

## RESUME

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M | A | J | U | M | D | A | R |   | P | R | A | D | E | E | P |   | K | U | M | A | R |
| D | O | B | - | 2 | 4 | 0 | 4 | 1 | 9 | 5 | 6 |   | C | O | B | - | I | N | D | I | A |

**Expected Jobs: Post-Doctoral Fellow/Emeritus/Adjunct/Full time Professor for Graduate level teaching and research**

### **Professional Engagements**

- Practitioner of Water Science and Engineering for 43 years.
- Public Works & Design Engineer for 15 yrs.
- Water Scientist for more than 16 yrs.
- Full time Professor for 12 yrs.
- Recipient of excellence award in Engineering and Technology
- Recipient of Hydraulics Award
- Member of the Expert Committee under Netherlands assisted Integrated Rural Water Supply and Sanitation Project
- Member of Technical Evaluation Committee for Bichhri Remediation Project, Ministry of Environment and Forest.
- Member of the Thematic Sub-Group on Water Resources under ITSAP project, Department of Science & Technology.
- Member of the Groundwater Estimation committee for Hard Rocks, Ministry of Water Resources.
- Principal/Director of Technological Institutes
- Director for SERC-DST course on Mountain Hydrology
- Principal Investigator for research and consultancy Projects sponsored by World Bank, UNESCO, UNDP, Netherlands.
- Consultant of UK based MNC for drainage design of Express Highways.
- Consultant for dewatering of waterlogged areas.
- Scientist in Charge & Drawing and Disbursing Officer
- Divisional Head for Scientific and Civil Maintenances
- President of Recreation club
- Nodal Officer for Anti-Tobacco Law
- Life Member Indian Association of Hydrologist, Roorkee (IAH)
- Life Member Indian Geotechnical Society, Vadodara (IGS)Chapter
- Life Member ASIANET
- Former Executive member of the Indian Association of Hydrologist (IAH)
- Member Indian Association of Agrometeorology

### **Academic Excellence**

- PhD from Indian Institute of Science, Bangalore, India
- M Tech from Roorkee University (Now IIT, Roorkee), India

- *UNDP fellow to University of Waterloo, Ontario, Canada.*
- *Trained in Six Training Schools.*
- *Post Graduate level teaching for 27 years*
- *Undergraduate level teacher in the last 11 years*
- *8 PhD/14MTech Thesis Supervision in Water Science & Engineering*
- *1PhD/21 Post Graduate Thesis on Construction Project Management*
- *Participated in 36 conferences*
- *Organized 11 conferences/workshops.*
- *Several Expert Lectures*
- *Expatriate Professor to Adama Science and Technology University, Adama, Ethiopia.*
- *Expatriate Professor to Addis Ababa Science and Technology University, Addis, Ethiopia.*

#### ***Academic Transcripts (BE (Elective), ME and PhD)***

- *Design of Canal Hydraulic Structure (BE, ME)*
- *Design of Gravity Dams (ME)*
- *Hydrology (ME)*
- *Hydropower (ME)*
- *Computer Programming (ME)*
- *Numerical Methods (ME, PhD)*
- *Optimization Techniques (ME)*
- *Construction Technology and planning (ME)*
- *Foundation Mechanics (ME)*
- *Design and Construction of Tunnels (ME)*
- *Stochastic Hydrology (PhD)*
- *Environmental Science and Engineering (PhD)*
- *Computational Fluid Dynamics (PhD)*

#### ***Academic Projects and Thesis***

- *Multi-purpose Reservoir Project planning and Design (BE and ME)*
- *Graphic Aided Design of Minor Irrigation Tanks (ME Dissertation)*
- *Modelling of recharge in layered Aquifers through single and multiple wells (PhD Thesis)*

#### ***Professional Training***

- *Gujarat Service Engineer II Professional Cadre Training*
- *Water and Land Management*
- *Water Resources Development*
- *Groundwater Modelling*
- *Hydrological Data dissemination*
- *GIS application*
- *World Bank aided Project Procurement Policy*

#### ***Design, construction and Investigative Exposures***

- *Canal Hydraulic Structures 1977-1979*

- *Dam 1979-1980*
- *Reservoir Sedimentation, Reappraisal of Irrigation Potential 1980-1987*
- *Rural Tanks and Roads under Scarcity Implementation 1987-1989*
- *Rock Foundation/Opening Testing, Rock Mass Classification 1989-1992*

***Teaching Interest Narratives with last year of load shared***

- *Numerical Methods in 2018*
- *Advanced Hydraulics in 2017*
- *Advanced Dam Engineering in 2018*
- *Hydrological and Hydro-geological Modeling 2016*
- *Sediment Transport and Environmental System Modeling in 1996*
- *Risk and uncertainty Analysis in 2016*
- *Fracture flow modeling 2005*
- *Natural and Artificial recharge of groundwater in 2018*
- *Construction Management Network in 2015*
- *Rock Mechanics in 2016*

***Scientific Software Skills***

1. *Visual MODFLOW*
2. *SWIFT III*
3. *SUTRA*
4. *HELP*
5. *GEOPACK*
6. *SURFER and GRAPHER*
7. *FLONET, FLOTRANS, FLOPATH*
8. *MIKESHE (*
9. *ANSYS (FLUID-DAM-FOUNDATION INTERACTION IN STATIC AND DYNAMIC STATE)*
10. *RISK & UNCERTAINTY ANALYSIS*
11. *ANALYTICAL SOLUTIONS FOR WELL RECHARGE*
12. *RESERVOIR WATER & SEDIMENT BALANCE*
13. *PUMPING TEST SOLUTIONS*
14. *DISCRETE FRACTURE NETWORK SOLUTION*
15. *SOFTWARE DEVELOPMENT IN FORTRAN*

**RESEARCH INVOLVEMENTS**

**Subjects of Interest:** Water Resources Engineering, Geotechnical Engineering, Hydrology, Hydrogeology, Construction Management

**Present Areas:** Fluid mechanics in Fractures, Urban water infrastructure, Construction Network

***Novelties in Research with Year of first Publication***

- *Graphic Aided design of irrigation projects in 1986*
- *Finite Element Method in thin layer application for jointed rock masses in 1991*
- *Modified Silt Distribution in small reservoirs in 1992*
- *Drought is a disaster not Hydrological Extreme in 1993*
- *Finite Element Modeling for groundwater flow in river basin 1994*
- *MODFLOW application in regional groundwater flow in 1996*
- *Certainty in Aquifer parameters through sensitivity analysis in 1997*
- *SWIFT application for conjunctive Use planning in 1997*
- *Regression modeling of shallow groundwater recharge in 2001*
- *HELP application in Landfill Leachate Estimation 2003*
- *Groundwater table depletion due to stream flow in 2005*
- *Fracture flow modeling in 2006*
- *Recharge not a mirror image of Pumping in well hydraulics in 2007*
- *Dependability Vs Risk Assessment in 2007*
- *Determination of Aquifer Parameters through single observation in 2008*
- *Numerical simulation of gradually increasing heterogeneity due to clogging in 2008*
- *Risk Assessment for contaminant transport in vadose zone in 2009*
- *Modeling of mountainous watershed with sequential exposed layers in 2009*
- *Coupled Analytical Solutions for Forced Well Recharge in Confined Aquifers in 2009*
- *Unsteady Solution for Well Recharge in A Low Diffusive Aquifer in 2010*
- *Hydraulic and Structural Imbalances caused by reservoir sedimentation in 2013*
- *Unsteady Equation for Free Recharge in a Confined Aquifer in 2013*
- *Multi-Aquifer Parameterization with Vertical Flows in 2015*
- *Improved parameters for water-logging and salinity modeling in 2016*
- *Litho-logical interferences causing water-logging and salinity in 2017*
- *Standardization of Smart cities in 2018*
- *Estimation of vertical flows in multi-aquifers using lithological co-relations in 2019*

