

# Curriculum Vitae

1. **Name** MITTHAN LAL KANSAL
2. **Father's Name** Sh. Mange Ram
3. **Address for communication:**  
Dr. M L KANSAL  
Professor (HAG)  
(Former Head, and Chair Professor (NEEPCO & JPSS),  
WATER RESOURCES DEVELOPMENT & MANAGEMENT,  
INDIAN INSTITUTE OF TECHNOLOGY ROORKEE  
ROORKEE 247 667 (UTTARAKHAND) (INDIA)
3. **Date of Birth:** February 5, 1962



*International flexibility*

**Contact Me**



[mlk@wr.iitr.ac.in](mailto:mlk@wr.iitr.ac.in)

[mlkwrdm@gmail.com](mailto:mlkwrdm@gmail.com)



(+91)9412919302 (m)

(+91)1332285141 (o)

(+91)1332285140 (r)

Residence :

H. No. 55/2, Amod Path,

IIT Roorkee Campus

Roorkee - 247 667

Distt.- Haridwar,

Uttarakhand, India

## Previous Positions

- Associate Professor (WRD&M), IIT Roorkee (2001-08)
- Assistant Professor (Civil Engg.), DCE, Delhi (1996-2001)
- Lecturer (Civil Engg.), DCE, Delhi (1991-96)
- Scientist-B, NIH, Roorkee (1990-91)
- Research Scholar, IIT Delhi (1989-90)
- Research Fellow, WRMC, NIT Kurukshetra (1986-89)
- Quality Control Er., Private, (1985-86)

## Education

| Year | Degree   | Institute              |
|------|--|------------------------|
| 1997 | Ph.D. (Civil Engg.)                            | Delhi University       |
| 1996 | Post Graduate Diploma in Operations Management | I.G.N.O.U., Delhi      |
| 1988 | M.Tech. (Civil Engg.) (Water Resources Engg.)  | Kurukshetra University |
| 1985 | B.Sc. (Civil Engg.) (Hons.)                    | Kurukshetra University |

## Work Experience

35 years as researcher which includes 31 years of teaching at PG level and 11 years of teaching at UG level in the following subjects:

*System Design Techniques (optimization techniques), Rural & Urban Water Supply Systems, Hydropower System Planning, Planning & Design of Small Hydropower Schemes, Water Resources Systems Reliability, Water Resources Planning & Management, Fluid Mechanics, Engineering Hydrology, Construction Planning & Management and Computer simulation*

## Publications

- International Journals 67
- National Journals 20
- International Conferences 80
- National Conferences 27
- Book Chapters 15
- **Total** 209

## Supervision

|                                  |            |
|----------------------------------|------------|
| ➤ Post-doctoral Fulbright Fellow | 01         |
| ➤ Post-doctoral Fellow           | 03         |
| ➤ Ph.D. Awarded                  | 11         |
| Ongoing                          | 08         |
| ➤ M.Tech. Awarded                | 93         |
| Ongoing                          | 02         |
| ➤ B.Tech. Projects (15)          | 75         |
| ➤ Internships (International)    | 02         |
| ➤ JRF/ Internships (National)    | 10         |
| ➤ <b>Total</b>                   | <b>205</b> |

## Recognition as Researcher

### *International Level*

1. Visited Copenhagen, Denmark for attending IWA World Water Congress & Exhibition during 11-15, September 2022 and presented two papers, out of which the poster presentation was adjudged as the best poster paper. Also, Visited DELFT, Netherlands, for meeting the partners of the research project Water for Change – Integrative & fit for Purpose Water Sensitive Design Framework for Fast Growing Livable Cities, September 17-21, 2022.
2. Visited DELFT, Netherlands, for kick-off meeting of the research project Water for Change – Integrative & fit for Purpose Water Sensitive Design Framework for Fast Growing Livable Cities, March 1 to 9, 2020.
3. Visited Judge Business School, Cambridge University, London, to attend Leadership for Academicians Program, January 19 to 26, 2020.
4. Visited Pittsburg, PA, USA, for presenting 3 papers during EWRI Congress 2019 and University of IOWA, Iowa, USA as visiting researcher for international research project and interacted with faculty and Ph.D. students, May 17 to June 3<sup>rd</sup>, 2019.
5. Visited Minneapolis, University of Nebraska, Lincoln, and Virginia Tech., Blacksburg, USA for presenting 3 papers during EWRI Congress, and delivered Invited talks at Nebraska and Virginia Tech. and interacted with Ph.D. students, June 2<sup>nd</sup> to 13<sup>th</sup>, 2018.
6. Visited Austin, Texas, IOWA state University, Lehigh University, Bethlehem, MIT Boston, USA - presented paper during EWRI Congress, May 16<sup>th</sup> to June 10<sup>th</sup>, 2015.
7. Visited International Union for Conservation of Nature (IUCN) Bangkok, Thailand as a Peer-Review and Joint Research Team member for participating in a meeting on Environmental Flow for Sundarbans Ecosystem, An Indo-Bangladesh Project, Nov. 6-9, 2014.
8. Visited Portland, Oregon and IOWA State University, USA and attended & presented paper during EWRI Congress, May 30<sup>th</sup> to June 08, 2014.
9. Visited International Union for Conservation of Nature (IUCN) Dhaka, Bangladesh, as a member of JRT for Pilot project on E-Flows for Ecosystem Sundarbans, An Indo-Bangladesh Project, May 4-8, 2014.
10. Visited Cincinnati, Austin, Chorus Christy, Bethlehem, Harrisburg, USA and attended & presented paper during EWRI Congress, May 18 to June 02, 2013.

