# **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

## 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	I.G.N.O.U., Delhi
	<b>Operations Management</b>	
1988	M.Tech. (Civil Engg.) (Water	Kurukshetra University
	Resources Engg.)	
1985	B.Sc. (Civil Engg.) (Hons.)	Kurukshetra University

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## <u>Residence :</u>

H. No. 55/2, Amod Path, IIT Roorkee Campus Roorkee - 247 667 Distt.- Haridwar, Uttarakhand, India

## Work Experience

39 years as a researcher, which includes 34 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, Riverbank City Planning & Riverfront Development, Water Resources Systems Reliability, Water Resources Planning & Management, Hydropower System Planning, Planning & Design of Small Hydropower Schemes, Fluid Mechanics, Engineering Hydrology, Construction Planning & Management and Computer Simulation

## **Publications**

$\triangleright$	International Journals	86
$\triangleright$	National Journals	20
$\triangleright$	International Conferences	110
$\triangleright$	National Conferences	27
$\triangleright$	Book Chapters	16
$\triangleright$	Total	257

## Supervision

۶	Post-doctoral Fulbright Fellow	02
$\triangleright$	Post-doctoral Fellow	04
$\succ$	Ph.D. Awarded	14
	Ongoing	06
$\triangleright$	M.Tech. Awarded	101
	Ongoing	11
$\triangleright$	B.Tech. Projects (15)	75
$\triangleright$	Internships (International)	02
$\triangleright$	JRF/ Internships (National)	13
$\succ$	Total	228

## **Recognition as Researcher**

## International Level

- Visited Henderson, NV, USA presented paper during EWRI Congress, May 20th to 25th , 2023.
- Visited Singapore, for attending Global Environmental Measurement & Monitoring (GEMM) Summit, during 04-06, December 2022, and presented Water & Environment – Sustainability Issues in the Indian Himalayan Region.
- 3. 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.
- 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.
- 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.
- 6. Visited Judge Business School, Cambridge University, London, to attend Leadership for Academicians Program, January 19 to 26, 2020.
- 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.
- 8. 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.
- Visited Austin, Texas, IOWA state University, Lehigh University, Bethlehem, MIT Boston, USA - presented paper during EWRI Congress, May 16th to June 10th, 2015.
- 10. 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.
- 11. Visited Portland, Oregon and IOWA State University, USA and attended & presented paper during EWRI Congress, May 30th to June 08, 2014.

- 12. 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.
- 13. Visited Cincinnati, Austin, Chorus Christy, Bethlehem, Harrisburg, USA and attended & presented paper during EWRI Congress, May 18 to June 02, 2013.
- 14. 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.
- 15. 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.
- 16. Visited Palm Springs, Austin, Bethlehem, Harrisburg, USA as Visiting International Fellow (VIF) and attended & presented paper during EWRI Congress, May 21-June 05, 2011.
- 17. 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.
- 18. Visited NEC, Kathmandu, Nepal, as invited Expert for Regional Conference, May 19-21, 2010
- 19. Visited Kansas, USA, to attend & present paper during EWRI Congress, May 17-21, 2009.
- 20. Visited Gold Coast, Australia, as Keynote Presenter during Asia Pacific Water and Sewer Systems Modelling Seminar, April, 27-28, 2009.
- 21. Visited 2iE Institute, Ouagadougou, Burkina Faso, as Visiting Professor to deliver expert lectures on Urban Water Supply, Nov. 01-17, 2008
- 22. 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
- Visited NEC, Kathmandu, Nepal, as invited Expert to attend International Seminar, April, 21-22, 2008
- 24. 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
- 25. Visited MIT, Cambridge, USA as invited Expert for the Lead User Workshop in the area of Urban Water Supply, Feb. 28 March 02, 2008
- 26. Visited Denmark Technical University, Copenhagen, Denmark, to deliver expert lecture on "Reliability Analysis of Water Distribution Systems", Jan. 2008.
- 27. 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.
- 28. Contributed two chapters on "Supply Management" and "Design Issues" in ToT Manual on Integrated Urban Water Management (IUWM) for RCUWM, Tehran, Iran, (2006).
- 29. 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.
- 30. 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).

- 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.
- 32. 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, PDPU, Gandhinagar (India) (2022)
- > Best paper award in international e-Conference on Water Sustainability, 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. "Hydrology and Water Resources Engineering", M.L. Kansal and P K Agarwal, AICTE, New Delhi (2025) ISBN: 978-93-6027-213-5.
- 2. "Project Planning and Management with CPM & PERT", Kundan Singh and M.L. Kansal, HP Hamilton Limited, United Kingdom, (2021).
- 3. "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).
- 4. "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).
- "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).
- 6. "System Analysis Techniques in Water Resources Management", Turkish Water Foundation, Turkey, (2005), Kansal, M L.
- 7. Proceedings of "Water and Environment Issues and Challenges, WRD&M, IIT Roorkee, (2002) (Ed.), M L Kansal.
- "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**

- Kansal, M L, and Singh, S (2024) "Landslide Hazard and Risk Management Framework for Alaknanda Basin in the Indian Himalayan Region" Chapter 24, *Landslide: Susceptibility, Risk* Assessment and Sustainability, Advances in Natural and Technological Hazards Research 52, <u>https://doi.org/10.1007/978-3-031-56591-5\_24</u>
- Kansal, M.L., Beker, B.A., Kebebe, T.G., Rathi, S. (2022). Reliability Analysis of Water Distribution Network: A Case Study of Bole and Yeka Sub-city of Addis Ababa, Ethiopia. In: Yadav, B., Mohanty, M.P., Pandey, A., Singh, V.P., Singh, R.D. (eds) Sustainability of Water Resources. Water Science and Technology Library, vol 116. Springer, Cham. pp 95-110. <u>https://doi.org/10.1007/978-3-031-13467-8 7</u>
- Krishan, Gopal, Bhism Kumar, M Someshwar Rao, Brijesh Kumar Yadav, Mitthan Lal Kansal, Rahul Garg, Mohit Kumar, and Ravi Kumar, (2022). "Environmental traces in the Identification of the Groundwater Salinity – Case Studies from Northwest India", Chapter-12, In: Yadav, B., Mohanty, M.P., Pandey, A., Singh, V.P., Singh, R.D. (eds) Sustainability of Water Resources. Water Science and Technology Library, vol 116. Springer, Cham. pp 181-198.
- 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 Geospatial Techniques: Geospatial Techniques for Resources Planning and Management (Eds) Ashish Pandey, 2022, pp 709-726.
- 5. Yadav, Alka, and Kansal, M L (2022) A Framework for Integrated Wetland Sustainability Index: Advances in Hydrology and Climate Change – Historical Trends and New Approaches 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.

- 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 Approaches 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.
- 7. 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).
- 8. Yadav, Alka and **Kansal, Mitthan Lal**, (Dec. 23-25, 2021). "Water Quality Index Assessment for Upper Ganga Riverine Wetland", Springer Book Volume LNCE (HYDRO2021).
- 9. 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.
- 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. <u>https://doi.org/10.1007/978-981-16-3207-5\_20</u>
- 11. 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.
- 12. Kansal, Mitthan Lal, and Deogratius 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.
- 13. 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.
- 14. 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.
- 15. 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.
- 16. 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-1004/2005-2006amount 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.
- 45. International Training Programme on Water Sanitation, and Hygiene (WASH), (2021-22), Sponsored By ITEC, GoI.
- 46. Preliminary Site Visit to the Proposed Bridge Site on River Ganga on Amroha Bulandshahar Marg Near Village Bhagwanpur, Executive Engg. UP, PWD Bulandshahar (2022-23), amount 2.95 lakhs.

