


## CURRICULUM VITAE

### 1. PERSONAL DETAILS

Name	Dr. CHINTALACHERUVU MADHUSUDANA RAO	
Father's Name	Sri. Ch. Pandu Ranga Rao	
Present Position:	Associate Professor	
Date of Birth & Age	15 <sup>th</sup> June 1969	
Citizenship	India	
Marital Status	Married	
Languages known	Telugu, English, Hindi & Tamil	
Work Address & Contact Details	Department of Civil Engineering National Institute of Technology Jamshedpur Jamshedpur-831014, Jharkhand, India Email: cmrao.civil@nitjsr.ac.in; madhu.chintalacheruvu@gmail.com; madhu_chintalacheruvu@yahoo.co.in Mobile: +91-7870344602; +91-7903964968 Phone: +91-6572374003 (O)	
Residential Address	Quarter No. A-16, NIT Jamshedpur Campus, NIT Jamshedpur, Addityapur, N.I.T Post, Jamshedpur-831014, Saraikela Karsawan Dist., Jharkhand, India	
Permanent Address	Pamidimukkala Post Pamidimukkala Mandalam Krishna District, Andhra Pradesh, PIN-521250	

### 2. EDUCATIONAL QUALIFICATIONS:

Sl. No.	Degree	Department/ Centre	Institute/Board /University	Year of Award
1.	Ph.D.	Department of Hydrology	Indian Institute of Technology Roorkee, Uttarakhand, India	2012
2.	M.E.	Centre for Water Resources & Ocean Management	Anna University, Guindy, Chennai-25	1997
3.	B.Tech.	V.R. Siddhatha Engineering College, Vijayawada	Nagarjuna University, Guntur Dt. Andhra Pradesh	1994

#### Ph. D Thesis Topic:

"A Hydrometric Data-Based Flood Forecasting Model Using A Simplified Routing Technique"

#### Supervisor(s):

(i) **Prof. M. Perumal**, Department of Hydrology, I.I.T. Roorkee, Roorkee-247667, Uttarakhand, (INDIA).

(ii) **Prof. D. K. Srivastava**, Department of Hydrology, I.I.T. Roorkee, Roorkee-247667, Uttarakhand, (INDIA).

**ME dissertation Topic:**

"Optimal Operation of Sri Ram Sagar Irrigation Project System"

**Supervisor(s):**

(i) **Prof. T.V. Gopalkrishnan**, Centre for Water Resources and Ocean Management, College of Engineering, Guindy, Anna University, Chennai-25.

(ii) **Prof. K. Venugopal**, Centre for Water Resources and Ocean Management, College of Engineering, Guindy, Anna University, Chennai-25.

### 3. AREA OF THE INTEREST

Water Resources Engineering, Hydrology, Hydrological Modelling of River Basins Using Geospatial Tools, Rainfall-Runoff Analysis, Flood Analysis, Flood Routing and Flood Forecasting, Floodplain Zoning, Ungauged Catchment Studies, Drought Assessment, Open Channel Hydraulics, Computational Fluid Dynamics, Reservoir Optimization, Irrigation Water Management, Sediment Transport Studies, Climate Change Impact Studies, Environmental Engineering, Water Quality Modelling, Environmental Flow Assessment, Water, Soil and Air Monitoring, Soft Computing in Hydrology, Artificial Intelligence (AI) Applications, HEC-RAS, HEC-HMS, SWAT, SWAM, MIKEHYDRO, MIKEBASIN, MODFLOW, ERDAS, CROPWAT, LINDO, LINGO, EPANET2, WATERGEMS, ANSYS Software Applications, R-Program, MATLAB, FORTRAN, C++ Code development for the specified research problem.

### 4. TEACHING & INDUSTRIAL EXPERIENCE

**Total Teaching Experience : 22 Years**

**Total Industry Experience : 5 months**

Sl. No.	Designation	Name of the Department/ Organization	Institute/ University	From	To	Nature of Appointment	Nature of Job
1.	Associate Professor	Dept. of Civil Engg. NIT Jamshedpur	NIT Jamshedpur	16-05-2018	Till date	Regular	Teaching at UG & PG level, Research & Consultancy
2.	Assistant Professor	Dept. of Civil Engg. NIT Jamshedpur	NIT Jamshedpur	20-04-2012	15-05-2018	Regular	Teaching at UG & PG level, Research & Consultancy
3.	Lecture/ Assistant Professor	Dept. of Civil Engg. KITS, Warangal	Kakatiya University, Warangal	04-01-2002	18-04-2012	Regular	Teaching at UG level, Research & Consultancy
4.	Lecturer	Dept. of Civil Engg. KITS, Warangal	Kakatiya University, Warangal	01-01-2001	31-12-2001	Adhoc	Teaching at UG level

5.	Lecturer	Dept. of Mechanical Engg., VSCE, Khammam	Kakatiya University, Warangal	23-02-1998	31-12-2000	Regular	Teaching at UG level
6.	Design Engineer	Rungta Irrigation Ltd.	Jindal Group of Industries, Hyderabad Telangana State, (Combined Andhra Pradesh)	01-10-1997	20-02-1998	Contractual	Design of micro irrigation systems, field survey

### 5. AWARDS, HONOURS & RECOGNITIONS:

- Best Research Paper Award for the year 2013, Presented by Indian Water Resources Society (IWRs), Roorkee. Also received a Cash Prize of Rs. 5000/-
- Best Associate NCC Officer for the year 2007 in 1(A) CTR, NCC Warangal Group, Telangana (Combined Andhra Pradesh)
- Received QIP Fellowship (2007 to 2011) at IIT Roorkee, Roorkee, India
- Received GATE-95 Stipend at College of Engineering, Guindy, Anna University, Chennai - 25
- Member State Executive Committee (SEC), Representing as Expert/ Specialist Panel member in the State Executive Committee (SEC) for National Ganga River Basin (NGRB) project/ scheme in Government of Jharkhand Urban Development Department.

