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[A] EDUCATIONAL QUALIFICATION

1. B.E. (Civil Engineering) 2005, Nagpur University
2. M.Tech. (Water Resources Development & Irrigation Engineering) 2008, NIT Raipur
3. PhD (Water Resources) December 2016, NIT Raipur

[PhD Title: Integrated River Basin Planning & Management: Sheonath Basin in Chhattisgarh State]

[B] PROFESSIONAL EXPERIENCE

S. No.	Organization	Designation	Duration	
			From	To
1.	National Institute of Technology, Raipur Govt. of India	Associate Professor	12-07-2025	Till date
2.	National Institute of Technology, Raipur Govt. of India	Assistant Professor Grade I in Civil Engineering	09-07-2021	11-07-2025
3.	National Institute of Technology, Raipur Govt. of India	Assistant Professor Grade II in Civil Engineering	01-05-2013	08-07-2021
4.	Government Polytechnic Hamirpur, Technical Education Department, Government of Uttar Pradesh, India	Lecturer Civil Engineering	19-11-2011	31-04-2013
5.	National Institute of Technology, Raipur Govt. of India	Lecturer Civil Engineering	14-07-2011	18-11-2011
6.	Institute of Tech., Guru Ghasidas Central University, Bilaspur Govt. of India	Assistant Professor in Civil Engineering	17-07-2010	24-05-2011
7.		Lecturer Civil Engineering	11-08-2009	30-06-2010
8.	National Institute of Technology, Raipur Govt. of India	Lecturer Civil Engineering	29-01-2009	25-05-2009
9.		Lecturer Civil Engineering	27-07-2008	20-01-2009
10.		Lecturer in Civil (PTDC)	July 2008	Dec. 2009
11.	Continuing Education Cell NIT Raipur Govt. of India	Facilitator AutoCAD course	From 2007 till date	
		Facilitator ArcGIS course	From 2018 till date	

[C] ADMINISTRATIVE RESPONSIBILITY

1. Associate Dean (Corporate Relations & Resource Mobilization), NIT Raipur (August 2025 to till date)
2. Institute QIP Coordinator, AICTE Quality Improvement, NIT Raipur (March 2023 to till date)
3. Professor In-charge, Estate Office (Civil), NIT Raipur (September 202 to December 2025)
4. Chairman, Institute Furniture Purchase Committee, NIT Raipur (January 2024 to March 2025)
5. Professor In-charge, Water Resources Lab, Dept. of Civil Engg., NIT Raipur (2015 to till date)
6. Member State Dam Safety Committee, Govt. of Chhattisgarh

[D] RESEARCH & DEVELOPMENT PROJECT:

S. No.	Name of the R&D Project	Funding Agency	Funding Amount	Status
1.	Condition Assessment and Management Plan for Mahanadi River Basin	National River Conservation Directorate, Ministry of Jal Shakti, Department of Water Resources, River Development & Ganga Rejuvenation, Government of India	627 Lacs	Ongoing
2.	To prepare the state specific action plan for water sector with respect to the climate change for the Chhattisgarh state	NERIWALM, National Water Mission Govt of India	30 Lacs	Ongoing
3.	Development of sustainable to support sanitation and ODF programming including operational and maintenance infrastructure for water supply system in Niyad Nillanar villages of Chhattisgarh state	UNICEF Chhattisgarh	33.275 Lacs	Completed
4.	Developing a sustainable strategy for programme monitoring, institutional strengthening, and capacity building for climate resilient and energy efficient initiatives in rural areas of Chhattisgarh state	UNICEF Chhattisgarh	53.471 Lacs	Completed
5.	Climate Adaptation in Wetlands along Mahanadi River Catchment Area in Chhattisgarh, Chhattisgarh State Centre for Climate Change	Chhattisgarh State Centre for Climate Change	12.6 Lacs	Completed

[E] PATENT

S. No.	Title	Status	Patent No.	Date of Publication/granted	Remark
1.	A system and method for the management of irrigation water	Granted	579597	30/01/2026	Invention Patent
2.	Low-cost multi-layer water filter for drinking water in rural areas	Published	202411058491A	23/08/2024	---

[E] CONSULTANCY PROJECT:

1. Assessment of health of bund of Maroda II reservoir Bhilai Steel Plant for longevity of the bund – Bhilai Chhattisgarh; Water Management Department, Bhilai Steel Plant, Bhilai Chhattisgarh (in progress)
2. Technical Vetting of Structural Design and Drawings – Umri Nagar Panchayat Water Supply Scheme, District – Jalaun, Uttar Pradesh; Engineer's Group of India, Prayagraj
3. Design of Flood Management System And Additional Cross-Drainage Facilities On Durg-Raipur- Arang Bypass Section of Nh-53; Project Director, NHAI, Project Implementation Unit, Raipur
4. लमती फीडर जलाशय परियोजना के अंतर्गत लमती पिकअप वीयर का डिज़ाइन और ड्राइंग अनुमोदन: जिला- खैरागढ़-छुईखदान-गण्डई; कार्यपालन अभियंता, जल संसाधन विभाग-छुईखदान, जिला- खैरागढ़-छुईखदान-गण्डई, छत्तीसगढ़
5. Site visit for Report on "कुसुमी आवर्धन जल प्रदाय अंतर्गत गलफुल्ला नदी के अपस्ट्रीम में 02 नग आरसीसी जैकवेल एवं 6 मी. आंतरिक व्यास का आरसीसी इंटरकनेक्ट का तकनीकी परीक्षण बाबत"; O/o Executive Engineer, Public Health Engineering Dept., Near Pani Tank, Dahejwar, Balrampur (Completed)
6. Feasibility Report on "सुपेबेड़ा समूह जलप्रदाय योजना हेतु विशेषतः निर्मित डायफामवाल की आपकी तकनीकी विशेषज्ञ टीम द्वारा तकनीकी जाँच करने बाबत"; कार्यपालन अभियंता, लोक स्वास्थ्य यांत्रिकी खण्ड, गरियाबंद (छ.ग.)
7. Quality assessment of drainage system and building works of JNV, for the sites situated at Ratlam (M.P.) and Fazilka (Punjab). (Assessment Frequency 30%, 60%, 90% and 100%, work completion stages); Project Manager Construction & Design Services, Uttar Pradesh Jal Nigam (U.P. Govt. Undertaking)
8. Flow Measurement at Khoko Talab Raipur; Ingenious Techno Services Private Limited
9. Design of embankment along Bihar River for protection of Mining area and River, along with flowsimulation model, at Bigodi limestone mine, dt. Satna, Madhya Pradesh. RCCPL Private Limited
10. Design of embankment along Satna River for protection of Mining area and River, along with flowsimulation model, at Itoura limestone mine, dt. Satna, Madhya Pradesh. RCCPL Private Limited
11. Feasibility study on improvement of dams and barrage safety measures under Mahanadi Project in Chhattisgarh State. Chhattisgarh Water Resources Department.
12. Planning and Designing for Rain Water Harvesting System in the Industry, HIRA Power & Steel Ltd., Unit II Urla Industrial Complex Raipur
13. Diversion of Jamun Jharia nala outside South Pit to avoid surface Inundation into mine in future by engaging NIT-Raipur as a scientific Agency(Consultant) for design preparation, specification and route survey of proposed diversion channel through scientific study", Talaipalli Coal Mining Project, NTPC Ltd.
14. Assessment of adequacy of Garland Drains of the Mine to cater the drainage requirement considering rainfall and topography of the area and Design of Retaining wall for Aridongri Iron ore Mines (Lease Area:138.96 Ha) located in Village – Kachche, Tehsil Bahnupratapur, District: Uttar Bastar (Kanker) in Chhattisgarh State".
15. Flood problem of Power Grid Corporation of India Limited (PGCIL) site Taga village, Janjgir-Bilaspur, Chhattisgarh. Godawari Power & Ispat Limited, HIRA Group of Industries, Raipur
16. Assessment of water usage for proposed aluminum extrusion and anodizing and color coating plant at Village-Borsi, Tehsil-Berla, Dist.- Bemetara (C.G.), Global Metal & Alloys, Chhattisgarh.
17. Appraisal of DPR for water supply scheme of ULB Narayanpur Town Chhattisgarh.
18. Structural/hydraulic nature of sump well & intake well, Raipur Constructions, Raipur.
19. Water quality survey for lake restoration in Budha talab Raipur & Tarbahar talab at Bilaspur, Chhattisgarh. State Urban Development Agency

[F] ACADEMIC ACCOMPLISHMENT

CONTINUING EDUCATION:

Course coordinator and Facilitator at Continuing Education Cell (CEC), NIT Raipur for Certificate Courses on:

1. **ArcGIS**
2. **AutoCAD**

LABORATORY DEVELOPED: WRE Advanced Computational Lab.

REVIEWER:

1. **Journal of Water Resources Management (Publisher Springer; SCI Indexed)**
2. **National Academy Science Letters (Publisher Springer; SCI Indexed)**
3. **Arabian journal of geosciences (Publisher Springer; SCI Indexed)**
4. **Iranian Journal of Science and Technology, Transactions of Civil Engineering (Publisher Springer; SCI Indexed)**
5. **Sustainable Water Resources Management (Publisher Springer; SCI Indexed)**

MEMBER OF PROFESSIONAL BODIES: 07 Nos

RESEARCH GUIDANCE:

1. **PhD Guidance** : 04-Awarded; 02-Submitted; 04-Undergoing
2. **M. Tech.** : 22 Completed; 2 Undergoing

AWARDS/ACHIEVEMENTS

1. **Chhattisgarh Young Scientist Award 2009** in Engineering and Science Discipline, 7th Young Scientists' Congress-2009, 28th Feb. & 1st March, 2009, organized by Indira Gandhi Krishi Vishwavidyalaya, Raipur and Sponsored by Chhattisgarh Council of Science and Technology, (CCOST), Raipur, India
2. **Best Paper Award** at **2015** 2nd International Conference on Geological and Civil Engineering 10-11 January 2015, organized by CBEES, Hong Kong.
3. Aqua Foundation's Excellence Award **2021** -**Academic Excellence Award 2021**

PUBLICATIONS:

Journals

1. A.K. Shukla, I. Ahmad, S.K. Jain, M.K. Verma (2024) Enhancing Model Calibration and Uncertainty Estimation through Multi-Objective Optimization with SUFI-2 Algorithm, DOI: [10.3808/jeil.202400130](https://doi.org/10.3808/jeil.202400130)
2. Vaibhav P. Deshpande, Ishtiyag Ahmad & C. K. Singh (2024) Sustainable Groundwater Management Through Micro Irrigation: A Critical Review on Challenges and Solutions, DOI: <https://doi.org/10.2478/jlecol-2024-0002>
3. Ramgopal Tilakram Sahu, Shashikant Verma, Mani Kant Verma & Ishtiyag Ahmad (2023) Characterizing spatiotemporal properties of precipitation in the middle Mahanadi subdivision, India during 1901–2017, DOI: <https://doi.org/10.1007/s11600-023-01085-6>
4. Arvind Kumar Swarnkar, Samir Bajpai, Ishtiyag Ahmad (2023) Study on the performance of wetlands and impact on water quality in a densely populated urban area in Amanaka, Raipur, Chhattisgarh, India, DOI: [10.22104/AET.2023.6442.1760](https://doi.org/10.22104/AET.2023.6442.1760)
5. Swarnakar A.K., Bajpai, Samir, Ahmad, Ishtiyag Ahmad (2023) Performance Evaluation of Different Soil Media by Batch-Operated Pilot-Scale Horizontal Subsurface Flow Constructed Wetlands for Wastewater Treatment, DOI: <https://doi.org/10.22059/POLL.2023.357480.1855>
6. Ramgopal T. Sahu, Mani Kant Verma & Ishtiyag Ahmad (2023) Impact of Long-Distance Interaction Indicator (Monsoon Indices) on Spatio-Temporal Variability of Precipitation Over the Mahanadi River Basin, DOI: <https://doi.org/10.1029/2022WR033805>
7. Sandeep Soni, Champat Lal Dewangan, Ishtiyag Ahmad, Himangshu Sarkar and Vivek Verma (2023) Application of geospatial technique and hydrological modelling in evaluating reservoir sedimentation in Chhattisgarh state of India, DOI: <https://doi.org/10.1080/09715010.2023.2236985>
8. Ramgopal T. Sahu, Mani Kant Verma & Ishtiyag Ahmad (2023) Density-based spatial clustering of application with noise approach for regionalisation and its effect on hierarchical clustering, DOI: [10.1504/IJHST.2023.133143](https://doi.org/10.1504/IJHST.2023.133143)
9. Ramgopal T. Sahu, Mani Kant Verma & Ishtiyag Ahmad (2023) Density-based spatial clustering of application with noise approach for regionalisation and its effect on hierarchical clustering, DOI: [10.1504/IJHST.2023.133143](https://doi.org/10.1504/IJHST.2023.133143)
10. Pooja Patle, P.K. Singh, Ishtiyag Ahmad, Yutaka Matsuno, Mansoor Leh, Surajit Ghosh (2023) Spatio-temporal estimation of green and blue water consumptions and water and land productivity using satellite remote sensing datasets and WA+ framework: A case study of the Mahi Basin, India, Agricultural Water Management, Volume 277, ISSN 0378-3774. DOI: <https://doi.org/10.1016/j.agwat.2022.108097> (SCOPUS/SCI Indexed)
11. Ramgopal T. Sahu, Mani Kant Verma & Ishtiyag Ahmad (2022) Some non-uniformity patterns spread over the lower Mahanadi River Basin, India, Geocarto International, 37:25, 8792-8814, DOI: [10.1080/10106049.2021.2005699](https://doi.org/10.1080/10106049.2021.2005699) (SCI Indexed)
12. Ramgopal T. Sahu, Mani Kant Verma & Ishtiyag Ahmad (2022) Segmental variability of precipitation in the Mahanadi river basin from 1901 to 2017, Geocarto International, DOI: [10.1080/10106049.2022.2091163](https://doi.org/10.1080/10106049.2022.2091163) (SCI Indexed)
13. Prasad AD, Ahmad I. Groundwater vulnerability assessment using SINTACS model and GIS: A case study in Raipur city. In IOP Conference Series: Earth and Environmental Science 2022 Mar 1 (Vol. 982 No. 1, p. 012070). IOP Publishing. DOI: [10.1088/1755-1315/982/1/012070](https://doi.org/10.1088/1755-1315/982/1/012070) (SCOPUS Indexed)
14. Ramgopal T. Sahu, Mani Kant Verma & Ishtiyag Ahmad (2021) Some non-uniformity patterns spread over the lower Mahanadi River Basin, India, Geocarto International, DOI: [10.1080/10106049.2021.2005699](https://doi.org/10.1080/10106049.2021.2005699) (SCI/SCOPUS Indexed)
15. Dhanendra Bahekar, Ishtiyag Ahmad, A.D. Prasad (2021) Estimation of River Discharge from Satellite Observations. Turkish Journal of Computer and Mathematics Education. DOI: <https://doi.org/10.17762/turcomat.v12i4.603> (SCOPUS Indexed)