- 47. Site Visit and Expert Opinion about the Breach Restoration Near the Left Bank Abutment of Chetawala Ghat Bridge on River Ganga, Executive Engg. UP, PWD Meerut (2022-23), amount 1.77 lakh.
- 48. Preliminary Site Visit to the Damaged Approach Roads to Bahgul River Bridge on Basudharan Marg for Approach Roads Protection, Executive Engg. UP, PWD Bareilly (2022-23), amount 3.54 lakhs.
- 49. DPR Vetting of Jamrani Dam to Haldwani-Kathgodam Water Supply Scheme, Executive Engg. PIU (AMRUT), Pay Jal Nigam, Haldwani (2022-23), amount 22.42 lakhs.
- 50. Hydraulic Design of Pipe Irrigation Network of New Chhan Minor RD 0 to 28000 ft, (2022-23), Executive Engineer, Constriction Division No. 7, Hisar.

Sponsored Research Projects

- 51. A Study on Improvement Measures for Efficient Water Use in Irrigation, WAPCOS India Ltd., amount 4.9 lakhs.
- 52. A Review Study on Release of Environmental Flows for Hydroelectric Projects, WAPCOS India Ltd., amount 9.83 lakhs.
- 53. A Review Study on Hydropower and its Impact on GHGs Emissions, WAPCOS India Ltd., amount 10.67 lakhs (WRC-6009/2013-14).
- 54. 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).
- 55. 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.
- 56. 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 (2018-22).
- 57. 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 21st Century Knowledge Initiative, University of IOWA, IIT Roorkee & Sehgal Foundation (amount \$ 100, 000) (2018-20).
- 58. 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).
- 59. 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 the Indian Water Resources Society (01.04.19 to 31.01.21).
- Worked as founder president of the North India Chapter of the Environmental & Water Resources Institute (EWRI) of ASCE, USA, from 2010 to 2022.

## Life Fellowships

- ➢ Institution of Engineers (India) (FIE (I))
- > Charted 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 & Sustainability (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

(Mitthan Lal Kansal)

## List of Publications

#### International Journals

- 1. **Kansal, M.** L., Kumar, A. & Sharma, P.B., (1995). "Reliability Analysis of Water Distribution Systems Under Uncertainty", *Reliability Engg. & System Safety*, Vol 50, No.1, pp. 51-59.
- 2. Kumar, A. and **Kansal, M. L.**, (Sep. 1995). Discussion on "Reliability Analysis of Water Distribution Systems", *J Env Engg*, <u>ASCE</u>, Vol 121, No. 9, pp. 674-77.
- 3. Kumar, A., **Kansal, M. L.** and Arora G., (Aug. 1997). "Identification of Monitoring Stations in Water Distribution System", *Journal of Env. Engg.*, *ASCE*, Vol. 123, No. 8, pp. 746-52.
- 4. Kumar, A., **Kansal, M. L.** and Kumar S., (Sep. 1998). Discussion on "Systemic Analysis of Urban Water Supply and Growth Management", *Journal of Urban Planning & Development*, <u>ASCE</u>, Vol. 124, No. 3, pp. 135-138.
- 5. Kumar, A, Kansal, M. L. and Arora G., (Feb. 1999). Closure of "Identification of Monitoring Stations in Water Distribution System", *Journal of Env. Engg.*, <u>ASCE</u>, Vol. 125, No. 2, pp. 203-204.
- Kumar, A, Kansal, M. L. and Arora G., (March 1999). Discussion on "Inverse Modeling of Chlorine Concentration in Pipe Networks Under dynamic conditions" *Journal of Env. Engg.*, <u>ASCE</u>, pp. 296-297.
- Kumar, A., Kansal, M. L., Minocha, V. K. and Kumar S., (Sep. 1999). Discussion on "Risk Analysis of Traffic and Revenue Forecasts for Road Investment Projects", *Journal of Infrastructure Development & Planning*, <u>ASCE</u>, Vol. 5, No. 3, pp. 112-114.
- 8. Kumar, A, Kansal, M. L. and Arora G., (Sep. 1999). Discussion on "Detecting Accidental Contaminations in Municipal Water Networks", *Journal of Water Resources Planning and Management*, <u>ASCE</u>, Vol. 125, No. 5, pp. 308-310.
- Kumar, A, Kansal, M. L. and Kumar S., (Dec. 1999). Discussion on "Condition Assessment of Water Supply Infrastructure", *Journal of Infrastructure Development & Planning*, <u>ASCE</u>, Vol. 5, No., 4, pp. 160-161.
- 10. **Kansal, M.L**. and Kumar, A., (2000). "Computer Aided Reliability Analysis of Water Distribution Networks", *International Journal of Modelling & Simulation*, Vol. 20, No. 3, pp. 264-273.
- Arora, G and Kansal, M. L., (Sep. 2001). Discussion on "Performance of Various Kinetic Models for Chlorine Decay", Journal of Water Resources Planning and Management, <u>ASCE</u>, Vol. 127, No. 5, pp. 349-351.
- Kansal, M. L., and Arora, G., (Nov.-Dec. 2001). Discussion on "EXPLORE Hybrid Expert System for Water Supply Management", *Journal of Water Resources Planning and Management*, <u>ASCE</u>, Vol. 127, No. 6, pp. 415-416.
- 13. **Kansal, M. L.,** and Arora, G., (2002). "Reliability as Tool for Hydraulic Network Planning", *Journal of Hydraulic Engineering*, *ASCE*, Vol. 128, No. 1, pp. 127.
- 14. **Kansal, M. L.,** and Arora, G., (July-August 2002). "Optimal Operation of Water Distribution Pumps Considering Water Quality", *Journal of Water Resources Planning and Management, <u>ASCE</u>, Vol. 128, No. 4, pp. 307.*
- 15. **Kansal, M. L.**, & Verma, S., (2005). "An Efficient Technique for Failure Assessment in a Distribution Network", *International Journal of Modeling & Simulation*, Vol. 25, No. 4, pp. 269-276.
- 16. **Kansal, M. L.,** Das, D., & Mandal, J., (2005). "Performance Assessment of a Hydropower Station using Fault Tree Analysis", *International Journal of Water & Energy*, Vol. 62, No. 3, pp 44-55.
- 17. Kansal, M. L., Devi, S., (2007). "An Improved Algorithm for Connectivity Analysis of Distribution Networks", *Rel. Engg. & System Safety*, Vol 92, No.10, 295-1302.
- 18. Deep, K., **Kansal, M. L.**, Singh, K. P., (2007). "Ranking of Alternatives in Fuzzy Environment using Integral Value", *Journal of Mathematics, Statistics, and Allied Fields (Scientific Journals International)*, Vol. 1, No. 2.
- 19. Hepy, F.M., Ahmad, Z. and **Kansal, M. L**., (2008). "Critical velocity for slurry transport through pipeline", *Journal of Dam Engineering*, Vol. XIX, 3, pp 169-184.