### 6. REVIEWER OF INTERNATIONAL JOURNALS AND BOOKS:

- Journal of Climate Change, Springer Series
- Journal of Hydrologic Engineering and Book Projects, ASCE Publications
- International Journal of Environmental Studies, Taylor & Francis Group
- Current Science Journal, India
- Applied Water Science Journal, Springer Series

### 7. MEMBER OF EDITORIAL BOARD OF THE JOURNALS:

Nil

### 8. MEMBER OF PROFESSIONAL ACADEMIC BODIES:

Life Member of Indian Society for Technical Education (ISTE), Reg. No: LM 28505

### 9. INVITED TALKS/SEMINARS GIVEN:

- Attended as resource person and session chairing in various conferences and workshops held at reputed Institutions.

**10. Ph. D. SUPERVISED (WITH FULL DETAILS):**

Sl. No	Name of the Research scholar	Registration No.	Status
1.	Mr. Avijit Bardhan	2015RSCE001	Ongoing (Near Submission)
2.	Mr. Prakhar Modi	2016RSCE001	Ongoing
3.	Mr. Nigam Prakash	2018RSCEF03	Ongoing
4.	Kum. SriJha	2018RSCE002	Ongoing
5.	Kum. Nikki Chenda	2018RSCE011	Ongoing
6.	Mr. Srikanth	2018RSCH01	Ongoing

**M.Tech Dissertation Guided & Ongoing**

S. No.	Title of Dissertation	Name of Student	Pass out Year	Status
1.	Groundwater- Level Trends And Forecast In Guam Aquifer, USA	Chandrakant Chandan 2014PGCEGE010	June 2016	Awarded
2.	Water Distribution Network Analysis using EPANET 2.0 Software: A case study	Sharad Singh 2015PGCEWR03	June 2017	Awarded
3.	Flood Estimation and Flood Mapping Using Soft Computing Techniques	V. Manohar Reddy 2015PGCEWR07	June 2017	Awarded
4.	Assessment of Hydraulic Parameters in Pipe Network System using EPANET 2.0 software	Nitin Tyagi 2015PGCEWR08	June 2017	Awarded
5.	CFD Simulation of Mechanical Mixing in Anaerobic Digester Tanks	Utpat Ajit Gangadhar 2016PGCEWR01	June 2018	Awarded
6.	Assessing The Runoff Yield and Soil Nutrient Quality Parameters of a Satlej River Reach Using SWAT	Rahul Ranjan 2016PGCEWR03	June 2018	Awarded
7.	Application of HEC-RAS Model to Estimate Sediment Transport for Subarnarekha River from Jamshedpur to Ghatshila Reach	Rajeev Ranjan Kumar 2016PGCEWR05	June 2018	Awarded
8.	Optimizing Reservoir Operation- A Case Study of The Pong Reservoir Using Linear Programming Model	Azmat Raja 2016PGCEWR06	June 2018	Awarded
9.	Performance Evaluation of the Two Forms Physically Based Flood Routing Methods	Chhatrapal Dhruw 2016PGCEWR13	June 2018	Awarded
10.	Rainfall-Runoff Simulation Using HEC-HMS Model for Sutlej (LangqenZangbo) River Basin, China	Ashish Kumar 2017PGCEWR02	2019	Ongoing
11.	Sediment-Transport Modelling for Sabarmati River using HEC-RAS	Md. Altaf Hussain 2017PGCEWR08	2019	Ongoing
12.	Water Quality Assessment of Yamuna River using QUAL2K	Preetam Shukla 2017PGCEWR09	June 2019	Awarded

13.	Effect on Rainfall-Runoff Due to Urbanisation using SWMM5.1	Vivek Kumar 2017PGCEWR10	2019	Ongoing
14.	Assessment of Glacier Melt Contribution of Upper Sutlej Basin to the Streamflow by using SWAT	Ankit Sinha 2017PGCEWR11	2019	Awarded
15.	Stochastic Modelling of Ground Water Data in Whitley County, Indiana, United States	Sanjay Sharma 2017PGCEWR13	2019	Awarded

