

Dr. Anuya Verma

Senior Assistant Professor

Department of Environmental Sciences,
Vigyan Bhawan, Block – B, New Campus,
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- Google scholar ID- anuya verma
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Summary Statement

Seasoned Senior Assistant Professor with eleven plus years of experience in extensive research, mentoring and teaching undergraduate and postgraduate courses in Environmental Sciences. Extensive knowledge and learning in the field of Environmental Science with specialization in freshwater Ecology, water Pollution and in Aquatic Resource Management. Participates in continued learning through refresher courses/FDP organized by UGC, conferences, seminars and professional research. Actively works to connect students to their material to transform lives.

Education

Ph. D. (Environmental Sciences)(November, 2004); SET cleared
Entitled "*Environmental Impact Analysis of Anthropogenic activities on a Fresh Water tropical Lake*"

Department of Environmental Sciences, College of Science, M. L. Sukhadia University, Udaipur, Rajasthan

Masters in Science (Environmental Sciences) (June, 2000)

Department of Environmental Sciences, College of Science, M. L. Sukhadia University, Udaipur, Rajasthan

Masters of Arts in English Literature (June, 1998)

M. L. Sukhadia University, Udaipur, Rajasthan.

Bachelor in Science (Environmental Sciences) (June, 1996)

College of Science, M. L. Sukhadia University, Udaipur, Rajasthan.

Research Thrust Areas

- Fresh water Ecology
- Aquatic Resource Management
- Water Pollution
- Surface Water Chemistry
- Microbial Ecology
- Conservational Biology

Professional Experience

- Expertise in collection of water and soil sample and their complete analysis, with basic knowledge of plant and monitoring of ambient air, stack emissions and their analysis
- Guest Lectures deliberation on ISO 9001, 14000 and 18001, Integrated Management System (IMS),
- Impact Assessment Studies related to mines, industrial sector and preparation of EIA/EMP Reports.
- Qualified Internal Auditor for ISO 14000 Standard.
- Trainings for ISO 14001:2004 Standard and Integrated Management System (IMS)
- **Preparation of Compliance Reports, Filling of Environment Statement and Comprehensive EIA reports** as per the requirements of MoEF, SPCB and RPCB.
- Free Lance working for **Environment Management System - ISO 14001:2004 and (IMS) Standard**

Publications

Papers and Posters

- i. Sanjay Meghwal, **Anuya Verma** and Anshul Kandara (2023). Influence of catchment characteristics and anthropogenic activities in changing ecosystem properties of freshwater tropical lake Pichola in Rajasthan, India. **International Research Journal of Natural and Applied Sciences**, Vol. 10(03): 24-30
- ii. **A. Verma**, Adhidesh S. Kumawat, A. Purohit, S. Meghwal, D. Karki and A. Kandara (2022). Variations of water quality indicators in closed tropical freshwater systems towards selected climatic and anthropogenic