- 20. Fahimuddin, M., Mishra, G. C. and **Kansal**, M. L., (2009). "Groundwater Recharge Through a Multi-Aquifer Shaft Near a Flooding Stream", *Journal of Hydrologic Engineering*, <u>ASCE</u>, Vol. 14, 1, pp. 84-90.
- 21. Muthukrishnavellaisamy, K., Mishra, G. C., Ghosh, N. C. and **Kansal**, **M. L.**, (2009). "Estimation of stream water quality parameter using regime channel theory", *Journal of Environmental Geology*, *Springer-Verlag*, Vol. 57, No. 4, pp. 899-908.
- 22. Deep, K., Singh, K. P., **Kansal, M. L.**, and Mohan, C. (2009). "Management of multipurpose multireservoir using fuzzy interactive method", *Journal of Water Resources Management*. 23, No. 14, pp. 2987-3003.
- 23. Deep, K., Singh, K. P., **Kansal, M. L.**, and Mohan, C. (2009). "A real coded genetic algorithm for solving integer and mixed integer optimization problems", *Journal of Applied Mathematics and Computations*, Vol. 212 No. 2, pp. 505-518.
- 24. **Kansal, M. L**. and Suwarno, I. N., (June 2009). "Integrated Agricultural Risk Management in Way Jepara Area of Indonesia", *International Journal of Irrigation & Drainage*, Vol. 59, No. 5, pp. 506-523.
- 25. Deep, K., Singh, K. P., Kansal, M. L., and Mohan, C. (2009). "A Fuzzy Interactive Approach to Portfolio Management", *OPSEARCH, Springer*, Vol. 46, No. 1, pp. 69-88.
- 26. Saha, A., **Kansal, M. L.**, Mishra, G. C., and Gupta, R. P., (2010) "Restoration of the Traditional Small Water Bodies in Braj", *South Asian Journal of Tourism and Heritage*, Vol. 3, No. 2, pp 19-29.
- 27. Deep, K., Singh, K. P., **Kansal, M.L.**, and Mohan, C. (2011). "An interactive method using genetic algorithm for multi-objective optimization problems modeled in fuzzy environment", *Expert Systems with Applications*, 38(3), 1659-1667.
- 28. Deep, K., **Kansal, M. L., and** Singh, K. P., (2011). "Genetic Algorithm based Fuzzy Weighted Average Application in Multi-Criteria Decision-Making Problems", *OPSEARCH, Springer*, Vol. 48, No. 2, pp. 96-108.
- 29. Saha, A., Mishra, G. C., **Kansal, M. L.**, and Gupta, R. P., (2011) "Analysis of Seepage from a Pond", *Hydrogeology Journal, Springer*, Vol. 13, No. 3, pp. 573-589.
- 30. Muthukrishnavellaisamy. K., Ghosh, N. C., Mishra, G. C. and **Kansal**, **M. L**. (2011). "Semianalytical Solution for Nonequilibrium Sorption of Pollutant Transport in Streams", (Nov. 2011). *Journal of Env. Engg.*, <u>ASCE</u>, Vol. 137, No. 11, pp. 1066-1074.
- 31. **Kansal, M. L**. and Arora, S, (2012). "Biodiversity and Present Status of Freshwater Fishes in Lohit River Basin of India", *Environmentalist Journal, Springer*, Vol. 32, No. 1, pp. 58-69.
- 32. Muthukrishnavellaisamy. K., Ghosh, N. C., Mishra, G. C. and **Kansal**, **M. L.**, (2012). "Hybrid Model Development for the Decaying Pollutant Transport in Streams", *Int. J. of Environment and Waste Management (IJEWM)*, Vol. 12, No. 2, pp. 130.
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- 34. **Kansal, M. L.**, Dorje, T., and Chandniha, S. K., (2012). "Design Scheme for Water Quality Monitoring in a Distribution Network", *International Journal of Environment and Development*, Vol. 9, No. 1, pp. 69-81.
- 35. Abdolahpour, M., Yasi, M., Behmanesh, J. and **Kansal, M. L.**, (2012). "Performance evaluation of horizontal sharp crested weirs in a channel bend", *Int. Journal of Hydrology Science & Technology*, Vol. 2, No. 4, pp. 402-412.
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- 37. Gupta, S., and **Kansal, M. L.**, (2014). "Reliability Assessment of a Real Time Distribution System", *International Journal of Electronic and Electrical Engineering*, Vol. 7, No. 9, pp. 993-999.
- 38. Singh, K. P., **Kansal, M. L.** and Deep, K. (2014). "GA-NR for Optimal Design of Water Distribution Networks", *International Journal of Operational Research*, Vol. 20, No. 3, pp. 241-261.

- 39. Singh, K. P., Deep, K. and **Kansal, M. L.**, (2014). "Fuzzy-based Interactive Method for Solution of bi and multi-level Programming Problems", *International Journal of Information and Decision Sciences*, Vol. 6, No. 2, pp. 166-181.
- 40. Chandniha, S. K., **Kansal, M. L.**, and Gunjuluri, A., (2014). "Watershed Sustainability Index Assessment of a watershed in Chhattisgarh, India", Current World Environment, Vol. 9, No. 2, pp. 403-411.
- 41. Dereje, A., Kansal, M. L., and Sen, S., (2015). "Assessment of Water Scarcity and its Impacts on Sustainable Development in Awash Basin, Ethiopia", *Journal of Sustainable Water Resources Management*, Vol. 1, No. 1, pp. 71-87.
- Sharma, S. K., Kansal, M. L., and Tyagi, A., (2015). "Resource Assessment & Strategic Planning for Sustainable Water Supply to Shimla City (India) using Geo-Spatial Techniques", *The Egyptian Journal of Remote Sensing and Space Sciences*, Vol. 18, No. 1, pp. 85-97.
- 43. Sharma, S. K., **Kansal, M. L.**, and Tyagi, A., (2016) "Integrated Water Management Plan for Shimla City in India using Geo-Spatial Techniques", *Water Science & Technology: Water Supply, IWA*, *London*, Vol. 16, No. 3, pp. 641-652.
- 44. Dereje, A., **Kansal, M. L.**, and Sen, S., (2016). "Economic Evaluation of Proposed Alternatives of Inter-basin Water Transfer from Baro Akobo to Awash Basin in Ethiopia", *Journal of Sustainable Water Resources Management*, Vol. 2, No. 3, pp. 313-330.
- 45. Shukla, S., **Kansal, M. L.**, and Jain, S. K., (2016). "Snow cover area variability assessment in the upper part of the Satluj river basin in India", *Geo-carto International*. 32, No. 11, pp.1285-1306.
- 46. Shukla, S., Jain, S.K., Kansal, M.L. and Chandniha, S.K., (2017). Assessment of sedimentation in Pong and Bhakra reservoirs in Himachal Pradesh, India, using geospatial technique. *Remote Sensing Applications: Society and Environment*, 8, pp.148-156.
- 47. Chandniha, S. K., and **Kansal, M. L.**, (2017). "Prioritization of sub-watersheds based on morphometric analysis using geospatial technique in Piperiya watershed, India", *Applied Water Science*, Vol. 7, No. 1, pp. 329-338.
- Kansal, M. L., Kumar, P., Kishore, K. A., (March 2017). "Integrated Flood Risk Management using Multi Criterion Decision Analysis – A Case Study of Bihar", *International Journal of Scientific and Research Publications*, Vol. 7, No. 3, pp. 271-276.
- 49. **Kansal, M. L.,** Kishore, K. A., Kumar, P., (March 2017). "Impacts of Flood and its Management- A Case Study of Bihar", *International Journal of Advanced Research*, Vol. 5, No. 3, pp. 1695-1706.
- 50. Kansal, M. L., Ivor, J. N., and Chandaniha, S. K., (2017). "Urban Water Service Quality Assessment in Tanzanian Towns of Songea and Mbeya", *Journal of Sustainable Water Resources Management*, Vol. 03, No. 04, pp. 491-501.
- 51. **Kansal, M. L.**, Thakur, A., (2017). "Flood Estimation for a Cloudburst Event in an Ungauged Western Himalayan Catchment", *International Journal of Hydrology*, 1(6), pp 1-7.
- 52. Agarwal S. S., and **Kansal**, **M. L.** (2017). "Issues of Hydropower Development in Uttarakhand Region of Indian Himalaya", *Water and Energy International*, Vol. 59, No. 11, pp. 52-64.
- 53. Nyamsha, D. and **Kansal, M. L.**, (2018). "Describing soil quality with aggregate index for Msange irrigation scheme of Tanzania", *Soil use and management*, 34(3), pp.418-426.
- 54. Agarwal S. S, and **Kansal, M. L.**, (2018). "Importance of Hydropower for Energy Sustenance in India", *Water and Energy International*, Vol. 61, No. 02, pp. 61-73.
- Krishan, G., Ghosh, N. C., Kumar, C. P., Sharma L. M., Yadav, B., Kansal, M. L., Singh, S., Verma, S., K., Prasad, G., (2020). "Understanding stable isotope systematics of salinity affected groundwater in Mewat, Haryana, India", *Journal of Earth System & Science*, 129, 1-9.
- 56. Agarwal, S. S. and **Kansal**, **M. L.** (2020). "Risk based initial cost assessment while planning a hydropower project." *Energy Strategy Reviews* 31), 100517.
- 57. Krishan, G., Prasad, G., Bhagat, A., Kumar, C. P., Patidar, N., Yadav, B. K., Kansal, M. L., Singh, S., Sharma, L. M., Bradley, A. and Verma, S. K., (2020). "Identifying the seasonal variability in source of groundwater salinization using deuterium excess- a case study from Mewat, Haryana, India", *Journal of Hydrology: Regional Studies*, 31.