### UG Projects Guided and Ongoing

S. No.	Title of project report	Name of Student	Pass out Year	Status
1.	Surface water conductivity modelling using best subset procedure	Asif Raza (2015UGCE048)+3 Students	2018	Awarded
2.	Comparison of 1D and 2D Hydraulic Models for Floods Simulation on the Krishna River Sub-reach	Shakti Shekhar (2014UGCE067) + 5 Students	2017	Awarded
3.	Solid waste management practices in Jamshedpur city	Rahulkumar + 4 Students	2016	Awarded
4.	Optimal Operation of Chandil Reservoir	Aishwarya Aman	2015	Awarded
5.	Rainfall analysis for drought proneness in the western parts of Rajasthan	Shubham Deora + 5 Students	2014	Awarded
6.	Rainfall-Runoff modelling of river Kharkai basin using HEC-HMS model Application	Ananta Mandal (065/20019) + 5 students	2013	Awarded
7.	Channel and channel flow characteristic relationships for flood routing	S. Kavya (08016-T-0034) +5 Students	2012	Awarded
8.	River Flood Forecasting through mathematical models	N. Kanaka Lakshmi (04016t-0066L) +4 Students	2007	Awarded
9.	Rainfall-Runoff model for small catchments	K. Swathi + 2 Students	2005	Awarded
10.	Water Surface Profiles of Kakatiya canal under gradually varied flow (GVF) condition	P Pramitha + 3 Students	2004	Awarded
11.	Multi Objective model for Reservoir Operation	B. Sunil Kumar + 3 Students	2003	Awarded
12.	Optimal operation of Automobile Industry- A Linear Programming Approach	G. Sai Kumar + 3 Students	1999	Awarded
13.	Design of Centrifugal pump for Khammam Municipal water supply works	T.N.V. Mahesh Babu (120-96-328) +5 Students	1999	Awarded

**11. RESEARCH PROJECTS/Consultancy Projects:****(i) Sponsored Research Projects:**

Sl. No.	Title	Funding Agency	Period	PI/Co-PI	Project Cost (Lakhs)	Status
1.	Spatial Distribution of Uranium and Associated Water Quality Parameters in groundwater/drinking water of seven districts (East Singhbhum, Saraikela Kharsawan, West Singhbhum, Khunti, Simdega, Gumla, Latehar) of Jharkhand	Funding Agency: The Department of Atomic Energy (DAE), Board of Research in Nuclear Sciences (BRNS), Govt. of India. Sanctioned Order: 36(4)/14/27/2017-BRNS	2 Years (2017-2019)	Co-PI	27.52	Ongoing
2.	Discharge estimation and rating curve development at ungauged sites of Subernarekha river using emerging hydrometric techniques	SERB (Science and Engineering Research Board), New Delhi	3 Years	PI	44.87	Under review
3.	Development of novel low cost and highly sensitive multiple river water quality monitoring sensor	INDO-US Project on Research Initiative for Real-Time River Water and Air Quality Monitoring. Project Collaborators: NIT Jamshedpur & California State University, Fullerton	5 Years	PI	655	Under review
4.	Geospatial Technology for Water Resource Applications	DST, Govt. of India. A training program of the Natural Resources Data Management System (NRDMS), Department of Science and Technology, Government of India	3 day Capacity Building and Training on Geospatial Technologies	PI	3.00	Under review
5.	"Development of low-cost sensor for detection of soil moisture and nutrients in the agricultural lands"	National Initiative for Design Innovation (NID) Project National Institute of Technology Jamshedpur in collaboration with IIT Kharagpur.	1.5 Year	PI	3.60	Under review

6.	Expression of Interest (EoI) for Consulting Services for Integrated Water Resources Management (IWRM) studies in Subarnarekha River Basin under Development of Water Resources Information System (DWRIS) Scheme.	Central Water Commission, New Delhi	4 Years	PI	133.60	Under review
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**(ii) Major Consultancy Projects Handled**

Sl. No.	Name of the Work	Sponsoring Agency	Status	Description of Work	Consultancy Amount
1.	"Integrated Solid Waste Management for Jamshedpur Urban Agglomeration (JUA) excluding Tata's service area under the Jawaharlal Nehru National Urban Renewal Mission (JnNURM)" Project Location: 100% Jamshedpur UA, including NACs of Adityapur, Mango and Jamshedpur, Jugsalai municipality and 8 other census towns excluding Tata's service area (Total operational area of the JUA for the project is 104.73 sq. km)	Client: National Urban Renewal Mission (NURM), F. No. Q-12045/12/1/NURM/20 10-CPHEEO, Government of India, Ministry of Urban Development, {CPHEEO} & State Govt. of Jharkhand.	Completed	To upgrade the existing Solid Waste Management system in Jamshedpur Urban Agglomeration area in compliance with MSW rules 2000.  Responsibility: Co-Investigator, Technical Vetting of the Design for Primary Collection, Secondary Storage and Transportation systems. Verification of Estimation of bulk generation of solid waste worked out by the JUA based on the present population strength and checking the suitability of the type of vehicle suggested for transportation of solid waste.	Project cost: Rs. 3336.24 Lakhs  Consultancy cost: 1.33 Lakhs
2.	"Design, Build, Operate, Maintain Chota Govingpur & Baghbera Piped water supply schemes (Multi Village Schemes (MVS)) in East Singhbhum District Jharkhand State (World Bank Assisted)	Client: Government of Jharkhand Urban Development Department	Ongoing	Responsibility: Co-Investigator, Independent Verification Agency works. To verify the design, execution and operation of the project works to assure the potable water supply to the targeted villagers	Project Cost: Rs. 250 Crore.  Consultancy cost: 2 00,00,000/-
3.	"Rainfall-Runoff estimation and coal dust (sediment) transport in Adityapur Industrial Area"	Client: Anjaneya Ispat Ltd, Adityapur Industrial Area, Ghamharia.	Completed	Responsibility: Estimation of runoff from rainfall and flow velocity estimation which can transport sediments i.e., coal dust/soft material through rain drains in the Ghamharia, Adityapur Industrial Area, Jamshedpur.	Consultancy cost: Rs. 50,000/-
4.	Barmer to Salaya Pipeline Project (Project document No. bspl-2000-l&t.-pl-cal-0602)	Client: L & T-GULF: Pipeline Engineering	Completed	Responsibility: Development of normal rating curve at a selected gauging station for assessment of river migration and calculations for scour depth – Banas river	Department Interest (Helped as a research scholar at IIT Roorkee)
5.	Design of Water Distribution Network	Client: NIT Jamshedpur	Ongoing	Responsibility: Design of pipe network, new	Institute Interest No charges

