#### DR. AJAI SINGH, Ph.D., FIE

Professor and Head Department of Civil Engineering Central University of Jharkhand, Cheri-Manatu, Kanke Ranchi - 835222, Jharkhand, India E-mail, ajai\_jpo@yahoo.com



#### **Personal Information:**

Full Name	Dr. Ajai Singh
Email	ajai.singh@cuj.ac.in
Address	Department of Civil Engineering, Central University of Jharkhand
ORCID ID	0000-0002-7503-0461
Web of Science	Q-8888-2018
ID	
Google Scholar	https://scholar.google.com/citations?user=dS9K3CQAAAAJ&hl=en&aut
Link	huser=1
Scopus ID	55757783136
Journal Papers	54
Conference	19
Papers	
Sponsored	36
Projects &	
Consultancy	
Book and Book	12
Chapters	
Doctoral	Submitted: 2, Ongoing: 5
Students	
Brief Profile	Have more than 25 years of accomplished career spanning from teaching,
	research and extension. I have worked on modeling of hydrological
	processes of a catchment, application of artificial neural network in
	simulating hydrologic response and micro irrigation systems as evidenced
	by published research papers. Recently, Water Evaluation and Planning
	System model was taken up for proper allocation of available water
	resources and Storm water Management Model for planning, analysis and
	other drainage systems in urban areas. I have also explored water policy
	issues of India, delineation of groundwater notential zone and has recently
	developed an electronic wetting front detector for irrigation scheduling. He
	has completed several consultancy assignment ranging from social impact
	assessment. DPR evaluation, preparation of state specific action plan for
	water for Jharkhand and study of mining on carrying capacity of Damodar
	river in South Karanpura Coalfield of Jharkhand funded by CCL. Dr. Singh
	has guided more than 50 M.Tech students and has been supervising more
	than 7 doctoral students.

## **Educational Qualifications:**

- **Doctor of Philosophy**, 2011, Sam Higginbottom Institute of Agriculture, Sciences and Technology, Allahabad.
- Master of Technology, 1997, Irrigation and Drainage Engineering, G. B. Pant University of Agriculture and Technology, Pantnagar, India
- **Bachelor of Technology**, 1995, Agricultural Engineering, Allahabad Agricultural Institute (University of Allahabad), Allahabad, India.

## **Courses Taught:**

PhD: Hydrologic System ModellingPG: Watershed Management, Groundwater Hydrology, Finite element MethodsUG-PG Integrated: Finite element Methods, Advance Hydrology

## **Additional Roles/ Responsibilities**

Head, Department of Civil Engineering, Central University of Jharkhand
Dean, School of Engineering and Technology, Central University of Jharkhand
Dean Students Welfare of Central University of Jharkhand, Ranchi, Jharkhand from 29.03.2016 to 13.12.2017.
Chief Proctor of Central University of Jharkhand, Ranchi, Jharkhand from 2015 to 13.12.2017.

**Head** of Department of Water Engineering and Management, Central University of Jharkhand, Ranchi, Jharkhand from 2013 to 2018.

Coordinator, University Placement Cell (2015-2019).

Chairperson – Proctorial Board of Central University of Jharkhand

# **Professional Experience**

- Professor in Department of Civil Engineering at Central University of Jharkhand, Ranchi, Jharkhand (April, 2017 to till date).
- Associate Professor in Department of Water Engineering and Management at Central University of Jharkhand, Ranchi, Jharkhand (June 2013- April, 2017).
- Assistant Professor in Soil and Water Conservation in Uttar Banga Krishi Viswavidyalaya, Coochbehar, West Bengal. Nodal Officer of Integrated AgroMet Advisory Services, AMFU, Majhian (January, 2002- June, 2013).
- Jr. Hydrologist in Action for Food Production, New Delhi (2001).
- Junior Project Officer in Plasticulture Development Centre, Agriculture and Food Engineering Department, IIT, Kharagpur (1997-2001).