16. Shrivastava P, Verma MK, Murmu M, Ahmad I. Life cycle assessment modelling for a developing city's water system. InIOP Conference Series: Materials Science and Engineering 2020 Mar 1 (Vol. 814, No. 1, p. 012029). IOP Publishing. DOI:10.1088/1757-899X/814/1/012029 (SCOPUS Indexed).
17. Sarkar H, Soni S, Ahmad I, Verma MK. Assessment of Agricultural Drought in Upper Seonath Sub-Basin of Chhattisgarh (India) Using Remote Sensing and GIS-Based Indices. *Journal of the Indian Society of Remote Sensing*. 2020 Jun;48(6):921-33. DOI: 10.1007/s12524-020-01124-5 (SCI/SCOPUS Indexed).
18. Shrivastava P, Verma M.K, Murmu M, Ahmad I (2019) Applicability of the analytical hierarchy process (AHP) in decision making for integrated urban water system in a city. *International Journal of Recent Technology and Engineering*. DOI 10.35940/ijrte.B1945.078219
19. Ahmad, I., Verma, M.K. Application of Analytic Hierarchy Process in Water Resources Planning: A GIS Based Approach in the Identification of Suitable Site for Water Storage (2018) *Water Resources Management*, 32 (15), pp. 5093-5114. DOI: 10.1007/s11269-018-2135-x (SCI/SCOPUS Indexed).
20. Sinha, M.K., Verma, M.K., Ahmad, I., Baier, K., Jha, R., Azzam, R. Assessment of groundwater vulnerability using modified DRASTIC model in Kharun Basin, Chhattisgarh, India (2016) *Arabian Journal of Geosciences*, 9 (2), art. no. 98, pp. 1-22. DOI: 10.1007/s12517-015-2180-1 (SCI/SCOPUS Indexed).
21. Shrivastava, P., Verma, M.K., Murmu, M., Ahmad, I. Applicability of the analytical hierarchy process (AHP) in decision making for integrated urban water system in a city (2019) *International Journal of Recent Technology and Engineering*, 8 (2), pp. 1317-1322. DOI: 10.35940/ijrte.B1945.078219 (SCOPUS indexed).
22. Ahmad, I., Verma, M.K. Site suitability mapping for water storage structures using remote sensing & GIS for Sheonath basin in Chhattisgarh state. (2016) *International Journal of Applied Engineering Research*, 11 (6), pp. 4155-4160 (Scopus Indexed).
23. Shrivastava, P., Sarkar, H., Verma, M.K., Ahmad, I. Next generation software tool for sustainable urban water modelling : Aquacycle (2016) *International Journal of Control Theory and Applications*, 9 (21), pp. 19-24. (Scopus Indexed).
24. Ahmad, I., Verma, M.K. Application of RS & GIS in estimation of sub-basin runoff potential using HEC-HMS (2015) *International Journal of Applied Engineering Research*, 10 (20), pp. 41243-41248. (Scopus Indexed).
25. Ahmad, I., Verma, M.K. GIS based analytic hierarchy process in determination of suitable site for water storage (2017) *European Water Special Issue: "10th World Congress on Water Resources and Environment"* (EWRA2017 Issue IV) 139-146.
26. Ishtiyag Ahmad and M.K. Verma, "Surface Runoff Estimation using Remote Sensing & GIS based Curve number Method", *International Journal of Advanced Engineering Research and Sciences (IJAERS)* ISSN 2349-6495, Vol 3, Issue 2, 2016, pp 73-78.
27. V.Verma & I. Ahmad "DEM Development using Geographic Information System for Topographic Assessment", *Journal of Water Resource Engineering and Management* ISSN: 2349-4336 (online) Volume 1, Issue 3, 2014.
28. Jainendra Vishwakarma, M.K. Verma & Ishtiyag Ahmad, "Application of Remote Sensing and GIS in Groundwater Prospect Mapping", *International Journal of Engineering Research & Technology (IJERT)* ISSN: 2278-0181, Volume 03, Issue 10, October - 2014.
29. Vivek Verma & Ishtiyag Ahmad, "Application of GIS in Developing Digital Elevation Model", *International Journal of Scientific Research & Progress (IJSRP)* ISSN: 2349-4689 (online) Volume 05, Number 01, 2014.
30. S. Bharrari, I. Ahmad & M. K. Verma, "Application of Remote Sensing & GIS in Flood Plain Mapping", *Paras Conference Proceedings; International Journal of Advanced and Innovative Research* (ISSN No. 2278-7844) / # 13 / Volume 3 Conference Issue 1, May 2014.
31. T. Baghel, I. Ahmad & M. K. Verma, "Role of Remote Sensing & GIS in the Environmental Protection", *Paras Conference Proceedings; International Journal of Advanced and Innovative Research* (ISSN No. 2278-7844) / # 13 / Volume 3 Conference Issue 1, May 2014.