11. Visited International Union for Conservation of Nature (IUCN) Bangkok, Thailand as an expert for participating in an International Workshop on Environmental Flow for Ecosystem Sundarbans, An Indo-Bangladesh Project, April 10, 2013.
12. Visited Fiji National University, Fiji as Visiting Faculty & invited Expert to discuss various issues related flood, irrigation schemes, and drinking water in Fiji and to deliver expert lectures on Water Conservation and Flood Control and on Drinking Water Issues, July 07-28, 2012.
13. Visited Palm Springs, Austin, Bethlehem, Harrisburg, USA as Visiting International Fellow (VIF) and attended & presented paper during EWRI Congress, May 21-June 05, 2011.
14. Visited College of Engineering, Yeungnam University, Gyeongsan, S. Korea as Visiting Professor & invited Expert to discuss various issues related to Collector Wells for Urban Water Supply Systems, June 20-25, 2010.
15. Visited NEC, Kathmandu, Nepal, as invited Expert for Regional Conference, May 19-21, 2010
16. Visited Kansas, USA, to attend & present paper during EWRI Congress, May 17-21, 2009.
17. Visited Gold Coast, Australia, as Keynote Presenter during Asia Pacific Water and Sewer Systems Modelling Seminar, April, 27-28, 2009.
18. Visited 2iE Institute, Ouagadougou, Burkina Faso, as Visiting Professor to deliver expert lectures on Urban Water Supply, Nov. 01-17, 2008
19. Visited ENGEES, Strasbourg, France as Visiting Professor & invited Expert to deliver special lectures and to discuss various issues related to Urban Water Supply Systems, June 16 - July 15, 2008
20. Visited NEC, Kathmandu, Nepal, as invited Expert to attend International Seminar, April, 21-22, 2008
21. Visited ENGEES, Strasbourg, France as Visiting Faculty & invited Expert to deliver special lectures and to discuss various issues related to Urban Water Supply Systems, March 03-07, 2008
22. Visited MIT, Cambridge, USA as invited Expert for the Lead User Workshop in the area of Urban Water Supply, Feb. 28 - March 02, 2008
23. Visited Denmark Technical University, Copenhagen, Denmark, to deliver expert lecture on "Reliability Analysis of Water Distribution Systems", Jan. 2008.
24. Visited Regional Centre on Urban Water Management (RCUWM) of UNESCO, Tehran, Iran to attend the Expert Group Meeting for Training of Trainers (ToT) manual on Integrated Water Resources Management at, 2006 & 2004.
25. Contributed two chapters on "Supply Management" and "Design Issues" in ToT Manual on Integrated Urban Water Management (IUWM) for RCUWM, Tehran, Iran, (2006).
26. Visited WERDEC, Istanbul, Turkey as an International Expert to deliver lectures in Advanced Course on "Water Resources Assessment: Data processing, Fuzzy System Modeling, Interpretation, Design and Application", 2004.
27. Worked as reviewer for various prestigious International Journals like IEEE Trans. on Reliability, American Society of Civil Engineers (ASCE), Hydrological Processes (UK), Water Management (UK), Water Policy (UK), Reliability Engineering & System Safety (RESS), and IASTED Canada, SARJ of RES (Nigeria), Pertanika Journal of S&T (Malaysia); R & D project to Israel Science Foundation (ISF).
28. Recognized as researcher at international level and offered membership of ASCE, USA (1999, 2001), Diplomat, Water Resources Engineer (D.WRE) (2010) and New York Academy of Sciences, USA.

