

A. Department Publications

JOURNAL PUBLICATIONS

- 1) Dansena H., Multaniya A. P., Sinha M. K., Sahu K. K., Beg M. K. (2022) Cadastral Resurvey and Integration of Geospatial Technique using High Resolution Satellite Image (HRSI): A Case Study in Indian District, in: *Journal of Applied Geomatics*, Springer, ISSN: 1866-928X. (Submitted) (SCI)
- 2) Kumar, N., Dubey, A.K., Goswami, U.P. and Singh, S.K. (2022), Modeling of hydrological and environmental flow dynamics over a central Himalayan River basin through satellite altimetry and recent climate projections. *Int J Climatol*. Accepted Author Manuscript. <https://doi.org/10.1002/joc.7734> (Scopus)
- 3) Goswami, U.P., Goyal, M.K. Assessment of glacial lake development and downstream flood impacts of critical glacial lake. *Nat Hazards* 109, 1027–1046 (2021). <https://doi.org/10.1007/s11069-021-04866-8> (SCI)
- 4) Deshpande V. P., Sinha M. K., Shende A. (2021) Identification of Critical Ground Water Potential Zones Using AHP & Geospatial Techniques, in: *Design Engineering*, 2021(04), p. 1774 – 1786, ISSN: 0011-9342. <http://thedesigengineering.com/index.php/DE/article/view/1733> (Scopus)
- 5) Suryawanshi N., Sinha M. K., Gouraha S. (2020) An Assessment of Trend Analysis and Variability of Rainfall at Upper Seonath River Basin, in: *CSVТУ Research Journal on Engineering and Technology*, 9(1), 62-74, ISSN: 0974-872.
- 6) Sinha M. K., Rajput P. (2020) Geospatial evaluation of drought vulnerability and adaptive capacity using multi-criteria index in central India, in: *Journal of Water Supply*, International Water Association Publication. <https://doi.org/10.2166/ws.2020.178> (SCI)
- 7) Tiwari A., Sinha M. K. (2020) A Review on Gridded Rainfall Data for Hydrological Modelling, in: *CSVТУ Research Journal on Engineering and Technology*, 9(1), 62-74, ISSN: 0974-872. <https://doi.org/10.30732/RJET.20200901009>
- 8) Kumar L., Khalko D., Pandey V.K., Sinha M. K., Singh P., Nigam G.K. (2020) Morphometric analysis of small watershed using Geographical Information System and Remote Sensing, in: *Journal of Soil and Water Conservation*, 19(2), p. 176-181, ISSN: 022-457X (Print), 2455-7145 (Online). <https://doi.org/10.5958/2455-7145.2020.00024.7>
- 9) Sinha M. K., Rajput P., Verma M. K. (2018): Validation of Standardized Precipitation Index (SPI) for Meteorological Drought Risk in Central India, in: *Disaster Advances*, 11(7), p. 1-12, ISSN: 2278-4543, Print-ISSN: 0974-262X. <http://doi.org/10.5281/zenodo.4670999> (Scopus)

BOOK/MONOGRAPH PUBLICATIONS

- 1) Kumar P., Nigam G. K., Sinha M. K., Singh A., (2022): Book title - Water Resources Management and Sustainability, *Advances in Geographical and Environmental Sciences*, Springer Singapore, ISBN: 978-981-16-6572-1. <https://link.springer.com/book/9789811665721#aboutBook>

BOOK CHAPTER PUBLICATIONS

- 1) Sahu K. K., Multaniya A. P., Sinha M. K., (2022) Hydro-geospatial investigation to propose water conservation sites for water management in limestone terrain, in: *Surface and groundwater resources development and management in semi-arid region*, Book series, *Hydrogeology Book Series*, Springer Singapore. (accepted)
- 2) Sinha M. K., Baier K., Azzam R., Rajput P., Verma M. K. (2021) Establishing Spatial Relationships Between Land Use and Water Quality Influenced by Urbanization, in: *Water Resource Modeling and Computational Technologies*, *Current Directions in Water Scarcity Book Series*, Elsevier. (accepted)