32. S. Swain, I. Ahmad & M. K. Verma, "Impact of Climate Variability over Mahanadi River Basin", Paras Conference Proceedings; International Journal of Advanced and Innovative Research (ISSN No. 2278-7844) / # 13 / Volume 3 Conference Issue 1, May 2014.
33. I.Ahmad, M. K. Verma, "Application of USLE Model & GIS in Estimation of Soil Erosion for Tandula Reservoir", International Journal of Emerging Technology and Advanced Engineering", Vol. 3, Issue 4, April 2013, ISSN No. 2250 -2459 (Online).
34. I.Ahmad, S. Nayak, M. K. Verma & R. K. Tripathi, "Application of Fuzzy Logic Based Inflow Forecasting Model For Murumsilli Reservoir", Journal of Applied Hydrology, Issue XXIV – No.1&2, Jan. & Apr. 2011.
35. I. Ahmad, S. Nayak, M.K. Verma & R.K. Triapthi, "Fuzzy Logic Approach in Developing Rainfall-Runoff Model for Dudhawa Reservoir", Journal of Indian Water Works Association, Vol. XXXXI No.1, January-March 2009, ISSN No. 0970-275X.
36. I. Ahmad, S. Nayak, M.K. Verma & R.K. Triapthi, "Application of Fuzzy Logic in Rainfall- Runoff Modeling for Ravishankar Sagar Reservoir", CSVTU Research Journal, Vol.2, No.1, January 2009, Page 12-16, ISSN No. 0974-8725.
37. Preeti Rajput, Manish Kumar Sinha, M.K. Verma and I. Ahmad, "Drought Hazard Assessment and Mapping in Upper Seonath Sub-Basin using GIS", International Journal of Emerging Technology and Advanced Engineering", Vol. 4, Issue 10, October2014, ISSN No. 2250 -2459 (Online).

Book Chapter:

1. Md. Masood Zafar Ansari, Ishtiyah Ahmad, Pushpendra Kumar Singh, SaeidEslamian (2023). Hydrological modeling of Hasdeo River Basin using HEC-HMS. Handbook of Hydroinformatics Volume III: Water Data Management Best Practices, Pages 33-57, Elsevier. <https://doi.org/10.1016/B978-0-12-821962-1.00020-9>
2. Sahu, R.T., Verma, M.K., Ahmad, I. (2023). Interpreting Different Timeslot Precipitation Characteristics in the Seonath River Basin, Chhattisgarh During 1901–2017. In: Reddy, K.R., Kalia, S., Tangellapalli, S., Prakash, D. (eds) Recent Advances in Sustainable Environment. Lecture Notes in Civil Engineering, vol 285. Springer, Singapore. https://doi.org/10.1007/978-981-19-5077-3_3
3. Sahu, I., Prasad, A.D., Ahmad, I. (2022). Integrated Tool for Morphometric Analysis Using QGIS. In: Jha, R., Singh, V.P., Singh, V., Roy, L., Thendiyath, R. (eds) River and Coastal Engineering. Water Science and Technology Library, vol 117. Springer, Cham. https://doi.org/10.1007/978-3-031-05057-2_9
4. Singh C.K., Lanjewar D., Ahmad I., Katpatal Y.B. (2022) Assessment of Interbasin Water Transfer Using Geoinformatics Approach: A Case Study of Shivnath Basin, India. In: Laishram B., Tawalare A. (eds) Recent Advancements in Civil Engineering. Lecture Notes in Civil Engineering, vol 172. Springer, Singapore. https://doi.org/10.1007/978-981-16-4396-5_81
5. Gouraha S., Ahmad I. (2022) Hydrological Parameter Estimation for Water Balance Study Using SWAT Model. In: Kumar P., Nigam G.K., Sinha M.K., Singh A. (eds) Water Resources Management and Sustainability. Advances in Geographical and Environmental Sciences. Springer, Singapore. https://doi.org/10.1007/978-981-16-6573-8_12
6. Tikariha Y.K., Ahmad I. (2022) Estimation and Management of Irrigation Water Using WEAP Model in Tandula Reservoir Command Area. In: Jha R., Singh V.P., Singh V., Roy L.B., Thendiyath R. (eds) Hydrological Modeling. Water Science and Technology Library, vol 109. Springer, Cham. https://doi.org/10.1007/978-3-030-81358-1_32
7. Vinze P., Ahmad I. (2022) Identification of Suitable Sites for Water Storage Structure in Andhiyarkore Watershed of Chhattisgarh State India. In: Jha R., Singh V.P., Singh V., Roy L.B., Thendiyath R. (eds) Hydrological Modeling. Water Science and Technology Library, vol 109. Springer, Cham. https://doi.org/10.1007/978-3-030-81358-1_10
8. Gouraha S., Ahmad I. (2022) Hydrological Parameter Estimation for Water Balance Study Using SWAT Model. In: Kumar P., Nigam G.K., Sinha M.K., Singh A. (eds) Water Resources Management and

Sustainability. *Advances in Geographical and Environmental Sciences*. Springer, Singapore. https://doi.org/10.1007/978-981-16-6573-8_12.