29. Appointed as Member, Technical Committee on Modelling and Simulation (2004-2007) of IASTED, Canada

### **National Level**

- Thematic Coordinator, Water Infrastructure & Management and Environment, African Centre of Excellence (ACE), DST-World Bank Project. (2018 – onwards)
- Nominated as Working Group member of National Institute of Hydrology, Roorkee (2018)
- Member, WRD Council & Environment Services Sectional committee (SSD07) of the Bureau of Indian Standards, New Delhi.
- Member Board of Studies in Civil Engg. at D.C.R.U.S.T. Murthal (Haryana)
- Worded as Editor of the Journal of Indian Water Resources Society.
- Deputy Chairman, All India MCA Common Entrance Test (AIMCET) (2004)
- Deputy Chairman, Uttaranchal JEE-P, (2003)
- Deputy Chairman, UPR, (2002)
- Reviewer for various International & National journals.
- Examiner for several Ph.D. thesis and as an expert for delivering expert lectures by various universities.
- Selected as Full Professor for Delhi College of Engineering, Delhi by Union Public Service Commission in 2003.

### **Research awards and Honors**

- Best poster paper award during the IWA World Water Congress & Exhibition, Copenhagen, Denmark (2022)
- Best paper award in International Conf. on Innovation in Smart and Sustainable Infrastructure (ISSI-2022), 22-25, August, PDP, Gandhinagar (India) (2022)
- Best paper award in International Conf. on Water Security System (ICWSS21), Roorkee (2021)
- Awarded Higher Academic Grade (HAG) (2019 onwards)
- Awarded NEEPCO Chair Professor by at IIT Roorkee (2018-21).
- Awarded JPSS Chair Professor (Hydropower) at IIT Roorkee (2013-17).
- Best Journal Paper award by IWRS (2016)
- Worked as Host of Indo-US Fulbright Post-Doctoral Fellow, David E Rheinheimer, (2015)
- Visiting International Fellow (VIF-2011) award by EWRI of ASCE, USA for the year 2011.
- Gold medal from Indian Building Congress (IBC) for best paper during the 12th Annual Convention at Vigyan Bhawan, New Delhi, in June 2006.
- Star Performer on the basis of overall performance during the year 2004-05 by IIT Roorkee
- Commendation certificate for best paper by Indian Building Congress during 1999 and 2003.
- Best paper award (a prize & citation) by the Indian Water Works Association (IWWA) for the paper published in the Journal of IWWA during the year 2004.
- Advisor and Expert for Union and State Public Service Commissions.

### **Books**

1. “Project Planning and Management with CPM & PERT”, Kundan Singh and **M.L. Kansal**, HP Hamilton Limited, United Kingdom, (2021).

2. "Climate Impacts on Water resources in India" Environment and Health, Series: Water Science and Technology Library (Volume 95), (Ed.) A. Pandey, S.K. Mishra, **M.L. Kansal**, R.D. Singh, V.P. Singh, Springer, (2021).
3. "Hydrological Extremes" River Hydraulics and Irrigation Water Management, Series: Water Science and Technology Library (Volume 97), (Ed.) A. Pandey, S.K. Mishra, **M.L. Kansal**, R.D. Singh, V.P. Singh, Springer, (2021).
4. "Water Management and Water Governance" Hydrological Modeling, Series: Water Science and Technology Library (Volume 96), (Ed.) A. Pandey, S.K. Mishra, **M.L. Kansal**, R.D. Singh, V.P. Singh, Springer, (2021).
5. "System Analysis Techniques in Water Resources Management", Turkish Water Foundation, Turkey, (2005), Kansal, M L.
6. Proceedings of "Water and Environment – Issues and Challenges, WRD&M, IIT Roorkee, (2002) (Ed.), M L Kansal.
7. "Challenges in the Management of Water Resources & Environment in the Next Millennium", Delhi, (1999) (Best Selling Book at Bagchi.com) (Ed.) Kansal, M L, Kumar, Arun, Mazumder, S K, and Mehrotra, R.

