

Dr. Pranavkumar D. Bhangaonkar

Designation: - Assistant Professor

Experience: - Total 15 Years 08 Months

Education Qualification: - B.E., M.E. (Civil-IWM), Ph. D. (Civil Engineering)

Specialization: - Hydrology and Water Resources Engineering

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Research

Scopus Indexed Journals

- N. V. Shah, Y. S. Patel and **P. D. Bhangaonkar**, “Assessing Impact of Climate Change on Rainfall patterns of Vadodara District, Gujarat, India”, *J. Phys.: Conf. Ser.* 1714 012046, Online ISSN: 1742-6596, Print ISSN: 1742-6588, 2020, Volume 1714, pp.1-6
- **P. D. Bhangaonkar** and J. S. Patel, “Assessment of heavy metals in surface water of Vishwamitri river”, *Int. J. Hydrology Science and Technology*, Vol. 9, No. 6, *ISSN online: 2042-7816, ISSN print:2042-7808*, 2019, pp. 675-689, DOI: 10.1504/IJHST.2019.103449

International Journals

- **P. D. Bhangaonkar**, S. Sahu and G. Vyas, “Scope of Farm On Wheels Technology for Vertical Farming in India”, *Multidisciplinary International Research Journal of Gujarat Technological University*, Volume 3, Issue 2, ISSN: 2581-8880, 2021, pp. 48-57
- R. Thakrawala, S. Patoliya and **P. D. Bhangaonkar**, “Use of Activated Alumina Filter in Vehicles to Reduce Air Pollution”, *International Journal of Advance Engineering and Research Development*, Volume 5, Special Issue 03, e-ISSN (O): 2348-4470 p-ISSN (P): 2348- 6406, 2018, pp. 1-6
- B. S. Patni, H. R. Patel and **P. D. Bhangaonkar**, “Assessment of Sedimentation in Ajwa Reservoir in The Vadodara Gujarat Region Using Remotely Sensed Data”, *International Journal of Advance Engineering and Research Development*, Special Issue 03, e-ISSN:2348-4470, p-ISSN: 2348-6406, 2017, pp. 16-20
- **P. D. Bhangaonkar** and J. S. Patel, “Water Quality Zoning of Vishwamitri River to Access Environmental Flow Requirements Through Aggregation of Water Quality Index”, *International Journal of Human Capital in Urban Management (IJHCUM)*, Article 4, Volume 2, Issue 4, Print ISSN: 2476-4698, Online ISSN: 2476-4701, 2017, pp. 281-292, DOI: 10.22034/IJHCUM.2017.02.04.004
- **P. D. Bhangaonkar** and J. S. Patel, “Assessment of Water Quality of Vishwamitri River to Explore Environmental Flow Requirements”, *International Journal of Scientific Research in Environmental Sciences (IJSRES)*, 5 (3), ISSN: 2322-498, 2017, pp. 0052-0062, DOI: 10.12983/ijsres-2017

National Journals

- J. S. Patel and **P. D. Bhangaonkar**, “Assessment of Environmental Flows Requirements of Vishwamitri River using Hydrological Methods”, *Journal of Indian Water Resources Society*, Vol. 39, No. 2, 2019, pp. 23-39
- **P. D. Bhangaonkar** and J. S. Patel, “Statistical Assessment of Water Quality Parameters of Vishwamitri River”, *GIT-Journal for Engineering & Technology*, Vol. 10, ISSN 2249- 6157, 2017, pp. 40-47
- **P. D. Bhangaonkar** and J. S. Patel, “Assessment of Water Quality of Tributaries to

Explore Environmental Flow Requirements of Vishwamitri River, India”, *Journal of Environmental Science and Engineering (JESE)*, Vol. 59, No. 2, 2017, pp. 15-24

- **P. D. Bhangaonkar**, D. Thakkar and J. S. Patel, “Impact Assessment of Waste Disposal on Soil Quality along the Roadside Ditches of Vadodara-Halol Toll Road, SH-87, Gujarat”, *VIER Journal of Engineering Research*, Issue-2, ISSN: 2349-9079, 2015, pp. 20-27
- J. S. Patel and **P. D. Bhangaonkar** “Identification of Point and Non-Point Sources of Pollution of Vishwamitri River”, *ADIT Journal of Engineering*, Vol. 9, No.1, 2012, pp 61-63