#### **Articulation Records**

- *30 articles in peer reviewed journals*
- *5 articles in American Society of Civil Engineers (ASCE) Journals.*
- *40 articles in Conference Proceedings*
- *Article in World Water Congress*
- *22 Reports and book chapters*
- *Book Titled “Mechanics of Water Well Recharge: Theory to Practice” under publication.*
- *Book Titled “Modeling of Subsurface domains: Theory to Practice” under 2<sup>nd</sup> review.*
- *Book Titled “Construction Management of Water Resources Projects” under correction.*
- *Book Titled “Hydrology for Current Water Resources Development” under drafting.*
- *Book Titled “Risk and Reliability in Water Resources Development” under first drafting.*

**SPONSORED PROJECTS: Conceived 7, Completed 5 (UNESCO, WORLD BANK, UNDP, TIFAC-DST, MOWR)**

| Sponsor/Publishing  | Title of project   | Amount of grant   | Period       | Co-investigators  |
|---|--|-------------------|--------------|---|
| <b>Best Organized</b>   |  |                   |              |   |
| UNDP & TIFAC/<br>Proc XII World<br>Water Congress of<br>IWRA, 22-25<br>November, 2005,<br>New Delhi | Groundwater modelling in<br>central Punjab under<br>Information Technology for<br>Sustainable Agriculture in<br>Punjab (IT-SAP)                | 5,87,650/-        | 18<br>months | Prof G.C.Mishra<br>Dr Sudhir Kumar<br>Dr V. Singh<br>Dr M.K.Jose<br>Mr R.D.Singh<br>Dr S.K.Jain<br>Mrs Archana Sarkar |
| <b>Best Conceived</b>   |  |                   |              |   |
| WORLD BANK/<br>Present Area of<br>Research  | Fracture rock characterization<br>and study of fracture flow<br>mechanisms for assessment of<br>groundwater resources in hard<br>rock aquifers | 150 lakhs in 2008 | 4 years      | Project Sanctioned not<br>initiated   |

#### **BEST CONSULTANCY WORK DONE: Among Numerous**

| Organization   | Title of project (Publication)  | Amount of grant   | Period      | Co-investigators   |
|--|---|---|-------------|--|
| Karnataka Public<br>Health Engineering<br>Department under<br>Integrated Rural<br>Water Supply and<br>Sanitation Project<br>with assistance<br>from Netherlands. | Conceptual Design for Water<br>supply systems Package 1<br>Villages of Ron and Nargund<br>Taluku in Dharwad.<br>(International Symposium &<br>2nd Chinese National<br>Conference on Rainwater<br>Utilisation, September 8-14,<br>1998, Xuzhou, Jiangsu, China<br>and Tenth National Water<br>Convention, 5-7 November,<br>2003, Bhuvaneshwar, India.) | Travel and other<br>incidental<br>expenses looked<br>after by PSU,<br>Bangalore from<br>the project fund. | 4<br>months | Sh. S.T. Somashekhar<br>Reddy, IIM, Bangalore.<br>Sh. S.B. Koimattur,<br>Irrigation Engineer,<br>Dharwar.<br>Sh. B.H. Belaldavar,<br>Water Suply Engineer,<br>Dharwar.<br>Smt. Shanta K. Morey,<br>Community<br>Development Expert,<br>Dharwar |

#### **BEST 10 PAPERS IN REFEREED JOURNALS**

- 1. P. K. Majumdar, N. C. Ghosh & B. Chakravorty**, Analysis of Arsenic Contaminated Groundwater Domain in Nadia District of West Bengal, *Journal of Hydrological Sciences*, 47S, August 2002, S55-S66.
- 2. P. K. Majumdar, M. Sekhar, K. Sridharan & G. C. Mishra**, Numerical simulation of groundwater flow with gradually increasing heterogeneity due to clogging, *Journal of Irrigation and Drainage Engineering*, Vol. 134, No. 3, May/June 2008, pp. 400-404
- 3. P. K. Majumdar, G. C. Mishra, M. Sekhar & K. Sridharan**, Coupled Analytical Solutions for Forced Well Recharge in Confined Aquifers, *ASCE J. Hydrological Engineering*, 14(12), 2009, 1351-1358.

4. **P. K. Majumdar, S. Ram & P. R. Rao**, Artificial Recharge in multi aquifers of a mountainous watershed, ASCE J. Hydrological Engineering, 14(3), 2009, 215-222
5. **G. C. Mishra & P. K. Majumdar**, Unsteady Solution for Well Recharge in A Low Diffusive Aquifer, J. Irrigation and drainage, ASCE, Vol. 136, No. 12, December, 2010
6. **P. K. Majumdar, K. Sridharan, G. C. Mishra, M. Sekhar**, Unsteady Equation for Free Recharge in a Confined Aquifer, Journal of Geology and Mining Research Vol. 5, No. 5, May 2013, 114-123.
7. **P. K. Majumdar**, "Conceptual Analysis for Shallow Groundwater recharge Upper Palar Zone of Palar River Basin, Tamilnadu, India", Journal of Indian Association of Hydrologist (IAH), Vol 24, No. 4, December 2001, pp 29-41.
8. **P. K. Majumdar**, Multi-Aquifer Parameterization with well loss in Vertical Flows, Journal of Water Resource and Hydraulic Engineering, Jan. 2015, Vol. 4, Iss. 1, PP. 9-22
9. **P. K. Majumdar**, Improved model application for water-logging and salinity in command areas', Int. J. Society Systems Science, 2016, Vol. 8, No. 3, pp.256–288.
10. **P. K. Majumdar**, New Dimensions in Reservoir Sedimentation, Lakes and Reservoirs: Research and Management 2015 20: 1–12

#### **BEST 5 ANALYTIC CONTRIBUTION IN NATIONAL CONFERENCE PROCEEDINGS**

1. "Planning Through Appraisal of Small Tanks in Gujarat"; Proceedings of Symposium on Large Dams Vs Small Dams, New Delhi, 1991.
2. "Finite Element Analysis of Jointed Rock Slopes"; Proceedings of Regional Symposium of Rock Slopes, New Delhi, December, 1992.
3. "Silting of Minor Irrigation Tanks in Saurashtra region of Gujarat"; Proceedings of National Symposium on Hydrology, Patna, February 1993.
4. "Estimation of aquifer parameter in Anantpur district of Andhra Pradesh", Seminar on Assessment and management of water resources (AMWR-2004), 26<sup>th</sup> July, 2004, Bangalore.
5. "Estimation of aquifer diffusivity using single recharge test observation", HYDRO-2007, Surat, 21-22 December, 2007.

