

CURRICULUM VITAE (C.V.)

❖ **Name**

: Dr. ANADI GAYEN



❖ **Date of Birth**

(in Christian era)

: 17.05.1968

❖ **Broad area of Specialization:** *Geology, Hydrogeology and Hydrogeochemistry.*

❖ **Education:**

- Post Doctoral Research: "Groundwater studies in a part of East and South Sikkim" School of Environmental Studies, Jawaharlal Nehru University (JNU), New Delhi (2017).
- Ph.D.: "Groundwater problem with reference to the pollution perspectives in Attappady tribal area, Palghat district, Kerala", Jadavpur University, Kolkata (2012).
- Project Fellow: School of Oceanographic Studies, Jadavpur University, Kolkata (1992-1994).
- M.Sc.: Applied Geology, Jadavpur University, Kolkata (1992) - 1st Class.
- B.Sc.: Geology (Hons.), Physics & Mathematics (Subsidiaries), Jadavpur University, Kolkata (1989) - 1st Class with Distinction in subsidiary subjects.

❖ **Teaching Experience:**

1. Attached as Guest Faculty in the Jogamaya Devi College PG Study Centre, Kolkata and taught the PG students "Water Management and allied topics" under the course curriculum of Post graduate Course in Environmental Sciences as part of Distant Education Programme of Vidyasagar University, Midnapur, West Bengal in the year 2013.
2. At present performing as Faculty (since 22.06.2015) in the National Ground Water Training & Research Institute (NGWT&RI), Central Ground Water Board, Ministry of Water Resources, River development & Ganga Rejuvenation, Government of India.

❖ **Book Publication:**

Published Book in 2015 entitled "Fluoride contamination and management options in consolidated rock aquifers".

Research Expertise:

- Hydrology Project (World Bank Aided)
- Coastal Hydrogeochemistry.
- Aquifer mapping in different hydrogeochemical set ups of alluvial terrain in West Bengal.
- Ground water development and management in various hydrogeological terrains.
- Ground water pollution (especially Arsenic, Fluoride, Nitrate pollution and Salinity problem).
- Field research experience in the Kerala, Sikkim, Chhattisgarh, West Bengal especially in the *Sundarbans* Islands and Andaman Islands.
- Ground water exploration in consolidated and alluvial terrains.
- Ground water management and regulations.
- Ground water Resource Estimation in Andaman & Nicobar Islands and Kerala.
- Rain water harvesting and Artificial Recharge in Kerala, West Bengal and Andaman & Nicobar Islands.
- Farmers Participatory Action Research Programme (FPARP) in West Bengal and Andaman & Nicobar Islands. .
- Ground water management in parts of East and South Sikkim districts, Sikkim State.
- Worked in Singbhum Cu - U belt, Bihar occupied by tourmalinite-apatite mineralization.
- Worked in project "Coastal Ocean area Development and Prediction System (CODAPS) as part of erosion-accretion problem in Digha-Shankarpur coastal area, West Bengal" in the School of Oceanographic Studies, Jadavpur University and sponsored by National Institute of Oceanography (NIO), Goa.
- Published many scientific reports based on field study on ground water.

❖ Membership of Professional Bodies:

- Member, International Society for Fluoride Research (ISFR), New Zealand.
- On-Line Member, International Association of Hydrogeologists (IAH), U.K.
- Life Member, Geological Society of India (GSI), Bangalore.
- Life Member, Indian Society of Remote Sensing (ISRS), Dehradun.
- Life Member, Indian Association of Hydrology (IAH), Roorkee.
- Life Member, Centre for Ground Water Studies (CGWS), Kolkata.

❖ **Employment:**

- 1994-1998: Auditor of Co-operative Societies, Directorate of Co-operative Audit, Government of West Bengal.
- 1998- 2004: Junior Hydrogeologist (Scientist 'B')
- 2004 -2008: Senior Hydrogeologist (Scientist 'C'), Central Ground Water Board, Ministry of Water Resources, River development & Ganga Rejuvenation, Government of India.
- 2008 -2015: Senior Hydrogeologist (Scientist 'D'), Central Ground Water Board, Ministry of Water Resources, River development & Ganga Rejuvenation, Government of India.
- 2015 -2017: Senior Hydrogeologist (Scientist 'D)', At present Faculty in the National Ground Water Training & Research Institute (NGWT&RI), Central Ground Water Board, Ministry of Water Resources, River Development & Ganga Rejuvenation, Government of India.