List of Papers presented in Conferences/ Seminars

International

- **P. D. Bhangaonkar** and J. S. Patel, “Assessment of Environmental Flow Requirements of Vishwamitri River, Vadodara, Gujarat”, *International Conference in Science and Technology (ICST-2K14)*, S. B. Patil College of Engineering, Indapur, 2014

National

- **P. D. Bhangaonkar** and J. S. Patel, “Impact Assessment of Jambuva Tributary Confluence on Water Quality of Vishwamitri”, *2nd National Conference on Recent Research & Development In Core Discipline Of Engineering*, Vadodara Institute of Engineering, 2017
- **P. D. Bhangaonkar**, “Preventive measures and technical solutions for the conservation of lakes: Pichola and Fateh Sagar”, *National Seminar on Conservation of lakes and Water Resources: Management Strategies*, College of Technology and Engineering, Udaipur (Rajasthan), 2010
- N. A. Desai and **P. D. Bhangaonkar**, “Importance of Demand Actuated Traffic Signals for Public Transport Buses at Signalized Intersections in Indian Cities”, *All India Seminar on “ICT for Rural Development: Access and Applications (ICTRD-2009)*, The Institution of Engineers (India), Udaipur Local Centre, 2009

National Level Events Coordinated

- Coordinated National Conference on “**Recent Research & Development in Core Disciplines of Engineering**” during 21st - 22nd March, 2017
- Coordinated One day National Seminar “**Recent Trends and Practices in Concrete Technology**” on 16th February, 2017
- Coordinated National Conference on “**Recent Research and Development in Core Disciplines of Engineering**” during 25th -26th April, 2015
- Coordinated 6 days STTP “**Application of Soft Computing Tools And Techniques in Civil Engineering**” during 28th Nov. - 3rd Dec, 2016

State Level Events Coordinated

- Coordinated webinar on “**Concepts of Industrial Structures**” on 12th February, 2021.

- Coordinated Prelims and Semi-Finals for “**Environment Youth Forum 2021**” during January 2021.
- Coordinated One Day State Level Seminar on “**Advances in Water Resources Engineering and Management (AWREM-2016)**” on 12th Aug, 2016
- Coordinated One Day State Level Seminar on “**Urban Transport: Issues and Challenges**” on 11th Dec, 2015
- Coordinated One Day State Level Seminar on “**Advances in Structural Analysis and Design**” on 21st Nov, 2014
- Coordinated One Day State Level Seminar on “**Application of Geoinformatics in Civil Engineering (Geoinformatics-2013)**” on 20th Dec, 2013
- Committee member of One Day State Level Seminar “**A Small Step & Vast Universe-Nanoscience and Nanotechnology**” on 23rd Feb, 2013
- Organizing Secretary of One Day State Level Workshop on “**Environmental Issues and Challenges in Perspective of Urban Development**” on 23rd Dec, 2010

CONFERENCE ATTENDED

International

- International Conference on “**Climate Change 2020: Adaption and Mitigation Practices with Local and Global Level innovations**” ICC 2020, Sankalchand Patel University, Visnagar, Gujarat during 28th -29th Feb., 2020
- International Conference on “**Science and Technology (ICST-2K14)**”, S. B. Patil College of Engineering, Pune during 21st-22nd Feb, 2014

National

- 2nd National Conference on “**Recent Research & Development In Core Discipline of Engineering**” at Vadodara Institute of Engineering, Vadodara during 21st-22nd April, 2017
- 1st National Conference on “**Recent trends in Engineering, Management and Pharmacy**” at Noble Groups of Institutions, Junagadh during 11th-12th March, 2016
- National Conference on “**Environmental Technologies: Today & Tomorrow**” in association with Department of Environmental Engineering at L.D. College of Engineering, Ahmedabad during 18th-19th May, 2012
- National Conference on “**Water Conservation & Artificial Recharge Of Ground Water**” (WATCON-2008) organized by Department of Civil Engineering, Faculty of

Technology and Engineering, The M. S. University, Vadodara in Collaboration with Indian Water Works Association, Vadodara during 18th-19th Oct, 2008