	System for NIT Jamshedpur through EPANET Software			alignment of pipe network system for the drinking water supply to various locations/buildings/academic blocks/hostels etc.. in the NIT Jamshedpur campus	
6.	“Rainwater Harvesting Building Structures in Academic Institutions”	Client: NIT Jamshedpur	Ongoing	Responsibility: Estimation of Roof top Runoff from Rainfall using Rational and SCS-CN techniques and the design of the sump for the storage of harvested water in the NIT Jamshedpur	Institute Interest No charges
7.	“Groundwater and municipal supply water quality assessment for NIT Jamshedpur campus”	Client: NIT Jamshedpur	Completed	Responsibility: Estimation of Physio-Chemical parameters in the water samples collected from various locations inside the campus. The testing has been done in Environmental Engineering Laboratory of NIT Jamshedpur	Institute Interest No charges
8.	Testing & Consultancy works in the Department of Civil Engineering, NIT Jamshedpur.  As Prof. I/c Env. Lab. the Testing & Consultancy works will be done by me/under my supervision	Clients: Many Public /Private organizations will consult for water quality laboratory testing	Ongoing	Performing water quality tests in the Environmental Engineering laboratory of Civil Engg. Dept., NIT Jamshedpur	Charges as per price list for each test. Total income per annum > Rs. 5 Lakhs

**12. CONFERENCES/WORKSHOPS CONDUCTED:**

Sl. No.	Title	Sponsoring Agency	Amount Sanctioned in Lakhs	Foreign Faculty/ External Faculty/Expert	Role as Host Faculty/ Coordinator/ Co-Coordinator	Conference/ Workshop & Level	Duration	Venue
1.	Recent Advances in Civil Engineering Research (RACER-2019)	TEQIP-III	2.50	Dr. B. Sahoo, IIT Kharagpur & Prof. E. Venkata Ratnam, NIT Warangal	Coordinator	Workshop, National	21 Jan, 2019 to 25 Jan, 2019 (5 day)	Department of Civil Engineering, NIT Jamshedpur
2.	Unified Biochemical Pollution and Hydrologic Modelling	GIAN Course: Code: 171025C06 1812176 GIAN, Approval Order No. IIT/GIAN/S-18/1377, dated 01/01/2018 (MHRD, Govt. of India)	5.44	Prof. Vijay P. Singh Texas A & M University, TAMU, Texas, USA	Host Faculty	Training course, National	09 Apr, 2018 to 14 Apr, 2018 (One Week)	Department of Civil Engineering, NIT Jamshedpur
3.	Recent Advances in Civil Engineering (RACE-2017)	TEQIP-II	3.50	Prof. M. Perumal, Dept. of Hydrology, IIT Roorkee, Roorkee, India	Coordinator	Workshop, National	02 Mar, 2017 to 04 Mar 2017 (3 day)	Department of Civil Engineering, NIT Jamshedpur



4.	Water Availability and Pollution Risk Management in the New	AICTE-ISTE	2.50	Prof. Santosh Tampi, NIT Calicut, India & Prof. M.K. Nagraj, NIT Suratkhal	Co-Coordinator	Workshop, National	07 Jun, 2004 to 12 Jun, 2004 (6 day)	Department of Civil Engineering, KITS Warangal
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# Member Organizing Committee & Member Hospitality Committee for many other Conferences/Workshops/STTPs held in the Department.