#### **BEST 5 PAPERS IN INTERNATIONAL CONFERENCE PROCEEDINGS**

1. "Groundwater Availability studies in Ghataprabha sub basin in India", 8th International Conference on Rainwater Catchment Systems held on 21-25 April 1997, Tehran, Iran.
2. "Integrated Planning of Water Supply Scheme for Areas with Contaminated Drinking Water", International Symposium & 2nd Chinese National Conference on Rainwater Utilisation, September 8-14, 1998, Xuzhou, Jiangsu, China.

- 3."Groundwater Flow Modelling in Fracture Media - A Case Study"; Proceeding of International Groundwater Conference, Dindigul, Tamilnadu, February 2002.
- 4."Application of HELP model for hydrologic evaluation of a secured landfill" in Gujarat, India, International Conference on Water and Environment, WE-2003, December, 2003, Bhopal, India.
- 5."Characterization of Groundwater Flow in Depleting Water Table Areas in Central Punjab", Proc XII World Water Congress of IWRA, 22-25 November, 2005, New Delhi.

#### **BEST 5 THEMATIC COMMUNICATIONS**

- 1."Drought: A Hydrologic Extreme?"; International Conference on Hydrology and Water Resources Development held at New Delhi, India, December, 1993.
- 2."Environmental Litigation: Accepting Model Results As Fact" Proc. of Twelfth National Convention of Environmental Engineers and National Seminar on Pollution Control for Sustainable Development & Human Health, Jabalpur, India, 12-13 October 1996.
- 3."Perspective Research and Development plans for sustainable water management", Brain Storming Session on Training and Research in Water Resources under the Concept of DST-SERC school, 2-3 December, 2005, Vishakhapatnam, India.
- 4."Groundwater sustainability definition through risk assessment", First World Aqua Congress, New Delhi, India, 28-30 November, 2007.
- 5."Modelling of Groundwater Flow in Interfaced Geologic Formations with Limited Data", International groundwater conference, Jaipur, India, 19-22 March, 2008.

#### **BOOK CHAPTER PUBLISHED**

Chapter on "Fracture flow modeling" in the book titled Groundwater Modelling and Management edited by N. C. Ghosh and K. D. Sharma, Capital Publishing Company, New Delhi, 2006.

Data Mining through Modelling in Irrigation Commands, Encyclopedia of Business Analytics and Optimization (EBAO), Category: Data Mining Tools and Applications, pp 628-645, IGI Global, ISBN 978-1-4666-5202-6 (hardcover) -- ISBN 978-1-4666-5203-3 (ebook) -- ISBN 978-1-4666-5205-7 (print & perpetual access), DOI: 10.4018/978-1-4666-5202-6.ch058.

#### **FIVE BEST USEFUL REPORTS PUBLISHED**

1. "Development and Application of PC based SUTRA model", CS (AR) 144, NIH Publication.
2. "Status report on Groundwater Quality modelling", SR-33, 1993, NIH Publication.
3. "Failure of Open Wells in Hukkeri Taluk (Karnataka)"- CS (AR) 213. NIH Publication

4. "Sensitivity Analysis of Aquifer parameters in Hard Rock Region", CS/AR-18/97-98 NIH Publication
5. "State of Art on Hydrological Considerations for Landfill and Waste disposal Sites" NIH Publication, SR-3/2000-01.

## INVITED LECTURES ON:

1. Hydrology of reservoir operation and maintenance manual of dam in WALMI, Dharwar.
2. Statistical methods of data processing and analysis in KERS, Mysore.
3. Computational methods in Hydrology in MERI, Nasik.
4. Balekundry memorial lecture "Rainfall-Runoff Correlation for Malaprabha Reservoir", IE, Belgaum.
5. Groundwater Modelling software for hard rock region in NIH, Roorkee.
6. Hydrological analysis and modelling in KLE college of Engineering, Belgaum.
7. Useful Groundwater Studies in Hard Rock Region", Brain Storming Session, Belgaum,
8. Groundwater quantity and quality in SDM college of Engineering, Dharwar.
9. Groundwater Modelling in Fractured media, Brain Storming Session, CAZRI, Jodhpur.
10. Impact Assessment of Groundwater Regimes; National Workshop, New Delhi
11. Artificial Recharge of Groundwater in IIT, Roorkee.
12. Water Resources Management, Brain Storming Session on Training and Research in Water Resources under the Concept of DST-SERC School, Vishakhapatnam.
13. Perspective Research and Development plans for sustainable water management, Brain Storming Session on Training and Research in Water Resources under the Concept of DST-SERC school, Vishakhapatnam.
14. Fracture flow modelling in NIH, Roorkee.
15. Field validation of Groundwater Models in NIH, Roorkee.
16. Regional Groundwater Flow Modelling in NIH, Roorkee



17. Hydrological Evaluation of Landfill sites in NIH, Roorkee
18. Useful Research in Hydrology, LDCE, Ahmedabad
19. Groundwater, KIET, Kalol.
20. Natural Vs Artificial Recharge, GPRI, MEHSANA
21. Fundamentals of Smart City in AKS University, Satna

#### **SHORT TERM COURSES/WORKSHOPS/SEMINARS VOLUMES**

1. Workshop on Processing and analysis of precipitation data.
2. Regional course on hydrology of humid tropics and coastal zone management.
3. Workshop on Hydrology and water resources management in tropical regions.
4. Workshop on Ground water balance.
5. Workshop on Hydrological modelling of mountainous watersheds.
6. Brain storming session on Hydrological Problems of Hard rock region.
7. Workshop on Groundwater Modelling with special emphasis on MODFLOW/MT3D
8. Workshop on Groundwater Modelling with special emphasis on Management Issues
9. Workshop on Sustainable Groundwater Management in Arid and Semi Arid Region
10. SERC-DST Training Course on Mountain Hydrology
11. National Seminar on Recent Advances in Civil Engineering (RACE-2015)
12. National Workshop on Smart City: Concepts, Problems and Remedies (RACE-2016)

#### ***Editorial Services***

- *Editor in Chief of American Journal of Water Science and Engineering*
- *Editorial Board member for Inderscience Journal of Data Sciences*
- *Editor in Science Publisher's Journal of Earth Sciences*
- *Editor in Science Publisher's Journal of Hydrology*
- *Reviewer in Water Resources Research*
- *Reviewer in ASCE journal of Irrigation and Drainage*
- *Reviewer in ASCE journal of Hydrological Engineering*
- *Reviewer in Journal of Hydrology*
- *Reviewer in Journal of Mathematical Geology*
- *Reviewer in Journal of Geology and Mining Engineering*
- *Reviewer in Advance in Water Resources*
- *Reviewer in Journal of Building material and Construction*
- *Reviewer in Journal of Society, Science, System*
- *Reviewer in British Journal of Applied Science & Technology*
- *Reviewer in Current Science*
- Admin for Water Page on <https://www.facebook.com/groups/528060597566704>
- In Research Gate: [https://www.researchgate.net/profile/Pradeep\\_Majumdar](https://www.researchgate.net/profile/Pradeep_Majumdar)

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Ambawadi, Ahmedabad 380015 Gujarat India

