltwater intrusion in the coastal aquifers in the southern part of Puri District, Odisha, India. **Environmental Science and Pollution Research**, [Doi.org/10.1007/s11356-024-32833-w](https://doi.org/10.1007/s11356-024-32833-w). **IF: 5.19**
3. Hemant K Singh, D. Chandrasekharam, N. Janardhana Raju, Shyam Ranjan (2024). Geothermal energy potential in relation to black carbon reduction and CO<sub>2</sub> mitigation of Himalayan geothermal belt - A review. **Geothermics**. [Doi.org/10.1016/j.geothermics.2024.102962](https://doi.org/10.1016/j.geothermics.2024.102962). **IF: 4.56**.
4. Sangita Dey, Saumya Singh, N. Janardhana Raju and R.K. Mall (2024). Hydrogeochemical characterization for groundwater quality and risk assessment in part of central gangetic alluvium, India. **Groundwater for Sustainable Development**, [Doi.org/10.1016/j.gsd.2024.101108](https://doi.org/10.1016/j.gsd.2024.101108). **IF: 5.9**
5. Shijin Rajan and N. Janardhana Raju\* (2024). Environmental health risk assessment an source apportion of heavy metals using chemometrics and pollution indices in the upper Yamuna River basin, India. **Chemosphere**. [Doi.org/10.1016/j.chemosphere.2023.140570](https://doi.org/10.1016/j.chemosphere.2023.140570). **IF: 8.95**
6. Soumya K Nayak and N. Janardhana Raju\* (2023). Impacts of climate change and coastal salinization on the environmental risk of heavy metal contamination along the Odisha coast, India. **Environmental Research**. <https://doi.org/10.1016/j.envres.2023.117175>. **IF: 8.43**
7. Shilpi Gupta and N. Janardhana Raju\* (2023). Potential environmental pollution study by leachate generation and health risk assessment in the vicinity of Bandhwari landfill disposal site, National Capital Region, India. **Groundwater for Sustainable Development**. [Doi.org/10.1016/j.gsd.2023.101032](https://doi.org/10.1016/j.gsd.2023.101032). **IF: 5.9**
8. Arif Ahamad, N. Janardhana Raju\*, S. Madhav and P. Ram (2023). Fluoride in groundwater of Industrial town of Sonbhadra district, Uttar Pradesh, India: Probable release mechanism and potential health risk assessment. **Environ Geochem Health**. <https://doi.org/10.1007/s10653-023-01692-8>. **IF: 4.89**
9. S. Rajan, M. Parween and N. Janardhana Raju\* (2023). Pesticides in the hydrogeo-environment: a review of contaminated prevalence, source and mobilization in India. **Environmental Geochemistry and Health**. [Doi.org/10.1007/s10653-023-01608-6](https://doi.org/10.1007/s10653-023-01608-6). **IF: 4.89**
10. Sangita Dey, N. Janardhana Raju, Wolfgang Gossel and R.K. Mall (2023). Hydrogeochemical characterization and geochemical modelling for the evaluation of groundwater quality and health risk assessment in the Varuna River basin, India. **Environ Geochem Health**, ([Doi.org/10.1007/s10653-023-01521-y](https://doi.org/10.1007/s10653-023-01521-y)). **IF: 4.89**
11. Shilpi Gupta, N. Janardhana Raju\*, Diksha Pant, Sitangshu Chatterjee and Prahlad Ram (2023). Environmental isotope constraints and hydrogeochemical evolution of groundwater in the semi-arid national capital environs of Delhi, India. **Urban Climate**, 49:101481 ([Doi.org/10.1016/j.uclim.2023.101481](https://doi.org/10.1016/j.uclim.2023.101481)). **IF:5.73**
12. N. Janardhana Raju\*, Krati Sharma and AL Ramanathan (2022). Preliminary investigation of saline water intrusion (SWI) and submarine groundwater discharge (SGD) along the south-eastern coast of Andhra Pradesh, India using groundwater dynamics, sea surface temperature and field water quality anomalies. **Environmental Science and Pollution Research**. <https://doi.org/10.1007/s11356-022-23973-y>. **IF: 5.19**
13. M.S. Shamurailatpam, J. Telling, J.I. Wadham, AL Ramanathan, C.A. Yates and N. Janardhana Raju (2022). Factors controlling the net ecosystem production of cryoconite on western Himalayan glaciers. **Biogeochemistry**. <https://doi.org/10.1007/s10533-022-00998-6>. **IF: 4.8**