ONLINE CERTIFICATE OF NPTEL

- **Elite + Silver NPTEL Online Certification** for 4 week course (Jan-Feb 2020) on “Introduction to Geographic Information Systems” with the consolidated score of 83/100.
- **Elite + Silver NPTEL Online Certification** for 12 week course (Jan-April 2021) on “Geographical Information Systems” with the consolidated score of 83/100

TRAINING PROGRAMME ATTENDED

- Participated & completed successfully AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "**Sustainable Practices for Conservation And Management of Water (SPCMW – 2021)**" from 04/10/2021 to 08/10/2021 at Dr. S. & S. S. Ghandhy Government Engineering College, Surat.
- TEQIP One Week Faculty Development Program On “**Water Resources System Planning, Management and Development for the Water Scarce Areas**” Organized by Department of Civil Engineering B.I.T Sindri during 26-30th June, 2021.
- GUJCOST sponsored online STTP Program on “**Research Methodology and Technical Writing**” (**RMTW-2020**) organized by Department of Civil Engineering, Dr. S. and S. S. Gandhi Government Engineering College, Surat during 1st -5th December 2020.
- Training of trainers on “**NBA-Accreditation, Credit Based Choice System & Annual Performance**” organised by NITTTR Extension Centre, Ahmedabad during 15th-19th July, 2013
- TEQIP-II Sponsored Short Term Training Programme on “**Hydraulic and Hydrologic Modelling: Concepts and Applications**” organised by Civil Engineering Department, SVNIT, Surat during 1st-5th July, 2013
- Modular training program on “**Statistical Analysis in Research**” offered by CEPT Anchor Institute for Infrastructure Sector at BVM Engineering College, VV Nagar during 14th-16th July, 2011
- UIPI-09 AICTE sponsored one week Short Term Training Programme on “**Urban Infrastructure And Services: Planning And Implementation**” organised by Civil Engineering Department, SVNIT, Surat during 5th- 9th Jan, 2009

SEMINARS ATTENDED

- 1008 One day Seminar by “**IIRS Outreach Program**” at ISTAR, VV Nagar, Gujarat

on 10th Jan, 2020

- Participation in “**E-Yantra Ideas Competition (eYIC-2018)**” at IIT, Bombay during 22nd -24th March, 2018
- Participation in “**Regional Final of E-Yantra Ideas Competition (eYIC-2018)**” at IIT, RAM, Ahmedabad on 19th Feb, 2018
- One day National Level Seminar on “**Climate Change Adaption-Issues and Challenges (CCAIC-2016)**” at Department of Civil Engineering, Faculty of Technology and Engineering, The M. S. University, Vadodara on 12th Dec, 2016
- Participated in National Environmental Awareness campaign 2014-2015 on “**Preservation of Rivers by Re-use of Waste Water**” at APMC, Vadodara on 15th March, 2015
- One day State Level Seminar on “**Emerging Trends in Mathematical Modeling for Engineering Research**” organized by Vadodara Institute of Engineering and Supported by GUJCOST, Vadodara on 7th Jan, 2012
- One day state level Seminar on “**Flood: Mitigation and Adaptation**” organized by GERI in Collaboration with Water Resources Engineering and Management Institute (WREMI), The M.S. University, Vadodara on 18th April, 2011
- One day state level Seminar on “**Environmental Performance and Its Improvement through integrated approach of Management tools, Techniques and Technology**” at GSFC Ltd., Vadodara and ISTE Chapter, Polytechnic, The M. S. University, Vadodara on 23th March, 2011
- National Seminar on “**Conservation of Lakes and Water Resources Management Strategies**” at CTAE, Maharana Pratap University of Agriculture and Technology, Udaipur, Rajasthan during 19th – 20th Feb, 2010
- All India Seminar on “**ICT for Rural Development Access and Applications (ICTRD-2009)**” at Institution of Engineers (India), Udaipur Local Centre, Udaipur, Rajasthan during 11th-12th Sept, 2009
- Seminar on “**Geotechnical Solution On Geotechnical Solution For Infrastructures (NSGSI-08)**” organized by Indian Geotechnical Society, Ahmedabad Chapter at L.J.I.E.T., Ahmedabad on 22nd Nov, 2008
- National Seminar on “**Advances in Building Management Systems**” organized by Institute of Technology, Nirma University of Science & Technology, Ahmedabad during 19th – 20th Oct, 2007