- 58. Krishan, G., Priyanka S., Bhagat, A., Prasad, G., Yadav, B. K., Kumar, C. P., Kansal, M. L., Singh, S., Sudarsan, N., Bradley, A., Sharma, L. M. and Muste, M., (2021). "Role of Ion Chemistry and Hydro-Geochemical Processes in Aquifer Salinization A Case Study from a Semi-Arid Region of Haryana, India", *Journal of Water*, 13, 617, 1-15.
- 59. S. K. Jain, S. Shukla and **M. L. Kansal**, (2021) "Hydrological modelling of a snow/glacier fed western Himalayan basin to simulate the current and future streamflow under changing climate scenarios", *Journal of the Science of the Total Environment*. 795 (2021) 148871.
- 60. Upendo Paul Shushu, Hans Charles Komakech, David Dodoo-Arhin, David Ferras, **Mitthan Lal Kansal**, "Managing non-revenue water in Mwanza, Tanzania: A fast-growing sub-Saharan African city", Scientific African, Volume 12, 2021, e00830, ISSN 2468-2276, <u>https://doi.org/10.1016/j.sciaf.2021.e00830</u>.
- 61. Beker, Bahar, A., & Kansal, M. L. (2022). Fuzzy logic-based integrated performance evaluation of a water distribution network. *Journal of AQUA-Water Infrastructure, Ecosystem and Society, Vol.* 71, *No. 3, 490-506*, <u>https://doi.org/10.2166/aqua.2022.004</u>
- 62. Osheen, **Kansal, Mitthan Lal**, Bisht, Deepak Singh (2022). Evaluation of an urban drainage system using functional and structural resilience approach. *Urban Water Journal*, https://doi.org/10.1080/1573062X.2022.2044495
- 63. Mudbhari, Dipak, **Kansal, M L**, Kalura, Praveen (2022). Impact of Climate Change on Water Availability in Marsyangdi River Basin in Nepal. *Quarterly Journal of Royal Meteorological Society* (*QJRMS*), *UK*, <u>https://doi.org/10.1002/qj.4267</u>
- 64. Singh, S, and **Kansal, M L**. Chamoli flash-flood mapping and evaluation with a supervised classifier and NDWI thresholding using Sentinel-2 optical data in Google earth engine (2022). *Earth Science Informatics, <u>https://doi.org/10.1007/s12145-022-00786-8</u>*
- 65. **Kansal, M.L**.; Singh, S. Flood Management Issues in Hilly Regions of Uttarakhand (India) under Changing Climatic Conditions. *Water* **2022**, *14*, 1879. <u>https://doi.org/10.3390/w14121879</u>
- 66. Kansal, Mitthan Lal, Agarwal, Sanchit Saran. Uncertainties-Based Potential Time and Cost Overrun Assessment While Planning a Hydropower Project. WASCE-ASME, J. Risk Uncertainty Eng. Syst., Part A: Civ. Eng., 2022, 8(4): 04022046. <u>https://doi.org/10.1061/AJRUA6.0001270</u>
- 67. Getaneh, Shimelis and **Kansal M L**. "Pandemic Construction Delay and Cost Overrun Analysis in Water Resource Project." J Civil Environ Eng 12 (2022): 463.
- 68. Mehta, Osheen, **Kansal, Mitthan Lal**, Bisht, Deepak Singh (2022). A comparative study of the time of concentration methods for designing urban drainage infrastructure. *Journal of AQUA-Water Infrastructure, Ecosystem and Society*. <u>https://doi.org/10.2166/aqua.2022.107</u>
- 69. Dhal, L., & Kansal, M. L. (2022). Streamflow-based watershed resilience assessment in a tropical savannah region of India. *Journal of Environment, Development and Sustainability, Published online* 31 December 2022 <u>https://doi.org/10.1007/s10668-022-02882-7</u>
- Krishan, G., Bhagwat, A., Sejwal, P., Yadav, B.K., Kansal, M.L., Bradley, A., Singh, S., Kumar, M., Sharma, L.M., Muste, M., (2023). "Assessment of groundwater salinity using principal component analysis (PCA): a case study from Mewat (Nuh) Haryana, India", *Journal of Environ. Monit Access*, Springer, 195:37 (2023) <u>https://doi.org/10.1007/s10661-022-10555-1</u>.
- Beker, Bahar, A., & Kansal, M. L. (2023). Complexities of the urban drinking water systems in Ethiopia and possible interventions for sustainability. *Journal of Environment, Development and Sustainability, Published online 05 January 2023* <u>https://doi.org/10.1007/s10668-022-02901-7</u>
- 72. Gopal Krishan, Mohit Kumar, M. Someshwar Rao, Rahul Garg, Brijesh Kumar Yadav, M.L. Kansal, Surjeet Singh, A. Bradley, Marian Muste, L.M. Sharma, Integrated approach for the investigation of groundwater quality through hydrochemistry and water quality index (WQI), Urban Climate 47, 2023, <u>https://doi.org/10.1016/j.uclim.2022.101383</u>
- 73. Beker, Bahar, A., & **Kansal, M.** L. (2023). Pipe and isolation valve failure-impact analysis and prioritization model for an urban water distribution network. *Journal of Hydro informatics, IWA (accepted)*.