14. P. Joshi, N. Janardhana Raju\*, N.S. Siddaiah and D. Karunanidhi (2022). Environmental pollution of potentially toxic elements (PTEs) and its human health risk assessment in Delhi urban environs, India. **Urban Climate**, 46: 101309. <https://doi.org/10.1016/j.uclim.2022.101309>. IF: 5.73
15. Hemant Kumar Singh, D. Chandrasekharam, A. Minissale, N. Janardhana Raju and A. Baba (2022). Geothermal potential of Manuguru geothermal field of Godavari valley, India. **Geothermics**, 105: 102545. <https://doi.org/10.1016/j.geothermics.2022.102545>. IF: 4.56.
16. Krati Sharma, N. Janardhana Raju\*, Neelratan Singh and S. Sreekesh (2022). Heavy metal pollution in groundwater of urban Delhi environs: Pollution indices and health risk assessment. **Urban Climate**, 45:101233. [Doi.org/10.1016/j.uclim.2022.101233](https://doi.org/10.1016/j.uclim.2022.101233). IF: 5.73
17. Karuna Rao, AL Ramanathan and N. Janardhana Raju (2022). Assessment of blue carbon stock of Coringa mangroves: climate change perspective. **Journal of Climate Change**, 8(2): 41-58.
18. S. Nazneen, A.K. Mishra, N. Janardhana Raju\* and Gauhar Mehmood (2022). Coastal macrophytes as bioindicators of trace metals in the Asia's largest Lagoon ecosystem. **Marine Pollution Bulletin**, 178:113576. IF: 5.55
19. D. Karunanidhi, P. Aravinthasamy, T. Subramani, Rohana Chandrajith, N. Janardhana Raju and I.M.H.R. Antunes. (2022). Provincial and seasonal influences on heavy metals in the Noyyal River of south India and their human health hazards. **Environmental Research**, 204:111998. DOI. [10.1016/j.envres.2021.111998](https://doi.org/10.1016/j.envres.2021.111998). IF: 8.43
20. N. Janardhana Raju\* (2022). Arsenic in the geo-environment: A review of sources, geochemical processes, toxicity and removal technologies. **Environmental Research**, 203: 111782. DOI. [10.1016/j.envres.2021.111782](https://doi.org/10.1016/j.envres.2021.111782). IF: 8.43
21. S. Madhav, N. Janardhana Raju\*, Arif Ahamad, A.K. Singh, P. Ram and W. Gossel (2021). Hydrogeochemical assessment of groundwater quality and associated potential human health risk in Bhadohi environs, India. **Environmental Earth Sciences**, 80(17):585 (Doi.org/10.1007/s12665-02109824-y) IF: 3.12
22. A. Ahamad, N. Janardhana Raju\*, S. Madhav, W. Gossel, P. Ram and P. Wycisk (2021). Potential toxic elements in soil and road dust around Sonbhadra industrial region, Uttar Pradesh, India: source apportionment and health risk assessment. **Environmental Research**, 202, 111685. DOI. [10.1016/j.envres.2021.111685](https://doi.org/10.1016/j.envres.2021.111685). IF: 8.43
23. S Singh, N Hariteja, S Sharma, N Janardhana Raju and TJ Renuka Prasad (2021). Production of biogas from human faeces mixed with co-substrate poultry litter & cow dung. **Environmental Technology and Innovation**, 23: 101551 (Doi.org/10.1016/j.eti.2021.101551). IF: 7.76
24. M. Parween, AL Ramanathan and N. Janardhana Raju (2021). Assessment of toxicity and potential health risk from persistent pesticides and metals along the Delhi stretch of river Yamuna. **Environmental Research**, 202: 111780. DOI. [10.1016/j.envres.2021.111780](https://doi.org/10.1016/j.envres.2021.111780). IF: 8.43
25. S Madhav, N. Janardhana Raju\* and Arif Ahamad (2021). A study of hydrogeochemical processes using integrated geochemical and multivariate statistical methods and health risk assessment of groundwater in Trans-Varuna region, Uttar Pradesh. 23: 7480-7508. **Environment, Development and Sustainability**, 23:7480-7508. DOI:10.1007/s10668-020-00928-2. IF: 4.08
26. A. Ahamad, N. Janardhana Raju\*, S. Madhav and A.H. Khan (2020). Trace elements contamination in groundwater and associated human health risk in the industrial region of southern Sonbhadra, Uttar Pradesh, India. **Environ Geochem Health**. 2020.(doi.org/10.1007/s10653-020-00582-7). IF: 4.89
27. Priyanka Patel, N. Janardhana Raju\*, V. Subramanian, Wolfgang Gossel and Peter Wycisk (2020). Chemical weathering and atmospheric CO<sub>2</sub> consumption in the semi-arid Swarnamukhi basin (Peninsular India) estimated from river water geochemistry. **Applied Geochemistry**, 113: 104520 (<https://doi.org/10.1016/j.apgeochem.2020.104520>). IF: 3.84
28. Shubhra Singh, N. Hariteja, TJ Renuka Prasad, N. Janardhana Raju\* and Ch Ramakrishna (2020). Impact assessment of faecal sludge on groundwater and river water quality in Lucknow environs, Uttar Pradesh, India. **Groundwater for Sustainable Development**. 11:100461. [doi.org/10.1016/j.gsd.2020.100461](https://doi.org/10.1016/j.gsd.2020.100461). IF: 5.9