WORKSHOPS ATTENDED

- Online Workshop on “**Research Methodology**” organized by Pandit Deendayal Petroleum University during 4th-7th May, 2020

Session 1 – Problem Identification in Research: Disruptive Technology	4 th May, 2020
Session 2- Ethics in Research	5 th May, 2020
Session 3-Writing Research Paper	6 th May, 2020
Session 4- Reviewing Literature	7 th May, 2020

- One Day State Level Workshop on “**LaTex for Preparation of Mathematical Document and Beamer Presentation**” at Vadodara Institute of Engineering, Vadodara on 2nd July, 2016
- Workshop on “**River Hydraulics and Management of Indian Rivers**” at Department of Civil Engineering, SVNIT, Surat on 22nd March, 2014.
- Two Days National Level Workshop on “**Emerging Issues and Challenges in Water Pollution and Wastewater Treatment (ICWPWT- 2016)**” at Department of Civil Engineering, Faculty of Technology and Engineering, The M. S. University, Vadodara 30th - 31st Jan, 2016
- Workshop on “**Engineering Application of Geoinformatics**” organized by Department of Civil Engineering, School of Technology, PDP, Gandhinagar on 24th Jan, 2013
- One Day workshop on “**Innovations in Eco-Friendly construction**” organized by: Institution of Engineers, Vadodara & The Architect & Engineers Association, Vadodara, Sponsored by GUJCOST at ITM Universe, Vadodara on 23rd Feb, 2012
- One Day Workshop on “**Hydrological Data Management**” organized by Faculty of Technology and Engineering, Dept. of Civil Engineering, The M.S. University, Vadodara and Sponsored by: SWDC, Narmada, Water Resources and Water Supply & Kalpasar Department, Govt. of Gujarat, Gandhinagar on 16th Feb, 2011
- All India Workshop On “**National Building Code-2005**” organized jointly by The Institution of Engineers (India), Udaipur Local Centre, and Bureau of Indian Standards at Udaipur, Rajasthan during 5th-6th Sept, 2009
- One Day workshop on “**Energy-The Urja and Emerging Opportunities in the Energy Sector**” organized by GEDA, Govt. of Gujarat on 12th Oct. 2007

WEBINARS ATTENDED

- “**Sustainable Approach Towards Rurbanization**” organized by Gujarat Technological University during 04th and 08th January 2021.

- **“Water Sector of Gujarat - Nal Se Jal”** organized by Civil Engineering Department, Dr. S. & S. S. Ghandhy Government Engineering College, Surat under Alumni Association Activity on 04th October 2020
- **“Emerging threats against the Water Security”** organized by Civil Engineering Department, Dr. S. & S. S. Ghandhy Government Engineering College, Surat on 15th September 2020
- **Webinar Series** organized by SSIP Cell and DIC Spoke, Dr. S. and S. S. Gandhy Government Engineering College, Surat during 10th – 14th August, 2020

Session 1- Rationale of a Start-up based on Design Thinking, 10 Steps for a new Start-up and 10 Steps for Start-up Growth and Market Entry	10 th August, 2020
Session 2- Design Thinking as a Catalyst to Innovation	11 th August, 2020
Session 4 - Design Thinking - For Mind and Start-up	13 th August, 2020
Session 5- Starting and Failing Early	14 th August, 2020

- **“Startup Sathi Webinar Series”** organized by i-Hub, SSIP, Gujarat during 17th – 20th June, 2020

Session 1- Building Innovation & Startup Ecosystem in Saurashtra	17 th June, 2020
Session 2- Ecosystem role in I2E-Innovator to Entrepreneur journey	18 th June, 2020
Session 3 - Design as the Driver for Innovation	19 th June, 2020
Session 4- Powering Start-ups from 1 to 10^{^6} by Growth Hacking	20 th June, 2020

- **“Climate Policy and Governance”** organized by Climate Change Department and Gujarat Energy Development Agency on 16th June, 2020.
- **“Environmental and Social Impact of COVID-19: Lesson to be Learnt”** organized by Civil Engineering Department, Dr. S. & S. S. Ghandhy Government Engineering College, Surat on 11th June, 2020
- **“Creation of DEM using different Tools”** organized by Civil Engineering Department, Dr. S. and S. S. Ghandhy Government Engineering College, Surat and ISTE Students’ Chapter on 10th June, 2020
- **“Introduction to the Arduino Microcontroller Board”** jointly organized by Student Start-up Innovation Policy Cell & Design Innovation Centre Spoke and Dr. S. and S. S. Ghandhy Government Engineering College, Surat on 9th June, 2020
- **“Climate Resilient Cities”** organized by Institute of Climate Change Research, The Maharaja Sayajirao University of Baroda on the occasion of World Environment Day, 05th June, 2020.