### 13. RESEARCH PUBLICATIONS:

#### Some Selected Publications (National/International):

Sl. No.	Title of the Paper	Name of Journal Volume, Page Year
1.	Detection of land use and land cover change and their impact on stream discharge in Upper Baitarani river basin using 1987, 1997, 2005 and 2015 Landsat images.	<b>C. Madhusudana Rao</b> , A. Bardhan, Apurva Raj, Raunak Kumar, Rajiv Ranjan (2019), HYDRO-2019, HYDRO 2019 International conference to be held in UCE, OU in Association with ISH, Pune. Paper Code: 112. <i>Cite this article at <a href="http://www.hydro2019.com">www.hydro2019.com</a>.</i>
2.	Evaluation of a physically based quasi-linear and a conceptually based nonlinear Muskingum methods	<b>Jl. of Hydrology, Elsevier</b> <i>Cite this article as:</i> Perumal, M., Tayfur, G., <b>Madhusudana Rao, C.</b> , Gurarslan, G., Evaluation of a physically based quasi-linear and a conceptually based nonlinear Muskingum methods, Journal of Hydrology (2017), doi: <a href="http://www.sciencedirect.com/science/article/pii/S0022169417300264">http://www.sciencedirect.com/science/article/pii/S0022169417300264</a>
3.	Comment on Evaluation of a physically based quasi-linear and a conceptually based nonlinear Muskingum methods	<b>Jl. of Hydrology, Elsevier</b> <i>Cite this article as:</i> Perumal, M., Tayfur, G., <b>Madhusudana Rao, C.</b> , Gurarslan, G., Reply to Comment on "Evaluation of a physically based quasi-linear and a conceptually based nonlinear Muskingum methods" by Reza Barati, <i>Journal of Hydrology</i> (2017), <a href="http://dx.doi.org/10.1016/j.jhydrol.2017.01.025">http://dx.doi.org/10.1016/j.jhydrol.2017.01.025</a> doi: <a href="http://www.sciencedirect.com/science/article/pii/S002216941730286X">http://www.sciencedirect.com/science/article/pii/S002216941730286X</a>
4.	Rainfall Analysis for Drought Proneness at Western Rajasthan, India	<b>International Journal of Economic Research (IJER), Serial Publications</b> <i>Cite this article as:</i> <b>C. Madhusudana Rao</b> , G. Venkata Ramana and V. S. S. Sudheer, Rainfall Analysis for Drought Proneness at Western Rajasthan, India, IJER © Serials Publications, 13(1), 2016: 275-301, ISSN: 0972-9380 <a href="http://serialsjournals.com/serialjournalmanager/pdf/1463726469.pdf">http://serialsjournals.com/serialjournalmanager/pdf/1463726469.pdf</a>
5.	Performance Evaluation of Sri Ram Sagar Irrigation Project  (Best Paper Award-2013 received with a cash Prize of Rs. 5000/-)	<b>Journal of Indian Water Resources Society (IWRS)</b> <i>Cite this article as:</i> <b>Chintalacheruvu Madhusudana Rao</b> and Ravindra Vitthal Kale, Performance Evaluation of Sri Ram Sagar Irrigation Project, Journal of Indian Water Resources Society, Vol 33, No. 3, July, 2013 <a href="http://www.iwrs.org.in/journal/jul2013/1jul.pdf">http://www.iwrs.org.in/journal/jul2013/1jul.pdf</a>
6.	Effect of spatial and temporal discretizations on the simulations using constant-parameter and variable-parameter Muskingum methods	2018 SWAT International Conference, and Workshop, January 8 to 12, 2018, IIT Madras <i>Cite this article as:</i> Muthiah Perumal and <b>Madhusudana Rao, Ch.</b> , (2018), Effect of spatial and temporal discretizations on the simulations using constant-parameter and variable-parameter Muskingum methods, 2018 SWAT International Conference, and Workshop, January 8 to 12, 2018, IIT Madras <a href="http://swatmodel.tamu.edu/conferences/2018ce8">http://swatmodel.tamu.edu/conferences/2018ce8</a>
7.	Rainfall Runoff simulation using HEC-HMS model for Sutlej river basin, India	22 <sup>nd</sup> International Conference on Hydraulics, Water Resources and Coastal Engineering. Hydro-2017 International, L.D. College of Engineering Ahmedabad, India. <i>Cite this article as:</i>