29. Sadaf Nazneen, N. Janardhana Raju, Sughosh Madhav and Arif Ahamad (2019). Spatial and temporal dynamics of dissolved nutrients and factors affecting water quality of Chilika lagoon. **Arabian Journal of Geosciences**. 12:243. (<https://doi.org/10.1007/s12517-019-4417-x>). IF: 1.83
30. Naveen Kumar, AL Ramanathan, Martyn Tranter, Parmanand Sharma, Manish Pandey, Prabhat Ranjan and N. Janardhana Raju (2019). Switch in chemical weathering caused by the mass balance variability in a Himalayan glacierized basin: a case of Chhota Shigri Glacier. **Hydrological Sciences Journal**. (<https://doi.org/10.1080/02626667.2019.1572152>). IF: 3.94
31. Arif Ahamad, N. Janardhana Raju\*, Sughosh Madhav, Wolfgang Gossel and Peter Wycisk (2019). Impact of nonengineered Bhalswa landfill on groundwater from Quaternary alluvium in Yamuna flood plain and potential human health risk, New Delhi, India. **Quaternary International**. 507:352-369. IF: 2.45
32. Sadaf Nazneen, Shubhra Singh and N. Janardhana Raju\* (2019). Heavy metal fractionation in core sediments and potential biological risk assessment from Chilika Lagoon, Odisha State, India. **Quaternary International**. 507:370-388. IF: 2.45
33. N. Singh, S. Ali, N.J.Raju, Y.Singh, K.Rajendra, M. Kumar, B. Deshmukh, D.C. Jhariya, V. Kumar, M.C.Sharma, E. Chakraborty, M.A.Siddiqui and A.Singh (2019). Dataset on mapping and morphometry of sand dunes in Nubra and Shyok valleys, Ladakh Himalaya, India. **Indian J. Sci. Res**. 10(1):11-19.
34. Ricardo Olea, N. Janardhana Raju, Juan Jose Egozcue, Vera Pawlowsky-Glahn and Shubhra Singh (2018). Advancements in hydrochemistry mapping: methods and application to groundwater arsenic and iron concentrations in Varanasi, Uttar Pradesh, India. **Journal of Stochastic Environmental Research and Risk Assessment**, 32:241-259. (DOI 10.1007/s00477-017-1390-3). IF: 3.82
35. P. Patel, N. Janardhana Raju\*, BCS Rajareddy, U. Suresh, D.B. Sankar and TVK Reddy (2018). Heavy metal contamination in river water and sediments of the Swarnamukhi River basin, India: risk assessment and environmental implications. **Environmental Geochemistry and Health**, 40:609-623. (DOI 10.1007/s10653-017-0006-7). IF: 4.89
36. Shubhra Singh, N. Janardhana Raju\* and Ch. Ramakrishna (2017). Assessment of the effect of landfill leachate irrigation of different doses on wheat plant growth and harvest index: A laboratory simulation study. **Environmental Nanotechnology, Monitoring & Management**, 8:150-156. IF: 5.64
37. M. Parween, AL. Ramanathan and N. J. Raju (2017). Wastewater management and water quality of river Yamuna in the megacity of Delhi. **International Journal of Environmental Science and Technology**, 14 (10):2109-2124. (DOI 10.1007/s13762-017-1280-8). IF: 3.52
38. Shubhra Singh, Sujaya Rathi, Riya Rachel and N. Janardhana Raju (2017). Technology options for faecal sludge management in low income countries: Benefits and revenue from reuse. **Environmental Technology & Innovation**, 7:2013-2018. IF: 7.76
39. Sadaf Nazneen and N. Janardhana Raju\* (2017). Distribution and sources of Carbon, Nitrogen, Phosphorus and biogenic silica in the sediments of Chilika Lagoon. **J. Earth System Sciences**, 126:13 (DOI 10.1007/s12040-016-0785-8). IF: 1.91
40. N. Janardhana Raju\* (2017). Prevalence of fluorosis in the fluoride enriched groundwater in semi-arid parts of eastern India: geochemistry and health implications. **Quaternary International**, 443:265-278 (<http://dx.doi.org/10.1016/j.quaint.2016.05.028>). IF: 2.45
41. N. Janardhana Raju, Priyanka Patel, BCS Rajareddy, U. Suresh and TVK Reddy (2016). Identifying source and evaluation of hydrogeochemical processes in the hard rock aquifer system: Geostatistical analysis and geochemical modeling techniques. **Environmental Earth Sciences**, 75:1157 (DOI 10.1007/s12665-016-5979-5). IF: 3.12
42. D Saha, S Shekhar, S Ali, SS Vittala and N. Janardhana Raju (2016). Recent Hydrogeological Research in India. **Proc. Indian National Science Academy**, 82(3):787-803. IF: 0.75
43. Priyanka Patel, N. Janardhana Raju\*, Sanjay Kumar, Sadaf Nazneen, Arif Ahamad and Sughosh Madhav (2016). Hydrogeochemistry for the assessment of quality of groundwater in parts of Chopan block, Uttar Pradesh, India. **Journal of Applied Geochemistry**, 18(4):464-472.
44. Gabriel Knorr, Reiner Stollberg, N. Janardhana Raju, Peter Wycisk and Wolfgang Gossel (2016). Prevention of groundwater wells from salinization by subsurface dams: A 2D numerical modeling approach. **Hallesches Jahrbuch für Geowissenschaften**, 38:55-66.



45. Priyanka Patel, N. Janardhana Raju\*, B.C. Sundara Raja Reddy, U. Suresh, W. Gossel and P. Wycisk (2016). Geochemical processes and multivariate statistical analysis for the assessment of groundwater quality in the Swarnamukhi River basin, Andhra Pradesh, India, [\*Environmental Earth Sciences\*](#), 75:611 (DOI 10.1007/s12665-015-5108-x). **IF: 3.12**
46. Shubhra Singh, N. Janardhana Raju\*, Gossel W, Wycisk P (2016). Assessment of pollution potential of leachate from the municipal solid waste disposal site and its impact on groundwater quality, Varanasi environs, India. [\*Arabian Journal of Geosciences\*](#), 9:131 (DOI 10.1007/s12517-015-2131-x). **IF: 1.83**
47. N. Janardhana Raju\*, Priyanka Patel, Deepa Gurung, Prahlad Ram, Wolfgang Gossel and Peter Wycisk (2015). Geochemical assessment of groundwater quality in the Dun valley of central Nepal using chemometric method and geochemical modeling. [\*Groundwater for Sustainable Development\*](#), 1:135-145. **IF: 5.9**
48. Shubhra Singh, N. Janardhana Raju\* and Sadaf Nazneen (2015). Environmental risk of heavy metal pollution and contamination sources using multivariate analysis in the soils of Varanasi environs, India. [\*Environmental Monitoring and Assessment\*](#), 187: (DOI 10.1007/s10661-015-4577-4). **IF: 3.31**
49. Singh, S., N. Janardhana Raju\* and Ramakrishna Ch. (2015). Evaluation of groundwater quality and its suitability for domestic and irrigation use in parts of the Chandauli-Varanasi region, Uttar Pradesh, India. [\*Journal of Water Resource and Protection\*](#), 7:482-497. **IF: 1.31**
50. N. Janardhana Raju\* (2015). Rainwater harvesting systems to recharge depleted aquifers in water scarcity regions of India: Case studies. [\*Journal of Applied Geochemistry\*](#), 17(3):327-334.
51. Musarrat Parween, AL Ramanathan, PS Killare and N.J. Raju (2014). Persistence, variance and toxic levels of organochlorine pesticides in fluvial sediments and the role of black carbon in their retention. [\*Environ Sci Pollut Res.\*](#), 21(10): 6525-6546. **IF: 5.19**
52. N. Janardhana Raju\*, Prahlad Ram and Wolfgang Gossel (2014). Evaluation of Groundwater Vulnerability in the lower Varuna catchment area, Uttar Pradesh, India using AVI concept. [\*Journal of Geological Society of India\*](#), 83:273-278. **IF: 1.47**
53. N. Janardhana Raju\*, TVK Reddy, P Muniratnam, Wolfgang Gossel, Peter Wycisk (2013). Managed Aquifer Recharge (MAR) by the construction of subsurface dams in the semi-arid regions: a case study of the Kalangi River basin, Andhra Pradesh, India. [\*Journal of Geological Society of India\*](#), 82:657-665. **IF: 1.47**
54. N. Janardhana Raju\*, Sangita Dey, Wolfgang Gossel and Peter Wycisk (2012). Fluoride hazardous and assessment of groundwater quality in the semi-arid upper Panda river basin, Sonbhadra district, Uttar Pradesh, India. [\*Hydrological Sciences Journal\*](#), 57(7): 1433-1452. **IF: 3.94**
55. DM Benerjee, A Mukherjee, SK Acharyya, D Chatterjee, C Mahanta, D Saha, S Kumar, M Singh, A Sarkar, CS Dubey, D Shukla and N. Janardhana Raju (2012). Contemporary Groundwater Pollution Studies in India: A Review. [\*Proc Indian National Science Academy\*](#), 78(3):333-342. **IF: 0.75**
56. N. Janardhana Raju\* (2012). Arsenic exposure through groundwater in the middle Ganga plain in the Varanasi environs, India: A future threat. [\*Journal of Geological Society of India\*](#), 79:302-314. **IF: 1.47**
57. N. Janardhana Raju\* (2012). Evaluation of hydrogeochemical processes in the Pleistocene aquifers of Middle Ganga Plain, Uttar Pradesh, India. [\*Environmental Earth Sciences, springer\*](#), 65(4):1291-1308. **IF: 3.12**
58. N. Janardhana Raju\*, U.K. Shukla and Prahlad Ram (2011). Hydrogeochemistry for the assessment of groundwater quality in Varanasi: a fast urbanizing center in Uttar Pradesh, India. [\*Environmental Monitoring and Assessment, springer\*](#). 173: 279-300. **IF: 3.31**
59. Shubhra Singh, N. Janardhana Raju and Gyan Sagar (2011). Process design for decentralized sewage treatment system with total natural resource management. [\*International Journal of Water Resources and Environmental Engineering\*](#), 3(11): 233-237.
60. S Sahu, N. Janardhana Raju and D Saha (2010). Active tectonics and geomorphology in the Sone-Ganga alluvial tract in mid-Ganga basin, India. [\*Quaternary International, Elsevier\*](#), 227: 116-126. **IF: 2.45**
61. N. Janardhana Raju\*, Sangita Dey and Kaushik Das (2009). Fluoride contamination in groundwater of Sonbhadra district, Uttar Pradesh, India. [\*Current Science\*](#), 96(7): 979-985. **IF: 1.1**
62. N. Janardhana Raju\*, Prahlad Ram and Sangita Dey (2009). Groundwater quality in the lower Varuna River basin, Varanasi district, Uttar Pradesh, India. [\*Journal of Geological Society of India\*](#), 73: 178-192. **IF: 1.47**
63. U.K. Shukla and N. Janardhana Raju (2008). Migration of Ganga River and its implication on hydro-geological potential of Varanasi area, U. P. [\*Journal of Earth System Sciences, Springer\*](#). 117(4): 489-498. **IF: 1.91**