- **“Biodiversity and Climate Change”** organized by Climate Change Department and Gujarat Energy Development Agency on 5th June, 2020
- **“Hydraulic Modelling & Flood Mapping using HEC-RAS in Lower Narmada Basin – A Case Study of Garudeshwar Weir”** jointly organized by Civil Engineering Department, GEC, Dahod & Civil Engineering Department, D. A. Degree Engineering and Technology, Mahemdabad on 27th May, 2020
- **“Integrated Urban Water Management & Modelling using Software MIKE powered by DHI”** organized by ISTE Chapter, LDCE & PG-WRE, Civil Engineering Department, LDCE, Ahmedabad.

Session 1 - Urban, Coastal and Riverine Flood Modelling using MIKE FLOOD	26 th May, 2020
Session 2 - Modelling and GIS for water in cities using MIKE URBAN+/ Water Net Advisor	27 th May, 2020
Session 3 - Innovative Solutions for Challenges in Groundwater Modeling using MIKE SHE	28 th May, 2020

- **“How to Write Research Proposal and Research Articles”** organized by Civil Engineering Department, Dr. S. & S. S. Ghandhy Government Engineering College, Surat on 25th May, 2020
- **“Global Navigation Satellite System and its Application”** organized by M. Sc. Geoinformatics Department, ISTAR College, Vallabh Vidyanagar on 23rd-24th May, 2020
- **“Design of Water Supply Network using BRANCH and EPANET”** organized by Civil Engineering Department, Government Engineering College, Bhavnagar on 23rd May, 2020
- **“Nano Technology in Water and Waste Water Treatment”** organized by Indian Water Works Association (IWWA), Vadodara Centre on 20th May, 2020
- **“Application of GIS in Civil Engineering”** organized by Dig-In@SSEC, Shantilal Shah Engineering College, Bhavnagar on 12th May, 2020
- **“Application of Geoinformatics in Multidiscipline”** organized by M. Sc. Geoinformatics Department, ISTAR College, Vallabh Vidyanagar on 9th May, 2020
- **“Webinar on Hydrological Applications (QGIS)”** organized by TGIS , Ahmedabad on 9th May 2020

- **“Will learning from COVID-19 be useful in global Climate actions?”** organized by Institute of Climate Change Research (ICCR), The Maharaja Sayajirao University of Baroda on 7th May, 2020
- **“Integration of Total Station Data in GIS Environment”** organized by Department of Civil Engineering, L. D. College of Engineering, Ahmedabad on 5th May, 2020
- **“Webinar Series on Research Methodology”** organized by Sankalchand Patel University, Visanagar, Gujarat, India from 1st-4th May, 2020
- **“Introduction to IPR and Patentability Analysis”** organized by Department of Civil Engineering, L D College of Engineering, Ahmedabad on 2nd May, 2020
- **“AL and ML for Ecology Conservation & Environment”** organized by M. Sc. Geoinformatics Department, ISTAR College, Vallabh Vidyanagar on 2nd May, 2020
- **“Drone Technology: Mapping and Monitoring Eye”** organized by M. Sc. Geoinformatics Department, ISTAR College, Vallabh Vidyanagar on 1st May, 2020
- **“QGIS-Basic Level”** organized by Dr. S. & S. S. Ghandhy Government Engineering College, Surat jointly with TGIS Ahmedabad under Students’ Chapter of Institution of Engineers (IEI), India on 27th April, 2020
- **“Prior to Art Search for Patent”** organized by Dr. S. & S. S. Ghandhy Government Engineering College, Surat on 25th April, 2020
- **“Webinars for Educators”** organized by Department of Training, Center of Training, IITE during 20th-22nd April, 2020

QUIZ PARTICIPATED

- Participated in Water Quiz conducted as a part of **“Jal Shakti Abhiyan: Catch the Rain”** campaign, National Water Mission, Ministry of Jal Shakti during March 2021.
- Participated in **“National Education Policy 2020”** organized by Sanskardham, Ahmedabad from 5th September to 15th September 2020.
- Participated in e-quiz organized on: Theme-**“Biodiversity”** organized by Forest and Environment Department and Gujarat Pollution Control Board on World Environment Day 5th June 2020.