## Book Chapters

1. Nguyen Thi Ngoc Bich, Kansal, Mitthan Lal, Hoa Nguyen Hai, (Dec. 23-25, 2021). "Issues and Challenges of Mangrove Sustainability in Vietnam considering Driver-Pressure-Impact-Response (DPSIR) Model", Springer Book Volume – LNCE (HYDRO2021).
2. Yadav, Alka and **Kansal, Mitthan Lal**, (Dec. 23-25, 2021). "Water Quality Index Assessment for Upper Ganga Riverine Wetland", Springer Book Volume – LNCE (HYDRO2021).
3. Krishan, Gopal, Bhism Kumar, M Someshwar Rao, Brijecj Kumar Yadav, Mitthan Lal Kansal, Rahul Garg, Mohit Kumar, and Ravi Kumar, (2022). "Enviornmental traces in the Identification of the Groundwater Salinity – Case Studies from Northwest India", Chapter-12, Water Science Tech., Vol. 116, Basant Yadav et al. (Edited), *Sustainability of water resources*, Springer Nature, Switzerland AG.
4. **Mitthan Lal Kansal**, Bahar Adem Beker, Tadese Gindo Kebebe, and Shweta Rathi, (2022) "Reliability Analysis of Water Distribution Network: A Case Study of Bole and Yeka Sub-city of Addis Ababa, Ethiopia", Chapter-7, Water Science Tech., Vol. 116, Basant Yadav et al. (Edited), *Sustainability of water resources*, Springer Nature, Switzerland AG.
5. Singh, S, Dhal, L, Yadav, A, and **Kansal, M L** (2022) Impact of Land Use Land Cover on Land Surface Temperature over Alaknanda River basin using Gespatial Techniques: Geospatial Techniques for Resources Planning and Management (Eds) Ashish Pandey, 2022, pp 709-726.
6. Yadav, Alka, and **Kansal, M L** (2022) A Framework for Integrated Wetland Sustainability Index: Advances in Hydrology and Climate Change – Historical Trends and New Approcahes in Water Resources Management (Eds) Surendra Kumar Chandniha, A K Lohani, Gopal Krishan, and Ajay Krishna Prabhakar, Apple Academic Press, Taylor & Francis Group, 185-204.
7. Osheen, and **Kansal, M L** (2022) Classification and Change Detection of an Urban Built up Area – A Case Study of Gurugram: Advances in Hydrology and Climate Change – Historical Trends and New Approcahes in Water Resources Management (Eds) Surendra Kumar Chandniha, A K Lohani, Gopal Krishan, and Ajay Krishna Prabhakar, Apple Academic Press, Taylor & Francis Group, 243-254.

8. Singh, S, and **Kansal, M L** (2021) Cloudburst – A Major Disaster in the Indian Himalayan States: Civil Engineering for Disaster Risk Reduction (Eds) Sreevalsa Kolathayar, Indrajit Pal, Siau Chen Chian, and Arpita Mondal, Springer Tracts in Civil Engineering.
9. Chandniha S.K., **Kansal M.L.**, Naidu D. (2021) Watershed Sustainability for Agricultural Intensification. In: Jhariya M.K., Banerjee A., Meena R.S., Kumar S., Raj A. (eds) Sustainable Intensification for Agroecosystem Services and Management. Springer, Singapore. [https://doi.org/10.1007/978-981-16-3207-5\\_20](https://doi.org/10.1007/978-981-16-3207-5_20)
10. Bahar Adem Beker and **Mitthan Lal Kansal** (2021) Use of WaterGEMS for Hydraulic Performance Assessment of Water Distribution Network: A Case Study of Dire Dawa City, Ethiopia: Advances in Energy and Environment, Select Proceedings of TRACE 2020, Vol. 142, Springer (Eds) Rafid Al Khaddar, N d Kaushik, S K Singh and R K Tomar.
11. **Kansal, Mitthan Lal**, and Deograti Nyamsha. (2021) "Challenges of Food Security in Tanzania: Need for Precise Irrigation." Hydrological Extremes. Springer, Series: Water Science and Technology Library (Volume 97), 363-380.
12. Amara, Augustine, and **Mitthan Lal Kansal**. (2021),"Challenges of Water Supply Management in Harbour City of Freetown in Western Sierra Leone." Hydrological Extremes. Springer, Series: Water Science and Technology Library (Volume 97), 391-403.
13. Thorlu-Bangura, Saramadie, **Mitthan Lal Kansal**, and Surendra Kumar Chandniha. (2021) "Rainfall Variability Assessment—A Case Study of Rokel-Seli River Basin in Sierra Leone." Climate Impacts on Water Resources in India. Springer, Series: Water Science and Technology Library (Volume 95), 295-319.
14. **Kansal M.L.** (2018) Issues and Challenges of River Health Assessment in India. In: Singh V., Yadav S., Yadava R. (eds) Water Resources Management. Water Science and Technology Library, vol 78. Springer, Singapore.
15. Chandniha S.K., Kansal M.L. (2018) Water Sustainability Assessment Under Climatic Uncertainty – A Case Study of Chhattisgarh (India). In: Singh V., Yadav S., Yadava R. (eds) Climate Change Impacts. Water Science and Technology Library, vol 82. Springer, Singapore.