64. N. Janardhana Raju\* (2007). Hydrogeochemical parameters for assessment of Groundwater quality in the upper Gunjanaeru River basin, Cuddapah district, Andhra Pradesh, South India. [\*Environmental Geology, Springer\*](#), 52(6): 1067-1074. **IF: 3.12**
65. N. Janardhana Raju\*, Margot I. Schroeter and Max Kofod (2007). Mobility and Retention of Oxoanions in Iron Hydroxide Sandy Aquifers - Batch and Column Tests. *Indian Journal of Geochemistry*, 22: 257-273.
66. N. Janardhana Raju\* (2007). A seasonal wise estimation of TDS from EC and SiO<sub>2</sub> in groundwaters of upper Gunjanaeru river basin, Cuddapah district, Andhra Pradesh. [\*Current Science\*](#), 92(3): 371-376. **IF: 1.1**
67. N. Janardhana Raju\* and T.V. K. Reddy (2007). Environmental and urbanization affect on groundwater resources in a pilgrim town of Tirupati, Andhra Pradesh, South India. [\*Journal of Applied Geochemistry\*](#), 9(2): 212-223.
68. N. Janardhana Raju\*, T.V.K. Reddy and P. Muniratnam (2006). Subsurface Dams to Harvest Rainwater – A Case of Swarnamukhi River basin, Southern India. [\*Hydrogeology Journal, Springer\*](#), 14: 526-531. **IF: 3.18**
69. N. Janardhana Raju\* and T.V.K. Reddy (2006). Urban development and the looming water crisis – A case study. In: Culshaw M.G., Reeves H.J., Jefferson I and Spink T (eds.), Engineering Geology for Tomorrow's cities. [\*The Geological Society of London\*](#), pp. 1-5. **IF: 3.8**
70. N. Janardhana Raju\*, S.S.S. Muntaz Vali and A.S. Sudheer (2006). Evaluation of chemical quality of groundwater in the upper Pillaperu River basin, Nellore district, Andhra Pradesh. [\*Indian Journal of Geology\*](#), 78(1-4): 229-240.
71. N. Janardhana Raju\* (2006). Seasonal evaluation of hydro-geochemical parameters using correlation and regression analysis. [\*Current Science\*](#), 91(6): 820-826. **IF: 1.1**
72. N. Janardhana Raju\* (2006). Iron contamination in groundwater: A case from Tirumala-Tirupati environs, India. *The Researcher*, 1(1): 28-31.
73. N. Janardhana Raju\*, M. Kofod, V. Haury, Margot I. Schroeter and B. Kotaiah (2005). Sorption of oxianions (chromate & phosphate) on quartz sand/hydrous ferric oxide systems – A laboratory simulation. [\*Journal of Indian Association of Environmental Management\*](#), 32(2): 50-52.
74. N. Janardhana Raju\* (2005). Fast Decline of Water Levels in Urban Tirupati, Chittoor District, Andhra Pradesh. [\*Journal of Geological Society of India\*](#), 65(6): 773-775. **IF: 1.47**
75. C.V. Reddy, N. Janardhana Raju\*, B. Kotaiah and A.V. Reddy (2004). Assessment of Leachate Chemical constituents from Tirupati Municipal solid waste – A Laboratory Simulation study. [\*Indian Journal of Geochemistry\*](#), 19: 295-300.
76. M.R. Reddy, N. Janardhana Raju\*, Y.V. Reddy and T.V.K. Reddy (2000). Water resources development and management in the Cuddapah district, Andhra Pradesh, India. [\*Environmental Geology, Springer\*](#), 39(3/4): 342-352. **IF: 3.12**
77. N. Janardhana Raju, M. Kofod, M. Isenbeck-Schroeter and G. Mueller (1999). Heavy metal content of Indian cigarettes. [\*Toxicological and Environmental Chemistry\*](#), 72: 215-219. **IF: 1.57**
78. N. Janardhana Raju\* and T.V.K. Reddy (1998). Fracture pattern and electrical resistivity studies for groundwater exploration. [\*Environmental Geology, Springer\*](#), 34(2/3): 175-182. **IF: 3.12**
79. T.V.K. Reddy, S.S. Reddy and N. Janardhana Raju\* (1996). Delineation of groundwater resources in drought prone area of Upper Godduvanka river basin, Chittoor district, Andhra Pradesh using electrical resistivity method. [\*Water Science and Technology\*](#), 16/2: 211-222. **IF: 2.43**
80. N. Janardhana Raju\*, T.V.K. Reddy and P.T. Nayudu (1996). Electrical resistivity surveys for groundwater in the Upper Gunjanaeru Catchment, Cuddapah district, Andhra Pradesh. [\*Journal of Geological Society of India\*](#), 47(6): 705-716. **IF: 1.47**
81. P.C. Reddy, B. Rangamannar and N. Janardhana Raju (1995). Determination of chromium by Radiochemical displacement. [\*J.Radiochem. Nucl. Chem. Letters\*](#), 200(2): 119-126.
82. N. Janardhana Raju\*, T.V.K. Reddy, B. Kotaiah and P.T. Nayudu (1995). Hydrogeomorphology of the Upper Gunjanaeru river basin, Cuddapah district, Andhra Pradesh using remote sensing techniques. *Journal of Applied Hydrology*, VIII(1-4): 99-104.
83. N. Janardhana Raju\*, T.V.K. Reddy, P.T. Nayudu and G.J. Reddy (1995). Morphometric analysis of the Upper Gunjanaeru river basin, Cuddapah district, Andhra Pradesh. *The National Geographical Journal of India*, 41(2): 145-153.