- 74. Singh, S., & Kansal, M. L. (2023). Sub-Basin Prioritization using RUSLE in a Mountainous River Basin of Uttarakhand (India). *Journal of Environment, Development and Sustainability, published online,* <u>https://doi.org/10.1007/s10668-023-02989-5</u>
- 75. Yomif Dereje Sime, **Mitthan Lal Kansal**; Identification of optimal number and location of isolation valves in an urban water distribution network. *AQUA Water Infrastructure, Ecosystems and Society*, (2024); 73 (4): 818–833. doi: https://doi.org/10.2166/aqua.2024.012.
- Osheen, Kansal, M.L. & Bisht, D.S. Enhancing Urban Drainage Infrastructure Through Implementation of Low Impact Development Techniques. *Water Resour Manage* (2024). <u>https://doi.org/10.1007/s11269-024-03877-x</u>
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- 79. Yomif Dereje Sime, and **Mitthan Lal Kansal**, (2024). Optimizing the number, locations, and chlorine dosages of booster chlorination stations in the water distribution network. *Journal of Water Supply*, IWA; 24(7), 2534 doi: 10.2166/ws.2024.161
- Dhal, L., & Kansal, M. L. (2024). An ecohydrological approach to assess water provisioning and supporting ecosystem services in the Budhabalanga River Basin, India. *Journal of Environmental Monitoring and Assessment*, <u>https:// 10.1007/s10661-024-12844-306a47c77-6f78-4f19-953c-fdcde8072ecc</u>
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- 188. Beker, Bahar, A., & Kansal, Mitthan Lal (2022). Pipe and valve failure impact analysis and prioritization in urban water distribution systems. *AGU Fall Meeting 2022*, Chicago, IL, 12-16 December.
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- 190. Singh S. and **Kansal, Mitthan Lal** (2022). A GIS-Based Landslide Hazard Mapping of Alkanada River Basin in the Indian Himalayan Region Using Remote Sensing and AHP. *AGU Fall Meeting* 2022, Chicago, IL, 12-16 December.
- 191. Dhal L., and **Kansal, Mitthan Lal** (2022). Impact of LULC Dynamics and Climate Change on Streamflow Regime A Case Study of the Budhabalanga River Basin on the East Coast of India. *AGU Fall Meeting* 2022.
- 192. Neenu, and **Kansal, M L**, (2023). "Issues and Challenges of the Yamuna River Health", International Conf. on Recent Advances in Applied Sciences & engineering (RAISE), MS University Baroda, 12-13, April, Vadodara. (*Appreciation award*)
- 193. Dhal L., and Kansal, Mitthan Lal (2023). An Integrated Health assessment of an Agriculture-Dominated River Basin in India. EGU General Assembly 2023, Vienna, Austria, 24–28 April, EGU23-11953, <u>https://doi.org/10.5194/egusphere-egu23-11953</u>.
- 194. Mehta, Osheen, Kansal, Mitthan Lal, and Bisht, Deepak Kumar (2023). "Integrating Green and Grey Infrastructure for Resilience Enhancement of Conventional Urban Drainage System and its Evaluation through Modeling", EGU General Assembly 2023, Vienna, Austria, 24–28 April,

EGU23-137, <u>https://doi.org/10.5194/egusphere-egu23-137</u>. (Selected for Early Career Scientist's Travel Support (150 Euro + Registration Fees waiver))

- 195. Beker, B. A., & Kansal, M. L., (May 21-25, 2023). "Pipe and Isolation Valve Replacement Prioritization in an Urban Water Distribution Network", Adaptive Planning and Design in an Age of Risk and Uncertainty - World Environmental & Water Resources Congress, ASCE, Henderson, NV, SA, 999–1014. <u>https://doi.org/10.1061/9780784484852.092</u>
- 196. Kansal, M. L., Neenu, (May 21-25, 2023). "Pollutant Source Identification and the Impact of Land Use and Land Cover in the Upper Yamuna Basin in India" Adaptive Planning and Design in an Age of Risk and Uncertainty - World Environmental & Water Resources Congress, ASCE, Henderson, NV, USA, 1127–1139. <u>https://doi.org/10.1061/9780784484852.103</u>.
- 197. Osheen, Kansal, M. L., Bisht, D. S. (May 21-25, 2023). "Characterization, Complexities, and Strategic Planning for Urban Flood Management: A case study of Gurugram", Adaptive Planning and Design in an Age of Risk and Uncertainty World Environmental & Water Resources Congress, ASCE, Henderson, NV, USA, 661–674. <u>https://doi.org/10.1061/9780784484852.063</u>
- 198. Singh, S., Kansal, M. L., Tyagi, A. (May 21-25, 2023). "Landslide Hazard Zonation in the Alaknanda River Basin using Innovative Techniques", Adaptive Planning and Design in an Age of Risk and Uncertainty World Environmental & Water Resources Congress, ASCE, Henderson, NV, USA, 32–44. https://doi.org/10.1061/9780784484852.004 ..
- 199. Yadav, Alka and **Kansal, Mitthan Lal**, (Oct., 01-05, 2023). "Ecosystem Servoces Value Dynamics under Land Use Alterations in the Upper Ganga Riverine Wetland", Closed Cycles and the Circular Society 2023, International Conf. of the IEES, Chania, Greece.
- 200. Neenu, and **Kansal, M L**, (2023). "Foam Risk Management and Prioritizing Intervention in the Delhi Yamuna Reach", Proc. of HYDRO International Conf., Dec., 21-23, 2023, NIT Warangal (India). (Best Paper Award)
- 201. Nguyen Thi Ngoc Bich, **Kansal, Mitthan Lal**, Hoa Nguyen Hai, "Soil Pollution and Ecological Risk Assessment in the Thai Binh Mangrove System of Vietnam", Proc. of HYDRO International Conf., Dec., 21-23, 2023, NIT Warangal (India).
- 202. Nguyen Thi Ngoc Bich, and **Kansal, Mitthan Lal**, "Socio-Ecological Impact Analysis in Thai Binh Mangrove Ecosystem", Proc. of International Conf. on Future of Water Resources (ICFWR 2024/86), pp 126, January 18-20, 2024, IWRS, IIT Roorkee (India).
- 203. Madhuri Subbarao, **Kansal, Mitthan Lal**, and Druthi Anish "A Behavioural Study in the Adoption, Implementation, and Recurrence of Rainwater Harvesting Practices in Bengaluru", Proc. of International Conf. on Future of Water Resources (ICFWR 2024/94), pp 127, January 18-20, 2024, IWRS, IIT Roorkee (India).
- 204. Shanmukha Dheeresh Nulu, and **Kansal, Mitthan Lal**, "Optimal Site Selection for Water and Sewage Treatment Plants: A TOPSIS Model Approach in Paonta Sahib, India", Proc. of International Conf. on Future of Water Resources (ICFWR 2024/191), pp 136, January 18-20, 2024, IWRS, IIT Roorkee (India).
- 205. **Kansal, Mitthan Lal**, and Nulu Shanmukha Dheeresh, "Site Selection for Water and Sewage Treatment Plants in a Riverbank City: A Case Study of Paonta Sahib in Himachal Pradesh (India)", Proc. of International Conf. Roorkee Water Conclave 2024, Id. No. 96, March 3-6, 2024, Roorkee (India).
- 206. **Kansal, Mitthan Lal**, and Adyesha Jena, "Complexities of Riverfront Development in a Hilly City: A Case Study of Paonta Sahib,India", Proc. of International Conf. Roorkee Water Conclave 2024, Id. No. 88, March 3-6, 2024, Roorkee (India).
- 207. Chandniha, S K, Nema, M K, and **Kansal, Mitthan Lal**, "Landuse Landcover Change Detection and prediction using Markov Chain Modeling Approach", Proc. of International Conf. Roorkee Water Conclave 2024, Id. No. 258, March 3-6, 2024, Roorkee (India).
- 208. Neenu, and **Kansal, M L**, (2024). "Urbanisation and River Health : Analyzing the Effects of Land Cover Change on the Upper Yamuna Basin", X4.94, Proc. of EGU, April, 14-18, Vienna.
- 209. Kansal, Mitthan Lal, Salim, A Lossindilo, Richard, J Kasase, and Franciso, G Mapunda, "Nature-Based Solutions for Wastewater Treatment in Riverbank Villages: A Case Study of Jalmana near

Panipat in Haryana", Proc. of International Conf. on Environmental Challenges, Opportunities and Sustainable Solutions, Environment 2024, Id. No. SPD05, December 9-11, 2024, IIT Guwahati (India).