- disturbances. **Ecology, Environment & Conservation** 28 (May Suppl. Issue) : 2022; pp. (S594-S599)
- iii. D. Karki & **A. Verma** (2021). Assessment of heavy metal contamination within sediments of some fresh water lakes of Udaipur. **International Journal of Environmental Quality** Vol. 46 : 37-45 DOI: 10.6092/issn.2281-4485/13351
- iv. **Anuya Verma**, Rohini Trivedi, Dhanusha Karki and Anshul Kandara (2020): An overview on Nano applications for waste water treatment and purification. **International Journal of Science and Research Methodology**, Vol. 16 (4) : 27-37
- v. **Anuya Verma** and Dhanusha Karki (2019-2020) : Heavy Metal Contamination of Groundwater and Agriculture Soil Environment due to Tailing Dam in Zawar Mines, Udaipur, Rajasthan. **International Journal of Environmental Quality** Vol. 38: 37-47. DOI: [10.6092/issn.2281-4485/9922](https://doi.org/10.6092/issn.2281-4485/9922)
- vi. **A. Verma**, Dhanusha Karki and Sanjay Meghwal (2018): Heavy Metal extraction potential of various plant parts of *Nelumbo nucifera*, an aquatic macrophyte in tropical freshwater systems. In: **IJRAR, Vol. 5 (4) : 786-790**
- vii. **Anuya Verma** and J. Pandey (2017): Anthropogenic-induced shifts in salinity and nutrient status of Lakes Udaisagar and Baghdara, two freshwater tropical lakes in Rajasthan, India. In : **Lakes & Reservoirs: research & management, Vol . 22 : 310-319**
- viii. **Anuya Verma (2017)**. Cross-domain analysis in tropical aquatic systems as an important approach to assess anthropogenic influence. In: International conference on **Eco friendly and socially responsive economy and equity: Issues and challenges of 21st century for emergent sustainable development amongst SAARC countries**. Dept. Of Zoology, M L Sukhadia University, Udaipur & Deccan Education Society, Uni. Of Mumbai, Maharashtra, 9-11 Jan., 2017. **(POSTER)**
- ix. **Anuya Verma** and J. Pandey (2016): Atmospheric deposition coupled runoff driven shifts in nutrients and trophic status of two fresh water tropical lakes of India. In : **International Journal of Lakes and Rivers, vol. 9 (1) , pp 1-10**
- x. **Anuya Verma** (2015). Impact of catchment characteristics on nutrient loading of two dry tropical freshwater lakes. In : **Asian Journal of Microbiology Biotech. Env. Sc.** Vol. 17, No. (4) : 2015 : 947-951

- xi. **Anuya Verma** and J. Pandey (2013): Effects of catchment land use on water chemistry and biology of Freshwater tropical Lakes of India. In : 19th ISCB International Conference on "*Recent advances and current trends in chemical and biological sciences*" , Dept.of Chemistry & ISCB, M L Sukhadia University, Udaipur, 2-5th March, 2013. (**POSTER**)
- xii. Pandey, J. and **Anuya Verma** (2012). The impact of anthropogenic perturbations on moist bank and open water communities at two fresh water tropical lakes of Rajasthan, India. In: **International Journal of Environmental Sciences**, Vol. 3, (no. 1), pp. 605-615.
- xiii. Pandey, J. and **Anuya Verma** (2008). Ecosystem level Attributes of a Freshwater Tropical lake in relation to microbial Biomass at Land-water interface. In: Proceedings of "**Taal 2007, 12th World Lake Conference**", **Jaipur**, pp.34-43.
- xiv. Pandey, J. and **A. Verma** (2004). The influence of catchment on chemical and biological characteristics of two freshwater tropical lakes of southern Rajasthan. **J. Environmental Biology**, 25: 81-87.
- xv. Pandey, J., G. Nagda and **Anuya Verma** (2002). Evaluation of air pollution phytotoxicity around a phosphate fertilizer factory. **Eleventh National Symposium on Environment** organized by BARC, pp. 152-155.

CHAPTERS IN BOOKS

- I. **Anuya Verma** and Rohini Trivedi (**2016**). (Chapter 8). Fresh water Biodiversity- Challenges from Indian Perspective and Conservation Approaches. In Book: "**Biodiversity Conservation in Changing Climate**" **ISBN: 978-93-85995-03-3**, Publisher: Lenin Media Private Limited, Delhi, India, Editors: Dr. M.M. Abid Ali Khan, (India) Murtaza Abid (India) Dr.Abdeen Mustafa Omar (United Kingdom) Dr. S. Nazeer Haider Zaidi (India) and Dr.Raaz K. Maheshwari (India), Pages No. 139-153.
- II. Rohini Trivedi and **Anuya Verma** (**2016**). (Chapter 3). Threat to aquatic biodiversity of arid regions: A review on dyeing units in Rajasthan. In Book : "**Environmental Impact on Biodiversity**" **ISBN : 81-7019 (INDIA) & ISBN : 1-55528 (USA)**, Publishers : Today & Tomorrow's Printers and Publishers, Daryaganj, New Delhi – 10002 ,India ; Editors : B .R. Bamniya and B .R. Gadi, **pp** 21-40