- 3) Sinha M. K., Sharma M., Baier K., Azzam R. Verma M. K. (2021) Modelling 1D-2D Hydrodynamic SWMM Model to Mitigate Flooding and Priorities Flood Prone Area, in: *Advances in Hydrology and Climate Change*, Apple Academic Press (AAP), CRC Press, a Taylor & Francis Group. <https://bit.ly/2SK6Z5q>
- 4) Verma V., Sinha M. K., Baghel T. (2021) Evaluating NOAA and PRISM Precipitation Data in Streamflow Generation using HAWQS model, in: *Advances in Hydrology and Climate Change*, Apple Academic Press (AAP), CRC Press, a Taylor & Francis Group. <https://bit.ly/2SK6Z5q>
- 5) Sinha M. K., Baier K., Azzam R. Verma M. K., Kumar S. (2021) Impacts of Climate Variability on Urban Rainfall Extremes Using Statistical Analysis of Climatic Variables for Change Detection and Trend Analysis, in: *Water Resources Management and Sustainability, Advances in Geographical and Environmental Sciences*, Springer Singapore. https://doi.org/10.1007/978-981-16-6573-8_17
- 6) Goswami, U.P., Goyal, M.K. (2022). Relative Contribution of Climate Variables on Long-Term Runoff Using Budyko Framework. 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_7
- 7) Rajput P., Sinha M. K., Nigam G. K. (2021) Strategic evaluation of multi-objective water quality monitoring network us-ing GIS-AHP model in a large River system, in: *Water Resources Management and Sustainability, Advances in Geographical and Environmental Sciences*, Springer Singapore. https://doi.org/10.1007/978-981-16-6573-8_15
- 8) Kumar P., Shreya O., Nigam G. K., Singh A., Sinha M. K. (2021) Water Resources, Livelihood Vulnerability and Management in Rural Desert Communities of Jaisalmer, India, in: *Water Resources Management and Sustainability, Advances in Geographical and Environmental Sciences*, Springer Singapore. https://doi.org/10.1007/978-981-16-6573-8_1
- 9) Chandrakar S., Sinha M. K. (2021) Comparative analysis of NDVI and LST to identify Urban Heat Island effect using remote sensing and GIS, in: *Water Resource Technology*, Walter de Gruyter GmbH · Genthiner Str. 13 · 10785 Berlin · Deutschland. <https://doi.org/10.1515/9783110721355-009>
- 10) Sinha M. K., Rajput P., Baier K., Azzam R. (2021) GIS based Assessment of Urban Groundwater Pollution Potential using Water Quality Indices, in: *Groundwater Resources Development and Planning in the Semi-Arid Region*, Springer Singapore. https://doi.org/10.1007/978-3-030-68124-1_15
- 11) Baghel T., Sinha M. K., Verma M. K., Ahmad I. (2021) A Coupled Hydrological and Hydrodynamic Model for Flood Mitigation, in: *Groundwater Resources Development and Planning in the Semi-Arid Region*, Springer Singapore. https://doi.org/10.1007/978-3-030-68124-1_24

CONFERENCE PUBLICATIONS

- 1) Sinha M. K., Baier K., Azzam R., Verma M. K. Jha R. (2021): Analysis of Intensity-Duration-Frequency and Depth-Duration-Frequency Curve Projections under Climate Variability, in: *Climate Change Impacts on Water Resources, Water Science and Technology Library*, Springer, Cham. https://doi.org/10.1007/978-3-030-64202-0_35
- 2) Sinha M. K., Baghel T., Verma M. K., Baier K., Jha R., Azzam R. (2019) Impact of Urbanization on Surface Runoff Characteristics at Catchment Scale, in: *Water Resources and Environmental Engineering I, Surface and Groundwater*, Springer Singapore. https://doi.org/10.1007/978-981-13-2044-6_3
- 3) Sinha M. K., Baier K., Azzam R., Baghel T., Verma M. K. (2019): Semi-distributed Modelling of stormwater drains using integrated hydrodynamic EPA-SWM Model, in: *Harmony Search and Nature*