# **Projects and Consultancy**

- State Nodal Officer for preparation of state-specific action on water Towards Water Security, Safety and Sustainability: 2050 for the Jharkhand state of India (continuing from 2021)
- Leading a team as Nodal Officer of Social Impact Assessment team of CUJ. Completed 21 Social Impact Assessment studies of Infrastructural projects of Government of Jharkhand, India. The details are in Annex I (Completed)
- Leading a team to evaluate the Detailed Project Report of Weirs/Check Dams constructed by Drinking Water and Sanitation Department, Government of Jharkhand, Ranchi. The details are in Annex II (Completed)
- Co-PI of a project 'R&D Study to Conduct Mathematical and Physical Hydraulic Modelling Studies for Finalizing Desired Piano Key Weir Configurations for Asolamendha Dam Project' sponsored by Water Resources Department, Nagpur, Maharashtra (Continuing from 2022).
- Team member of a project 'Assessment of the impact of mining operation in nearby eco-system of South Karanpura Coalfields, Damodar river Basin, Jharkhand' sponsored by Central Coalfields Limited, Ranchi, Jharkhand
- Nodal Officer, Integrated Agromet Advisory Services, IMD, Ministry of Earth Sciences, Govt. of India.

## **Research and Teaching Interests**

- Runoff production mechanism
- Hydrological investigation of dam and reservoir
- Physically-based, distributed watershed modeling
- Soft Computing
- Design of Micro Irrigation System
- Groundwater Hydrology
- Environmental and Social Impact Assessment

### **Articles Published**

1.	Singh Ajai, R.P.Singh, P.S.Mahar and K.K.Singh. 2000. Optimal design of tapered
	microirrigation submain manifolds. American Society of Civil Engineers, Jr. of
	Irrigation and Drainage Engineering, 126(6), pp. 371-374.
2.	Tiwari, K. N., Ajai Singh, P.K.Mal and A.Pandey. 2001. Effect of crop geometry on
	yield and economics of okra (Abelmoschus exculentus(L.) Moench) under drip
	irrigation. Jr. of the Institution of Engineers, Division of Agricultural Engineering,
	India, 82, 9-12
3.	Tiwari, K. N., Ajai Singh, P.K.Mal. 2003. Effect of drip irrigation on yield of cabbage
	(Brassica oleracea L. var. capitata) under mulch and non-mulch conditions. Jr. of
	Agricultural Water Management, The Netherlands, 58, pp. 19-28.