84. T.S. Rao and N. Janardhana Raju\* (1995). Hydrogeochemical parameters for delineation of salt water contamination zones in Upper Nagari basin, Chittoor district, Andhra Pradesh. *Encology*. 10(6): 34-38.
85. N. Janardhana Raju\*, T.V.K. Reddy, P.T.Nayudu and B.Kotaiah (1994). Estimation of aquifer parameters and groundwater balance of the Upper Gunjanaeru river basin, Cuddapah district, Andhra Pradesh. *BHU-JAL News*. 9(1): 11-15.
86. T.V.K. Reddy, N. Janardhana Raju\*, B.Kotaiah (1993). Multiple regression models for the estimation of TDS from SEC and SiO<sub>2</sub> in surface and groundwater samples of Tirupati region, Andhra Pradesh. *Fresenius Environmental Bulletin*. 2(11): 641-646. IF: 0.80
87. D.V.R. Raju, N. Janardhana Raju\* and B. Kotaiah (1993). Complexation of fluoride ions with alum-flocs at various pH values during coagulation and flocculation. *Journal of Geological Society of India*. 42: 51-54. IF: 1.46
88. S.S. Reddy, K.S.S. Prasad, N. Janardhana Raju\*, T.V.K. Reddy and P.T. Nayudu (1993). Resistivity surveys for groundwater exploration in the Palar basin, Chittoor district, Andhra Pradesh. *Journal of Institution of Engineers (India)*. 73: 180-184.
89. N. Janardhana Raju\*, T.V.K. Reddy, B. Kotaiah and P.T.Nayudu (1992). A study on seasonal variations of groundwater quality in Upper Gunjanaeru river basin, Cuddapah district, Andhra Pradesh. *Fresenius Environmental Bulletin*. 1(13): 98-103. IF: 0.80
90. N. Janardhana Raju\* (1992). Hydrogeology of the Upper Gunjanaeru river basin, Cuddapah district, Andhra Pradesh, India. *Groundwater*, 30(4): 630. IF: 2.2
91. C.V. Reddy, B.Kotaiah and N. Janardhana Raju\* (1992). A study on groundwater quality near a municipal solid waste disposal site at Tirupati, Andhra Pradesh, India. *Fresenius Environmental Bulletin*, 1(13): 93-97. IF: 0.80
92. N. Janardhana Raju\*, B.Kotaiah and T.V.K.Reddy (1991). Biogeochemical aspects in and around a sewage farm at Tirupati, Andhra Pradesh, India. *Environmental Conservation*. 18(3): 267-269. IF: 3.01
93. T.V.K. Reddy, N. Janardhana Raju and R.J.Rao (1991). A study of relationship between electrical resistivity and alkalinity of groundwater. *Indian Water Works Association*. XXIII(1): 1-5.
94. N. Janardhana Raju\* and B. Kotaiah (1990). Environmental quality of Tirupati – A fast urbanising centre in Andhra Pradesh, India. *Asian Environment*. 12(3): 67-75.
95. N. Janardhana Raju\*, P.T.Nayudu, T.V.K. Reddy and V.K. Reddy (1990). Correlation among the selected well water quality parameters of Upper Gunjanaeru river basin of Cuddapah district, Andhra Pradesh. *Asian Environment*. 12(3): 78-82.
96. N. Janardhana Raju\*, T.V.K. Reddy, S.S. Reddy and P.T.Nayudu (1990). Regression models between total dissolved solids (TDS), silica (SiO<sub>2</sub>) and specific electrical conductivity (SEC) for well water of Upper Gunjanaeru river basin, Cuddapah district, Andhra Pradesh. *Indian Water Works Association*. XXII(1): 123-126.
97. N. Janardhana Raju\* and T.V.K. Reddy (1989). Hydrogeological aspects of Ravalapalle – A drought prone village, Cuddapah district, Andhra Pradesh. *The National Geographical Journal of India*. 35(3): 222-226.