❖ **Trainings undergone:**

- Refresher training course on Oceanography from 20th December to 15th January, 1994.
- Diploma in Co-operative Management from 08.05.1995 to 25.08.1995.
- Hydrogeological investigations, development and management of ground water resources from 28th July to 12th November, 1999.
- Management Information Systems in Irrigated Agriculture from 07.08.2000 to 11.08.2000.
- RDBMS, Oracle and Oracle DBA from 27th May to 14th June, 2002.
- Mathematical Modeling of Groundwater Systems from 15 - 25 January, 2007.
- Geographical Information System (GIS) and mapping Tools from 24.11.2008 to 05.12.2008.
- Training of Trainers (TOT): Aquifer Management in Pilot Aquifer Mapping area from 10.09.2012 to 14.09.2012.
- Passed Praveen and Pragya under Hindi Teaching Scheme, Government of India on 22.09.2005 and 15.09.2006 respectively.
- **Department of Personnel & Training (DoPT) Trainings:**
 - i) Direct Trainer Skills (DTS); ii) Design of Training (DoT); iii) Right to Information (RTI);
 - iv) Management of Training (MoT); v) Training Need Analysis (TNA); vi) Evaluation of Training (EoT) and vii) Systematic Approach to Training (SAT).
- Training on iMOD, of DELTARES, Netherlands held at New Delhi.
- TOT on Comprehensive Disaster Risk Management.

❖ Research publications

Sl. No.	Publication Type	Title of the Paper	Journal Name/Page Numbers	ISSN No.	Author	Year
1	Research Paper	Long term behaviour of ground water regime during pre- monsoon as well as post- monsoon period and water management issues in and around Port Blair city in South Andaman Islands	Indian Groundwater/56	2347-8063	Sole	2016
2	Research Paper	Hydrogeological conditions and Tsunami impact on ground water resources in North and Middle Andaman districts of Andaman and Nicobar Islands - A field perspective	Indian Groundwater/73	2347-8063	Sole	2015
3	Research Paper	Rainwater harvesting in the Heritage buildings: A case study of Victoria Memorial Hall, Kolkata	Global Journal for Research Analysis/35	2277-8160	Co- Author	2015
4	Research Paper	Ganga River pollution through big drains in the Municipality areas - A case study	International Journal of Scientific Research	2277-8179	Sole	2015
5	Research Paper	Sustainable ground water management options in the fluoride affected alluvial tract of South Dinajpur district in West Bengal, India	International Journal of Recent Scientific Research/6031	0976-3031	Sole	2015
6	Research Paper	Rainwater conservation for enhancement of agricultural productivity and socio-economic development in Sagar Island of Sundarban region in Indian subcontinent	Indo-American Journal of Agricultural and Veterinary Sciences	2321-9602	Co- Author	2013
7	Research Paper	Cropping intensity, productivity, agricultural development and planning as influenced by integrated water resource management	International Journal of Emerging Technologies in computational and Applied Sciences	2279-0047	Co- Author	2014
8	Research Paper	Mitigation of water crisis and growing crops in lean period by rainwater harvesting through concreted rooftops and household ponds in Sagar Island	Current Agriculture Research Journal/1	2347-4688	Co- Author	2013
9	Research Paper	Groundwater development and sustainable management in the delta front area of Sundarban islands	International Journal of Emerging Technology and Advance Engineering/606	2250-2459	Co- Author	2013
10	Conference Proc. Full Length Paper	Use of geomorphological signatures to decipher flood management strategies in the Bhagirathi/Padma river bank areas of West Bengal, India	International Conference	NA	Co- Author	2017
11	Conference Proc. Full Length Paper	Groundwater management options for augmentation of agricultural growth in the arsenic infested Gangetic alluvium of Nadia district, West Bengal	International Congress on arsenic/607	978-1-138-02941-5	Co- Author	2016
12	Conference Proc. Full Length Paper	Assessment of fluoride contamination and mitigation in consolidated aquifers, Birbhum district, West Bengal, India	International Conference/134	NA	Co- Author	2016