4.	Singh, Ajai. 2007. Yield response of drip irrigated tomato to different levels of irrigation.
	<b>Jr. of Interacademicia</b> , 11(2), pp. 200-207.
5.	Singh Ajai, <b>2007</b> . Economic feasibility of drip irrigated tomato crop under rainfed condition. <b>Agricultural Engineering Today</b> , 31, pp.1-5.
6.	Singh Ajai. <b>2008</b> . Economic feasibility of growing capsicum crop under drip irrigation in West Bengal, India. <b>Jr. of Irrigation Drainage System</b> , Springer Science, 22, pp.179-188.
7.	Singh Ajai, <b>2008</b> . Short duration rainfall analysis for effective crop planning in rainfed agriculture. <b>Jr. of Interacademicia</b> , 12(4), pp. 469-477.
8.	Ajai Singh, Mohd. Imtiyaz, R. K. Isaac, D. M. Denis. <b>2011</b> . Application of multilayer perceptron (MLP) artificial neural network model in simulating rainfall-runoff processes. <b>Jr. of Interacademicia</b> , 15(2), 213-221
9.	Ajai Singh, A.C. Pandey, V.K. Pandey, S.S. Kumar. <b>2012</b> . Probability analysis of rainfall for crop planning in Dakshin Dinajpur, West Bengal, India. <b>Eco. Env. &amp; Cons</b> . 18 (1), pp. 61-64.
10.	Ajai Singh, Mohd. Imtiyaz, R. K. Isaac, D. M. Denis. <b>2012</b> . Hydrological Process Modelling using RBNN - A Neural Network Computing Technique. <b>Journal of Agricultural Engineering</b> , 49(2), pp. 27-32.
11.	Ajai Singh, V. K. Jain. <b>2012</b> . Modeling Daily Evaporation Using Multilayer Perceptron Artificial Neural Network Algorithm. <b>Journal of Interacademicia</b> , 16(3), 675-683.
12.	Singh, A., M. Imtiyaz, R.K.Isaac, D.M.Denis. <b>2012.</b> Comparison of soil and water assessment tool (SWAT) and multilayer perceptron (MLP) artificial neural network for predicting sediment yield in the Nagwa agricultural watershed in Jharkhand, India. <b>Agric. Water Mgt</b> ., 104, pp.113-120.
13.	Ajai Singh, V.K.Jain, JayantaDutta. <b>2012</b> . Comparison of Artificial Neural Network Models and Regression Model for Prediction of Evaporation for Malwa Region of Madhya Pradesh, India. <b>International Agricultural Engineering Journal</b> , 21(3-4), 96- 104.
14.	Singh, A., M. Imtiyaz, R.K.Isaac, D.M.Denis. 2013. Comparison of Artificial Neural Network Models for sediment yield prediction at single gauging station of watershed in Eastern India, Jr. of Hydrologic Engineering, American Society of Civil Engineers. 18:1, 115-120