### Educational Qualification [In chronological order from latest to graduation level] :

| S.No. | Qualification/Degree | University                                       | Subject[s]/Topic[s]         | Year | Percentage Achieved | Distinctions |
|-------|----------------------|--|-----------------------------|------|---------------------|--------------|
| 1     | Doctoral             | Indian Institute of Science, Bangalore, India    | Hydro-mechanics             | 2005 |                     |              |
| 2     | Postgraduate         | Roorkee University (Now IIT), Roorkee            | Water Resources Development | 1986 | 67.85               |              |
| 3     | Bachelor             | Rani Durgawati University, Jabalpur, M.P., India | Civil Engineering           | 1977 | 57.42               |              |

### Area of specialisation...

Water Resources

### Present Position

Designation/Post Held \* Organization \*  
Emeritus Professor C U Shah University, Wadhwan, Gujarat, India  
Pay Scale \* Date of appointment to the present post \*  
NA 01-07-2017

### Total Experience (in Years and months)

(a) Professor 11 years 8 months (b) Equivalent post of Professor

### Details of experience possessed as per eligibility criteria

| S.No. | Type                        | Designation/Post Held                   | Pay Scale  | Organization   | From Date    | To Date      | Nature of Work/Duties   |
|-------|-----------------------------|---|--|--|--------------|--------------|---|
| 1     | As per eligibility criteria | Gujarat Service Engineer II             | 2000-60-2300-EB-75-3200 to 9 yr time sale, 5th pay comm.             | Government of India                                    | Feb 23, 1979 | Feb 15, 1992 | Design, Estimate, planning, supervision, research, investigation, of water resources and rural roads in departments, zila panchayats and research institute |
| 2     | As per eligibility criteria | Research Scientist                      | 10000-325-15200 to 5 yr assessment to 12000-375-16500, 6th pay comm. | National Institute of Hydrology, Roorkee, India        | Feb 17, 1992 | Jun 30, 2008 | Research and Education in hydrology   |
| 3     | As per eligibility criteria | Principal/Director                      | 37400-67000 AGP 10000/-, 7th pay comm.                               | Gujarat Technological University affiliated institutes | Jul 1, 2008  | Apr 10, 2012 | Head of the institute, Teaching   |
| 4     | As per eligibility criteria | Expatriate Professor                    | USD 36000 per annul, Government Contract                             | Adama Science and Technology University, Ethiopia      | Apr 18, 2012 | Jul 31, 2013 | Teaching and Research   |
| 5     | As per eligibility criteria | Visiting Professor and Research Advisor | NA   | CHARUSAT, Anand, India                                 | Aug 1, 2013  | Mar 31, 2014 | Teaching and Research   |
| 6     | As per eligibility criteria | Professor                               | 37400-67000 AGP 10000/-  | AKS University, Satna, India                           | Aug 7, 2014  | Jun 19, 2017 | Teaching and Research, HOD  |
| 7     | As per eligibility criteria | Emeritus Professor                      | NA   | C U Shah University, Wadhwan, India                    | Jun 1, 2017  | Jun 17, 2020 | Teaching and Research   |
| 8     | As per eligibility criteria | Expatriate Professor                    | USD 36000 p.a. Government Contract                                   | Addis Ababa Science and Technology, Ethiopia           | Oct 11, 2017 | Jul 31, 2019 | Teaching and Research   |

#### Administrative Experience/Post(s) & responsibilities held :

| S.No. | Type           | Designation/Post Held                                  | Pay Scale               | Organization   | From Date   | To Date      | Nature of Work/Duties   |
|-------|----------------|--|-------------------------|--|-------------|--------------|---|
| 1     | Administrative | Scientist IN Charge and Drawing and disbursing officer | 10000-325-15200         | Hard Rock Regional Center, Belgaum, Karnataka                    | Jun 4, 1993 | Dec 31, 1998 | Administrative, Financial, organisational   |
| 2     | Administrative | Divisional Head  | 12000-375-18500         | Groundwater Modelling and Conjunctive Use Division, NIH, Roorkee | Jul 1, 1999 | Jun 30, 2004 | Day to day functioning  |
| 3     | Administrative | Principal/Director                                     | 37400-67000 AGP 10000/- | Gujarat Technological University institutes                      | Jul 1, 2008 | Apr 9, 2012  | Head of the institute, AICTE approval for opening New Colleges AICTE approval for extension of Existing colleges, including increase of intake and opening of new departments University affiliation activities Approval and implementation of fee regulatory committee norms |
| 4     | Administrative | Head   | 37400-67000 AGP 10000/- | Civil Engineering Department, AKS University, Satna, India       | Aug 1, 2014 | Jul 31, 2016 | Teaching curriculum preparation and implementation  |

| S.No. | Type           | Designation/Post Held  | Pay Scale       | Organization  | From Date    | To Date      | Nature of Work/Duties   |
|-------|----------------|------------------------|-----------------|---|--------------|--------------|---|
| 5     | Administrative | Head                   | 12000-375-18500 | Civil Construction and Maintenance Division, NIH, Roorkee | Apr 1, 2002  | Mar 31, 2003 | Civil Construction and Maintenance  |
| 6     | Administrative | Scientist In charge    | NA              | UNESCO Sponsored Collaborative project between NIH & KFD  | Nov 15, 1994 | Oct 15, 1997 | Arranging Funds, Project activities, Progress meetings between funding and collaborative agencies             |
| 7     | Administrative | Principal Investigator | NA              | World Bank sponsored Hydrology projects                   | Dec 1, 1998  | Jul 31, 2003 | Running two Projects one each in collaboration with Maharashtra and Andhra Pradesh under hydrology Projects I |
| 8     | Administrative | Principal Investigator | NA              | UNDP-TIFAC Project  | May 1, 2004  | Oct 31, 2005 | Arranging Funds, Project activities in Central Punjab. Participating in the progress meetings.                |
| 9     | Administrative | Director               | NA              | SERC-DST Program on Mountain Hydrology                    | Apr 1, 2007  | Jun 30, 2008 | Arranging Funds, attending expert meetings, Preparation of course materials, Training.                        |
| 10    | Administrative | Nodal Officer          | NA              | Anti-tobacco Law implementation                           | Apr 1, 2006  | Jun 30, 2008 | Prohibit the use of tobacco material in the NIH campus  |

### Academic/ Teaching Experience & responsibilities

| S.No. | Type              | Designation/Post Held                   | Pay Scale                              | Organization   | From Date    | To Date      | Nature of Work/Duties   |
|-------|-------------------|---|--|--|--------------|--------------|---|
| 1     | Academic/Teaching | Professor                               | 37400-67000 AGP 10000/-                | Gujarat Technological University affiliated and AICTE approved colleges. | Jul 1, 2008  | Apr 9, 2012  | Teaching Undergraduate classes, Lab experiments, Checking tutorials and exam answer books.                          |
| 2     | Academic/Teaching | Expatriate Professor                    | Government Contract for USD 36000 p.a. | Adama Science & Technology University, Ethiopia                          | Apr 18, 2012 | Jul 31, 2013 | Preparation of curriculum for undergraduate and post graduate courses, Teaching, Supervising Post graduate students |
| 3     | Academic/Teaching | Visiting Professor and Research Advisor | NA                                     | CHARUSAT, Anand, India   | Aug 1, 2013  | Mar 31, 2014 | Teaching Undergraduate courses and Supervising PhD Student  |
| 4     | Academic/Teaching | Professor                               | 37400-67000 AGP 10000/-                | AKS University, Satna, India   | Aug 1, 2014  | May 31, 2017 | Teaching undergraduate and post graduate courses, Syllabus for Post graduate course.                                |
| 5     | Academic/Teaching | Emeritus Professor                      | NA                                     | C U Shah University, Wadhwan, India                                      | Jul 1, 2017  | Jun 19, 2020 | Teaching undergraduate courses and supervising PhD students   |
| 6     | Academic/Teaching | Expatriate Professor                    | Government Contract for USD 36000 p.a. | Addis Ababa Science & Technology University, Ethiopia                    | Oct 11, 2017 | Jul 31, 2019 | Teaching UG, PG and PhD Classes. Examiner for UG projects, PG research, PhD proposals                               |