### Course package

- “System Analysis Techniques in Water Resources Management”, Continuing Education Department, IIT Roorkee, 2004.

### Administrative experience

1. Chairman, Departmental Academic Programme Committee (DAPC), June, 21, 2022 onwards
2. Chairman, Departmental Faculty Search Committee (DFSC), Jan. 2022 onwards
3. Head, Department of Water Resources Development & Management, IIT Roorkee (01.04.2019 to 31.01.2021)
4. Executive Vice President, Indian Water Resources Society (IWRS) (01.04.2019 to 31.01.2021)
5. Thematic Co-ordinator of meeting of DST World Bank Cooperation on Strengthening of African Centre of Excellence's (ACE) (2019-onwards)
6. Member, Board of Governors, THDC Institute of Hydropower Engineering & Technology, Uttarakhand
7. Member, Board of Governors (AICTE Representative), KL Polytechnic, Roorkee, Uttarakhand



8. Member Expert Committee of UGC and AICTE for recognition of various Deemed to be Universities.
9. Member of SSD-II 07: P6, WRD C and other sectional committees of the Bureau of Indian Standards, New Delhi.
10. Member, Green Committee, IIT Roorkee (2018 to till date)
11. Chief Advisor Sports, IIT Roorkee (June 2016 to June 2017)
12. Associate Dean of Students Welfare, IIT Roorkee (07/ 2008 to 03/ 2013)
13. Chairman, Co-coordinating Committee of Bhawnas (CCB) (07/2008 – 12/2010)
14. Chief Returning Officer, SAC-2015, SAC-2013 Elections, IIT Roorkee.
15. Returning officer, SAC Executive Elections, 2008-09, 2009-10, 2010-11, 2011-12
16. Disciplinary Committee of IIT Roorkee, Anti-ragging (2015, 2016)
17. Convener and Prof-In-charge, Pandal Arrangements, Convocation-2017, 2015, 2014
18. In charge, Married Accommodations and KIH Guest House (2012 - 13).
19. Chairman, Departmental Academic Committee (2010 – 2012, 2016 onwards)
20. Chairman, Departmental Research Committee (2012, 2016 onwards)
21. Member, Board of Studies, IIT Roorkee (2010 - 2012)
22. Member, Senate, IIT Roorkee (2008 onwards)
23. Deputy Chief Advisor Sports (Administration) (2008-09)
24. Chief Warden, Azad Bhawan, IIT Roorkee (2006 - 2008)
25. Working Group member, Intellectual Property Rights, IIT Roorkee (2005 to 2013)
26. Member, and In-charge of several committees for Institute convocation for the years 2008, 2007, 2006, 2005
27. Faculty Advisor, web page designing at DCE & WRD&M, IIT Roorkee.
28. Expert member of B.E. Admission Committee, D.U., Delhi (1993, 96, 97, and 2000)
29. Deputy Chairman, College Convocation, D.C.E., Delhi (2000)
30. In-charge, Examination cell, D.C.E., Delhi (1999-2001)
31. Co-ordinator, B.Tech. Entrance Exam, D.U., Delhi (1998)

## **Organization of professional activities in IIT Roorkee**

### *Organization of Short-Term Training Programme*

- International Short-term training program on “Planning, Design and Implementation of Irrigation Schemes”, Dec. 05-15, 2016
- "Introduction to Hydrological Methods for E-flow Assessment for a river", Oct. 27-31, 2014.
- “Planning & Design of Small Hydroelectric Projects”, 06-10 Feb., (2006).
- “System Approach for Water Resources Management”, June 26-July 07, 2006.
- “Planning & Management of Gauging & Discharge sites”, 04-08 Sep., (2006).
- “Management of Sustainable Irrigated Agriculture using Agro-climatic Data”, 07-13 Feb., (2005).
- Challenges in the Management of Water Resources & Environment in the Next Millennium - Need for Inter-Institute Collaboration, Delhi (India), 8-9 Oct., (1999).
- “System Analysis Techniques and Computer Applications in Water Resources Management”, 05-20 January, (2004).
- Organised workshop on Techno-economic and Life Cycle Assessment (LCA) for Sustainability Analysis during August 2-3, 2018 at WRD&M, IIT Roorkee.