15.	Ajai Singh, V. K. Jain, SanjeebBandhopadhyaya. 2013. Impact Assessment of Rainfall
	and Soil Temperature on Simulation of Daily Pan Evaporation using Multilayer
	Perceptron Model, Jr. of Interacademicia, 17(30), 474-488.
16.	V. K. Jain, Ajai Singh, O. P. Soni. 2013. Performance Evaluation of Recharge Pits
	Method of Artificial Recharge of Ground water in Madhya Pradesh, India. Advances in
	Water Resources and Protection, 1 (1), 1-10.
17.	Ajai Singh, Sankar Saha, Sanchita Mondal. 2013. Modeling irrigated wheat production
	using the FAO AquaCrop Model in West Bengal, India for sustainable agriculture.
	<b>Irrigation and Drainage (ICID)</b> , 62: 50–56.
18.	Singh, A., M. Imtiyaz, R.K.Isaac, D.M.Denis. 2014. Assessing the performance and
	uncertainty analysis of Soil and Water Assessment Tool (SWAT) and Radial Basis
	Neural Network (RBNN) models for simulation of sediment yield in Nagwa watershed,
	India. Hydrological Sciences, 2(59): 351-364
10	
19.	Ajai Singh. 2015. Modeling Stream Flow with prediction uncertainty by using SWA1
	hydrologic and RBNN Neural Network models for agricultural watershed in India. Natl.
	Acad. Sci. Lett., 39: 213
20	Aiai Singh 2015 Optimization of neural network structure for radial basis function
20.	network for simulation of hydrological processes Indian Journal of Soil
	Conservation 43 (3) pp 250 254
	<b>Conservation</b> , 45 (5), pp 250-254.
21.	Jha, S. and Singh A. <b>2015</b> . Rainfall Runoff Modeling by Artificial Neural Network - A
	Case Study of ChotkiBharghi Watershed in DamodarBarakar Basin, Jharkhand.
	<b>International Journal of Artificial Intelligence and Mechatronics</b> , 4(2), pp. 69-73.
22.	Surojit Sarkar, Vivek Vaibhav and Ajai Singh. 2017. Estimation of sediment yield by
	using Soil and Water Assessment Tool for an agricultural watershed in Eastern India.
	Indian Journal of Soil Conservation, 45 (1), pp 52-59.
23.	Priyanka Rani, Ajai Singh. 2018. Evaluation of benchmarking indicators of Sanjay
	Sarovar Irrigation Project, India. Sustain.Water Resour. Manag., 4, 425-432. DOI
	10.1007/s40899-017-0122-7.
24	10.1007/s40899-017-0122-7.
24.	10.1007/s40899-017-0122-7. Mitra, S., Ajai Singh. <b>2018.</b> Assessment of environmental flow requirements of damodar
24.	10.1007/s40899-017-0122-7. Mitra, S., Ajai Singh. <b>2018.</b> Assessment of environmental flow requirements of damodar river basins by using flow duration indices method–a case study, International Journal
24.	<ul> <li>10.1007/s40899-017-0122-7.</li> <li>Mitra, S., Ajai Singh. 2018. Assessment of environmental flow requirements of damodar river basins by using flow duration indices method–a case study, International Journal of Hydrology 2 (3), 281-283.</li> </ul>
24.	<ul> <li>10.1007/s40899-017-0122-7.</li> <li>Mitra, S., Ajai Singh. 2018. Assessment of environmental flow requirements of damodar river basins by using flow duration indices method-a case study, International Journal of Hydrology 2 (3), 281-283.</li> <li>Singh, P. Patil, R.G. and Ajai Singh. 2018. Assessment of Recent Changes in</li> </ul>
24. 25.	<ul> <li>10.1007/s40899-017-0122-7.</li> <li>Mitra, S., Ajai Singh. 2018. Assessment of environmental flow requirements of damodar river basins by using flow duration indices method—a case study, International Journal of Hydrology 2 (3), 281-283.</li> <li>Singh, P., Patil, R.G. and Ajai Singh. 2018. Assessment of Recent Changes in Planform of River Ganga from Mirapur Khadar ToNarora Barrage. Uttar Pradesh. India</li> </ul>
24. 25.	<ul> <li>10.1007/s40899-017-0122-7.</li> <li>Mitra, S., Ajai Singh. 2018. Assessment of environmental flow requirements of damodar river basins by using flow duration indices method-a case study, International Journal of Hydrology 2 (3), 281-283.</li> <li>Singh, P., Patil, R.G. and Ajai Singh. 2018. Assessment of Recent Changes in Planform of River Ganga from Mirapur Khadar ToNarora Barrage, Uttar Pradesh, India, Sustain Water Resour Manag 5(2) 575-586 [https://doi.org/10.1007/s40899-018-</li> </ul>
24.	<ul> <li>10.1007/s40899-017-0122-7.</li> <li>Mitra, S., Ajai Singh. 2018. Assessment of environmental flow requirements of damodar river basins by using flow duration indices method–a case study, International Journal of Hydrology 2 (3), 281-283.</li> <li>Singh, P., Patil, R.G. and Ajai Singh. 2018. Assessment of Recent Changes in Planform of River Ganga from Mirapur Khadar ToNarora Barrage, Uttar Pradesh, India, Sustain. Water Resour. Manag. 5(2), 575-586 [https://doi.org/10.1007/s40899-018-0222-z]</li> </ul>

