CURRICULUM VITAE

Dr. Sangeeta Kumari
Assistant Professor,
Department of Civil Engg.
National Institute of Technology
Jamshedpur-831014, Jharkhand.

Email: sangeeta.iitm@gmail.com, sangeeta.ce@nitjsr.ac.in
ORCID: https://orcid.org/0000-0002-7920-3219

SCOPUS: https://www.scopus.com/authid/detail.uri?authorId=56924588000

Web of Science Researcher ID: N-8670-2017

Area of Interest:

Water Resources Engineering, Hydrology, Water Resources Systems, Reservoir Operation, Fuzzy Set Theory.

EDUCATION:

Degree	Branch	Year	Board/Institute
Ph. D.	Water Resources Engineering	2017	Indian Institute of Science Bangalore
Master of Science (by Research)	Water Resources Engineering	2005	Indian Institute of Technology Madras
B.Sc. Engg.	Civil Engineering	2001	Muzaffarpur Institute of Technology, Bihar

Title of Ph.D. thesis: "*Fuzzy State Reservoir Operation Models for Irrigation*".

Title of Master of Science (by Research) thesis: "*Development of Models to Assess the Recharge in an Unconfined Aquifer System*".

TEACHING EXPERIENCES:

Organization	Designation	Period
National Institute of Technology Jamshedpur	Assistant Professor	05/06/2018 - Present
Birla Institute of Technology Mesra, Ranchi	Assistant Professor (under TEQIP-III)	02/01/2018 - 01/06/2018
National Institute of Technology Warangal	Adhoc Faculty	24/07/2017 - 21/12/2017

RESEARCH EXPERIENCE:

Organization	Designation	Period	Roles and Responsibilities
Indian Institute of Science Bangalore	Research Associate	18/07/2016 to 17/07/ 2017	Worked for Water Resources Planning and management using soft-techniques such as Genetic Algorithm

INDUSTRIAL EXPERIENCES:

Organization	Designation	Period	Roles and Responsibilities
Fluidyn Software and Consultancy (P) Limited, Bangalore.	Assistant Manager-Environment Development	20/07/2006 to 31/03/2011	Worked for Groundwater Flow and Contamination Transport Modeling and Atmospheric Dispersion Modeling.
ISG Novasoft Technology, Chennai.	Associate Consultant	31/05/2005 to 03/01/2006	Worked on Software Modules Development.

BOOK CHAPTER:

1. **Sangeeta Kumari (2020)** "Chapter 6. Application of a Standard Fuzzy Arithmetic Method." *An Introduction to Fuzzy Sets, Series: Mathematics Research Developments*, ISBN: 978-1-53618-012-1, Nova Science Publishers, INC.

BOOK EDITOR:

- Editor of Book titled: Advanced Modelling and Innovations in Water Resources Engineering-Select Proceedings of AMIWRE-2021, Book Series: Lecture notes in Civil Engineering, Springer Nature (under publication).

LIST OF PUBLICATIONS:

JOURNALS:

1. **Sangeeta Kumari (2019)** "Fuzzy-set-based real-time reservoir operation using genetic algorithm." ISH Journal of Hydraulic Engineering, 1-8, Taylor & Francis, DOI: 10.1080/09715010.2019.1604181.

2. **Sangeeta Kumari and Mujumdar P. P. (2017)** "Fuzzy-Set based System Performance Evaluation of an Irrigation Reservoir System." *ASCE Journal of Irrigation and Drainage Engineering*, Volume: 143, Issue: 5, Article Number: 04017002, pp. 1-14, 10.1061/ (ASCE) IR.1943-4774.0001155 (Impact Factor - 1.364, Citations: 04).

3. **Sangeeta Kumari and Mujumdar P. P. (2015)** "A Fuzzy State Real-Time Reservoir Operation Model for Irrigation with Gridded Rainfall Forecasts." *ASCE Journal of Irrigation and Drainage Engineering*, Volume: 142, Issue: 2, Article Number: 04015042, pp. 1-14, DOI: 10.1061/ (ASCE) IR.1943-4774.0000956 (Impact Factor - 1.364, Citations: 02).