13	Conference Proc. Full Length Paper	Climatological control over dispersal of fluoride in groundwater in consolidated aquifers - A study in Attappady tribal area, Palghat district, Kerala, India	International Conference/58	NA		Co- Author	2016
14	Conference Proc. Full Length Paper	Protection and regulation of groundwater resources through Environment (Protection) Act	National Seminar	NA		Sole	2016
15	Conference Proc. Full Length Paper	Hydrochemical understanding of coastal aquifers in Indian Sundarban context	National Seminar	NA		Co- Author	2016
16	Conference Proc. Full Length Paper	Understanding of the occurrence of potential groundwater aquifers in the foothills of the Himalayas in West Bengal	National Conference	NA		Sole	2016
17	Conference Proc. Full Length Paper	Water resources management for sustaining agricultural productivity	Regional Workshop/25	NA		Co- Author	2015
18	Conference Proc. Full Length Paper	Participatory approach on adoption of water management technologies through action research programme	Regional Workshop/12	NA		Co- Author	2014
19	Conference Proc. Full Length Paper	Study on quality of groundwater for drinking and irrigation uses in Sagar Island in South 24 Parganas district, West Bengal	Workshop/72	NA		Co- Author	2014
20	Conference Proc. Full Length Paper	Study on chemical quality of groundwater in respect to domestic and irrigational need in Middle Andaman Islands	Workshop/107	NA		Co- Author	2014
21	Conference Proc. Full Length Paper	Impact assessment of integrated water resource management through farmers participatory action research programme (FPARP) in Andaman and Nicobar Islands	Workshop/36	NA		Co- Author	2014
22	Conference Proc. Full Length Paper	Rainwater harvesting for sustainable management of fresh water resources in Sagar Island	National Seminar	NA		Co- Author	2013
23	Conference Proc. Full Length Paper	Ground water quality of Indian Sundarban region - its suitability for drinking and irrigation uses	National Seminar	NA		Co- Author	2013
24	Conference Proc. Full Length Paper	Ground water development and management options in the fluoride affected areas of South Dinajpur district, West Bengal	National Seminar	NA		Co- Author	2013
25	Conference Proc. Full Length Paper	Need for efficient management of irrigation water: Examples from West Bengal and Andaman and Nicobar Islands	National Ground Water Congress/71	NA		Co- Author	2012
26	Conference Proc. Full Length Paper	Present scenario of mitigation of arsenic in groundwater in West Bengal	2-days Workshop/178	NA	No	Co- Author	2010
27	Conference Proc. Full Length Paper	Socio-economic impact of rainwater harvesting in Sagar Island, South 24 Parganas district, West Bengal	International Seminar/85	NA	No	Co- Author	2010
28	Conference Proc. Full Length Paper	Scope of agricultural development through groundwater in Murshidabad district, West Bengal	National Seminar/359	NA	No	Co- Author	2007

29	Conference Proc. Full Length Paper	Role of rain water harvesting in agricultural development and also in domestic sector - A case study in Sagar islands, South 24 Parganas district, West Bengal	National Seminar/61	NA	No	Co- Author	2006
30	Conference Proc. Full Length Paper	Occurrence and Movement of Arsenic in Typical Aquifer System of Central India Craton in Chowki Tribal Block of Rajnandgaon District, Chhattisgarh, India	National Seminar	NA		Co- Author	2017
Publication Type		Title	ISBN No.	Author	Year		
1	Book Published	Fluoride contamination and management options in consolidated rock aquifers	9781630405366	Self-Authored	2015		

R & D Projects carried out:

Title		R&D Topic & Name of Sponsoring/ Funding Agency
1	Collaborative R&D studies	"Stable Isotope Investigations to Study Surface Water- Ground Water Interaction in a hard rock terrain in parts of Durg District- Chhattisgarh", sponsored by Central Ground Water Board, Ministry of Water Resources, River Development & Ganga Rejuvenation, Government of India in collaboration with Physical research Laboratory, Ahmedabad.
2	R&D Studies (ongoing)	"Occurrence and movement of arsenic in ground water in Rajnandgaon district, Chhattisgarh – A Modeling approach", sponsored by Central Ground Water Board, Ministry of Water Resources, River Development & Ganga Rejuvenation, Government of India

Papers presented in the Conferences/Seminars/Workshops

Title/Subject of paper presented		Title/Subject of the event	Organising Institution	Category/ Type of Event
1	Climatological control over dispersal of fluoride in groundwater in consolidated aquifers - A study in Attappady tribal area, Palghat district, Kerala, India	XXXIII Conference of the International Society for Fluoride Research with theme "Debilitating Fluorosis: Current Status, health Challenges & Mitigation Measures". Conference Proceedings Published	International Society for Fluoride Research, Hyderabad, Telengana , India	International Conference
2	Assessment of fluoride contamination and mitigation in consolidated rock aquifers, Birbhum district, West Bengal, India	XXXIII Conference of the International Society for Fluoride Research with theme "Debilitating Fluorosis: Current Status, health Challenges & Mitigation Measures". Conference Proceedings Published	International Society for Fluoride Research, Hyderabad, Telengana, India	International Conference