26.	Puja Kumari, Annapurna Patra, C. Ramesh and Ajai Singh. 2018. Real time flood
	forecasting in the Godavari basin at Nashik Maharsatra, India, Indian Journal of Power
	and River Valley Development, 68(11-12), pp. 187-197.
27.	Ajai Singh, Satyajit Mitra. 2018. Assessment of environmental flow requirements of
	damodar river basins by using flow duration indices method – a case study, Int J Hydro.
	2(3):281-283. DOI: 10.15406/ijh.2018.02.00081
28.	Sunny Agarwal, J. Patil, V. C. Goyal, Ajai Singh. 2019. Assessment of water supply-
	demand using Water Evaluation and Planning (WEAP) model for Ur river watershed,
	Madhya Pradesh, India, J. Inst. Eng. India Ser. A, 100, 21-32.
	https://doi.org/10.1007/s40030-018-0329-0
29.	Bhattacharya, A. K., Lodh, R., Roy, A. K., Karthik, D.M.P., Singh, Ajai., Kumari, S.,
	Kumari, V., Daksh, K., Kumar, P., Anurag, Mishra, A. K. 2019. Arsenic Contamination
	in the Groundwater of West Bengal, Jharkhand and Bihar with a Special Focus on the
	Stabilization of Arsenic-Laden Sludge from Arsenic Filters" Electronic Journal of
	Geotechnical Engineering, 24 (2), pp. 605- 627.
30.	Bhattacharya, A. K., Lodh, R., Roy, A. K., Karthik, D.M.P., Singh, Ajai., Mishra, A.
	K., Kumari, S., Kumari, V., Daksh, K., Kumar, P., Anurag. 2019. Analysis of Arsenic
	contamination in the groundwater of India-Bangladesh and Nepal with a special focus
	on the stabilization of arsenic laden sludge from arsenic filters. Indian Journal of
	Power and River Valley Development, March-April, pp. 49-67.
31.	Tanisha Ghosh, B. Simhadri Rao, Ajai Singh. 2019. Monitoring Glaciers and Glacial
	Lakes of Chenab Basin using Geospatial Tools. Journal of Remote Sensing & GIS.
	10(3): 1–11p.
32.	Jai Kant Kumar Sharma, Ajai Singh. 2019. Development of Leachate Pollution Index
	of Jhiri Dumpsite; Ranchi, Jharkhand. Indian Journal of Waste Management.
	3(2):53–59.
33.	Randhir Kumar, Pratibha Kumari, P.K. Parhi, V.K. Tripathi, Ajai Singh. 2020.
	Modeling Future Water Supply and Demand in Jharkhand Region of Subarnarekha River
	Basin by using WEAP Model with RCP 4.5, Ecology, Environment and Conservation,
	26(4):1597-1605.
34.	Randhir Kumar, Pratibha Kumari, P.K. Parhi, V.K. Tripathi, Ajai Singh. 2021.
	Evaluating water supply risk in the middle reaches of Subarnarekha river basin by using
	WEAP model, Indian Journal of Environmental Protection, 41(8): 851-859.
35.	Ankita, Ajai Singh. 2020. A Brief Review of Micellar Enhanced Ultra filtration (MEUF)
	Monogement 1(1):14.22
26	Management, 1(1):14-55.
30.	Jyoti Kerketta, Ajai Singh. 2020. Temporal Trend Analysis of Temperature Data using Mann Kandall, Tast, and San's Slang, Estimator, Journal of Water Enga and
	Management 1(1):24.46
27	Wanagentetti, 1(1).54-40.
57.	of diurnal temperature range in the ragion of the Subernerstein river basic India Spate
	Inf Des. doi org/10.1007/s41324.020.00241 y
	<b>IIII. KCS.,</b> 001.01g/10.1007/841524-020-00541-X.