9. Baghel T., Sinha M.K., Ahmad I., Verma M.K. (2021) A Coupled Hydrological and Hydrodynamic Model for Flood Mitigation. In: Pande C.B., Moharir K.N. (eds) *Groundwater Resources Development and Planning in the Semi-Arid Region*. Springer, https://doi.org/10.1007/978-3-030-68124-1_24
10. Bohidar A.K., Ahmad I. (2021) Development of Conceptual Model and Groundwater Flow Modeling Using GMS Software: A Case Study for Dharsiwa Block, Chhattisgarh, India. In: Pande C.B., Moharir K.N. (eds) *Groundwater Resources Development and Planning in the Semi-Arid Region*. Springer, https://doi.org/10.1007/978-3-030-68124-1_8
11. Sahu R.T., Verma M.K., Ahmad I. (2021) Regional Frequency Analysis Using L-Moment Methodology—A Review. In: Pathak K.K., Bandara J.M.S.J., Agrawal R. (eds) *Recent Trends in Civil Engineering. Lecture Notes in Civil Engineering*, vol 77. Springer, Singapore. https://doi.org/10.1007/978-981-15-5195-6_60
12. Ahmad I., Verma M.K. Integrated Planning and Management of Water Resources in Sheonath River Basin of Chhattisgarh state India, *Environmental Management*, *Water Science and Technology Library* book series, [ISSN: 0921-092X], Springer International Publishing. DOI: 10.1007/978-3-030-38152-3_22
13. Dewangan, C.L., Ahmad, I. Assessment of Reservoir Sedimentation and Identification of Critical Soil Erosion Zone in Kodar Reservoir Watershed of Chhattisgarh State, India (2020) *Lecture Notes in Civil Engineering*, 33, pp. 203-214. Springer International Publishing, DOI: 10.1007/978-981-13-7067-0_16
14. P. Shrivastava, Verma M.K, Murmu M., Ahmad I. Performance Index Modeling for Urban Water System Using Hierarchical Fuzzy Inference Approach, *Advances in Communication, Devices and Networking, Lecture Notes in Electrical Engineering*, Springer International Publishing, DOI: 978-981-15-4932-8_19

Conference –International

1. Pooja Patle, I. Ahmad et.al, “Assessment of Water Consumption Pattern & Agricultural Production using Water accounting Plus (WA+) Framework: A case study of Mahi River basin”, *EGU General Assembly 2023, Vienna, Austria & Online | 23–28 April 2023*.
2. Sandeep Soni, I. Ahmad, “Implications of inter-basin water transfer on the water quality of mixed streams from the Indravati Basin to the Mahanadi Reservoir Project (MRP) Complex in the Chhattisgarh State of India”, *ICES 2023, International Conference and Exhibition for Science, King Saud University, Riyadh, Saudi Arabia, 6-8 February 2023*.
3. Gopal Prasad Patel, I. Ahmad, Samir Bajpai, “Environmental Effects of River Sand Mining: A study on the Mahanadi River Basin of Mahasamund District, Chhattisgarh, India”, *1st International Conference on “Advances in Water Treatment and Management (ICAWTM-22)”, Pandit Deendayal Energy University, Gandhinagar, Gujarat, INDIA, 25th-26th March, 2022*.
4. Anshuman Samal, Surjeet Singh, I. Ahmad, “Simulation of leaching process of Heavy metals in the vadose zone under wastewater application”, *HYDRO 2020, INTERNATIONAL CONFERENCE, NIT Rourkela, 26-28 March, 2021*.
5. Devesh L, Chandan K.S., I Ahmad, “Feasibility Assessment of Inter Water Basin Transfer Using Geospatial Approach: A Case Study of Shivnath Basin, India”, *AGU Fall Meeting, 13th December 2019, San Francisco California, USA*
6. C L Dewangan & I Ahmad “Assessment of reservoir sedimentation using LANDSAT imagery & HEC-HMS model in Kodar reservoir watershed of Chhattisgarh State, India”, *Proceedings of the 11th World Congress on Water Resources and Environment (EWRA 2019) “Managing Water Resources for a Sustainable Future” Madrid, Spain, 25-29 June 2019*.
7. I Ahmad & M. K. Verma “GIS based analytic hierarchy process in determination of suitable site for water storage Application”, *Proceedings of the 10th World Congress of EWRA, Panta Rhei on Water Resources and Environment, 5-9 July 2017, Athens, Greece. Pp 753-760*.

8. Parul Vinze, I. Ahmad & M. Murmu, "Identification of Suitable Sites for Water Storage Structure in Andhiyarkore Watershed Chhattisgarh", [HYDRO-2018-INTERNATIONAL, NIT Patna, 19-21 December 2018](#).
9. Yashvant Tikariha & I. Ahmad, "Estimation of irrigation water using WEAP model in Tandula command area", [HYDRO-2018-INTERNATIONAL, NIT Patna, 19-21 December 2018](#).
10. I. Ahmad, A. Patel, M.K. Verma & R.K. Tripathi, "Fuzzy Logic Based Inflow Prediction Model For Reservoirs of Mahanadi Basin", International Conference on Emerging Trends in Soft Computing and ICT (SCICT 2011), March 16-17, 2011, GGV Bilaspur, Page No. 95-98, ISBN No. 978-81-920913-3-4.
11. I. Ahmad & M. K. Verma, "Digital Elevation Model Preparation for Topographic Assessment in GIS Environment", Shaastrarth-2014, An International Conference on Advanced Research Applications in Engineering and Technology, 23-24 March 2014, Rungta Group of Institutions, Bhilai-Raipur, Chhattisgarh, India.
12. S. Swain, I. Ahmad & M. K. Verma, "A Study of Climate Changes over Krishna River Basin", Shaastrarth-2014, An International Conference on Advanced Research Applications in Engineering and Technology, 23-24 March 2014, Rungta Group of Institutions, Bhilai-Raipur, Chhattisgarh, India.
13. I. Ahmad, V. Verma, M. K. Verma "Estimation of Runoff Potential using SCS-CN Method with Remote Sensing and GIS" 19th International Conference on Hydraulics, Water resources & Environmental Engineering., [HYDRO 2014 International](#), (Dec. 18-20th, 2014) Organized by Maulana Azad National Institute of Technology, Bhopal India, ISBN: 978-93-84935-04-7.
14. I. Ahmad, V. Verma, M. K. Verma "Application of Curve Number Method for Estimation of Runoff Potential in GIS Environment", 2015 2nd International Conference on Geological and Civil Engineering IPCBEE vol. 80 (2015), IACSIT Press, Singapore.