### Participation and contribution in relevant areas in higher education:

| S.No. | Relevancy Type                          | Organization/Institution                                   | Area of Specialization  |
|-------|---|--|---|
| 1     | Visiting Professor and Research Advisor | CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY Anand, INDIA | Water Resources Engineering, Geotechnical Engineering, Rainfall Runoff Modelling, Groundwater Modelling, Rainwater Harvesting |

| S.No. | Relevancy Type                                 | Organization/Institution                                      | Area of Specialization  |
|-------|--|---|---|
| 2     | Visiting Faculty                               | KLE college of Engineering and Technology, Belgaum            | Environmental System Modelling  |
| 3     | Expert Faculty                                 | Department of Hydrology, IIT, Roorkee                         | Artificial Recharge   |
| 4     | Visiting Faculty                               | NSIT, Ahmedabad   | Design of Hydraulic Structure, Construction Management                        |
| 5     | Expert   | DST-SERC  | Training and Research in Water Resources under the Concept of DST-SERC school |
| 6     | Guest Lecture for Continuing Education Program | SDM College of Engineering and Technology, Dharwad, Karnataka | Analysis of Groundwater, Groundwater Contamination, Water Quality Standards   |

#### Involvement in formulation of academic programmes:

| S.No. | Nomenclature of Innovative Academic Programmesformulated                      | Date of approval by Academic Council | Year of Introduction |
|-------|---|--------------------------------------|----------------------|
| 1     | UG and PG program Civil Engineering Department for ASTU, Ethiopia             | Sep 19, 2012                         | PG in 2012, UG 2013  |
| 2     | Post graduate Program in Water Resources Development in AKS University, Satna | Jun 15, 2015                         | 2015                 |

#### Important MoUs formulated for academic collaborations:

| S.No. | MoUs Formulated   | Name of agencies/departments involved  | Year of MoU | Any other Details  |
|-------|---|--|-------------|--|
| 1     | Training course on Mountain Hydrology   | National Institute of Hydrology, Roorkee and Junagadh Agriculture University, Junagadh | 2008        | Venue, dates, Course Calendar, Head wise financial arrangements etc. |
| 2     | Environmental Impact Assessment of a secured Landfill in Ankaleshwar, Gujarat | National Institute of Hydrology, Roorkee and National Productivity Council, New Delhi  | 2004        | Software, Data, travel and stay of scientists and staff.             |

#### International Academic Exposures (if any) :

| S.No. | Academic Exposure Type | Post / Assignment    | University/Organization                                 | Area of Assignment   | From Date    | To Date      |
|-------|------------------------|----------------------|---|--|--------------|--------------|
| 1     | International          | UNDP Fellow          | University of Waterloo, Ontario, Canada                 | Environmental HydrologyWITH SPECIAL EMPHASIS ON GROUNDWATER QUALITY MODELLING      | Oct 11, 1995 | Feb 10, 1996 |
| 2     | International          | Expatriate Professor | Adama Science and Technology University, Ethiopia       | Water Resources Engineering and Construction Management                            | Apr 18, 2012 | Jul 31, 2013 |
| 3     | International          | Expatriate Professor | Addis Ababa Science and Technology University, Ethiopia | Hydraulic Engineering  | Oct 11, 2017 | Jul 31, 2019 |
| 4     | International          | Course Coordinator   | HRRC-NIH, Belgaum                                       | UNESCO sponsored REGIONAL COURSE FOR SARC COUNTRIES ON HUMID TROPIC HYDROLOGY, GOA | Dec 6, 1993  | Dec 10, 1993 |



## List of Research/Consultancy Projects

| S.No. | Project Type | Client/Organization   | Nature of Project   | Duration of Project       | Amount of Grant/Project (Rs.)   |
|-------|--------------|---|---|---------------------------|---|
| 1     | Research     | UNESCO & Karnataka Forest Department, Bangalore   | Evaluating the Impact of Forest Rehabilitation Strategies.  | 15-11-94 to 1-03-00       | \$20,000 RP+GOI   |
| 2     | Research     | World Bank and Groundwater Survey and Development Agency, Pune  | Study of Artificial Recharge in Maharashtra.  | October 1998 To July 2003 | 7.00 Lacks (NIH counterpart)  |
| 3     | Research     | World Bank and APGWD, Hyderabad   | Fresh water Saline water interrelationships in the multi-aquifer system of Krishna Delta in coastal Andhra Pradesh. | July 1998 To July 2003    | 20.32 Lacks (NIH counterpart)   |
| 4     | Research     | UNDP and TIFAC  | Groundwater modelling in central Punjab under Information Technology for Sustainable Agriculture in Punjab (IT-SAP) | 18 months                 | 5,87,650/-  |
| 5     | Research     | MOWR and CGWB   | Arsenic modelling in West Bengal  | July 1997 To June 1999    | Unlimited   |
| 6     | Consultancy  | Karnataka Public Health Engineering Department under Integrated Rural Water Supply and Sanitation Project with assistance from Netherlands. | Conceptual Design for Water supply systems Package 1 Villages of Ron and Nargund Taluks in Dharwad.                 | 4 months                  | Travel and other incidental expenses looked after by PSU, Bangalore from the project fund |
| 7     | Consultancy  | TIFAC, DST  | Status report on data availability  | 45 days                   | 40,000/-  |
| 8     | Consultancy  | Bharuch Enviro Infrastructure Ltd., Ankaleshwar and National Productivity Council, New Delhi  | Environmental Impact Assessment of a secured Landfill in Ankaleshwar, Gujarat                                       | 4 months                  | On field expenses   |
| 9     | Consultancy  | Water Resources Department, Govt. of Rajasthan  | Seepage estimation in Jaswantsagar project, Jodhpur   | 1 year                    | 9,00,000/-  |
| 10    | Consultancy  | Scot Wilson, UK   | Drainage Design of Udaipur-Ratanpur Section of NH-8   | 4 months                  | Travel, stay and honorarium   |