3	Rainwater harvesting for sustainable management for fresh water resources in Sagar Island	National Seminar on "Groundwater Management, Governance and Sustainability". Seminar Proceeding Published.	Department of Geological Sciences, Jadavpur University, Kolkata, West Bengal, India	National Conference
4	Ground water quality of Indian Sundarban region - it's suitability for drinking and irrigation uses	National Seminar on "Groundwater Management, Governance and Sustainability". Seminar Proceeding Published.	Department of Geological Sciences, Jadavpur University, Kolkata, West Bengal, India	National Conference
5	Ground water development and management options in the fluoride affected areas of South Dinajpur district, West Bengal	National Seminar on "Groundwater Management, Governance and Sustainability". Seminar Proceeding Published.	Department of Geological Sciences, Jadavpur University, Kolkata, West Bengal, India	National Conference
6	Socio-economic impact of rain water harvesting in Sagar Island, South 24 Parganas district, West Bengal	International Conference on the theme "Mother Earth: Save it for future generations". Conference Proceedings published	Department of Environmental Science, The University of Burdwan, Burdwan, West Bengal, India	International Conference
7	Groundwater and rainwater in the delta mouth blocks of Sundarban area, West Bengal	National Seminar "Groundwater 2007" with focal theme on 'Agricultural development and rural drinking water'. Seminar Proceedings Published	Central Ground Water Board, Bhopal, India	National Conference
8	Occurrence and Movement of Arsenic in Typical Aquifer System of Central India Craton in Chowki Tribal Block of Rajnandgaon District Chhattisgarh, India	India Water Week 2017	Ministry Water Resources, River Development & Ganga Rejuvenation	National Conference

❖ Review of scientific papers

Reviewing regularly the ground water related technical papers for the International Journal of Earth Sciences and Engineering (IJEE), Impact factor 0.042 (2011). Till date 09 nos. technical papers have been reviewed for IJEE. Also reviewed 04 nos. technical papers for National Seminar proceedings, organized by NRIMET at Science City, Kolkata, West Bengal.

❖ **Publication of scientific reports**

Total 22 Scientific reports on ground water have been published based on field research carried out in various Annual Action Plans (AAP).

❖ **Research guidance to Ph.D. student**

- i) As Co-Supervisor, at present guiding a Ph.D. student in the Department of Applied Geology, National Institute of Technology (NIT), Raipur, Chhattisgarh.
- ii) Guided M.Sc. Dissertation and completed the work of a student of Department of Geology, Karnataka Central University.

❖ **Training Courses designed for National Ground Water Training & Research Institute (NGWT &RI), Central Ground Water Board (CGWB), Ministry of Water Resources, River Development & Ganga Rejuvenation, Government of India, Raipur, Chhattisgarh**

Total 13 nos. Training courses designed for the Hydrogeologists, Surveyors, Draughtsman and Administrative officers related to hydrogeology as below:

- i) Aquifer Mapping: Concept and Approach.
- ii) Ground Water Development and Management.
- iii) Groundwater Development and Management.
- iv) Groundwater Regulation and Control.
- v) Hydrogeological Surveys and Drilling Technology.
- vi) Induction Level Training on Mapping and Surveying.
- vii) Induction Level Training for Laboratory Assistants.
- viii) Participatory Ground Water Management.
- ix) Induction Level Training for Programmer.
- x) Induction Training on Advance Map preparation and Cartography.
- xi) Induction Level Training for System Analyst.
- xii) River Basin Planning and Management, best practices & Development, Data Acquisition and Analysis for Hydrogeologists of CGWB.
- xiii) 'Curriculum on Exemplary water management techniques and practices including traditional water conservation practices' was prepared for the Officers for training at Lal Bahadur Shastri National Academy of Administration (LBSNAA), Missouri.

❖ **Training programmes conducted as Course Director**

As Course Director, following training courses conducted:

- i) 04 weeks training for B. Tech. (Agricultural Engineering) students of BRSM Engineering college at RGNGWTRI, Raipur;
- ii) 01 week training at Guwahati, Assam to the Engineers, Hydrogeologist, Geologists State Government of Assam on "Groundwater development and management".
- iii) 01 week training held during February 13 - 17, 2017 at National Water Academy (NWA), Pune and jointly organized with Central Water Commission (CWC) on "River Basin Planning and Management, Best Practices Development and Data Acquisition & Analysis".
- iv) 03 days training on Environmental Clearance for Ground Water Abstraction held at National Ground Water Training and Research Institute (NGWTRI), Raipur during July 31 to August 02, 2017 for Officers of State & Central Government Organizations and Students/Faculty from Academic Institutions.
- v) 01 week training on Aquifer Mapping: Concept and Approach held at National Ground Water Training and Research Institute (NGWTRI), Raipur during August 28 to September 01, 2017 for Officers of State & Central Government Organizations and Students/Faculty from Academic Institutions.
- vi) 05 weeks training on Induction Level Training Course (ILTC) on "Ground Water Development and Management" to be held at National Ground Water Training and Research Institute (NGWTRI), Raipur during January 08 to February 09, 2017 for newly recruited Hydrogeologists, geophysicists, Hydro-meteorologist, Chemists in Telengana State Ground Water Department (TSGWD), Hyderabad.

❖ **Invited Lectures**

Delivered many invited lectures in the National Water Academy, Pune; Chhattisgarh Administrative Academy, Raipur; Institute of Hygiene and Public Health, Kolkata; National Seminar organized by Department of Environmental Science, Calcutta University, Kolkata; HSBC Bank, Kolkata; National Seminar organized by MRIMET, Kolkata.