- Organised Brain Storming Session on proposed National Water Policy on 2nd December 2019 in Department of WRD&M
- Organised International training Programme on Water, sanitation, and Hygiene (WASH) for Ministry of External affairs, DPA-II, Viv., New Delhi (2022).
- Organised Short-term Training Programme on Technical issues in Hydropower for SJVNL, (2022)

### *National & International Conferences/ Seminars Organisation*

- Organizer, International Conference on “Sustainable Technologies for Intelligent Water Management”, Feb. 16-19, 2018.
- Organizer, National Workshop on “Hydropower Development and Management – Thinking Ahead”, March 22, 2017.
- Organizer, National Workshop on “Challenges in Irrigation Management for Food Security”, November 26-27, 2016.
- All India Seminar on Water and Environment – Issues and Challenges, Roorkee (India), 12-13 Oct., (2002).
- As Convener, Water Resources Forum of Roorkee – organized several technical activities.
- Several technical national and international activities as team member

### *Short Term Training*

- “Farmer Awareness Program on Micro Irrigation System”, June 14, 2019 at Department of WRD&M, IIT Roorkee
- “Remote Sensing & GIS Applications to Water Resources” at Indian Institute of Remote Sensing, Dehradun, 5th May – 27th June 2003
- International Advanced Course on “Water Resources Assessment: Data processing, Fuzzy System Modeling, Interpretation, Design and Application” at WERDEC, Istanbul – Turkey, August 30 – September 9, 2004.

### *Others*

- Working as Executive Vice President of Indian Water Resources Society from 1.4.2019 onwards
- Starting of AGROMET Observatory at IIT Roorkee and launching of website on May 01, 2019.
- “Remote Sensing & GIS Applications to Water Resources” at Indian Institute of Remote Sensing, Dehradun, 5th May – 27th June 2003
- International Advanced Course on “Water Resources Assessment: Data processing, Fuzzy System Modeling, Interpretation, Design and Application” at WERDEC, Istanbul – Turkey, August 30 – September 9, 2004.

## **Important Consultancy/ Research Projects**

### *Consultancy Projects*

1. Detailed Project Report for Supply of 200 cusec of Water to Delhi from Ganga Canal in U.P. (Pr. No. WRC-1-002/2001-2002, Rs. 18 lakhs).
2. Pre-feasibility Reports of 10 Hydroelectric Projects in Uttaranchal (Pr. No. WRC-1005/2003-2004, Rs. 56 lakhs).