#### **24(b). Chapters Contributed to Books/Proceedings**

98. Janardhana Raju\*, N., Muniratnam, P., Krishna Reddy, T.V. (2023). Climate Change Impact on Water Resources and Rainwater Harvesting Systems in the Semi-arid Regions of India. In: Sherif, M., Singh, V.P., Sefelnasr, A., Abrar, M. (eds) *Water Resources Management and Sustainability*. Water Science and Technology Library, vol. 121: 279-287. Springer, Cham. [https://doi.org/10.1007/978-3-031-24506-0\\_19](https://doi.org/10.1007/978-3-031-24506-0_19)
99. N. Janardhana Raju\* and Shubhra Singh (2016). Arsenic contaminated groundwater of the Varanasi environs in the middle Ganga plain, India: Source and distribution. In: Bhattacharya et al (eds.), *Arsenic Research and Global Sustainability, Page 58-59*. (ISBN 978-1-138-02941-5).
100. N. Janardhana Raju\*, Deepa Gurung and Priyanka Patel (2016). Groundwater quality Appraisal in parts of Dun Valley Aquifers in the Terai Region, Central Nepal. In: N J Raju (ed.,) *Geostatistical and Geospatial*

**Approaches for the Characterization of Natural Resources in the Environment: Challenges, Processes and Strategies, pp.115-118.**

101. Sangita Dey, N. Janardhana Raju, Prahlad Ram and Janmejyoy Singh (2015). Hydrogeochemical characterization and evaluation of seasonal variation in groundwater chemistry in upper Panda River basin, India. In: N. J. Raju et al. (eds.), **Management of water, energy and Bio-resources, in the era of climate change: emerging issues and challenges**, pp 21-36. (ISBN 978-3-319-05968-6).
102. N. Janardhana Raju\*, A. Chaudhary, S. Nazneen, S. Singh and A. Goyal (2015). Hydrogeochemical investigation and quality assessment of groundwater for drinking and agricultural use in Jawaharlal Nehru University (JNU), New Delhi, India. In: N.J. Raju et al (eds.), **Management of Natural Resources in a Changing Environment**, pp 3-28. (ISBN 978-93-81891-13-1).
103. N. Janardhana Raju\*, TV Krishna Reddy and P. Muniratnam. (2010). Rainwater catchment structures to rejuvenate seasonal river course for augmentation of groundwater in alluvial aquifer in semi-arid region of Chittoor district, Andhra Pradesh, India. *Proceedings of the workshop on "Climate change and its impacts on water resources-adaptation issues"* **Global Hydrogeological Solutions**, Chandigarh, 23-24<sup>th</sup> November 2010.
104. N. Janardhana Raju\* and R.N. Tiwari (2005). Rainwater harvesting structures to recharge groundwater. **Modules for Training on Artificial Recharge to Groundwater (CGWB)**. Varanasi, pp. 41-50.
105. M. Kofod, H. Verena, N. Janardhana Raju and Margot I Schroeter (2002). Oxoanion transport in aquifers containing iron hydroxide – modeling of column experiments with PHREEQC2. In: H.D. Schulz and G. Teutsch (eds.), **Geochemical Processes: Conceptual models for reactive transport in soil and groundwater, Vol. 1**, 215-228.
106. N. Janardhana Raju\*, S.S. Reddy and T.V.K. Reddy (2001). Identification of groundwater resources in parts of drought prone Rayalaseema region, Andhra Pradesh, India. **Proceedings (Supplement) of New Approaches Characterizing Groundwater flow, Seiler & Wohnlich (eds.); XXXI. IAH Congress, Munich 2001, Germany. p 1-5.**
107. German Mueller, D. Eggersgluess and N. Janardhana Raju (2000). Heavy metal (Cd, Cu, Pb, Cr, Zn, Hg) concentrations in tobacco of commonly smoked cigarette brands purchased in Germany, China, Russia, India and Canada. **11<sup>th</sup> Annual International Conference on Heavy metals in the Environment, 2000 (J Nriagu, Editor). Contrib.#1241. Univers. of Michigan, School of Public Health, Ann Arbor, MI.**
108. P.T. Nayudu, N. Janardhana Raju\* and B. Kotaiah (1994). Suggestive treatment methods for the temple tank waters of Tirupati and Tirumala, Andhra Pradesh. **Proceedings of Forests, Wild life and Environment**, pp. 277-285.

## **25. Edited Books/Journals**

1. IAMG2014 edited volume (*Springer co-published with Capital Publishing Company*) – **Geostatistical and Geospatial Approaches for the Characterization of Natural Resources in the Environment: Challenges, Processes and Strategies (2014)**. Editor: N. Janardhana Raju.
2. IHK2013 edited volume (*Springer co-published with Capital Publishing Company*) – **Management of Natural Resources in a Changing Environment (2014)**. Editors: N. Janardhana Raju, Wolfgang Gossel and M. Sudhakar.
3. IHK2013 edited volume (*Springer co-published with Capital Publishing Company*) – **Management of Water, Energy and Bio-resources in the Era of Climate Change: Emerging Issues and Challenges (2014)**. Editors: N. Janardhana Raju, Wolfgang Gossel, AL Ramanathan and M. Sudhakar.
4. **Indian Journal of Geochemistry**, Varanasi - on a topic entitled **Recent Trends in Hydrogeochemistry (2007)**. Editors: N. Janardhana Raju and T.V.K. Reddy.

## **26. Conferences/ Seminars/ Workshops Attended**

1. Invited talk in the International Conference on 'Mountain Ecosystem Processes and Sustainable Livelihood' Kullu, Himachal Pradesh (5-7<sup>th</sup> March 2024)