		Prakhar Modi, <b>Madhusudana Rao Chintalacheruvu</b> , Ravindra Vitthal Kale, Rainfall Runoff simulation using HEC-HMS model for Sutlej river basin, India, Paper ID: 99, Hydro-2017 International, L.D. College of Engineering Ahmadabad, India <a href="http://www.hydro2017.org/">http://www.hydro2017.org/</a>
8.	Demonstration of the use of conceptual nonlinear muskingum (NLM) method for flood routing in natural channels	22 <sup>nd</sup> International Conference on Hydraulics, Water Resources and Coastal Engineering. Hydro-2017 International, L.D. College of Engineering Ahmadabad, India. <i>Cite this article as:</i> V. Manohar Reddy, <b>Madhusudana Rao Chintalacheruvu</b> , Demonstration of the use of conceptual nonlinear muskingum (NLM) method for flood routing in natural channels, Paper ID: 150, Hydro-2017 International, L.D. College of Engineering Ahmadabad, India <a href="http://www.hydro2017.org/">http://www.hydro2017.org/</a>
9.	Application of swat model for simulating monthly streamflow in upper baitarani river basin	22 <sup>nd</sup> International Conference on Hydraulics, Water Resources and Coastal Engineering. Hydro-2017 International, L.D. College of Engineering Ahmadabad, India. <i>Cite this article as:</i> Avijit Bardhan, <b>Madhusudana Rao Chintalacheruvu</b> , Jagadish Prasad Patra, Application of swat model for simulating monthly streamflow in upper baitarani river basin, Paper ID: 54, Hydro-2017 International, L.D. College of Engineering Ahmadabad, India <a href="http://www.hydro2017.org/">http://www.hydro2017.org/</a>
10.	Trend analysis of drought events at Pali district in western Rajasthan	India Water Week 4-8 April, 2016: 'Water for all-Striving Together' <i>Cite this article as:</i> V. Mohan Reddy, Avijit Bardhan, C. <b>Madhusudana Rao</b> , E. Venkata Rathnam (2016), "Trend analysis of drought events at Pali district in western Rajasthan", Proceedings of international conference, India Water Week 4-8 April, 2016: 'Water for all-Striving Together', Page 89, Organized by Ministry of Water Resources, River Development and Ganga Rejuvenation, Govt. of India. <a href="http://www.indiawaterweek.in/">http://www.indiawaterweek.in/</a>
11.	Assessment of groundwater quality with a special emphasis on fluoride contamination in Rajnandgaon district of Chhattisgarh state in central India	Balram Ambade, Chintalacheruvu Madhusudana Rao, (2012), Assessment of groundwater quality with a special emphasis on fluoride contamination in Rajnandgaon district of Chhattisgarh state in central India, International Journal of Environmental Studies (IJES), Integrated Publishing Association (IPA), Vol. 3(2), doi:10.6088/ijes.2012030132012, Code: EIJS31084, ISSN 0976-4402, pp 851-858. <a href="http://www.ipublishing.co.in/ijesarticles/twelve/articles/volthree/EIJS31084.pdf">http://www.ipublishing.co.in/ijesarticles/twelve/articles/volthree/EIJS31084.pdf</a>
12.		Muthiah Perumal, A. Naren, and Madhusudana Rao, Ch., (2013), Appraisal of two forms of nonlinear Muskingum flood routing methods, 6 <sup>th</sup> International Perspective on Water Resources & the Environment, January 7-9, 2013, SCI: IPWE-000304, ASCE, Izmir, Turkey. IPWE-000304.pdf <a href="http://submissions.miracd.com/ASCE/IPWE2013/Itinerary/ConferenceMatrixEventDetail.asp?id=28">http://submissions.miracd.com/ASCE/IPWE2013/Itinerary/ConferenceMatrixEventDetail.asp?id=28</a> (OR) <a href="http://content.asce.org/files/pdf/ipwe/IPWE2013-PROGRAM.pdf">http://content.asce.org/files/pdf/ipwe/IPWE2013-PROGRAM.pdf</a>
13.	A Simplified Channel Routing Scheme Suitable for Adoption in SWAT Model.	Muthiah Perumal, Bhabagrahi Sahoo and <b>Madhusudana Rao, C.</b> , (2012), A Simplified Channel Routing Scheme Suitable for Adoption in SWAT Model, 2012 International SWAT Conference & Workshops-IIT Delhi, New Delhi, India, July 16-20, 2012. Pp. 592-601. <a href="http://swat.tamu.edu/conferences/2012/material/">http://swat.tamu.edu/conferences/2012/material/</a>
14.	A comparative evaluation of two physically based variable	<b>Madhusudana Rao, C.</b> , Muthiah Perumal (2015), "A comparative evaluation of two physically based variable parameter Muskingum

	parameter Muskingum flood routing methods	flood routing methods”, Proceedings of National Conference on Climate Change and Sustainable Water Resources Management (CSWM-2015), 3-5 September 2015, Organised by NIT Warangal, Telangana, PP319-322.
15.	Hydrological Modeling in a Changing Climate: Issues in Indian Context	Chintalacheruvu Madhusudana Rao, (2013), “Hydrological Modeling in a Changing Climate: Issues in Indian Context”, Indian Water Week 2013, 8-12 April, 2013, International Conference on Efficient Water management, Challenges and opportunities, Ministry of Water Resources, Govt. of India, pp 43, <a href="http://www.indiawaterweek.in">http:// www.indiawaterweek.in</a>
16.	Groundwater- Level Trends and Forecast in Guam Aquifer, USA	Chandrakant Chandan and Chintalacheruvu Madhusudana Rao (2016), “Groundwater- Level Trends and Forecast in Guam Aquifer, USA”, Proceedings of 3 <sup>rd</sup> National Conference on water, Environment and Society (NCWES), Organized by Centre for Water Resources, Institute of Science and Technology, JNTU, Hyderabad, Page 176-182. <a href="http://istjntuh.org/web/bulletins/96_proceedings_of_3rd_national_conference_on_water_environment_and_society_NCWES2016.pdf">http://istjntuh.org/web/bulletins/96_proceedings_of_3rd_national_conference_on_water_environment_and_society_NCWES2016.pdf</a>
17.	Rainwater Harvesting Building Structures in Academic Institutions	Chintalacheruvu Madhusudana Rao, Jayendu Bhaskar, Uma Shankar, Vishal Gaurav, (2013), “Rainwater Harvesting Building Structures in Academic Institutions”, International Conference on Energy, Environment and Eco-friendly Buildings (ICEEEB), 19-21 September, 2013, Jain University, Bangalore, pp 26-27.
18.	Linear Optimization Model for River Water Quality Control	Madhusudana Rao, C. (2004). “Linear Optimization Model for River Water Quality Control”, STTP, 7 – 12 June, 2004, AICTE-ISTE, and KITS-Warangal, 71-77.
19.	Integrated development of water resources by watershed management	Venkata Ramana, G., Madhusudana Rao, C., and Narasimhulu, A. (2003). “Integrated development of water resources by watershed management,” National conference proceedings, Institute of Engineers (India), and KITS Warangal, 29 –30 Dec, 2003, III-18-25.
20.	A fuzzy linear programming model for reservoir operation	Madhusudana Rao, C. (2003). “A fuzzy linear programming model for reservoir operation” National conference proceedings, 23 March, 2003, Institute of Engineers (India), and KITS Warangal, 1-4.