4. **Sangeeta Kumari and Mujumdar P. P. (2015)** "Reservoir Operation with Fuzzy State

Variables for Irrigation of Multiple Crops." *ASCE Journal of Irrigation and Drainage Engineering*, Volume: 141, Issue: 11, Article Number: 04015015, pp. 1-13, DOI: 10.1061/ (ASCE) IR.1943-4774.0000893 (Impact Factor - 1.364, Citations: 07).

5. **Mohan S. and Sangeeta Kumari (2005)**. Recharge estimation using Infiltration models. *ISH Journal of Hydraulic Engineering*, Volume: 11, Issue: 3, pp. 1-10 (Impact Factor - 0.158, Citations: 05).

CONFERENCE ORGANIZED:

- Organizing Secretary**,** National Conference on Advanced Modelling and Innovations in Water Resources Engineering, February 20-21, 2021, Sponsored by TEQIP-III, Venue: NIT Jamshedpur.

CONFERENCE PROCEEDINGS:

1. **Sangeeta Kumari and Mujumdar P. P. (2015)** "Fuzzy State Reservoir Operation Model for Irrigation with Gridded Rainfall Forecasts", *American Geophysical Union (AGU) Fall Meeting*, 14-18th December 2015, San Francisco, California, USA (Poster Presentation) (Citations: 01).

2. **Sangeeta Kumari (2014)** "Stochastic Dynamic Programming Model with a Fuzzy State Variable for Reservoir Operation", *19th International Conference on Hydraulics, Water resources & Environmental Engineering*, (ISH - HYDRO), MANIT Bhopal, India, 18-20th December 2014, pp. 604-611.

3. **Mohan S. and Sangeeta Kumari (2004)** "Estimation of Recharge in an Unconfined Aquifer using a Water Balance Model", *Proc. International Conference on Sustainable Water Resources Management in the Changing Environment of the Monsoon Region*, Vol. 1, Colombo, Srilanka, 17-19 November 2004, pp. 331-338.

4. **S. Mohan, and Sangeeta Kumari (2004)** "Recharge Estimation using Infiltration Models", *Proc. National Conference on Hydraulics and Water Resources* (HYDRO-2004), VNIT, Nagpur, India, 27-28 December 2004, pp. 122-129.

COURSES TAUGHT:

UG COURSES	Irrigation Engineering
	Water Resources Engineering-II
	Fluid Mechanics-II
PG COURSES	Watershed Conservation and Management
	Open Channel Hydraulics
	Water Resources Systems Analysis

RESEARCH GUIDENCE:

- **Ph.D. Students**

Sl. No.	Name of Student	Thesis Titled	Year of Joining	Status
1	Abu Rashid	Optimization of Water Distribution Networks	2018	Ongoing
2	Sanjay Sharma	Modelling of Floods under uncertain conditions	2019	Ongoing
3	Vishaw Vijay Pratap	Stochastic Hydrology	2020	Ongoing

- **M. Tech Thesis Supervised:**

Sl. No.	Name of Student	Thesis Titled	Year of Completion
1	Gogineni Abhilash	Performance Evaluation of Bhadra Reservoir	2019
2	Rohit Raj	Artificial Neural Network based Water Quality Model for Kharkai River	2019
3	Safaraj Alam	Analysis of Water Distribution System of Rewadih Village	2019
4	Ashrumochan Mohanty	Stochastic Dynamic Programming based Optimization of a Multi-Purpose Reservoir	2020
5	Shashi Kumar	Trend Analysis of Drought Events in Jharkhand State using Standard Precipitation Index	2020
6	Deep Raj	Rainfall Forecast using ARIMA Model	2020
7	Jitendra Kumar	Statistical Downscaling for Rainfall Prediction in Sagar District, Madhya Pradesh using SDSM	2020
8	Ninganagouda Goudar	Flood Susceptibility Mapping using Frequency Ratio and Shannon's Entropy Models in the Plains of North Bihar, India	2020