38.	Sarfraz Ahmad and Ajai Singh. 2020. Analysis of Groundwater Level Fluctuation using
	GISTechnique in Blocks of Ranchi District, Jharkhand, Indian Journal of
	<b>Ecology</b> ,47(4):934-938.
39.	Fakeha Parween, Pratibha Kumari, Ajai Singh. 2020. Irrigation Water Pricing Policies
	and Water Resources Management, Water Policy (IWA), 23, 130-141.
40.	Kumar Ashwini, Shehnaj Ahmed Pathan, Ajai Singh. 2020. Understanding Planform
	Dynamics of the Ganga River in Eastern Part of India, Spatial Information Research,
	DOI 10.1007/s41324-020-00373-3.
41.	Anshu Kumari, Ajai Singh. 2021. Delineation of groundwater potential zone using
	Analytical Hierarchy Process, Journal of the Geological Society of India, 97(8), 935-
	942. <b>DOI</b> 10.1007/s12594-021-1794-z
42.	Amit Kumar Jha, Ajai Singh, Pratibha Warwade. 2020. Effect of tropical dry and wet
	forest on convective precipitation – A case study of Ranchi Region, Jharkhand, India,
	Eco. Env. & Cons. 26 (4):1670-1677.
43.	Kumari Anshumala, J.P Shukla, Shiv Singh Patel, Ajai Singh. 2021. Assessment of
	Groundwater Vulnerability Zone in Mandideep Industrial Area using DRASTIC Model,
	Journal of Geological Society of India, 97 (9):1080–
	1086.https://doi.org/10.1007/s12594-021-1823-y.
44.	Pratibha Kumari and Ajai Singh. 2021. Crop Health Management and Farm
	Mechanization: Agriculture Beyond Today. SATSA Mukhapatra - Annual Technical
	Issue, 25, 66-72.
45.	Fakeha Parween, Ajai Singh. 2021. Implementation of National Water Policy by Eastern
	States of India – A Review and Analysis, World Water Policy, 7:63–
	//3.https://doi.org/10.1002/wwp2.12047.
46.	Kumar Ashwini, Gautam Kumar Saw, Ajai Singh. 2021. Phase wise spatial and
	temporal variations of Nitrogen Dioxide before and throughout COVID-19 lockdown
47	period in Tier-1 Districts of India, <b>Spatial Information Research</b> , 29(6): 887-895.
47.	Pappu Kumar Yadav, Ajai Singn. 2023. Removal of Fluoride using low-cost materials
18	as all adsorbent, Eco. Env. & Cons. 29.5413-5417.
40.	rediction of mid line channel migration in the reachof Ganga River using GIS and
	$\Delta PIM \Lambda$ modeling during 1075 2020 H <sub>2</sub> Open Journal (IWA) $A(1)$ ·321 doi:
	ARTIVIA modeling during $1375-2020$ , $1120$ pen Journal (1WA), $4(1).521$ , doi: 10.2166/b2oi 2021.124
49	Amit Kumar Iba Ajaj Singh and Pratibha Warwade 2021 Impact of Pre-Monsoonal
17.	Rainfall Trend on Vegetation for Ranchi Plateau Ibarkhand India Indian Journal of
	Ecology 48(6): 1621-1626
50	Utkarsha Upadhyaya, Ajaj Singh, Birendra Bharti, Kumar Nischal 2022, Development
20.	of Rainfall-Intensity-Duration-Frequency curve for Urban Flood Management of Ranchi
	City. Indian Journal of environmental Protection. 42(2):194-199.
51.	Saquibul Hasnain, Ajai Singh. 2022. Development of Electronic Wetting Front Detector
	for irrigation scheduling, Agricultural Water Management, 274
	https://doi.org/10.1016/j.agwat.2022.107980

52.	Kumar Ashwini, Rajnish Kumar Verma, Sridharam Sriharsha, Shikha Chourasiya, Ajai
	Singh. 2023. Delineation of groundwater potential zone for sustainable water resources
	management using remote sensing-GIS and analytic hierarchy approach in the state of
	Jharkhand, India, Groundwater for Sustainable Development, 21,
	https://doi.org/10.1016/j.gsd.2023.100908Accepted
53.	Akshay Kumar Singh, Manoj Kumar, Kuldeep Bauddh, Ajai Singh, Pardeep Singh,
	Sughosh Madhav, Sushil Kumar Shukla. 2023. Environmental impacts of air pollution
	and its abatement by plant species: A comprehensive review, Environmental Science
	and Pollution Research, 30, 79587-79616, https://doi.org/10.1007/s11356-023-28164-x
54.	Vibhanshu Kumar, Birendra Bharti, Harendra Prasad Singh, Ajai Singh,
	Amit Raj Topno. 2024. Prediction of volatility and seasonality vegetation by using
	the GARCH and Holt-Winters models, Environ Monit Assess, 196:288,
	https://doi.org/10.1007/s10661-024-12437-0