Conference –National

1. Dhanendra Bahekar, I. Ahmad & A.D. Prasad "A review of Methodologies to estimate river discharge from satellite observations", National Conference on New Horizons in Civil Engineering to Combat Current Challenges BITCON 2020, 20th November 2020, Department of Civil Engineering, BIT Durg.
2. I. Ahmad & M. K. Verma "Application of Remote Sensing & GIS in Developing Rainfall Runoff Model", National Conference on Research And Innovation In Engineering And Technology (RIET-2015), 6-7 November, 2015, SRMS College of Engineering & Technology, Unnao.
3. I. Ahmad & M. K. Verma "Performance Evaluation of Fuzzy Inflow Forecasting Model For Murumsilli and Ravishankar Sagar Reservoir", National Conference on Research And Innovation In Engineering And Technology (RIET-2015), 6-7 November, 2015, SRMS College of Engineering & Technology, Unnao.
4. S. Bharia, I. Ahmad & M. K. Verma, "Application of Remote Sensing & GIS in Flood Plain Mapping", Paras 2014, 2nd National Conference on Recent Advancement in Science and Technology for Sustainable Development of Rural Areas in Chhattisgarh", 7-8 March, 2014, PCEM Bhilai.
5. S. Swain, I. Ahmad & M. K. Verma, "Impact of Climate Variability over Mahanadi River Basin", Paras 2014, 2nd National Conference on Recent Advancement in Science and Technology for Sustainable Development of Rural Areas in Chhattisgarh", 7-8 March, 2014, PCEM Bhilai.
6. A. Jangade., I. Ahmad & M. K. Verma, "Application of Modflow in Water Resource Management", Paras 2014, 2nd National Conference on Recent Advancement in Science and Technology for Sustainable Development of Rural Areas in Chhattisgarh", 7-8 March, 2014, PCEM Bhilai.
7. T. Baghel, I. Ahmad & M. K. Verma, "Role of Remote Sensing & GIS in the Environmental Protection", Paras 2014, 2nd National Conference on Recent Advancement in Science and Technology for Sustainable Development of Rural Areas in Chhattisgarh", 7-8 March, 2014, PCEM Bhilai.
8. S.Soni, I. Ahmad & M. K. Verma, "Green Technology for Sustainable Development in Agriculture", Paras 2014, 2nd National Conference on Recent Advancement in Science and Technology for Sustainable Development of Rural Areas in Chhattisgarh", 7-8 March, 2014, PCEM Bhilai.

9. A. Sahu, I. Ahmad & M. K. Verma, "Energy Policy, planning & Management for Environmental Protection: A review", Paras 2014, 2nd National Conference on Recent Advancement in Science and Technology for Sustainable Development of Rural Areas in Chhattisgarh", 7-8 March, 2014, PCEM Bhilai.
10. M. K. Verma, R. K. Tripathi & I. Ahmad, "Assessment of Asian Cities on the Basis of Green City Index", 27th National Convention on Integrated Development of Towns as Growth Centres, 15-16 October 2011, Institution of Engineers (India), Chhattisgarh State Centre, Raipur.
11. I. Ahmad, M. K. Verma & Ashish Patel, "Water Resources Management: Need of the Hour", 27th National Convention on Integrated Development of Towns as Growth Centres, 15-16 October 2011, Institution of Engineers (India), Chhattisgarh State Centre, Raipur.
12. I. Ahmad, M. K. Verma & Ashish Patel, "Impact of Flooding in Urban Region", 27th National Convention on Integrated Development of Towns as Growth Centres, 15-16 October 2011, Institution of Engineers (India), Chhattisgarh State Centre, Raipur.
13. I. Ahmad, "Development of Fuzzy Logic Based Rainfall-Runoff Model for Reservoirs of Mahanadi Reservoir Project Complex", 7th CG Young Scientist Congress 2009, 28th Feb. – 1st March, 2008, Organized by Indira Gandhi Krishi Vishwavidyalaya, Raipur and Sponsored by Chhattisgarh Council of Science and Technology Raipur, Page 33.
14. I. Ahmad, S. Nayak, M.K. Verma & R.K. Tripathi, "Development and Application of Fuzzy Logic Based Rainfall- Runoff Model", National Conference on Hydraulics & Water Resources, HYDRO 2008, 15-16 December, 2008, MNIT Jaipur, Page 275-282, ISBN No. 81-88870-72-2.
15. I. Ahmad, M.K. Verma & R.K. Tripathi, "Fuzzy Logic Approach in Rainfall-Runoff Modeling for Dudhawa Reservoir of Mahanadi Reservoir Project Complex", National Seminar Water Vision 2030, 24-25 December, 2008, Indian Water Works Association (IWWA), Nagpur Centre, Page 9.
16. I. Ahmad, M.K. Verma & R.K. Tripathi, "Urban Rain Water Harvesting and Ground Water Recharging", National Conference on Technological Advances in Civil Engineering, BITCON 2008, 7-8 November, 2008, BIT Durg, Page 274-278.
17. M.K. Verma & I. Ahmad, "Murumsilli Earthen Dam Project: An Irrigation Heritage Structure of Chhattisgarh State", National Conference on Technological Advances in Civil Engineering, BITCON 2008, 7-8 November, 2008, BIT Durg, Page 220-223.
18. S. Hema Bindu, I. Ahmad & M.K. Verma, "Reservoir Sediment Studies", National Conference on Technological Advances in Civil Engineering, BITCON 2008, 7-8 November, 2008, BIT Durg, Page 240-246.
19. A. Soni, I. Ahmad, M.K. Verma & R.K. Tripathi, Study of Flood Routing Methods for Reservoirs", National Conference on Technological Advances in Civil Engineering, BITCON 2008, 7-8 November, 2008, BIT Durg, Page 224-228.
20. S.K. Jaiswal, M.K. Verma & I. Ahmad, "Rainfall-Runoff Model with Fuzzy Logic Approach", National Conference on Emerging Trends in Civil Engineering for Infrastructure Development (ETC-ID 2008), 15-16 February, 2008, NIT Raipur, Page 263-268.
21. S.K. Jaiswal, M.K. Verma & I. Ahmad, "Rainfall-Runoff Model with Fuzzy Logic Approach", National Conference on Emerging Trends in Civil Engineering for Infrastructure Development (ETC-ID 2008), 15-16 February, 2008, NIT Raipur, Page 263-268.
22. I. Ahmad & M.K. Verma, "Interlinking of Indian Rivers: Networking for Water Scarcity Problem", National Conference on Recent Advances & Trends in Civil Engineering, BITCON 2007, 16-17 March, 2007, BIT Durg, Page 88-91.