## Honours/Awards Fellowships for outstanding Work:

| S.No. | Name of Award/Fellowship etc.                  | Elected/Honorary Fellow   | Awarded By                               | Year of Award |
|-------|--|---|--|---------------|
| 1     | Excellence award in Engineering and Technology | P. K. Majumdar and G. N. Yoganarasimhan , Graphic Aided Design of Minor Irrigation Scheme in Saurashtra Region of Gujarat,Navnirman, July-December 1990                             | GERI, Vadodara                           | 1992          |
| 2     | Excellence award in Engineering and Technology | P. K. Maumdar, Finite Element Analysis of Jointed Rock Slopes, Proceedings of Regional Symposium of Rock Slopes, New Delhi, December, 1992.   | GERI, Vadodara                           | 1994          |
| 3     | Jalvigyan Puraskar                             | P. K. Majumdar & P. V. Seethapathy, "State of Art for Groundwater Quality Modelling", published in the Journal of Indian Society of Hydraulics, September-October 1996, Vol 2 No 2. | The Indian Society for Hydraulics, Pune  | 1996          |
| 4     | Hydrogeology and Catchment expert              | Expert Committee under Netherlands assisted Integrated Rural Water Supply and Sanitation Project  | Government of Karnataka,                 | 1997          |
| 5     | Member   | Technical Evaluation Committee for Bichhri Remediation Project  | National Productivity Council, New Delhi | 2001          |
| 6     | Member   | Thematic Sub-Group on Water Resources under ITSAP project   | Department of Science & Technology       | 2002          |
| 7     | Member   | Groundwater Estimation committee for Hard Rock  | CGWB                                     | 2003          |

| S.No. | Name of Award/Fellowship etc. | Elected/Honorary Fellow  | Awarded By                              | Year of Award |
|-------|-------------------------------|--|---|---------------|
| 8     | Executive member              | Indian Association of Hydrologist (IAH)  | Indian Association of Hydrologist (IAH) | 2005          |
| 9     | Certificate of Recognition    | Presenting technical paper "Numerical Modelling of Groundwater Quality", Proceeding of New Millennium Conference on Retrospect of Indian Research on Environmental Pollution : Focus 21st Century, EMRTC, New Delhi. | CPCB, New Delhi                         | 1999          |
| 10    | Visiting Fellow               | University of Waterloo   | UNDP                                    | 1996          |
| 11    | Expert                        | Training and Research in Water Resources under the Concept of DST-SERC school  | DST, New Delhi                          | 2005          |

### Research Scholars successfully guided

| S.No. | Name of Programme                                | Successfully awarded (No.) |
|-------|--|----------------------------|
| 1     | M Tech in Earth Sciences (IIT, Roorkee)          | 3                          |
| 2     | M Tech in Water Resources (LDCE, Ahmedabad)      | 4                          |
| 3     | M Sc in Construction Management (ASTU, Ethiopia) | 22                         |
| 4     | PhD in Civil Engineering (UGC)                   | 5                          |

### Participation and contribution in National/ Internationals Fora in the area of your academic and professional expertise:

| S.No. | Fora Type                     | National | International | Total |
|-------|-------------------------------|----------|---------------|-------|
| 1     | Invited Talks                 | 21       |               | NaN   |
| 2     | Congresses Attended           | 1        | 5             | 6     |
| 3     | Examinership                  | 4        | 15            | 19    |
| 4     | Other Scientific Reports      | 21       |               | NaN   |
| 5     | Other Journal Reviewer of     | 1        | 13            | 14    |
| 6     | Other Journal Editorship      |          | 4             | NaN   |
| 7     | Other Conference organisation | 11       | 2             | 13    |



## ***Publications***

### **Papers in refereed journals**

P. K. Majumdar, N. C. Ghosh & B. Chakravorty, Analysis of Arsenic Contaminated Groundwater Domain in Nadia District of West Bengal, *Journal of Hydrological Sciences*, 47S, August 2002, S55-S66.

P. K. Majumdar, M. Sekhar, K. Sridharan & G. C. Mishra, Numerical simulation of groundwater flow with gradually increasing heterogeneity due to clogging, *Journal of Irrigation and Drainage Engineering*, Vol. 134, No. 3, May/June 2008, pp. 400-404

P. K. Majumdar, G. C. Mishra, M. Sekhar & K. Sridharan, Coupled Analytical Solutions for Forced Well Recharge in Confined Aquifers, *ASCE J. Hydrological Engineering*, 14(12), 2009, 1351-1358.

P. K. Majumdar, S. Ram & P. R. Rao, Artificial Recharge in multi aquifers of a mountainous watershed, *ASCE J. Hydrological Engineering*, 14(3), 2009, 215-222

G. C. Mishra & P. K. Majumdar, Unsteady Solution for Well Recharge in A Low Diffusive Aquifer, *J. Irrigation and drainage*, ASCE, Vol. 136, No. 12, December, 2010

P. K. Majumdar, Modeling of Coastal Hydrogeology in Krishna Delta of Southern India, *Int. J. Society Systems Science*, Vol. 2, No. 4, 2010, 351-374

P. K. Majumdar, Sustainability of Societal Water Management Practices, *Int. J. Society Systems Science*, Vol. 5, No.2, 2013, 113-135.

P. K. Majumdar, K. Sridharan, G. C. Mishra, M. Sekhar, Unsteady Equation for Free Recharge in a Confined Aquifer, *Journal of Geology and Mining Research* Vol. 5, No. 5, May 2013, 114-123.

N. Yoganarsimhan & P. K. Majumdar "Graphic Aided Design of Minor Irrigation Scheme in Saurashtra Region of Gujarat"; *Navnirman*, July-December 1990.

P. K. Majumdar, P. V. Seethapathy & B. K. Purandare, "Groundwater Pollution in Palar River Basin, Tamilnadu"; *Journal of AHI*, Vol. IX, No. 3&4, 1996 and communication paper in Golden jubilee session of Central Board of Irrigation and Power, New Delhi, September 1995.

P. K. Majumdar & P. V. Seethapathy, "State of Art for Groundwater Quality Modelling", published in the *Journal of Indian Society of Hydraulics*, September-October 1996, Vol 2 No 2.

P. K. Majumdar & B. K. Purandare, "Surface Water Availability for reservoir in water scarce zone - A Reappraisal", *Journal of Applied Hydrology* Vol. X No. 1 & 2 Jan. & April, 1997.

P. K. Majumdar, "Conceptual Analysis for Shallow Groundwater recharge Upper Palar Zone of Palar River Basin, Tamilnadu, India", *Journal of Indian Association of Hydrologist (IAH)*, Vol 24, No. 4, December 2001, pp 29-41.

P. K. Majumdar, Concentric Research versus Diffusive Management in Water sector, *Indian Water Portal*, <http://www.indiawaterportal.org/node/29578>, posted on 1/8/2012

P. K. Majumdar, Difference in the hydraulics of pumping and recharge through water well, *Indian Water Portal*, <http://www.indiawaterportal.org/node/31229>, posted on 12/9/2012

P. K. Majumdar and S Ram, Source and Impact assessment of artificial recharge in water scarce interfaced multi-formation, International Journal of Advanced Research, Volume 1, Issue 4, 2013, 83-91.

S. D. Kande, P. K. Majumdar & P P Lodha, Hydraulic and Structural Imbalances caused by sedimentation in Khodiyar Reservoir, Gujarat, India, accepted for publication in Int. Jr. of Air Soil Water, 2013.

P. K. Majumdar, Multi-Aquifer Parameterization with well loss in Vertical Flows, Journal of Water Resource and Hydraulic Engineering, Jan. 2015, Vol. 4, Iss. 1, PP. 9-22

P. K. Majumdar, Improved model application for water-logging and salinity in command areas', Int. J. Society Systems Science, 2016, Vol. 8, No. 3, pp.256–288.