- III. **Anuya Verma** and Anjali Purohit (2017). Increasing urbanization and related environment issues. In book: "**Urbanization and Environment – issues and challenges**" ISBN – 978-81-7906-634-8, Publishers : Himanshu Publications, Daryaganj ,New Delhi, pp– 125-129
- IV. **Anuya Verma**, Rohini Trivedi and Sanjay Meghwal (2023): Understanding impact of shifting wild fire regime on environment and climate. In Book: "**Climate Change and Sustainable Development**", ISBN: 9789388812900 (Paperback),ISBN: 9789388812924 (EBook); Publishers : SCIENTIFIC PUBLISHERS (INDIA), 5 A, New Pali Road, P.O. Box 91, Jodhpur 342 001 (INDIA). Eds: Om Prakash, Gaurav Kumar Jain,, Govind Singh, Lalit Singh Jhala, pp- 83-94
- V. Anjali Purohit, **Anuya Verma** and Rohini Trivedi (2023): Resource Utilization in Environment and Sustainable Management . In Book : "**Land Utilisation and Resource Management**" , ISBN: 978-93-90749-30-0 (HB) , eISBN: 978-93-90749-32-4 (EBook); Publishers : SCIENTIFIC PUBLISHERS (INDIA), 5 A, New Pali Road, P.O. Box 91, Jodhpur 342 001 (INDIA) . Eds: Lalit Singh Jhala, Govind Singh, Gaurav Kumar Jain, Om Prakash ,pp: 73-86

Guest Lectures

- I. **Anuya Verma** (2015): Invited lecture on "Environment and Biotechnology" delivered for M.SC. I Semester Biotechnology &Microbiology, August 6th, 2015 at Department of Biotechnology, MLSU, Udaipur.

Abstracts (Paper presented)

- Pandey, J. and **Anuya Verma** (2003). The impact of long-term catchment discharge on nutrient loading of two dry tropical freshwater lakes. In : Proceedings of **National Conference on Environmental Biology**, Department of Biosciences, Saurashtra University, Rajkot, Gujarat. 17-18 October, 2002. pp. 6-7
- Pandey, J. and **A. Verma** (2005). Cross-Domain Relationships help evaluating role of Human Disturbances modifying surface water resources.

In: **Journal of Cell and Tissue research**, Sp. Supplement Issue, Vol. 5 (no. 3), pp. 24-25

- Pandey, J. and **Anuya Verma** (2011). The response of moist bank and open water communities to anthropogenic perturbations at two Fresh water Tropical Lakes of Rajasthan, India. In Proceedings of **National Seminar on "Climate change and its impact on biological communities"** (CCIBC-11) 12-13 Feb. 2011
- Joshi, M. and **A. Verma** (2012). Green Prospective and Barriers in Green Marketing. In proceedings of "**International conference on Sustainable Management Practices- Developments & Dimensions**" (ICSMP, 2012), Udaipur, **March 30-31, 2012**, pp :52
- **Anuya Verma** and J .Pandey (2013): Cross-Domain relationship as an important tool to assess the direct and indirect nutrient loading in Tropical Aquatic ecosystems. In National Symposium on "**Current Status and New Horizons of Ecological Sciences and Environmental Biotechnology**" (ESEB- 13), BHU, Varanasi, March 1-3, **2013**
- **Anuya Verma** and J .Pandey (2013): Atmospheric deposition of nutrients and implications to water chemistry and trophic status of two freshwater tropical lakes of India. In Proceedings of 'Raj. Science Congress on "**New Frontiers of Science & Technology and Innovation for Development in Rajasthan, Jaipur** , May 11-13, **2013**
- **Anuya Verma** and J. Pandey (2013): Assessing the Combined Effects of Watershed and Changing Atmospheric Deposition Chemistry on Freshwater Tropical Lakes in India. In International conference ", Osaka Japan, 6-9 June, 2013
- **Anuya Verma**, Jaya Arora & Rohini Trivedi (2013): Recent Trends for Biodiversity Conservation in Southern Rajasthan, In National Conference on "**Climate change & Environment** " VBRI, Udaipur, 23-24 Dec., **2013**
- **Anuya Verma** & D. S. Rathore (2014): Trends in Aquatic ecosystem management in semi-arid regions of Rajasthan. In National Conference on "**SUSTAINABLE WATER RESOURCES MANAGEMENT IN ARID AND SEMI-ARID REGIONS**, Jodhpur, 4-5th January, **2014**
- Assessment of fluoride concentration in ground water of Dungarpur district, Rajasthan, India. In National conference on "Harmony with nature

in context of environmental issues and challenges of 21st century" Udaipur ,28-30th November, 2014