WORKSHOP ORGANIZED:

1. National Conference "Chhattisgarh Green Summit-2024" Special Planning in Forest Management, 03-05 March 2024 as organizing Chairperson
2. National Stakeholder's Conference on Water, Energy & Climate: Vision for Chhattisgarh, 04 July 2024 as organizing Secretary
3. Student Conference Socio-economic Perspective on Sustainable Management of Water on UN World Water 22nd March 2024 as organizing Secretary
4. 19th Chhattisgarh Young Scientist Congress, 26-27 February 2024 as organizing Secretary
5. National Conference on Disaster Management & Mitigation [NCDMM-2024], 23-24 January 2024 as organizing Secretary
6. Student Conference Accelerating Change for Water Resources Development on UN World Water Day 22nd March 2023 as organizing Secretary
7. Organized National Workshop on "Support Vector Machine in Pattern Recognition & It's Applications in Biological Sciences", Sub-DIC Bioinformatics, National Institute of Technology Raipur, 23-27 January, 2014 as organizing member.
8. Organized Special Invited Lecture on "Introduction to Central Laboratory Facility & IPR", Sub-DIC Bioinformatics, National Institute of Technology Raipur, 15 January, 2014 as organizing member.
9. Organized one day workshop on "Digital Cartographic Techniques for Map Updation & Digital Image Fusion for large Scale Mapping & Entropy for Accuracy Assessment", Department of Civil Engineering, National Institute of Technology Raipur, 31st October, 2013 as Co-Coordinator.
10. Organized one week National Workshop on "Visual MODFLOW (Exclusive hands on Training with Project Assignment)", Department of Civil Engineering, National Institute of Technology Raipur, 18-22 November, 2013 as Co-Coordinator.
11. Organized two day National Workshop on "National Workshop on Water Resources in Developing Countries: Planning and Management", Department of Civil Engineering, National Institute of Technology Raipur, 27-28 August, 2015 as Co-Coordinator.
12. Organized one week Workshop on "Testing methods in Civil Engineering Construction", Department of Civil Engineering, National Institute of Technology Raipur, 16-20 November, 2015 as organizing member.

LECTURE DELIVERED

1. Guest Lecture on "Introduction to GIS & Spatial Data Analysis" at 21 days NRDMS-DST sponsored training programme on Geospatial Technologies scheduled, May 10-30, 2019 , K. Banerjee Centre of Atmospheric & Ocean Studies, University of Allahabad, Prayagraj, Uttar Pradesh, 29th May 2019.
2. Lecture delivered on GIS RCTRC Naya Raipur on GIS and its application.
3. Invited as a Resources Person for Training in two days National Workshop on "GIS & Its Applications", organized by the Association of Civil Engineering,SSIPMT Raipur.
4. Delivered a Lecture on "Hydrological Modeling in GIS Environment: Using ArcGIS, HEC-GeoHMS , HEC-HMS" during National Workshop on "Water Resources in Developing Countries: Planning and Management", Department of Civil Engineering, National Institute of Technology Raipur, 27-28 August, 2015.
5. Master Trainer for Workshop on "GIS & Its Application: Hands on Training" under TEQIP III, CSVTU, Bhilai, 25-27 March, 2018.