#### 14. PAPER SUBMITTED IN SCI JOURNALS

1. Perumal, M., Madhusudana Rao, C., Price, R. K. (2018). Variable parameter McCarthy-Muskingum method: Extension to natural river channels. Journal of Hydrology, Elsevier., HYDROL27300. (Under review)
2. Perumal, M., Sahoo, B., Madhusudana Rao, C. Price, R. K. (2018). Variable parameter McCarthy-Muskingum method: 3. Applicability criteria. Journal of Hydrology, Elsevier, HYDROL27298. (Under review)
3. Madhusudana Rao, C. M., Bardhan, A., Patra, J. P., and Sharma, A. (2019). Hydrological modeling and estimation of water balance components in two different river basins in East and Central India. *Water Science and Engineering* (Manuscript ID: WSE-2018-0339) (Under review)

**15. TRAINING PROGRAMS/STTPS/WORKSHOPS/CONFERENCES ATTENDED**

Sl. No.	Program	Title, Period,Venue, Organizers	No. of Days
1.	Conference	Conference on promotion of Artificial Intelligence (AI) in Education sector. Organized by MHRD, New Delhi and IIT Delhi on 04 <sup>th</sup> July, 2019.	1
2.	Workshop	Dissemination Workshop on ARIIA - 8th Jan 2019, Sponsored by MHRD, New Delhi, Institution's Innovation Council (IIC), & AICTE, New Delhi. organized at Xavier School of Management (XLRI), Jamshedpur on 8 <sup>th</sup> Jan 2019.	1
3.	Workshop	Gender Sensitization, September 29, 2018, Organized by Internal Complaint Committee, National Institute of Technology Jamshedpur.	1
4.	Training	Training on Municipal Solid Waste Management Manual, 2016, 'Training of Trainers (ToT)' held during January 09-13 <sup>th</sup> 2017 (5 Day) at Kolkata, West Bengal, Organized by Ministry of Urban Development, Govt. of India and Deutsche Gesellschaft fur Internationale Zusammenarbeit (GIZ) GmbH, New Delhi.	5
5.	GIAN	GIAN International course on "Emerging Hydrometric Techniques for Discharge Estimation and Rating curve Development", held during April 03 to April 08, 2017 (One Week) at IIT Roorkee, Attended by the financial support of CPDA grants, NIT Jamshedpur.	6
6.	GIAN	GIAN International course on "Remediation & Management of Polluted Groundwater Sites" Training Workshop, held during 16-29 May, 2016 (Two week), at IIT Roorkee, Attended by the financial support of TEQIP-II, NIT Jamshedpur.	14
7.	GIAN	GIAN International course on "Optimization methods to Groundwater Resources Management", held during 07-11 March, 2016 (One week), IIT Guwahati. Attended by the financial support of TEQIP-II, NIT Jamshedpur.	5
8.	ISH Specialty Conference: Under the aegis of Indian Society of Hydraulics & Central Water Power Research Station Pune	"Climate Change and Sustainable Water Resources Management (CSWM-2015)". 3-5 September 2015 (Three day), Organised by NIT Warangal, Telangana. Attended by the financial support of CPDA grants	3
9.	Workshop	"Quality Initiatives in Technical & Higher Educational Institutions (in Compliance with NBA & NAAC Accreditation)", 26-28, May 2015 (Three day) Engineering Staff College of India (ESCI), Hyderabad. Attended by the financial support of TEQIP-II, NIT Jamshedpur	3
10.	Workshop	"Water Resources Management and Climate Change Impact Assessment", 22-26 December, 2014 (One Week), sponsored by TEQIP-II, Knowledge Incubation Centre and Dept. Civil Engg., IIT Guwahati. Attended by the financial support of TEQIP-II, NIT Jamshedpur	5
11.	Training	Applied Training Programme on Software MIKE FLOOD & MIKE BASIN, 20-24 January, 2014 (One week), NIT Rourkela. Attended by the financial support of CPDA grants	5
12.	Training	Training programme on Planning, Design and Layout of Water Distribution Network with Software Applications, 03-05 October, 2013 (Three day), Engineering Staff College of India (ESCI), Hyderabad, (Combined Andhra Pradesh).	3

		Attended by the financial support of TEQIP-II, NIT Jamshedpur.	
13.	Conference	International Conference, on "India Water Week", Efficient water management: Challenges and opportunities, 08-12 April, 2013 (One week), Organized by Ministry of Water Resources, Govt. of India. Attended by the financial support of CPDA grants, NITJSR.	5
14.	Workshop	Environmental Monitoring, 22-24 February, 2013 (Three day), Dept. of Chemistry, NIT Rourkela. Attended by the financial support of CPDA grants, NITJSR.	3
15.	Workshop	Emerging Trends in Water Supply Sector. April 13-14, 2012 (Two-Day), Sponsored by TEQIP-II, NIT Warangal, Telangana, (Combined Andhra Pradesh)	2
16.	Workshop	Disaster Mitigation in Housing in India: An Agenda for Future, Centre for Excellence in Disaster Mitigation and Management, 19-20 March, 2010 (Two day), IIT Roorkee.	2
17.	Workshop	Advanced applications of SCS-CN Technique. October 30 to November 3, 2006 (One week), Sponsored by QIP & WRDM, IIT Roorkee.	5
18.	Workshop	"WMEC", 20-21 September, 2006 (Two day), Civil Dept., JNTU Hyderabad.	2
19.	Workshop	Bio-Fluid Mechanics, 18–19 May, 2005 (Two day), KITS Singapur, Telangana, Combined Andhra Pradesh.	2
20.	Training	Environmental Pollution and Remedial Measures. 26 June, 2004 (One day), Sponsored by AICTE & KITS Warangal, Telangana, (Combined Andhra Pradesh).	1
21.	Workshop	Recent Developments in Modelling and Management of Problems related to Water Quality, 8–19 December, 2003 (Two week), Sponsored by AICTE, ISTE, & Civil Dept., NIT Calicut.	12
22.	Workshop	Watershed Development Programme, 11-16 December, 2002 (One week), RWS & KITS-Warangal, Telangana, (Combined Andhra Pradesh).	5
23.	Workshop	ISO-9000, 22– 23 September, 2002 (Two day), KITS-Warangal.	2
24.	Workshop	Micro-Computer Applications on Irrigation Water Management, May 27 to June 5, 1996, (Two week), CWC, New Delhi & Anna University, Chennai.	10