## **Books and Chapters**

- Ajai Singh, Ray, A. K., 2004. Rain Water Harvesting in North Bengal. Uttar Banga Krishi Viswavidyalaya, Pundibari, Coocbehar.
- Ajai Singh. 2012. Biodiesel plantations for livelihoods improvement and environmental protection.(ed) S. Chakravarty, G. Shukla, A.N.Dey. In: Tree-borne Oilseeds Species, Lambert Academy Publishing, Germany, pp: 82-96.
- Ajai Singh, Mohd. Imtiyaz. 2013. **Hydrological modelling using process based and data driven models**. Lambert Academy Publishing, Germany, pp: 269
- Ajai Singh, R. P. Singh, 2013. Finite Element Analysis and Optimal Design of Drip Irrigation Submain. Lambert Academy Publishing, Germany, pp: 82
- Ajai Singh.2015. Economic Returns for Drip Irrigated Tomato. In 'Research Advances in Sustainable Micro Irrigation: Applications of Furrow and Micro Irrigation in Arid and Semi-Arid Regions. Ed. Megh R. Goyal.
- Ajai Singh. 2016. Water and Sustainable Development. N.D. Publishers, New Delhi, India.
- Ajai Singh, Megh R. Goyal. 2017. Micro irrigation engineering in horticultural crops: policy option, scheduling and design. In Innovation and Challenges in Micro Irrigation, Vol. 6 (Edited Book). CRC Press Taylor and Francis Group, USA. Hard ISBN: 9781771885409, E-Book ISBN: 9781315207421
- Rajan Kumar Jha, A.K. Singh, L.R. Ranganath and Ajai Singh.2017. Study of Hydrodynamic and Sediment Transport in Gulf of Khambhat, Western Coast India—A Numerical Approach. In V. Garg et al. (eds.), Development of Water Resources in India, Water Science and Technology Library 75, DOI 10.1007/978-3-319-55125-8\_7. Springer International Publishing
- Ajai Singh. 2017. Maximizing profits by using different planting geometry under micro irrigation. In Megh R. Goyal (Ed.) Micro Irrigation Management Technological advances and their applications. Vol. 5, pp 295-301.

- Ajai Singh. 2019. Wastewater Reuse and Watershed Management: Engineering Implications for Agriculture, Industry, and the Environment. Apple Academic Press.
- Ajai Singh. 2021. Microirrigation Systems Principles and Practices, CBS Publishers and Distributors Pvt Ltd, New Delhi.