2. Paper presented and ***Chaired the session*** in the 2<sup>nd</sup> International Conference on ‘Water Resources Management and Sustainability: Solutions for Arid Regions’, Dubai, UAE (**26-28<sup>th</sup> Feb. 2024**).
3. Keynote presentation in the International Conference on “Environment and Society” Traditional and Contemporary Perspectives” JNU, New Delhi (**29-30<sup>th</sup> January 2024**).
4. Participated in the ‘German Chancellor Fellowship Alumni Meeting India’ and presented rainwater harvesting systems, YMCA Hostel, New Delhi (**22-24<sup>th</sup> January 2024**).
5. Participated (Invited Speaker) in the Workshop on *Research Opportunities and Higher Study in Germany* in the School of Biotechnology, Jawaharlal Nehru University, New Delhi. (**28<sup>th</sup> July 2023**).
6. Participated (invited speaker) in the National Workshop on ‘Recent Advances in Environmental Monitoring and Analysis’, Department of Environmental Sciences, University of Jammu, India (**13-17<sup>th</sup> February 2023**).
7. Participated (invited speaker) in the International Conference - Kathmandu Humboldt Kolleg 2022: Interdisciplinary Collaboration for Strengthening Science and Culture, Kathmandu, Nepal. **16-19 October 2022**.
8. Participated (invited speaker) in the National workshop on ‘Climate change impacts on groundwater quality and human health risk: Present status and future challenges (CLIMWAT 2022)’, Sri Shakthi Institute of Engineering, Coimbatore, India (**14-16<sup>th</sup> September 2022**).
9. Paper presented in the International Conference on ‘Water Resources Management and Sustainability: Solutions for Arid Regions’, Dubai, UAE (**22-24 March 2022**).
10. Paper presented in the Indo-German Workshop on ‘Water Availability and Quality under Varying Environmental and Urban Conditions’ Heidelberg University, Germany (**23-24<sup>th</sup> October 2021**).
11. Paper presented in the Web Talk Series: Supporting International Research (collaboration) at the Crossroads! – Tackling SDG6: Clean water and Sanitation. Freie University, Berlin, Germany (**17<sup>th</sup> June 2021**).
12. Paper presented in the Indo-Iranian Workshop in the Water Resources Management Webinar on ‘Management of Water Resources: Climate impacts and Rainwater Harvesting Systems’, Delhi, India (**27-29<sup>th</sup> Oct. 2020**).
13. Presented paper in the Webinar Series: Cities and Climate on “The corona pandemic as an epistemic opportunity – studying sources of Water Pollution”, German Centre for Research and Innovation (DWIH), New Delhi (**30.07.2020**).
14. Paper presented in the **Field workshop Cryosphere and Water Management** on “water resources management: rainwater harvesting system”, Leh Ladak, (**22-28<sup>th</sup> February 2020**).
15. Paper presented in the **9th Bonn Humboldt Award Winners’ Forum** “Frontiers in Biogeography, Ecology, Anthropology, and Evolution. Humboldt and the ‘Cosmos’ revisited in the 21st Century” **Bonn, Germany (16 – 20 October 2019)**.
16. Participated in the first review meeting of “Mission SGD-National Network Project”, NCESS, Thiruvananthapuram, Kerala (3-4<sup>th</sup> **October 2019**).
17. Paper presented in AvH Kolleg on “Climate, Water and Environment”, Kumaeon University, Nainital, Uttarakhand ( **25-27<sup>th</sup> September 2019**).
18. Participated in the Anniversary Alumni Conference on the 250<sup>th</sup> Birthday Celebration of Alexander von Humboldt, Berlin, Germany (**25-28<sup>th</sup> June 2019**).
19. Participated in the Regional workshop on Mission SGD “Unravelling Submarine Groundwater Discharge (SGD) zones along the Indian Subcontinent, Anna University, Chennai (**27<sup>th</sup> May 2019**)
20. Paper presented in National conference on “Environmental Pollution: Impact Assessment, Remediation and Mitigation”, JNU, New Delhi (**7<sup>th</sup> March 2019**)
21. Participated in the Humboldt Kolleg on “Climate change and energy options & 2<sup>nd</sup> regional network meeting of Asian Alumni of the International Climate Protection Fellowship Programme”, Aurangabad, Maharashtra, India (**2-4<sup>th</sup> February 2018**).
22. Paper presented in the National Symposium on “Geo-resources exploration and exploitation: Present Scenario and Evolving Trends”, Osmania University, Hyderabad, Telangana (29-30<sup>th</sup> January 2018)
23. Paper presented in the Workshop on Water for Welfare “A contribute to save the water reserve of Uttarakhand” Kumaun University, Nainital, Uttarakhand (**14<sup>th</sup> December 2017**).
24. Paper presented in Humboldt Colloquium on “Germany and India – Partners in Education and Research” **Leela Palace Hotel, Bengaluru, Karnataka (23-27<sup>th</sup> November 2017)**.