3. Residual Life Study of Effluent Channel, ECPL Vadodara (Pr. No. WRC-1014/2007-08), Rs. 8.19 lakhs)
4. Water Balance Study of Man Sagar Lake Restoration of Jal Mahal Monument in the Man Sagar Lake of Jaipur (Pr. No. WRC-1001/2005-2006, Rs. 1.26 lakh).
5. Minimum Flow Requirements of River System for Ecology in River Brahmani in Orissa for WAPCOS (Pr. No. WRC-1004/2002-03, amount Rs. 4.2 lakhs).
6. Preparation of RFP for Preparation of DPR for HIS for the state of Uttaranchal (Pr. No. WRC-1004/2005-2006 amount Rs. 0.83 lakh.
7. Preparation of feasibility report for augmentation of water supply of Mewat Region in Haryana, a Project of Haryana Public Health, Faridabad, amount Rs. 5.4 lakhs.
8. Vetting of Hydraulic & Structural Design of Ranney Well Site No. 13 & 15, Village Maholi, a Project of Haryana Public Health, Faridabad, amount Rs. 0.40 lakh.
9. Area Drainage Study for Sasan Ultra Mega Power Project (Pr. No. WRC-1015/2005-2006, amount Rs. 8.02 lakhs).
10. Vetting of Hydraulic & Structural Design of Ranney Well at Site Rahimpur, a Project of Haryana Public Health, Faridabad, amount Rs. 0.67 lakh.
11. Design of Hindon Aqueduct (Parallel Deoband Branch), UP Irrigation, amount Rs. 7.6 lakhs.
12. Khareli Nala Diversion, amount Rs. 2.0 Lakhs.
13. Rasin Dam Spillway and appurtenances, amount Rs. 2.5 lakhs.
14. Hydrological Study of Jamrani Multipurpose Project for Uttaranchal Irrigation Department, amount Rs. 10.5 lakhs.
15. Establishment of Gauge & discharge Sites at Nand Prayag and Tamak for Uttaranchal Jal Vidyut Nigam, Rs. 72 lakhs.
16. Preparation of DPR for Water supply to Almora for ILF & S, New Delhi, Rs. 20 lakhs.
17. PFR for Guchupani Water Supply Scheme, a Project of Uttarakhand Irrigation Department, Dehradun, amount Rs. 1.8 lakh.
18. Vetting of Hydrology report for Tuini Plasu Hydroelectric Project, a Project of Uttarakhand Irrigation Department, Dehradun, amount Rs. 1.2 lakh.
19. PFR for Karligad Water Supply Scheme, a Project of Uttarakhand Irrigation Department, Dehradun, amount Rs. 1.8 lakh.
20. Basin Study for Lohit Basin, WAPCOS India Ltd., amount 6.3 lakhs.
21. Basin Study for Bichom Basin, WAPCOS India Ltd., amount 6.3 lakhs.
22. Environmental Flow Study for 2x35 MW Dhamwari Sundra Hydroelectric Project, Goyal Group, Delhi, amount 9.92 lakhs.
23. Review of GB Pant Institute of Himalayan Environment & Development, Almora (10 lakh)
24. Vetting of Design for Small Syphon Aqueducts on Arjun Sahayak Pariyojna, Techno-care Lucknow, amount 6.06 lakhs.
25. Vetting of Design for two number Underground water reservoirs at IMT Manesar, amount 1.52 lakhs.
26. Vetting of Design for Canal Crossings and Head and Cross Regulators on Arjun Sahayak Pariyojna, Techno-care Lucknow, amount 4.41 lakhs.
27. Vetting of Design for Ramganga Barrage, UP, M/S Ghanaram Engineers & contractors, Jhansi, amount 8.28 lakhs.
28. Vetting of Design for Silt Excluder and Ejector for Ramganga Barrage, UP, M/S Ghanaram Engineers & contractors, Jhansi, amount 6.62 lakhs.

29. Planning & Design for UGPL type Micro Irrigation Under SS Project, M/s Jyoti Build Tech. Pvt. Ltd., Lucknow, amount 1.1 lakhs.
30. Design of D/S Guide Bund for Uttari Dam, Irrigation Department, Lalitpur, amount 4.42 lakhs.
31. Vetting of G & D Site Data for Bowala Nandprayag and Nadprayag Langashu HEPs for 2011-12, M/s Geo-Tech India, Roorkee, amount 5.3 lakhs.
32. Cumulative Scientific Study to Assess the Impact of Existing and Proposed Hydro Power Stations on Eastern Ganga Basin in Bageshwar (Uttarakhand), (WRD-1002/12-13), amount 53.4 lakhs.
33. Cumulative Scientific Study to Assess the Impact of Existing and Proposed Hydro Power Stations on Saryu River in Bageshwar District (Uttarakhand), (WRD-1001/12-13), amount 54.5 lakhs.
34. Vetting of Balawala G.O.H. Water Supply Scheme, Doiwala, Dehradun, , Uttarakhand Peyjal Sansthan Vikas Evam Nirman Nigam, Dehradun, amount 17 lakhs (WRC- /2014-15)
35. Vetting of Mussoore Phalpatti-Surkanda Devi, GOV Pumping Water Supply Scheme, Uttarakhand Peyjal Sansthan Vikas Evam Nirman Nigam, Dehradun, amount 17 lakhs (WRC- /2014-15)
36. Vetting of Suridhar Water Supply Scheme, Uttarakhand Peyjal Sansthan Vikas Evam Nirman Nigam, Dehradun, amount 17 lakhs (WRC- /2014-15)
37. Third Party Evaluation of Cost Estimates of Myntdu (Leshka) H.E. Project (2 x 42 MW) in Meghalaya, amount 65 lakhs (WRC- /2014-15).
38. Feasibility Study for Flood Protection Works in Satluj River Basin in Kinnaur District under Pooh Division of Himachal Pradesh amount 16.5 lakhs (WRC-6001/2016-17).
39. International Short-term training program on "Planning, Design and Implementation of Irrigation Schemes", Dec. 05-15, 2016, amount US \$ 19, 340, (CO-1464/16).
40. Review of Guide Bund & Protection Measures at Major Bridge Over Yamuna River for Eastern Peripheral Expressway (Package I) in the state of Haryana and Uttar Pradesh, amount 9.91 lakhs (WRD-6004/17-18).
41. Expert opinion about reasons of failure of DT Panel Wall at Sonna MHS, Karnataka by M/S Mack Insurance Surveyors & Loss assessors Pvt. Ltd. (2019), amount 8 lakhs.
42. Mathematical model study of the guide bunds of the proposed bridge on River Ganga on Najibabad Balawali Laksar Marg in Bijnour District of UP by Executive Engg. UP, PWD Bijnor (2020), amount 16 lakhs.
43. Review of Adampur Distributary Pipe channel design from RD 0 to 11200.85m and Redesign by Irrigation & Drainage Dept. Haryana (2020), amount 6 lakhs.
44. Review of Proposed water lifting from Proposed Kosi Barrage to Nainital and Intake of water from Jamrani Dam Site to Haldwani" (2021), 3.54 Lakhs.