P. K. Majumdar, New Dimensions in Reservoir Sedimentation, Lakes and Reservoirs: Research and Management 2015 20: 1–12

P. K. Majumdar, Bhagwan Das and Shivani Garg, Standardization of smart cities- an Indian Perspective, Int Journal for Society System Science, Vol. 11, No. 2, 2019.

B. K Ajudiya; S.M. Yadav; and P.K. Majumdar “Optimization of Water Supply Release using Linear Programming” Journal of Applied Science and computation, Vol 5, Issue-6, June 2018 (IF-5.8)

B. K. Ajudiya, S. M. Yadav, P. K. Majumdar, Performance Evaluation of Nyari-2 Reservoir using Optimization Model, Journal of Information and computer sciences, Volume 9, Issue 9, September 2019.

N. J Bhatt, P. K. Majumdar, R. M. Acharya, Developing an index: Performance assessment of public services provided by nagar palikas of Saurashtra and Kutchh (Gujarat), International journal of research and analytical reveiws, volume 5, issue 4, Oct-Dec 2018.

N. J. Bhatt, P. K. Majumdar, R. M. Acharya, Empirical evidence of user's perceptions and opinions regarding willingness to pay for water, bundled bill for utility services and un-metered water tariff based on income-expenditure pattern of user, International journal of research and analytical reviews, volume 5, issue 4, Oct-Dec 2018.

B. K. Ajudiya, P. K. Majumdar, S. M. Yadav, Comparative evaluation of individual and multiple reservoir operation under irrigation, Journal of Agrometeorology, vol 22(2), June 2020.

H. R. Parmar, N. D. Shah and P. K. Majumdar, Piezometric Assessment for Salinity in Multi Aquifer System in Dharoi Command Area, Gujarat, International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 – 8958, Volume-8 Issue-6, August 2019

H. R. Parmar, N. D. Shah and P. K. Majumdar, Vertical Flow Estimation in Multi aquifer System Using Well Cluster Co Relation, International Journal on Emerging Technologies ISSN NO. (P): 0975-8364, (O): 2249-3255.

B. K. Ajudiya, S. M. Yadav, P. K. Majumdar "Optimization of Cropping Patterns in Multiple Reservoir System Command Area using TLBO algorithm" ISH Journal of Hydraulic Engineering, TISH-2020-0093.  
<https://www.tandfonline.com/eprint/Z5I7K6XUQMSQTJRFVUCX/full?target=10.1080/09715010.2021.1885507>

#### **Papers in conference proceedings**

"Planning Through Appraisal of Small Tanks in Gujarat"; Proceedings of Symposium on Large Dams Vs Small Dams, New Delhi, 1991.

"Finite Element Analysis of Jointed Rock Slopes"; Proceedings of Regional Symposium of Rock Slopes, New Delhi, December, 1992.

"Siltng of Minor Irrigation Tanks in Saurashtra region of Gujarat"; Proceedings of National Symposium on Hydrology, Patna, February 1993.

"Drought: A Hydrologic Extreme?"; International Conference on Hydrology and Water Resources Development held at New Delhi, December, 1993.

"Surface Water Availability for reservoir in water scarce zone - A Reappraisal", XII Annual convention of AHI and National Seminar on Hydrology, Pune, 1994.

"Rainfall-Runoff Correlation for Malaprabha Reservoir", Balekundry memorial lecture by Institution of Engineers, Belgaum, 1995.

"Probability Analysis of Groundwater Pollution in Palar River Basin, Tamilnadu, India", International Conference on Disaster and Mitigation, Madras 1996.

"Groundwater Availability studies in Ghataprabha sub basin in India", 8th International Conference on Rainwater Catchment Systems held on 21-25 April 1997, Tehran, Iran.

"Environmental Litigation: Accepting Model Results As Fact" Proc. of Twelfth National Convention of Environmental Engineers and National Seminar on Pollution Control for Sustainable Development & Human Health, Jabalpur, 12-13 October 1996.

"Useful Groundwater Studies in Hard Rock Region", Proc. of Brain Storming Session on Hydrological Problems of Hard Rock Region, Belgaum, 15th March, 1997.

"Groundwater Modelling in Fractured media", Proceeding of Brain Storming Session on Groundwater Modelling, CAZRI, Jodhpur.

"Numerical Modelling of Groundwater Quality", Proceeding of New Millennium Conference on Retrospect of Indian Research on Environmental Pollution: Focus 21<sup>st</sup> Century, EMRTC, New Delhi.

"Numerical Modelling of Artificial Recharge measures in Hukkeri Taluk of Belgaum district in Karnataka", All India Seminar on Groundwater Recharge Strategy for sustainable Water world, IE(I), Lucknow.

"Analysis of Arsenic Contaminated Groundwater Domain in Nadia District of West Bengal", International Conference on Integrated Water Resources Management for Sustainable Development, ICIWRM-2000, Delhi, India.

"Study Of Failure of Open Wells in Draught Prone Areas"; Proceeding of Ninth National Water Convention, Bangalore, November 2001, pp 213.

"Impact Assessment of Groundwater Regimes"; Proceeding of National Workshop on Environment studies for developmental projects", New Delhi, 4<sup>th</sup> and 5<sup>th</sup> April, 2002.

"Integrated Planning of Water Supply Scheme for Areas with Contaminated Drinking Water", International Symposium & 2nd Chinese National Conference on Rainwater Utilisation, September 8-14, 1998, Xuzhou, Jiangsu, China and Tenth National Water Convention, 5-7 November, 2003, Bhuvaneshwar, India.

"Feasibility of Well Injection Projects", National Seminar on Water Harvesting, November 2003, Hyderabad, India.

"Application of HELP model for hydrologic evaluation of a secured landfill" in Gujarat, India, International Conference on Water And Environment, WE-2003, December, 2003, Bhopal, India.

"Estimation of aquifer parameter in Anantpur district of Andhra Pradesh", Seminar on Assessment and management of water resources (AMWR-2004), 26<sup>th</sup> July, 2004, Bangalore.

"Impact Assessment of Well Recharge on Regional Base flow", National Seminar on Survey, Conservation and Utilisation of water sources, January, 2005, Kolkata.

"Characterization of Groundwater Flow in Depleting Water Table Areas in Central Punjab", Proc XII World Water Congress of IWRA, 22-25 November, 2005, New Delhi.

"Water Resources Management", Brain Storming Session on Training and Research in Water Resources under the Concept of DST-SERC School, 2-3 December, 2005, Vishakhapattanam.

"Perspective Research and Development plans for sustainable water management", Brain Storming Session on Training and Research in Water Resources under the Concept of DST-SERC school, 2-3 December, 2005, Vishakhapattanam.

"Uncertainties in Groundwater Flow Modeling" Proc. Groundwater-2007, National Seminar on Agriculture Development and Rural Drinking Water, 8-9 Feb., 2007 at Bhopal.

"Depleting water table and artificial recharge", 12<sup>th</sup> National Water Convention, Pondichery, 2-3 November, 2007.

"Groundwater sustainability definition through risk assessment", First World Aqua Congress, New Delhi, 28-30 November, 2007.

“Estimation of aquifer diffusivity using single recharge test observation”, HYDRO-2007, Surat, 21-22 December, 2007.

“Uncertainty analysis for leachate transport beneath a hazardous waste Landfill”, Proc. IIIrd World Aqua Congress on Enhancing Water Use Efficiency, 2-4 December 2009, New Delhi, India.