#### **CONFERENCE PROCEESDINGS**

- Tiwari, K. N., J. Panda, **Ajai Singh**, P.K.Mal and R.P.Singh. 2000. Conservation, Storage and Effective Utilization of Rainwater. *Proc. National Workshop on Rainwater and Groundwater Management for Sustainable Rice Ecosystem*. September25-26, AgFE Department, IIT, Kharagpur, India and Institute of Water Resources and Hydrology, University of Hannover, Germany.
- K.N. Tiwari, Ajai Singh and P.K. Mal. 2000. Economic Feasibility of Raising Seedlings and Vegetable Productions under Low Cost Plastic Greenhouse, American Society for Plasticulture. 29(12)-122 – 130, Hershey, Pennsylvania, USA
- Tiwari, K. N., **Ajai Singh** and P.K.Mal. 2001. Design and development of low cost filter system. XXXV Annual Convention, *Indian Society of Agricultural Engineering*, Jan 22-25. SWE-01-13, Orissa University of Agriculture & Technology, Bhubaneswar, India.
- Singh, Ajai. 2007. Economic analysis of capsicum crop under drip irrigation. Seminar on Drip and Sprinkler irrigation systems Development Prospect, Technical Issues & Solution. Organised by Jalpaiguri Govt. Engineering College and The Institution of Engineers (India). 27<sup>th</sup> April.
- Singh Ajai. 2008. Application of gamma distribution for analysis of rainfall for crop planning in Dakshin Dinajpur, West Bengal. Published in One Day Conference on Agricultural Input for the Development of the NE Region at Assam University. 3<sup>rd</sup> December.
- Ajai Singh and T. K. Das. 2009. Probability analysis of rainfall for crop planning in Dakshin Dinajpur, West Bengal. . XLIII Annual Convention, *Indian Society of Agricultural Engineering*, February 15-17, Birsa Agriculture University, Ranchi, India.
- Ajai Singh, Mohd. Imtiyaz, R. K. Isaac, D. M. Denis. 2012. Performance evaluation and uncertainty analysis of SWAT model for simulating hydrological processes in an agricultural watershed in India. International SWAT Conference, Organized by IIT Delhi and Texas A & M University, USA, July 18-20, New Delhi, India.
- Jayanta Dutta and Ajai Singh. 2012. Rainfall variability and foodgrain production in Uttar Dinajpur, Dakshin Dinajpur and Malda districts of West Bengal. Published in National Seminar on Biodiversity and Sustainability vis-à-vis Economic Development in the Northern Parts of West Bengal. RSM Raiganj, Uttar Dinajpur, West Bengal, India, August 26-27, 89.
- Ajai Singh. 2015. Quantification of uncertainty in .....neural network models' in a National Workshop on 'Challenges and Opportunities for management of Water Supplies in Rural Area' during January 23-24, 2015 at ISM Dhanbad.
- Participated in World Irrigation Forum Meeting organized by International Commission on Irrigation & Drainage at Chiang Mai, Thailand during November 6-8, 2016.
- Rupesh Kumar, K.H Barve, Ajai Singh, Tasneem Ahsan, L.R Ranganath. 2018. Assessment of Wave Energy Potential using 3-years Offshore Wind & Wave Data near Ratnagiri, Maharashtra, INCHOE-2018, Indian Society for Hydraulics and Central Water & Power Research Station, Pune, India

- Presented a paper on 'Assessment of supply demand by using Water Evaluation and Planning model for Ur river watershed, Madhya Pradesh, India' during May 8-10, 2019 at Workshop: Science and Innovation for Catchment Management at University of Warwick, UK.
- Delivered Keynote lecture on 'Impact of mining on environment in Ramgarh district of Jharkhand' in Conference on Water Infrastructure for urban areas and industries at KIIT, Bhubaneswar organized by CEAI, New Delhi.

#### **Awards and Honors**

- Conferred Distinguished Services Certificate (2012) by Indian Society of Agricultural Engineers, New Delhi.
- Conferred Commendation Medal (2022) by Indian Society of Agricultural Engineers, New Delhi.

#### **EDITORIAL**

- Editor, American Journal of Environmental Sciences, Bi-Monthly, ISSN: 1553-345X (Print), ISSN: 1558-3910 (Online)
- Member of Editorial Board of Sustainable Agricultural Research, ISSN 1927-050X, Canadian Center of Science and Education.
- Member of Editorial Board of Advances in Water Resource and Protection (ISSN Print: 2327-7319)
- Associate Editor. International Journal of Hydrology. MedCrave Group, OK, ISSN: 2576-4454
- Editor-in-chief, Journal of Water Engineering and Management, ISSN: 2582 6298, <u>www.jweam.in</u>
- Review Editor in Hydrosphere, Frontiers in Earth Science, Switzerland

### **Professional Affiliations**

- Fellow of The Institution of Engineers (India)
- Fellow of International Society for Development and Sustainability (ISDS)
- Member of International Water Association (IWA)
- Indian Society of Agricultural Engineers
- Indian Water Resources Society
- Indian Association of Hydrologist
- Indian Meteorological Society
- Crop and Weed Science Society