- Mitthan Lal Kansal, and Suddasil Bose. "Groundwater Depletion, Hotspot Identification and Future Projections in the Indian National Capital Territory of Delhi", 10<sup>th</sup> International Groundwater Conf., NIH, Roorkee, March 2025 (Keynote).
- 211. Osheen, Jorge Gironas, Mitthan Lal Kansal, and Bisht, Deepak Singh. "Life Cycle Cost Analysis and Resilience Evaluation for LID Implementation in Urban Drainage Systems using SWMM", EGU- 25-3656ECS, HS5.4.1– Green Infrastructure and Nature-based Solutions for Sustainable Urban Hazard Management, EGU General Assembly 2025, Vienna, Austria,
- 212. Alka Yadav, **Mitthan Lal Kansal**, and Aparajita Singh. "Wetland Health in Transition : Resilience and Ecosystem Services Amid Urbanisation and Land-Use Change", EGU- 25-885, BG4.8-Earth Observation Data for Wetland Dynamics and Ecosystem Monitoring, EGU General Assembly 2025, Vienna, Austria
- 213. Lingaraj Dhal and **Mitthan Lal Kansal**. "Health Assessment of Agriculture-Dominated Watersheds in a Data-Scarce Region", EGU- 25-15610, HS2.3.1 Mechanisms of water quality dynamics at the catchment scale and innovative measures for monitoring, modelling and mitigation, EGU General Assembly 2025, Vienna, Austria
- 214. Salim, A Lossindilo, Kansal, Mitthan Lal, and Tyagi, Aditya. (May 18-21, 2025). "Nature-Based Solutions for Wastewater Treatment in the Hilly areas of Mwanza City, Tanzania", World Environmental & Water Resources Congress, ASCE, Anchorage, Alska, USA, (Accepted & Selected for VIF).
- 215. Shaurya Varendra Tyagi, Mukesh Kumar Singhal, **Mitthan Lal Kansal**, Venkataramana Sridhar, and Suddhasil Bose. (May 18-21, 2025). "Solar-powered pumped storage system for hydropower generation", World Environmental & Water Resources Congress, ASCE, Anchorage, Alska, USA, (Accepted & Selected for VIF).
- 216. **Mitthan Lal Kansal**, and Rajabu Rajabu Mohamedi. "Ecological flow management in Delhi reach of the river Yamuna under challenges of climate change and anthropogenic activities", 7<sup>th</sup> Euro-Mediterranean Conference for Environmental Integration, June, 23-26, Reggio Calabria, Italy.

National Congress/ Symposium/ Conferences/ Seminar

- 217. Goel, A. and Kansal, M. L., (May 1988). "Role of Engineers in Combating the Effect of Drought Menace", National Seminar, HAU, pp 74-79, Hissar (India).
- 218. Kumar, A., Kansal, M. L. and Arora, G., (Oct. 8-9, 1999). "Technological Upgradation of Water Distribution Systems of India Need for Inter-Institute Collaboration", National Workshop on Challenges in the Management of Water Res. & Env. in the Next Millennium Need for Inter-Inst. Collaboration, Delhi (India), pp 336-344.
- 219. Kansal, M. L. and Kumar, A., (Oct. 8-9, 1999). "Are Engineering Institutions Producing Effective Engineers- Need for Introspection", *National Workshop on Challenges in the Management of Water Res. & Env. in the Next Millennium. Need for Inter-Inst. Collaboration*, pp 431-439, Delhi (India).
- 220. Kumar A., and **Kansal, M. L.**, (Oct. 8-9, 1999). "Proposed BE (Civil Engg.) Scheme for Delhi College of Engineering", *National Workshop on Challenges in the Management of Water Res. & Env. in the Next Millennium Need for Inter-Inst. Collaboration*, pp 452-456, Delhi (India).
- 221. Kansal, M. L. and Arora, G., (Oct. 6-8, 2000). "Effect of Pumping Schedule on Chlorine Decay in Storage Tanks", *Proc. of Recent Advances in Hydraulics & Water Resources Engg. HYDRO 2000*, 181-185, Kurukshetra (India).
- 222. Mishra, G. C., Chahar, B. R., and **Kansal, M. L.**, (Nov. 3-5, 2001). "Need for Ground Water Planning for Sustainable Use of Narmada Water in Rajasthan", 9<sup>th</sup> National Water Convention, 269-279, Bangalore (India).

- 223. Kansal, M. L., and Sahasrabudhe, S. J., (Oct. 12-13, 2002). "Threat Perceptions to Water Resources Projects Need for Review of Preparedness", *All India Seminar on Water and Environment Issues and Challenges*, pp. 187-192, Roorkee.
- 224. **Kansal, M. L.**, and Verma, S., (Nov. 22-23, 2004). "Use of Chemical disinfectant in Drinking Water Need for Cautious Approach", 11<sup>th</sup> National Symposium on Hydrology, pp 476-485, NIH Roorkee.
- 225. Biswal, R. K., **Kansal, M.L**., and Sharma, N., (Dec. 27-28, 2004). "Inter Basin Water Transfer and Water Balance Study of Mahanadi Basin", *Proc. of National Conference on Hydraulics & water Resources HYDRO 2004*, pp 79-84, Nagpur (India).
- 226. Mishra, G. C., and **Kansal, M. L.**, (May 19-20, 2005). "Performance of Radial Collector Well Running Parallel to a Partially Penetrating Stream", *National Workshop on Emerging Technology for Controlling Groundwater Pollution: Drinking Water Perspectives*, New-Delhi.
- 227. Deep, K., Singh, K. P. and **Kansal, M. L.**, (Dec. 4-6, 2007). "An Interactive Method for Multi Objective Engineering Design Problems", 40<sup>th</sup> Annual Convention of Operational Research Society of India, New Delhi, pp 81.
- 228. Kansal, M. L., Giri, R. K. and Lalchhuanmawia, I., (Nov. 3-4, 2008). "A Proposed Augmentation of Water Treatment Plant for Almora Town", *Water India V*, New Delhi, India.
- 229. Saha, A., Mishra, G. C., and **Kansal, M. L.**, (Feb. 23-24, 2010). "Groundwater Recharge through a Pond", *National Workshop on Ground Water Resources Estimation*, pp. 109-118, IIT New-Delhi.
- 230. Krishna, B., Aggarwal, J. D., and **Kansal, M. L.**, (Dec. 16-18, 2010). "Storm Generated Wave Prediction Using Neural Network", *HYDRO-2010*, pp 217-223, Mullana.
- 231. Chandniha S. K., and **Kansal, M. L.**, (Feb. 23, 2011). "Issue and Challenges of Sustainable Drinking Water in Koriya District of Chhattisgarh", *Ground Water Pollution around Industrial Clusters: Mitigation & Management*, pp 55-65, NCCR Raipur.
- 232. Murtiningrum, K., Jain, S. K., and Kansal, M. L., (Feb. 8-9, 2012). "Downscaling Of Climate Variables Using Support Vector Machine", *National Symposium on "Water Resources Management in Changing Environment (WARMICE 2012)*, 367-384, NIH, Roorkee.
- Kansal, M. L., and Samal, R. K., (June 1-2, 2012). "Identification and Weight Determination of Sustainable Development Indicators for a CDM based Renewable Energy Project", *Emerging Challenges for Sustainable Business (ECSB)*, 575-590, IIT Roorkee.
- 234. Kansal, M. L., and Sharma, S. K., (Sep. 20-22, 2012). "Water and Health : Issues and Challenges of Ground Water Quality in Rural India", *National Conf. on Hydrology and Water Quality Management* (NCHWQM 2012), ISBN 978-81-927242-0-1, (2012), pp 36-44, Moregaon (Assam).
- 235. Kansal, M. L., (Sep. 23-24, 2013). "Impact of Water Bodies on Greenhouse Gas Emissions", *National seminar on Green Chemistry*, Ahmedabad.
- Kansal, M. L., and Chandniha, S. K., (Nov. 27-29, 2013). "Impact of Climate Change on Water Resources", *National Seminar on Climate Change Impacts on Water Resources Systems*, Vadodara, pp 89-92.
- 237. Kansal, M. L., (Feb. 7, 2014). "Hydropower and its Impact on Greenhouse Gas Emission", *National Workshop on Environmental Clearances – Issues, Constraints, Compliances & Solutions, PHD House* New Delhi.
- 238. Kansal, M. L., (Mar 22-23, 2015). "Sustainable Urban Water Supply Management Need for Holistic Approach", *National seminar on Green Chemistry*, Ahmedabad.
- 239. Kansal, M. L., (May 9-10, 2015). "River Health Assessment and Need for Comprehensive Guidelines for River Health Policy", *National seminar on Rejuvenation of River Gomti*, Lucknow.
- 240. Agarwal, S. S., Rheinheimer, D., and **Kansal, M. L.**, (Nov. 6, 2015). "Issues and Challenges of Hydropower Development in Uttarakhand", *Conference & 8th Power Awards, Council of Power Utilities,* New Delhi, India.
- 241. Kansal, M. L., Kumar, P., Kishore, K. A., (Oct. 2016). "Need of Integrated Flood Risk Management (IFRM) in Bihar", *National conference on Water Resources and Flood Management with special reference to Flood Modelling (WRFM-2016)*, Surat.