CERTIFICATES OF EXCELLENCE FROM ELSEVIER RESEARCH ACADEMY

- **Fundamentals of Manuscript Preparation:** Structuring your article correctly, Guide to reference managers: How to effectively manage your references, How to write an abstract and improve your article, How to prepare your manuscript.
- **Certified Peer Review Course:** How to peer review a review article, what is peer review? Why peer review?, Models of peer review, The typical peer review process, How to write a helpful peer review report, The comments to editors and decision recommendations
- **Funding:** How to Secure Funding- Early Career Researcher Edition, Funding Hacks for Researchers, Successful Research Grant Applications-Getting it Right, Discover how Metrics can boost Funding and Networking Opportunities

AWARDS RECEIVED

- **National Level Award (Active Mentor Award eYIC-2018):** Award under Most Innovative Solution Category: The U.G. Project Titled “Restoration and Replenishment of Tributaries of Vishwamitri River by Using Sand Filter with Automation” mentored during e-Yantra Ideas Competition (eYIC-2018) held on 22nd-24th March 2018 at IIT Bombay.
- **State Level Award (GUJCOST, DST):** Worked as Principal Investigator on the minor research project on "Assessment of Environmental Flow Requirements of Vishwamitri River". The project had been sanctioned in year 2014-2015 by Gujarat Council on Science And Technology (GUJCOST), DST, Govt. of Gujarat for the amount of Rs. 4, 84,000/- for two years duration.

INVITED EXPERT LECTURES/WORKSHOP/WEBINAR DELIVERED

- Invited as Speaker to deliver an expert talk on Water Conservation-“An Urgent Need of Present Times” at Dr. S. & S. S. Gandhi Government Engineering College, Surat, Under National Service Scheme, Azadi ka Amrit Mahotsav dated on 22nd October, 2021.
- Invited as an Expert to deliver an expert session on “**Use of Hydraulic Models for Assessment of Environmental Flow Requirements**” during Two Days National Workshop on “Application of 1D-2D Hydraulic Modelling in Water Resources Engineering” organized by Department of Civil Engineering, Sankalchand Patel University on 17th September, 2021.
- A webinar on “**Application of GIS in Civil Engineering**” organized by Government Polytechnic, Halol, Vadodara, 2020
- Lecture on “**Emerging Trends and Practices in Restoration and Conservation of Rivers**” at ISTE approved Six Days Online State Level Workshop on “Latest Trends in Civil Engineering” organized by Civil Engineering Department, Dr. S. & S. S. Ghandhy Government Engineering College, Surat, 2020. (<https://youtu.be/yQarc1IevXk>)

- A webinar on “**Advances in Water Resources Engineering**” at L & T Power Training Institute, Larsen & Toubro Limited, Vadodara, 2020
- Two Days Workshop on “**QGIS**” software for U.G. Students of Civil Engineering Department, Sardar Vallabhbhai Patel Institute of Technology (SVIT), Vasad, Gujarat, 2020.
- An expert talk on “**Introduction to GIS**” at L & T Power Training Institute, Larsen & Toubro Limited, Vadodara, 2019.
- An expert talk on “**Understanding Loads: Dead, Live and Wind Loads, Seismic Loads**” at L & T Power Training Institute Larsen & Toubro Limited, Vadodara, 2019.
- An expert talk on “**Water Resources Engineering**” at L & T Power Training Institute, Larsen & Toubro Limited, Vadodara, 2019.
- An expert talk on “**Environmental Awareness**” at Nirma University (Diploma Studies), Ahmedabad, 2011.

MEMBERSHIPS OF TECHNICAL/ PROFESSIONAL COMMITTEES

- Registered Member of **Hydrological Data User Group (HDUG)**, State Water Data Centre, Gandhinagar for the duration 2013-2018
- Life Member, **Indian Society for Technical Education (ISTE)**, LM 76700
- Life Member, **Indian Water Resources Society (IWRS)**, IIT Roorkee, India, LM-21-7886