PAPER PRESENTED & ABSTRACTS PUBLISHED IN CONFERENCE/SEMINAR/SYMPOSIUM

- 1) Sinha M. K., Baier K., Azzam R., Choudhary B., Jha, R. (2022): Study on Development of Design Rainfall for Stormwater Management System in an Urban Catchment, in: Roorkee Water Conclave 2022 at Indian Institute of Technology Roorkee, India.
 - 2) Dewangan S., Sinha M. K., Rajput P. (2021): Assessment of Future Hydrological Response of an Urban Watershed, in: *Proceedings of International Conference on "Recent Advances in Water Science and Technology" ICRAWST – 2021*, p. 33, ISBN: 978-9-39-085367-0 at Department of Civil Engineering, Sri Shakthi Institute of Engineering and Technology, Coimbatore, India.
 - 3) Sharma M., Sinha M. K., Baier K., Azzam R. (2020): Modelling 1D-2D hydrodynamic SWMM model to mitigate flooding and priorities flood prone area, in: *International Conference on Sustainable Cities and Communities*, at GD Goenka University, Gurugram, India and Arizona State University, USA.
<http://doi.org/10.5281/zenodo.4683706>
 - 4) Sinha M. K., Baier K., Azzam R., Verma M. K. (2020): Analysis of Intensity duration frequency and depth duration frequency curve projections, in: *International Conference on Sustainable Cities and Communities*, at GD Goenka University, Gurugram, India and Arizona State University, USA.
<http://doi.org/10.5281/zenodo.4683715>
 - 5) Chouhan N., Sinha M. K., Gouraha S. (2020): Sensitivity Analysis and Validation of Modified Drastic Model for Semi-Arid Region, in: *Proceeding of 2nd International Conference on Recent Trends in Renewable Energy & Sustainable Development*, p. 124, ISBN: 978-3-53-96776-5 at Department of Civil Engineering, BIT Raipur, India.
 - 6) Deshpande V. P., Sinha M. K., Shubham (2020): Analytical Hierarchy Process based assessment of Groundwater Quality Index mapping in GIS Environment, in: *Proceeding of 2nd International Conference on Recent Trends in Renewable Energy & Sustainable Development*, p. 109, ISBN: 978-3-53-96776-5 at Department of Civil Engineering, BIT Raipur, India.
 - 7) Sharma M., Sinha M. K., Gouraha S. (2019): Semi-distributed Storm Water Management Model for Urban Flood Mitigation and Management through LID's, in: *Proceeding of Futuristic Trends in Science, Technology and Management for National Development*, p.269, at Department of Civil Engineering, BIT Durg, India.
 - 8) Sharma M., Sinha M. K., (2019): An Appraisal to Identify the Impact of Urban Heat Island Effect Using Remote Sensing Data, in: *Proceeding of Futuristic Trends in Science, Technology and Management for National Development*, p.269, at Department of Civil Engineering, BIT Durg, India.
- Sinha M. K., Baier K., Azzam R., Jha R. (2018): Analysis of Intensity-Duration-Frequency and Depth-Duration-Frequency Curve Projections under Climate Variability, in: *Souvenir of HYDRO INTERINATIIONAL, International Conference on Hydraulics, Water Resources, Coastal Engineering*, p. 72, December 19-21, 2018 at NIT Patna, India.

B. M.Tech Thesis Completed/ongoing at EWRE, UTD CSVTU Bhilai

SN	Roll Number	Candidate Name	Thesis Title	Date of Acceptance
1	500000417003	Shubham	Identification of Urban Heat Island Effect in Raipur City using Thermal Band of Landsat Data	13/02/2020
2	500000417001	Monika Sharma	Event-Based Rainfall-Runoff Model of an Urban Catchment to Simulate Flood Water in Storm Drains using SWMM	09/09/2020
3	500000417002	Nidhi Chouhan	Re-weighting DRASTIC Model for Assessing Groundwater Vulnerability to Contamination Using MCDM	09/09/2020
4	500000418002	Archit Tiwari	Study of Gridded and Gauge Based Rainfall-Runoff Model for an Urbanized Catchment	26/03/2022
5	500010219006	Madhu Sahu	Effect of Short-Term Temperature on Extreme Rainfall in India	26/03/2022
6	500010219010	Surykant Dewangan	Study the Effect of Land-Use Land-Cover Change in an Urban Catchment	26/03/2022
7	500010219008	Raju Choudhary	Geospatial Technology for Prioritization of Hirakud Basin Based on Soil Erosion and Morphometry Analysis	22/04/2022
8	500010219005	Bhupesh Choudhary	Study on Selection of Design Rainfall for Stormwater Management System in an Urban Catchment	22/04/2022
9	500000618003	Nidhi Suryavanshi	Urban Flood Hazard Mapping using Morphometric Analysis and MCDA Approach	13/06/2022
10	500000418001	Sweta Singh	Comparing NSFQI and BIS based Water Quality Indices of Mahanadi River Basin for Drinking Purposes	13/06/2022