- **Anuya Verma** & Rohini Trivedi (**2014**): " Home Entrepreneurs- Balancing dreams and needs" . in NATIONAL CONFERENCE on "Skill Development and Women Empowerment" , Udaipur.
- **Anuya Verma (2016)** :Effect of salinity trends on some fresh water lakes of southern Rajasthan. In : UGC sponsored National Conference on "Recent advances in biological sciences, biotechnology & sustainable development RABBSD – 2016" , Udaipur, March 18-19, 2016 .
- **Anuya Verma (2016)**: In: One day seminar on "Challenges in teaching and Research in Chemistry and Biology" sponsored by Indian Society of Chemists and Biologists (ISCB) Local Chapter (West Zone) , Udaipur, July 23rd, 2016
- Sanjay Meghwal, **Anuya Verma**, and D. Karki(**2018**) : Industry and Environmental Science – A need of today and tomorrow . In DST Rajasthan sponsored one day seminar on "Industrial Advancement and academic research: a correlation (IAAR- 2018)
- **A. Verma**, Sanjay Meghwal and D. Karki (**2018**): E-waste -Emerging challenge to human health and environment. In : International conference on "Environmental and Ecological Sustainability: Engaging the stakeholders", organized by IGNOU ,New Delhi , 4th – 5th October, 2018
- Anjali Purohit, **Anuya Verma**, Dhanusha Karki, Anshul Kandara and Sanjay Meghwal (**2019**). Status of lake restoration practices and their effectiveness with special reference to India. In : VII- RAJASTHAN SCIENCE CONGRESS (A National Conference on "Current Scenario in Science and Technology: Facing the challenges and creating opportunities"), organized by M L Sukhadia University, Udaipur, 14-16th October, 2019.
- Dhanusha Karki, **Anuya Verma**, Anshul Kandara (**2020**). An overview on Nano applications for waste water treatment and purification .In : International conference on "Innovative Research on Science, Humanities, Engineering & Management " (IC-IRSEM-2020), organized by SKD University in association with RFI , Hanumangarh (Rajasthan), 15-16th February, 2020

Thesis supervision:

- **Dhanusha Karki** - Heavy Metal Removal Potential of Certain Hydrophytes in relation to Ecosystem Properties in Tropical Lakes of Udaipur . (Awarded)
- **Sanjay Meghwal** - Role of Multiple Stressors in changing Ecological Status of Baghdara, Udaipur- A Freshwater Tropical Lake in Udaipur. (Awarded)
- **Pankaj Ameta** - To Study the Effect of Marble Mining and Dump Waste on the Physicochemical Characteristics of Soil and its Reclamation in Udaipur District. (submitted)
- **Anshul Kandara** - Assessment of Bacterial Diversity in Certain Tropical Freshwater Lakes of Udaipur under different Trophic Status. (ongoing)
- **Neha Gaur** - Biosynthesis of Iron Oxide Nanoparticles (Fe₂O₃) and Assessing their role in Remediation of Textile Waste Contaminated Soil around Bhilwara Region of Rajasthan. (ongoing)
- **Anjali Purohit** - Evaluation of Enzymatic Activities in relation to Nutrient and Heavy Metal Contamination in Sediments of Certain Freshwater Lakes of Udaipur with Special Reference to Landuse in Catchment. (ongoing)
- **Hemendra Singh Rathore** - Evaluation of Soil Quality and Microbial Activity in and Around an Urban Environment under Various Stress Levels with Special Reference to Heavy Metal Accumulation. (ongoing)

Ongoing Research Project:

- As **Co- PI** in Research Project entitled "Environmental issues of urban and rural tribal areas of southern Rajasthan" funded by RUSA, 2020 (Rs. 2.65 cr.)