“Parameter Estimation of Nash Model using Hydrograph analysis for Shetrunjee Watershed”, Proc. National Conference on Vadodara, 2009

“Parameter Estimation of Nash Model for Shetrunjee Watershed using Geomorphologic Characteristics”, Proc. National Conference on, Vadodara, 2009

“Semi-Analytical Equation for Artificial Recharge in Multi Aquifer through well flooding”, Proc. IVth World Aqua Congress on Emerging New Technologies in Water Sector, 8-10 December 2010, New Delhi, India.

“Adaptive Modelling of Waterlogged groundwater regimes”, Proc. Vth World Aqua Congress on Adaptive and Integrated Technologies in Water Sector, 16-18 November 2011, New Delhi, India.

“Causes and effects of variation orders” Proc. Recent Advances in Civil Engineering (RACE-2015), September, 2015, Satna, MP, India.

“Courses of Delay Construction: Case Study Shire-Sheraro Road Project” Proc. Recent Advances in Civil Engineering (RACE-2015), September, 2015, Satna, MP, India.

“Artificial Recharge of Groundwater Resources” Proc. Recent Advances in Civil Engineering (RACE-2015), September, 2015, Satna, MP, India.

“Ganga Restoration: How Is Rhine Example?” Proc. Recent Advances in Civil Engineering (RACE-2015), September, 2015, Satna, MP, India.

“Runoff estimation with modified asymptotic curve number in Ozat watershed of Gujarat (India)” HYDRO 2015 INTERNATIONAL 20<sup>th</sup> International Conference on Hydraulics, Water Resources and River Engineering, IIT Roorkee, India, 17-19 December, 2015.

“Estimation of surface runoff with composite curve number determined by morphometric parameters in Ozat watershed of Gujarat (India)”, HYDRO 2015 INTERNATIONAL 20<sup>th</sup> International Conference on Hydraulics, Water Resources and River Engineering, IIT Roorkee, India, 17-19 December, 2015.

"Setting of co-relation in hydro-geology in sabarmati basin, gujarat, india." Third International Conference On Advances in Civil, Structural and Mechanical Engineering - ACSM 2015", Bangkok, Thailand, 28-29 December, 2015.

"Optimization of Water Supply Using Linear Programming monthly Model" presented in 22nd International conference on Hydraulic, water Resources & Coastal Engineering, Hydro-2017, LDCE- Ahmadabad, 21-23 December 2017.

### **Abstract Published**

Groundwater Flow Modelling in Fracture Media - A Case Study; Proceeding of International Groundwater Conference, Dindigul, Tamilnadu, February 2002.

Modelling of Groundwater Flow in interfaced geologic formations with limited data, International groundwater conference, Jaipur, 19-22 March, 2008.

### **Book Chapter Published**

Chapter on "Fracture flow modeling" in the book titled Groundwater Modelling and Management edited by N. C. Ghosh and K. D. Sharma, Capital Publishing Company, New Delhi, 2006.

Data Mining through Modelling in Irrigation Commands, Encyclopaedia of Business Analytics and Optimization (EBAO), Category: Data Mining Tools and Applications, pp 628-645, IGI Global, ISBN 978-1-4666-5202-6 (hardcover) -- ISBN 978-1-4666-5203-3 (ebook) -- ISBN 978-1-4666-5205-7 (print & perpetual access), DOI: 10.4018/978-1-4666-5202-6.ch058.

### **Reports Published**

- (1) "Groundwater Quality Modelling Study in Upper Palar Zone", CS-110, 1993 NIH Publication.
- (2) "Development and Application of PC based SUTRA model", CS (AR) 144, NIH Publication.
- (3) "Status report on Groundwater Quality modelling", SR-33, 1993, NIH Publication.
- (4) "Technical Report on UNDP training in Canada", NIH Publication
- (5) "Failure of Open Wells in Hukkeri Taluk (Karnataka)"- CS (AR) 213. NIH Publication
- (6) "Groundwater Quality Modelling in Nargund and Navalgund taluks (Karnataka) of Malaprabha command area", CS (AR) - 30/96-97, NIH Publication.
- (7) "Regional Groundwater Modelling in Ghataprabha Sub-basin of Krishna River Basin" CS (AR) -31/96-97, NIH Publication
- (8) "Conceptual Design for Water supply systems under Integrated Rural Water Supply and Sanitation Project with assistance from Netherlands-Package 1 Villages of Ron and Nargund Taluks in Dharwad, KPHEd Publication.

- (8) “Sensitivity Analysis of Aquifer parameters in Hard Rock Region”, CS/AR-18/97-98 NIH Publication.
- (10) “Flow and Contaminant Transport modelling in Vellar River basin, Tamilnadu” Under NIH Publication.
- (11) “Estimation of Rainfall recharge in a coastal area through inverse groundwater modelling”, CS/AR-8/99-2000, NIH Publication.
- (12) “Artificial recharging of an Unconfined Aquifer with an injecting well (Karnataka)”, CS/AR-13/99-2000, NIH Publication.
- (13) “Arsenic modelling in West Bengal” NIH Publication.
- (14) “Application of HELP Model for Evaluation of Groundwater Contamination through Landfill”, NIH Publication.
- (15) “Modelling of Flow through Fracture media”, NIH Publication.
- (16) “State of Art on Hydrological Considerations for Landfill and Waste disposal Sites” NIH Publication, SR-3/2000-01.
- (17) “Status report on Data availability for Regional Groundwater Flow Modelling in Satluj-Beas river basin in Central Punjab” UNDP/TIFAC Consultancy project report.
- (18) “Regional Groundwater Flow Modelling in Satluj Beas basin Central Punjab” UNDP/TIFAC sponsored R&D project report.
- (19) “Modelling of Contaminant transport beneath a hazardous waste landfill”, NIH publication.
- (20) “User Manual for a pre-processor for SWIFT III”, NIH publication.
- (21) “Training Course on Mountainous Hydrology” SERC-DST Publication

### **Scientific Posts**

P. K. Majumdar, Concentric Research versus Diffusive Management in Water sector, Indian Water Portal, <http://www.indiawaterportal.org/node/29578>, posted on 1/8/2012

P. K. Majumdar, Difference in the hydraulics of pumping and recharge through water well, Indian Water Portal, <http://www.indiawaterportal.org/node/31229>, posted on 12/9/2012

### **Book Chapter Published**

Chapter on “Fracture flow modeling” in the book titled Groundwater Modelling and Management edited by N. C. Ghosh and K. D. Sharma, Capital Publishing Company, New

Delhi, 2006.

Data Mining through Modelling in Irrigation Commands, Encyclopaedia of Business Analytics and Optimization (EBAO), Category: Data Mining Tools and Applications, pp 628-645, IGI Global, ISBN 978-1-4666-5202-6 (hardcover) -- ISBN 978-1-4666-5203-3 (e-book) -- ISBN 978-1-4666-5205-7 (print & perpetual access), DOI: 10.4018/978-1-4666-5202-6.ch058.

Mechanics of water well Recharge, Reference book under publication.

Modelling of Subsurface domains: Theory to Practice, Reference book under review.

Construction Management of Water resources Projects, Reference book under final drafting

Hydrology Of Current Water Resources Developments: Text book under solved and sample problem incorporation

Risk and Reliability in Water resources Development, Reference book under first draft