

Curriculum Vitae

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



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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 Univ
1985	B.Sc. (Civil Engg.) (Hons.)	Kurukshetra Univ.

Work Experience

32 years as researcher which includes 27 years of teaching at PG level and 11 years of teaching at UG level in the following subjects:

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

Publications

- International Journals 54
- National Journals 18
- International Conferences 50
- National Conferences 27
- **Total** 149

Research Supervision

➤ Post-doctoral Fulbright Fellow	01
➤ Ph.D. Awarded	09
Ongoing	03
➤ M.Tech. Awarded	67
Ongoing	08
➤ B. Tech. Projects	15
➤ Internships (International)	02
➤ Internships (Nationals)	07
➤ Total	112

Books

- “System Analysis Techniques in Water Resources Management”, Turkish Water Foundation, Turkey, (2005) as single author.
- “Challenges in the Management of Water Resources & Environment in the Next Millennium”, Delhi, (1999) (Best Selling Book at Bagchi.com \$ 32.68) as joint author (Ed.).
- Proceedings of “Water and Environment – Issues and Challenges, WRD&M, IIT Roorkee, (2002) (Ed.).

Book Chapters

- **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.
- 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.

Recognition as researcher

International Level

1. 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 2nd to 13th, 2018.
2. Visited Austin, Texas, IOWA state University, Lehigh University, Bethlehem, MIT Boston, USA - presented paper during EWRI Congress, May 16th to June 10th, 2015.
3. Visited International Union for Conservation of Nature (IUCN) Bangkok, Thailand as an 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.

4. Visited Portland, Oregon and IOWA State University, USA and attended & presented paper during EWRI Congress, May 30th to June 08, 2014.
5. 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.
6. Visited Cincinnati, Austin, Chorus Christy, Bethlehem, Harrisburg, USA and attended & presented paper during EWRI Congress, May 18 to June 02, 2013.
7. 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.
8. 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.
9. Visited Palm Springs, Austin, Bethlehem, Harrisburg, USA as Visiting International Fellow (VIF) and attended & presented paper during EWRI Congress, May 21-June 05, 2011.
10. 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.
11. Visited NEC, Kathmandu, Nepal, as invited Expert for Regional Conference, May 19-21, 2010
12. Visited Kansas, USA, to attend & present paper during EWRI Congress, May 17-21, 2009.
13. Visited Gold Coast, Australia, as Keynote Presenter during Asia Pacific Water and Sewer Systems Modelling Seminar, April, 27-28, 2009.
14. Visited 2iE Institute, Ouagadougou, Burkina Faso, as Visiting Professor to deliver expert lectures on Urban Water Supply, Nov. 01-17, 2008
15. 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
16. Visited NEC, Kathmandu, Nepal, as invited Expert to attend International Seminar, April, 21-22, 2008
17. 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
18. Visited MIT, Cambridge, USA as invited Expert for the Lead User Workshop in the area of Urban Water Supply, Feb. 28 - March 02, 2008
19. Visited Denmark Technical University, Copenhagen, Denmark, to deliver expert lecture on "Reliability Analysis of Water Distribution Systems", Jan. 2008.
20. 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.
21. Contributed two chapters on "Supply Management" and "Design Issues" in ToT Manual on Integrated Urban Water Management (IUWM) for RCUWM, Tehran, Iran, (2006).
22. 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.
23. Worked as reviewer for various prestigious International Journals like
24. IEEE Trans. on Reliability, American Society of Civil Engineers (ASCE),

25. 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)
26. Reviewed a R & D project submitted to Israel Science Foundation (ISF)
27. 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.
28. Appointed as Member, Technical Committee on Modelling and Simulation (2004-2007) of IASTED, Canada

National Level

- Nominated as Working Group member of National Institute of Hydrology, Roorkee (2018)
- Nominated as member to the sectional committee on 'Hydraulic Power House Structures' of WRD 15 of the Bureau of Indian Standards, New Delhi.
- AICTE representative to BOG, THDC Institute of Hydropower Engineering & Technology, Uttarakhand (2017).
- 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 journals like IWRS, IAH, ISH, etc.
- Invited as examiner for 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

- Awarded NEEPCO Chair Professor by at IIT Roorkee (2018-onwards).
- Awarded JPSS Chair Professor (Hydropower) at IIT Roorkee (2013-17).
- Worked as Host of Indo-US Fulbright Post-Doctoral Fellow, Dr. David E Rheinheimer, USA (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 academic year 2004-05 by IIT Roorkee
- Commendation certificate Twice 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.

Administrative experience

1. Member, Board of Governors, THDC Institute of Hydropower Engineering & Technology, Uttarakhand

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

Organization of professional activities in IIT Roorkee

Organization of Short-Term Training Programmes

- 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).

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

- “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

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) 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. Vetting of Design for Small Syphon Aqueducts on Arjun Sahayak Pariyojna, Techno-care Lucknow, amount 6.06 lakhs.
24. Vetting of Design for Two number Underground water reservoirs at IMT Manesar, amount 1.52 lakhs.
25. Vetting of Design for Canal Crossings and Head and Cross Regulators on Arjun Sahayak Pariyojna, Techno-care Lucknow, amount 4.41 lakhs.
26. A Study on Improvement Measures for Efficient Water Use in Irrigation, WAPCOS India Ltd., amount 4.9 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. **A Review Study on Release of Environmental Flows for Hydroelectric Projects**, WAPCOS India Ltd., amount 9.83 lakhs.
33. **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.
34. **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.
35. **A Review Study on Hydropower and its Impact on GHGs Emissions**, WAPCOS India Ltd., amount 10.67 lakhs (WRC-6009/2013-14).
36. 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).
37. 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)
38. 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)

39. Vetting of Suridhar Water Supply Scheme, Uttarakhand Peyjal Sansthan Vikas Evam Nirman Nigam, Dehradun, amount 17 lakhs (WRC- /2014-15)
40. Third Party Evaluation of **Cost Estimates of Myntdu (Leshka) H.E. Project (2 x 42 MW)** in Meghalaya, amount 65 lakhs (WRC- /2014-15).
41. 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).
42. International Short term training program on “Planning, Design and Implementation of Irrigation Schemes”, Dec. 05-15, 2016, amount US \$ 19, 340, (CO-1464/16).
43. 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).

Fellowships/ Memberships of Professional Bodies

- 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 (FIWWA)
- Indian Association of Hydrologists (FIAH)

Memberships

- Associate Member of ASCE and EWRI (2011 to 2016).
- 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)

(M L Kansal)