#### *Sponsored Research Projects*

45. A Study on Improvement Measures for Efficient Water Use in Irrigation, WAPCOS India Ltd., amount 4.9 lakhs.
46. A Review Study on Release of Environmental Flows for Hydroelectric Projects, WAPCOS India Ltd., amount 9.83 lakhs.
47. A Review Study on Hydropower and its Impact on GHGs Emissions, WAPCOS India Ltd., amount 10.67 lakhs (WRC-6009/2013-14).
48. A Part Study on "Piloting of E-Flow Assessment Methodology for the Sunderbans Ecosystem - Hydrological Modeling of two river reaches in Sunderbans Area" IUCN, New Delhi, amount 11.236 lakhs. (WRC-6024/2014-15).
49. Impact of climate and landuse change on hydrological response (surface and sub-surface) of Beas basin (upto Pandoh dam), DST-573-WRD, amount 10.21 lakhs, September 2014.

50. Assessment of Impacts of Groundwater Salinity on Regional Groundwater Resources, Current and Future Situation in Mewat, Haryana – Possible Remedy and Resilience Building Measures, NIH Roorkee, amount 65 lakhs, NIH-4\_2016\_5 92018-22).
51. US-India 21<sup>st</sup> Century Knowledge Initiative, Theme Area: Sustainable Development & Community Development, “A Global Training Model for Sustainable Water Development in Resource-Constrained Communities”, US-India 21<sup>st</sup> Century Knowledge Initiative, University of IOWA, IIT Roorkee & Sehgal Foundation (amount \$ 100, 000) (2018-20).
52. Indo-Dutch Project on Water 4 Change, Integrative and Fit-for-purpose Water Sensitive Design Framework for fast growing livable Cities organized by DST-NOW (Netherlands Organization for Scientific Research), Department of Science and Technology, Government of India, New Delhi. (DST-1429-WRC/19-20).
53. National Coordination for Strengthening of Africa Centers of Excellence (ACEs) in Water Infrastructure & Environment, (DST-1364-WRC/19-20) (56 Lakhs).

### **Fellowships/ Memberships of Professional Bodies**

- Worked as Executive Vice President of Indian Water Resources Society (01.04.19 to 31.01.21).
- Working as Founder President of North India Chapter of Environmental & Water Resources institute (EWRI) of ASCE, USA from 2010 onwards.

#### ***Life Fellowships***

- Institution of Engineers (India) (FIE (I))
- Chartered Engineer (I), Institution of Engineers, India.
- Indian Water Works Association (FIWWA)
- Indian Water Resources Society (FIWRS)
- Indian Association of Hydrologists (FIAH)

#### ***Memberships***

- Member, International Water Association (IWA) (2020-24)
- Associate Member of ASCE and EWRI (2011 to 2016).
- Member, International Society for Development & Society (ISDS)
- Executive Member, International Association for Coastal Reservoir Research (IACRR)
- Life Member of International Commission on Irrigation and Drainage (ICID)
- Executive member (2005-08, 2009-onwards) of Indian Association of Hydrologists.
- Executive member (2004-06) of the Roorkee Local Centre of the Institution of Engineers (India).
- Executive member (2002-05) of Indian Water Resources Society.
- Executive member of Faculty Forum of IIT Roorkee (2007-09)
- Life Member of Indian Society for Hydraulics (LMISH)
- Life Member of Institute of Urban Transport (India) (LMIUT)
- Life Member of Indian Society of Technical Education (LMISTE)
- Member, Indian Association of Agro meteorologists (2016 onwards)
- Member of Water Resources Division Council, BIS 15
- Member, Environmental Services Sectional Division 07, BIS

**(M L Kansal)**