Workshop / Seminars/ Symposiums Attended

- National Symposium on Environment, BARC, Rajasthan College of Agriculture, Udaipur, June 5-7, **2002**
- National Conference on Environmental Biology, Department of Biosciences, Saurashtra University, Rajkot, Gujarat. 17-18 October, **2002**
- XIX National Convention of Environmental Engineers, Institution of Engineers, (India), Udaipur Local Centre, 16-18 October **2003**

- 7th National Conference of Society of Science & Environment, Department of Zoology, College of Science, M. L. S. University , Udaipur, 17-18th September, **2005**
- **International 12th World Lake Conference, Taal 2007**, Jaipur, 28th October-2nd November, **2007**
- **National Conference** on Environmental Sciences : Current Status & Emerging Challenges, M.L.S. University, Udaipur , 16th -17th November, **2007**
- **National Seminar** on Conservation of Lakes and Water Resources Management strategies, College of Technology & Engineering, MPUAT, Udaipur, 19th -20th Feb. , **2010**
- **National workshop** on ` Research methodologies for meeting Design Challenges in 21st Century, organized by computer Society of India, Udaipur Chapter SIG-WNs and deptt of Computer Science & Engineering, CTAE ,Udaipur, 17-18 Jan., **2011**.
- **National seminar** on "*Addressing Transportation Planning Issues for developing countries*" from April 19-21, **2011** at Sunrise Group of Institution, Udaipur.
- **National Conference** on "*Better Life in Rural Communities with ICTs*" with The Institution of Engineers (India), Department of CSE CTAE, SIG-WNs and SIG-e-Agriculture from 17th - May 19th, **2011** at Sunrise Group of Institutions, Udaipur.
- **International conference** on " Sustainable management Practices: Development & Dimensions", FMS, M.L.S. University, Udaipur, 30-31st march, **2012**
- **Workshop** on research methodology, **2012**
- **Workshop** on " Disaster management due to Earthquake, Centre for management studies, HCM Rajasthan State Institute of Public Administration, Udaipur, Feb.,18-19, **2013**
- **19th ISCB International Conference** on "Recent advances and current trends in chemical and biological sciences", Deptt .of Chemistry & ISCB, M L Sukhadia University, Udaipur, 2-5th March, **2013**.
- **National Conference** on "Biodiversity and climate change". Department of Environmental Sciences ,M .L .Sukhadia University, Udaipur (Raj.), 17-18 March, **2013**.

- **National Conference** on Climate change and Environment, VidhyaBhawan Rural Institute, Badgaon road, Udaipur, 23-24 December, **2013**
- **Paper presented in National Conference** on "SUSTAINABLE WATER RESOURCES MANAGEMENT IN ARID AND SEMI-ARID REGIONS, Jodhpur, 4-5th January, **2014**
- **National conference** on HARMONY 2014, 28-30th Nov., **2014**
- **National conference** in women studies 23rd Dec., **2014**
- **UGC sponsored National Conference** on "Recent advances in biological sciences, biotechnology & sustainable development RABBSD - 2016", Udaipur, March 18-19, 2016.
- **International conference** on *Eco friendly and socially responsive economy and equity: Issues and challenges of 21st century for emergent sustainable development amongst SAARC countries*". Organized by Dept. Of Zoology, M L Sukhadia University, Udaipur & Deccan Education Society, Uni. Of Mumbai, Maharashtra , 9-11 Jan., 2017, **SAARC E CUBE**
- **DST Rajasthan sponsored one day seminar** on "Industrial Advancement and academic research: a correlation" (IAAR- 2018)
- **International conference** on "Environmental and Ecological Sustainability: Engaging the stakeholders", organized by IGNOU ,New Delhi , 4th - 5th October, 2018
- **VII- RAJASTHAN SCIENCE CONGRESS- A National Conference** on "Current Scenario in Science and Technology: Facing the challenges and creating opportunities", organized by M L Sukhadia University, Udaipur, 14-16th October, 2019.
- International conference on "Innovative Research on Science, Humanities, Engineering & Management " (IC-IRSEM-2020), organized by SKD University in association with RFI , Hanumangarh (Rajasthan) , 15-16 FEBRUARY, 2020

Workshop Participations

- **National workshop** on "Research methodologies for meeting Design Challenges in 21st Century", organized by computer Society of India, Udaipur Chapter SIG-WNs and Dept. of Computer Science & Engineering, CTAE ,Udaipur, Jan.17-18, **2011**