- 242. Kansal, M. L., Kishore, K. A., Kumar, P., (Oct. 21-22, 2016). "Flood Impacts and its Management in Bihar", 32<sup>nd</sup> National Convention of Civil Engineers on Role of Civil Engineering in Sustainable Development, Goa.
- 243. **Kansal, M. L.,** Kishore, K. A., Kumar, P., (Dec. 16-18, 2016). "Impact of Flood on Sustainable Development and its Management in Bihar", *31st Indian Engineering Congress*, Kolkata.

## Research Guidance

## Post-doctoral

- 1. David Rheinheimer, 'Hydropower Development in the Himalaya', (2015-16), Under Fulbright Nehru Award, *guided by* **Kansal**, **M L**.
- 2. Shweta Rathi, "Water 4 Change, Integrative and Fit-for-purpose Water Sensitive Design Framework for fast growing livable Cities", *guided by* **Kansal**, **M L**.(2020-21)
- 3. Manish Kumar, "Water 4 Change, Integrative and Fit-for-purpose Water Sensitive Design Framework for fast growing livable Cities", *guided by* **Kansal**, **M L**.(2021-22)
- 4. Suddhasil Bose, "Water 4 Change, Integrative and Fit-for-purpose Water Sensitive Design Framework for fast growing livable Cities", *guided by* **Kansal**, **M** L.(2024-25)

## Ph.D. Guidance

- 1. Arora, G, 'Water Quality Modelling and Monitoring in Distribution Systems' (2004), Delhi University, guided by Kansal, M L.
- 2. Mohd. Fahimuddin, 'Performance Assessment of a Radial Collector Well near a Stream' (2007), IIT Roorkee, guided by Kansal, M L & G C Mishra.
- 3. Muthukrishna Vellaisamy K., 'A Study on Pollutant Transport in a Stream' (2007), IIT Roorkee, guided by G C Mishra, Kansal, M L & N C Ghosh.
- 4. Krishna Pratap Singh, 'Multi-Criteria Decision Making for Optimal Resource Management', (2009), IIT Roorkee, guided by Kusum Deep & Kansal, M L.
- 5. K K Mahanta, 'Irrigation Performance and Water Management Practices in Salt affected Area', (2010), IIT Roorkee guided by Kansal, M L. & G C Mishra
- 6. Bisnoi, Kailash, 'A Study on Design Aspects of Radial Collector Wells", (2016), IIT Roorkee guided by Kansal, M L.
- 7. Chandniha, Surendra Kumar, 'Sustainability Assessment Management of a Watershed", (2016), IIT Roorkee guided by Kansal, M L, and Tyagi, Aditya.
- 8. Dereje Adeba, 'Feasibility Study of Inter-basin Transfer for Sustainable Water Management in Ethiopia", (2016), IIT Roorkee guided by Kansal, M L & Sen Sumit.
- 9. Sharma, Sham Kumar, 'Performance Evaluation and Strategic Planning of Water Supply in Hilly Areas", (2017), IIT Roorkee guided by Kansal, M L and Tyagi, Aditya.
- 10. Shukla, Sandeep, 'Snowpack Estimation and its Impact on River Flow Regime", (2019), IIT Roorkee guided by Kansal, M L & Jain, Sanjay Kumar.
- 11. Sanchit Saran Agarwal, "Sustainable Hydropower Management under Different Risk Scenarios in Uttarakhand (India)", (2021), IIT Roorkee guided by Kansal, M L.
- 12. Bahar Adem, "Performance Evaluation of Urban Water Supply System", (2023), IIT Roorkee guided by Kansal, M L
- 13. Osheen, "Performance Evaluation of an Urban Drainage System", (2024), IIT Roorkee guided by Kansal, M L.
- 14. Sachidanand Singh, "Cloudburst induced Flash floods and landslides assessment in an Indian Himalyan Region", (2024), IIT Roorkee guided by Kansal, M L
- 15. Lingaraj Dhal, "Soil Health Assessment and Management for Improving Productivity", (*Ongoing*), IIT Roorkee guided by Kansal, M L.
- 16. Alka Yadav, "Integrated Framework for the Sustainable Management of a Riverine Wetland", (*On-going*), IIT Roorkee guided by Kansal, M L

- 17. Nguyen Thi Nogoc Bich, "Mangrove Ecosystem Sustainability A Case Study from North Vietnam", (*On-going*), IIT Roorkee guided by Kansal, M L and Nguyen Hai Hoa
- 18. Neenu, "Water quality assessment for river rejuvenation", (*On-going*), IIT Roorkee guided by Kansal, M L
- 19. Saurya Virendra Tyagi, "Reliability based Optimal Model of Hybrid Renewable Energy System for a Remote Hilly Region of Uttarakhand" (On-going), IIT Roorkee guided by M K Singhal & Kansal, M L.
- 20. Adyesha Jena, "Riverfront Development" (On-going), IIT Roorkee guided by Basant Yadav & Kansal, M L.