- **B. Tech. Project Supervised:**

Sl. No.	Name of Students	Project Titled	Year of Completion
1	Hrishabh Chandra, Shubham Kumar, Vikas Minz, Akash Kumar Singh	Hydrological Modelling of Ungauged sub-basin using HEC-HMS	2019
2	Chandan Kumar, Amitabh Bharadwaj, Adarsh Singh, Prince Kumar	Effect of Landuse Changes on Surface Runoff	2020

PROFESSIONAL MEMBERSHIP:

1. Life Member of Indian Society for Hydraulics (LM-1452)
2. Life Member of Indian Water Works Association (LM-9755)
3. Associate Member of ASCE (No: 11492724)

REVIEWER OF JOURNALS:

1. ISH Journal of Hydraulic Engineering
2. Water Supply
3. Journal of Hydrology
4. Journal of Water and Climate Change

ADMINISTRATIVE RESPONSIBILITIES AT NIT JAMSHEDPUR

1. Faculty Advisor for M.Tech, Water Resources Engineering 2020-2022 and 2018-2020 batches
2. Labotary Incharge of Hydraulics and Water Resources Engg Lab and Environmental Engg Lab.
3. Interview Committee Member for Ph.D. in Civil Engg's since July 2018.

INVITED LECTURES:

1. Delivered a lecture on topic "Applications of Fuzzy Set Theory In Reservoir Operations" in AICTE Sponsored One week STTP (online) on "Applications of Neuro-Fuzzy Techniques in Civil Engineering" During 7th to 12th December, 2020, Maturi Venkata Subba Rao (MVSR) Engineering College, Nadergul, Hyderabad – 501510.

WORKSHOP/ SHORT-TERM COURSES ATTENDED:

1. Online Course on *Remote Sensing & GIS Technology and Applications for University Teachers & Government Officials* conducted by Indian Institute of Remote Sensing (IIRS), ISRO Dehradun, during 13-06-2020 to 01-07-2020.
2. Two-days online workshop on *Outcome based Education (OBE) & Preparedness for NBA Accreditation* organized by State Project Implementation Unit, Bihar (SPIU Bihar) from 29-30th May, 2020 sponsored by TEQIP-III.
3. MHRD sponsored TEQIP Faculty Development Programme on *Applied Groundwater Flow and Contaminant Transport Modelling* from June 24, 2019 to June 28, 2019 organized by Department of Hydrology, Indian Institute of Technology Roorkee.
4. GIAN course titled *Improved Water Change Adaptation strategies in Water Resources* at Indian Institute of Technology Kharagpur from 12th November to 16th November, 2018.
5. Two day Workshop on *Outcome based Accreditation* conducted at Birla Institute of Technology Mesra from 18th March to 19th March, 2018 sponsored by TEQIP-III.
6. *Faculty Induction Workshop* organized by Continuing Education Cell & Centre for Educational Technology, Indian Institute of Technology Kharagpur, from 6th February to 10th February, 2018.
7. Two day Faculty Development Workshop on *Effective Teaching and Evaluation Methods in Technical Education* organized by Teaching Learning Centre, National Institute of Technology Warangal during 28th - 29th October 2017.

Annual Refresher Programme in Teaching (ARPIT) course completed:

1. Climate Change: A Guide for Teachers of All Disciplines, by Dr. Rahul Chopra, Indian Institute of Science Education and Research (IISER), Pune, Course Type: Core, Duration: 16 weeks (01 Sep-09 Feb, 2020).

GOOGLE SCHOLAR PROFILE LINK:

https://scholar.google.co.in/citations?user=SI8wi4cAAAAJ&hl=en