- **Workshop** on "Disaster management due to Earthquake, Centre for Management Studies, HCM Rajasthan State Institute of Public Administration, Udaipur, Feb. 18-19, **2013**
- **DST Workshop 2017-** on "Brainstorming session for developing an exclusive program for Women scientists in the field of Geospatial Technology for training ,skill development and employment generation " organized by department of geography ,Faculty of Earth Sciences, and DST, ministry of Science and Technology, Govt. of India, New Delhi, September 25-26, **2017**
- **DST Workshop 2018-** on "Brainstorming session for strengthening Inter-Disciplinary and Inter-institutional research in the state of Rajasthan" organized by Faculty of Earth Science ,MLSU and DST, ministry of Science and Technology ,GOI, New Delhi , January 12-13, **2018**

Seminar/ Conference Organized

- **As Organizing Secretary – HARMONY 2014** (*National conference on Harmony with nature in context of environmental issues and challenges of 21st century , "28-30th November, 2014*) in Department of Environmental Sciences, Faculty of Earth Science, M. L. Sukhadia University ,Udaipur
- **As organizing member** – National seminar on 'Re defining the strategic role of libraries in Indian culture and modern society', 30-31 July, 2015
- **As organizing member** – National seminar on 'libraries in Indian culture and management', 11-12 April, 2014

Webinars organized :

- **As organizing secretary** in "DIALOGUE ON WILDLIFE AND BIODIVERSITY CONSERVATION" in collaboration with Raj Rishi Bhartrihari Matsya University, Alwar, Jai Narayan Vyas University, Jodhpur and Vikram University, Ujjain held on 12th October, 2021.
- **As organizing secretary** in Webinar on the occasion OF WORLD NATURE CONSERVATION DAY held on 28th July, 2021.
- **As organizing secretary** in ONE DAY WEBINAR on 'Nurturing nature: restoration and its challenges' to virtually celebrate INTERNATIONAL

EARTH DAY 2021(TOGETHER WE CAN RESTORE OUR EARTH) held on 22 April, 2021.

- **As joint organizing secretary** in International webinar on "INTERNATIONAL DAY FOR BIOLOGICAL DIVERSITY" held on 22 May, 2021.
- **As organizing secretary** in INTERNATIONAL DIALOGUE ON ECOLOGICAL RESTORATION under the Aegis of international consortium held on 5 June, 2021.
- **As organizing secretary** in NATIONAL WEBINAR on "VALUING WATER" ON THE OCCASION OF WORLD WATER DAY held on 22 March, 2021.
- **As organizing secretary** in National Webinar on "NATIONAL EDUCATION POLICY (NEP) 2020: AND JOB OPPORTUNITIES IN ENVIRONMENTAL SCIENCES held on 11 November, 2020.

Lifetime membership

- Rajasthan Science Congress

Faculty Development Courses

- Ten-day **Workshop** on research methodology, **2012**
- **Orientation programme** – 17th may- 14th June, **2014 , JAIPUR**
- NSS – TOP training – 22nd -24th September , **2014**
- **FDP** – 1stdec., to 13thdec, **2014**
- **Refresher course** 29th September-19th October, **2015 , MDS UNIVERSITY. AJMER**
- **DST-NRDMS sponsored GEOTECH 2016** – 28TH NOV., TO 18TH Dec., **2016** - *National level Winter school on Geospatial Technologies* organized by Department of Geography, Faculty of Earth Science, M L Sukhadia University, UDAIPUR
- **Refresher Course - on Environmental Awareness (ID/MD)** organized by UGC-HRDC, Himachal Pradesh University, Shimla on **17th to 29th August, 2020**
- **Refresher Course -22nd Aug. to 3rd Sep., 2022 on Environmental Studies(ID)** organized by HRDC, JNU, New Delhi

Administrative assignments :

- As advisor in "Environmental plans for 6 districts " funded by State government of Rajasthan
- NSS Programme officer UNIT II
- Committee member- UG and PG admissions
- Member, research board (PGRB) and departmental committee
- Member, Committee of Courses, Environmental Scs.
- Member, syllabus review committee (UG and PG,EVS ,NEP 2020)

(Dr. Anuya Verma)