## 16. COMPUTER SKILLS:

**Program Skill:** Sufficient Knowledge in FORTRAN 77, MATLAB 10.0.1, C & C<sup>++</sup>

**Software skills:** MIKE11, MIKE FLOOD, MIKE BASIN, HEC-RAS, HEC-HMS, SWAT, LINGO, EPANET, RCLIMINDEX, EVOLVER. RS & GIS, ArcGIS

**17. ADMINISTRATIVE & OTHER EXPERIENCES**

Sl. No.	Assignment	Date		No. of Semesters
		From	To Date (dd/mm/yyyy) or Continuing	
1.	Associate Dean (Academic: Accreditation and Recognition)	17/10/2017	Continuing	4
2.	Assistant Dean (Academic: Accreditation and Recognition)	12/05/2015	16/10/2017	5
3.	Member UG & PG Admission Committee	28/02/2013	28/02/2018	10
4.	Member Library Committee	05/10/2012	05/10/2013	2
5.	Coordinator Student Counselling Centre	11/12/2012	11/12/2017	10
6.	Warden	10/09/2014	01/03/2017	6
7.	Assistant Warden	22/11/2012	09/09/2014	4
8.	Nodal officer (Academic) for TEQIP-III, NIT Jamshedpur	2016	Continuing	7
9.	Nodal officer duties: Nodal Officer, National Institutional Ranking Framework (NIRF) for MHRD at NIT Jamshedpur	2016	Continuing	7
10.	Nodal officer duties: Nodal officer for AISHE at NIT Jamshedpur	2016	Continuing	7
11.	Swachha Bharat works at NIT Jamshedpur	2018	completed	2
12.	Nodal officer duties: Nodal officer for AISHE at IIIT Ranchi, mentored by NIT Jamshedpur	2018	2019 (completed)	4
13.	Prepared Annual Reports of 2013-14; 2014-15 & 2015-16 academic years & Preparing Academic calendars since 2013-14 onwards & best practices for academic excellence etc., & IDP for TEQIP-II, TEQIP-III proposal etc.,	2013	2016 Not Continuing	8
14.	Associate NCC Officer duties: Associate NCC Officer with a rank of Lieutenant for 4 years, Completed ANO's training course at Officers Training Academy, Kamptee, Nagapur, from July 19, 2004- October 16, 2004). Care Taker for more than 3 years	2001	2004 Not Continuing	8
15.	Member -Convener CPDA guidelines preparation	29-08-2012	29-08-2018	10

16.	Faculty Advisor for UG students, 2012 batch	03/07/2012	15/05/2016	8
17.	PG Programme coordinator	22/07/2015	Continuing	4
18.	Member-State Executive Committee for NGRBA inn Jharkhand	30/04/2013	Continuing	10
19.	Special Invite-Safety and Security committee	04/08/2016	04/08/2018	2
20.	Standing institute disciplinary committee	23/02/2017	23/02/2018	1
21.	Environmental Engg. Lab I/c	20/05/2014	Continuing	6
22.	Member selection committee for Ph.D students	18/06/2013	Continuing	8
23.	Member Departmental Purchase committee	26/10/2012	Continuing	10
24.	Member Departmental Scrutiny Committee for PhD	30/07/2015	Continuing	4
25.	Member & Programme Coordinator UG	17/11/2014	Continuing	4
26.	Faculty Advisor, Civil Engineering Association	2003	2004	4
27.	Member, Library Committee	2013	2015	3
28.	Internal/External examiner and paper setter for Kakatiya University, Osmania University and Andhra University. JNTU-Hyderabad., Kolhan University, Vinobha Bhave University, CAEPHT Central Agricultural University-Imphal, Ranipool, Gangtok-737135 Sikkim	2001	Till date	
29.	In-charge, Fluid Mechanics and Hydraulic Machinery Laboratory (more than 10 years)			10 years
30.	Founder Secretary for ISTE Local Chapter at VSCE, Khammam	1998	2000	6
31.	In-charge for Class Time-Tables	2000	2002	6

32.	In-charge for Educational Tours	2001	2001	2
33.	Member, Project Evaluation Committee	1998	2002	8
34.	Member, Anti Ragging & Disciplinary Committee	2001	2004	8
35.	Performed duties as Convener, Co-Convener & member in various committees constituted for the College/Institute & Dept. level Programs	Since 1998 onwards	continuing	