## M.Tech. Guidance

- 1. Raheja, N, 'Computer Aided Simulation and Optimization of the Water Distribution Network Systems' (1991-92), *guided by* Arun Kumar &**Kansal**, **M** L.
- 2. Sanjay Kumar, 'An Analytic Approach for Reliability Assessment of Water Distribution Networks' (1993-94), *guided by* Arun Kumar &**Kansal**, **M** L.
- 3. Kumari Indu Jaiswal, 'Optimal Design of a Water Distribution Network' (1998-99), guided byKansal, M L& Arun Kumar.
- 4. Rofel Hmar, 'Performance Based Reservoir Operation for Sustainable Management of Water Resources' (2000-2001), guided by Kansal, M L.
- 5. Din Din, 'Optimal Design of Well-Point System for Dewatering', (2001), guided by G C Mishra &Kansal, M L.
- 6. Shyam Bahadur Karki, 'Strategies for Efficient Use of Irrigation Water in Bhairhawa Lumbini Ground Water Irrigation Project, Nepal', (2001), *guided by* Raj Pal Singh &**Kansal, M L**.
- 7. Boun Hom Silimanotham, 'Study to Improve Operation and Maintenance of Nam Huam Irrigation System in Lao PDR', (2001), *guided by* Raj Pal Singh &**Kansal**, **M L**.
- 8. Vivarath Sihabouj, 'A study of Water measuring Devices on Irrigation Channels', (2001), *guided by* Raj Pal Singh &**Kansal**, **M** L.
- 9. Temesgen Abebe, 'An Appropriate Forecasting Technique for Electrical Energy Demand', (2002), *guided by* Devadutta Das &**Kansal**, **M** L.
- 10. Kiswarman, 'Reliability Based Design of Pumping Station for an Urban Water Supply Scheme', (2004), *guided by***Kansal**, **M L** & Gopal Chauhan.
- 11. Dwi Agus Rahsetiyo, 'Optimization of Dewatering and Excavation Cost for Construction of Power Plant', (2004), *guided by* G C Mishra &**Kansal**, **M** L.
- 12. Agustini Ernawati, 'Seepage Losses from a Canal Conveying a Varying Discharge', (2004), *guided by* G C Mishra &**Kansal, M L**.
- 13. Rajnikanta Biswal, 'Inter Basin Water Transfer and Water Balance Study of Mahanadi Basin at Manibhadra', (2004), guided by Nayan Sharma &Kansal, M L.
- 14. Jeebachh Mandal, 'Reliability Evaluation of a Hydropower Station', (2004), *guided by* Devadutta Das &**Kansal, M L**.
- 15. Anggara Wiyono Wit Saputra, 'Use of Fuzzy Logics for Reservoir Operation Policy', (2005), guided by Kansal, M L.
- 16. Heru Setiadi, 'Simulation Based Performance Evaluation of an Urban Water Distribution Network', (2005), *guided by***Kansal**, **ML**.
- 17. Roy P Perdede, 'Design of Water Distribution Network using Non Linear Programming', (2005), *guided by***Kansal, M L**& Kusum Deep.
- 18. Yakob Tamu Ama Lay, 'Computer Aided Design of Aggregate Production for a Concrete Plant', (2005), *guided by* Gopal Chauhan &**Kansal**, **M L**.
- 19. Sinha, Amit Kumar, 'EIA as applied to Water Resources Projects', (2006), *guided by***Kansal, M L**& Aman Sharma.
- 20. Long, V T, 'Hydrologic and Hydraulic Design of Bridges', (2006), guided by**Kansal, M L**& G C Mishra.

- 21. Eko Murwanto, 'Hydrological Analysis for a Multi-Purpose Water Resources Project A Case Study', (2007), *guided by***Kansal, M L**.
- 22. Hasbi Assidiqi, 'Optimal Scheduling of Activities in a Construction Project', (2007), guided by Kansal, M L.
- 23. Joni Rahalsyah Putra, 'Urban Drainage Planning of Palembang City A Case Study', (2007), *guided by* S K Mishra and **Kansal, M L.**
- 24. Fery Moun Hepy sbi Assidiqi, 'Determination of Critical Velocity for Slurry Transport in Pipeline', (2008), guided by Kansal, M L, and Z. Ahmad.
- 25. Issac L Ralte, 'Design of Water Treatment Plant for a Hilly Terrain', (2008), guided by Kansal, M L.
- 26. I Nyoman Suwarno, 'Agricultural Risk Management', (2008), guided by Kansal, M L.
- 27. Mohd. Elfaitih Khalil Yousif, 'Design & Operation of a Pumping Station for a Water Supply System', (2008), *guided by* Gopal Chauhan, and **Kansal**, **M L**.
- 28. Dwi Asika Sari, 'Slurry Transport in a Pipe line', (2009), guided by Kansal, M L, and Z. Ahmad.
- 29. Recardo C Olarte, 'Optimal Operation of Pumps for Urban Water Distribution Systems', (2009), *guided by***Kansal, M L**.
- 30. Bayu Kusuma, 'Performance Evaluation of a Collector well using MODFLOW', (2009-10), guided *by*Kansal, M L.
- 31. Jefry Luna, 'Basin Study for Environmental Flow Assessment in Hydropower Development', (2009-10), guided by Kansal, M L, and Devadutta Das.
- 32. Bal Krishna, 'Long term Wave Forecasting Using ANN', (2010-11), guided byKansal, M L., and Agarwal, J D.
- 33. Navavi, Achmad, 'Hydropower and Flood Year Prediction Using Grey Models', (2010-11), *guided by* **Kansal, M L**, and Devadutta Das.
- 34. Kuji, Murtiningrum, 'Downscaling of Climate Variables using Support Vector Machine', (2010-11), guided by **Kansal**, **M L**, and S K Jain.
- 35. Dorje, Tandin, 'Distribution Network in Urban Water Supply', (2010-11), guided by Kansal, M L
- 36. Gupta, Nitin, 'Long Term Electricity Demand Forecasting for Uttarakhand', (2010-11), *guided by* **Kansal, M L**, and Devadutta Das.
- 37. Eka Prasetyawati, 'Assessment of Rice Production under Changing Climatic Conditions of Karawang (Indonesia)', (2011-12), guided by Kansal, M L, and S K Jain.
- 38. Sanchit Agarwal, 'Performance Evaluation of Power System Components using Fault Tree Analysis', (2011-12), guided by Kansal, M L, and C Thangaraj.
- 39. Rajat Samuel, 'Sustainable Development Contribution Assessment of CDM based Renewable Energy Projects, (2011-12), *guided by* **Kansal**, **M L**
- 40. Kebebe, Mengistu 'Optimization of Construction Equipment Selection for Earth Moving Operations', (2011-12), *guided by* **Kansal**, **M L**, and Gopal Chauhan.
- 41. Derese Admasu Tessema, 'Estimation of Hydrulic Roughness Parameters for Boulder Streams', (2012-13), *guided by* **Kansal**, **M** L, and Z. Ahmed.
- 42. Mulenga, Musonda, 'A Study on Environmental Flow Estimation for a Casacade Type Hydropower Development', (2012-13), *guided by* **Kansal**, **M** L and Sharma, Aman.
- 43. Stuti Gupta, 'Reliability Assessment of a Power System A Case Study of IIT Roorkee Campus', (2013-14), *guided by* **Kansal, M L.**
- 44. Navin Kumar Jha, 'Computer Aided Design of a Penstock', (2013-14), guided by Kansal, M L.
- 45. Ivor Joseph Ndimbe, 'Assessment of Customers' Satisfaction for Water Supply in Few Cities of Tanzania', (2013-14), *guided by* **Kansal, M L.**
- 46. Gunjuluri Anvesh, 'Assessment of Green House Gas Emissions from Storage Based Hydropower Schemes', (2013-14), *guided by* Gurjar, B R, and **Kansal**, M L.
- 47. Nitu Singh, 'Drinking Water Sustainability Assessment for an Indian Metropolitan City A Case Study of Delhi", (2013-15), *guided by* **Kansal, M L.**
- 48. Hemant Joshi, 'Sustainability Assessment of Rural Water Supply Schemes in Uttarakhand', (2014-15), *guided by* **Kansal**, **M L** and Khare, Deepak.

- 49. Patrick, N, Y, 'Assessment of Urban Water Quality Service A Case Study of Cape Town in Ghana", (2014-15), guided by Kansal, M L.
- 50. Manan, Ulhas, 'Energy Extraction from Wastes in High Rise Buildings', (2014-15), guided by Kansal, M L.
- 51. Sethi, Suhash, 'Travelling Salesman Problem Solution using Ant Colony Optimization Technique', (2014-15), guided by Kansal, M L.
- 52. Thakur, Avinash, 'Flood Risk Analysis and Mapping for a Himalayan River', (2015-16), *guided by* **Kansal, M L.**
- 53. Benny, Komba, 'River Water Quality Index Assessment A Case Study", (2015-16), guided by Kansal, M L.
- 54. Mehga, Salve, 'Drought Assessment using SPI in Marathwada Region of India", (2015-16), *guided by* **Kansal, M L** and Chaube, U C.
- 55. Kumar, Prashant, 'Flood Hotspot Identification and Mitigation A Case Study of Bihar', (2016-17), *guided by* **Kansal, M L.**
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