25. Participated National Brainstorming Meeting on “SGD flux from Indian subcontinent for the productivity of BOB and Arabian sea”. **National Centre for Earth Science Studies, Thiruvananthapuram, Kerala, India** (31<sup>st</sup> August – 1<sup>st</sup> September 2017).
26. Paper presented in National Seminar “Neo Multidisciplinary studies on the Cuddapah basin, Andhra Pradesh & Telangana, India, Loyola Degree College, **Pulivendula, YSR Kadapa District** (26-28<sup>th</sup> November 2016).
27. Paper presented in 17<sup>th</sup> annual International Conference of the International Association for Mathematical Geosciences, **Freiberg (Saxony), Germany** (05-13<sup>th</sup> September 2015).
28. Paper presented in the 2015 International Conference on Ecology, Environment and Energy, National Taiwan University, Taipei (19-22<sup>th</sup> April 2015)
29. Paper presented in the Pre-conference workshop on Biogeochemistry, **Jawaharlal Nehru University, New Delhi** (6<sup>th</sup> November 2014)
30. Paper presented in International Conference on Geostatistical and Geospatial Approaches for the Characterization of Natural Resources in the Environment: Challenges, Processes and Strategies, **Jawaharlal Nehru University, New Delhi** (17-20<sup>th</sup> October 2014)
31. Paper presented in International Conference on Magmatism, Tectonism and Mineralization, **Kumaun University, Nainital** (27-29<sup>th</sup> March 2014)
32. Paper presented in the Summer School on Ecosystem functions and services for food security in the face of biodiversity loss and globalization in Southeast Asia, **Chiang Mai University, Thailand** (16-24<sup>th</sup> March 2014).
33. Paper presented on The 1<sup>st</sup> International Forum on Asian Water Environment Technology, **Jawaharlal Nehru University, New Delhi** (18-20<sup>th</sup> December 2013)
34. Paper presented in HOPE2013 on Contribute and Collaborate to Save the Third Pole, **Kumaun University, Nainital** (12-14<sup>th</sup> September 2013).
35. Paper presented in International German Alumni Summer School India on Millennium Goals and Traditional Knowledge for Sustainable Development and Bio-diversity Conservation in India, **Jawaharlal Nehru University, New Delhi** (17-24<sup>th</sup> April 2013).
36. Paper presented in International Humboldt Kolleg on Management of Water, Energy and Bio-resources in Changing Climate Regime: Emerging Issues and Environmental Challenges, **Jawaharlal Nehru University, New Delhi** (8-9<sup>th</sup> February 2013)
37. Paper presented in Indo-Australian Workshop On Arsenic, **Jawaharlal Nehru University, New Delhi** (3-4<sup>th</sup> October 2012).
38. Paper presented in International Seminar on “Grundwasserschutz und Grundwassernutzung Modelle, Analysen und Anwendungen” **Technische Universität Dresden, Germany** (16-20 May 2012).
39. Paper presented in National Seminar on “Climate change and sustainable management of water resources”, **GITAM University, Visakhapatnam** (17-18<sup>th</sup> March 2012).
40. Paper presented in National Seminar on “Geology and Geo-resources of Himalaya and Craton regions of India”, **Kumaun University, Nainital** (10-12<sup>th</sup> March 2012).
41. Paper presented in National Seminar on “Recent advances and future challenges in Geochemistry and Geophysics: the Indian scenario”, **Banaras Hindu University, Varanasi** (22-24<sup>th</sup> February 2012).
42. Paper presented in National Seminar on Modern and Palaeo Sediments: Implication to Climate, Water Resources and Environment Changes & XXVIII Convention of Indian Association of Sedimentologists, **Jawaharlal Nehru University, New Delhi** (24-26<sup>th</sup> November 2011)
43. Paper presented in International Humboldt Kolleg on ‘Adaptive management of Ecosystems: The knowledge systems of societies for adaptation and mitigation of impacts of Climate Change’, **ISEC, Bangaluru** (19<sup>th</sup> -21<sup>st</sup> October 2011).
44. Participated in the DST (NRDMS) Workshop on BAOLIS (Step wells) of Delhi, Indian International Center, **New Delhi** (5<sup>th</sup> October 2011).
45. Paper presented in the Humboldt Kolleg and International Conference on “Earth Future” **Periyar University, Salem** (7-9<sup>th</sup> September 2011).
46. Paper presented in the two days International Workshop on “Water resources: Impact on agriculture, health and environment” **Jawaharlal Nehru University, New Delhi** (11-12<sup>th</sup> January 2011).

47. Paper presented in the two days National Workshop on “Climate change and its impacts on water resources-adaptation issues”, **Panjab University, Chandigarh (23-24<sup>th</sup> November 2010)**.
48. Paper presented in the 2 days National Workshops on “Arsenic contamination in groundwater source, migration and mitigation: Future Research Needs”, **IISWBM, Kolkata (23-24<sup>th</sup> July 2010)**.
49. Paper presented in the Joint International Convention of the “8<sup>th</sup> IAHS Scientific Assembly and 37<sup>th</sup> IAH Congress”, **NGRI, Hyderabad, India (6-12<sup>th</sup> September 2009)**.
50. Participated in National Workshop on “Review of Environmental Sciences Curriculum at M.Sc., Level” **Jawaharlal Nehru University, New Delhi (27-28<sup>th</sup> February 2009)**.
51. Paper presented in International conference & Humboldt-Kolleg on “*Structural characterization and spectroscopy of materials relevant to nanotechnology, biomedical and geo-biology*” **Banaras Hindu University, Varanasi (7-9<sup>th</sup> November 2008)**.
52. Paper presented in the XXXVI IAH Congress on “*Integrating Groundwater Science and Human Well-being*”, **Toyama; Japan (26<sup>th</sup> Oct-1<sup>st</sup> Nov. 2008)**.
53. Paper presented in the DST’s Workshop on “*Research initiatives under e-hydrology*” **IIT New Delhi (21-22<sup>nd</sup> April 2008)**.
54. Paper presented in the Humboldt Kollege on “Global warming”, **Kumaun University, Nainital (8- 10<sup>th</sup>, June 2007)**.
55. Paper presented in the National Seminar on “Recent Trends in Earth Sciences”, **S.V. University, Tirupati (2<sup>nd</sup>-3<sup>rd</sup> April 2004)**.
56. Participated in “JAL SANGRAH SHIBIR”, **IIT Powai, Mumbai (6-7<sup>th</sup>, December 2003)**.
57. Participated in “Humboldt Colloquium”, **Cairo, Egypt (2-4<sup>th</sup> November 2001)**.
58. Paper presented in “XXXI. IAH congress on New Approaches to Characterising Groundwater Flow, **Ludwig Maximillian University, Munich, Germany (10-14<sup>th</sup> September 2001)**
59. Paper presented in “International Seminar on Analytical Techniques in Monitoring the Environment, **Sri Venkateswara University, Tirupati (18-20<sup>th</sup>, December 2000)**.
60. Paper presented in “National Seminar on India Traditional Water Science entitled Traditional and Scientific methods in Groundwater Exploration – A Study”. **S. V. University, Tirupati (27-28<sup>th</sup>, January 1996)**.
61. Paper presented in “X Annual Congress on Man and Environment entitled Estimation of Iron content in groundwater of Tirupati-Tirumala environs, Chittoor district, Andhra Pradesh”. **National Institute of Oceanography, Goa (8-10<sup>th</sup>, March 1995)**.
62. Paper presented in UGC National Seminar on Prospection for Groundwater in Different Terrain’s of India and Seventh Annual Conference of NESAI, **Sri Venkateswara University, Tirupati (28-31<sup>st</sup>, December 1990)**.
63. Participated National Workshop on the present status of degradation of environment of the Eastern ghats – The Problems and perspectives, Aruku valley, **Visakhapatnam (28-30<sup>th</sup>, August 1990)**.
64. Paper presented in 22<sup>nd</sup> Annual Convention of the Indian Water Works Association, **Pune (18-20<sup>th</sup>, January 1990)**.
65. Paper presented in National symposia on Forests, Wild life and Environment, **Andhra University, Visakhapatnam (3-5<sup>th</sup>, June 1989)**.