Dr. Mukesh Kumar Tiwari

Qualification : Ph.D.
Designation : Assistant Professor & HOD

(Department of Irrigation and Drainage Engineering) & (Department of Soil and Water Conservation Engineering)

In-charge-Training and Placement & Coordinator StudentREADY Program
CAET, AAU, Godhra

Experience : 15 Years

Specialized Subject : Soil and Water Conservation Engineering

Area of Specialization: Hydrology and Water Resources, Remote Sensing and GIS, Soft Computing Techniques in Water Resources Engineering, Irrigation Planning and Management,

Personal Details :

E-Mail:	mukesh.tiwari@aau.in, tiwari.iitkgp@gmail.com
Birth Date:	30-07-1978
Qualification:	2007 - 2011: **PhD (Soil and Water Conservation Engineering)** Indian Institute of Technology (IIT), Kharagpur, West Bengal, India 2002 - 2004: **Master of Technology (Soil and Water Engineering)** Indian Institute of Technology (IIT), Kharagpur, West Bengal, India 1997 - 2001: **Bachelor of Technology (Agricultural Engineering)** Jawaharlal Nehru Krishi Vishvavidyalaya (JNKVV), Jabalpur, MP, India 2006 & 2011: Qualified **NET-2006** and **NET-2011** (National Eligibility Test) conducted by ICAR-ASRB. 2001: Qualified in **GATE'2001** Exam. in Agril. Engg. with 95.69 percentile with all India rank 17th.
PG Guiding	Completed 8 M. Techs, 03 M. Techs (On-going), 02 PhD. (On-going)
Research Profiles:	
Academia.edu	https://anandagriculturalu.academia.edu/MukeshTiwari
Google Scholar	https://scholar.google.com/citations?hl=en&user=djHLBSAAAAAJ
Orcid id	https://orcid.org/0000-0003-0385-4426
Scopus	https://www.scopus.com/authid/detail.uri?authorId=35331082600
Publons	https://publons.com/researcher/467427/mukesh-kumar-tiwari

Experience	
	Project Associate (June, 2004 to Feb, 2005) SRIJAN, NGO, New Delhi
	Research Associate (Mar, 2005 to Mar, 2006) Water Technology Centre, Indian Agricultural Research Institute (IARI), New Delhi, India
	Research Fellow (Apr., 2006 to Aug., 2006) Dept. of Civil Engineering, Indian Institute of Technology (IIT), Delhi
	Research Associate (Sept, 2006 to Jan, 2007) Department of Agril. & Food Engg., Indian Institute of Technology (IIT), Kharagpur, India
	Assistant Professor (Feb, 2011 to Sept, 2011) Dept. AgrilEngg. & Tech., Nagaland University, India
	Assistant Professor (Oct., 2011 to Feb., 2012) Gyan Ganga Institute of Technology and Sciences (GGITS), Jabalpur
	Assistant Technical Specialist (Mar, 2012 to May, 2012) RMSI Pvt. Ltd., Noida, India
	Assistant Professor (May, 2012 to Till date) College of Agricultural Engineering & Technology, Anand Agricultural University, Godhra

Development & Research Activities

S. No.	Sponsoring Agency	Title of Project	(PI/Co-PI/other)	Status of the Project
1.	Anand Agricultural University, Anand	Forecast of Monthly Drought Indices (SPI and SPEI) in Middle Gujarat	PI	On-going
2.	Anand Agricultural University, Anand	Estimation of evapotranspiration using MODIS and Landsat-8 dataset in selected semiarid region of middle Gujarat	PI	Completed
3.	Anand Agricultural University, Anand	Daily and monthly rainfall forecasting using Extreme Learning Machines (ELMs), ANN with genetic algorithm (GANN) in the middle region of Gujarat.	PI	Completed
4.	Anand Agricultural University, Anand	Evaluating canal scheduling approaches for optimumproductivity in Panam irrigation command area	PI	Completed
5.	Information Technology Research Academy (ITRA), Ministry of Electronics and	Measurement to management (M2M): Improved water use efficiency and agricultural productivity through experimental sensor network	PI	Completed

	Information Technology, New Delhi, GoI.			
6.	Anand Agricultural University, Anand	Impact Assessment of Future Climate Change on Water Availability in the Semi-arid Middle Region of Gujarat	PI	Completed
7.	Anand Agricultural University, Anand	Evaluating canal scheduling approaches for optimum productivity in Panam irrigation command area	PI	Completed
8.	Anand Agricultural University, Anand	Daily and Monthly Rainfall Forecasting using Extreme Learning Machines (ELMs), ANN with genetic algorithm (GANN) in the Middle region of Gujarat	PI	Completed
9.	Anand Agricultural University, Anand	Diagnostic Analysis to Understand the Performance of Agricultural Systems in the Periphery of Narmada Command Area. Anand Agricultural University	Co-PI	Completed

Publications:

	International Publications	:	28
	National Publications	:	03
	National Conferences	:	05
	National Conference/Seminar/ Symposium/Workshop	:	08
	International Conferences/Seminar/Workshop	:	15
Reviewer Assignment	▪ Reviewer of research papers for more than 30 Journals of international repute related to Water Resources Engineering		
List of Publications in National/International Journals	1. Rajani, N. V., Tiwari, M.K., Chinchorkar, S. S., Pampaniya, N.K., Parmar, S. (2020). Long-term trend analysis of rainfall using hybrid Discrete Wavelet Transform (DWT) based Mann-Kendall tests in central Gujarat region, India. Mausam, 71, 2 209-224. 2. Kumar, D. and Tiwari M. K., (2020) Optimization Modelling of Conjunctive Use of the Irrigation Water Resources for Agricultural Sustainability. International Journal of Current Microbiology and Applied Sciences, 9(5): 1467-1480.		

3. Koradia, A.K., Bhalala, A. D., Tiwari, M.K. (2019). Rainfall-runoff simulation modelling using artificial neural networks in semi-arid middle Gujarat region. Indian Journal of Soil Conservation, 47(3), 231-238.
4. Mouatadid, S., Adamowski, J. F., Tiwari, M. K., Quilty, J. M. (2019). Coupling the maximum overlap discrete wavelet transform and long short-term memory networks for irrigation flow forecasting. Agricultural Water Management, 219, 72-85.
5. Makwana J. J., Tiwari, M. K., Pampaniya, N. K. (2019). Impact assessment of land use and cover changes on water resources using RS and GIS techniques in watershed area. Journal of soil and water conservation, 18(1).
6. Parmar, S. H., Tiwari. M. K., Pargi, D., Pampaniya, N. K., Rajani, N. V. (2019). Modeling the land surface temperature using thermal remote sensing at Godhra, Gujarat. Journal of Agrometeorology, 21(1): 107-109.
7. Pampaniya N. K., Tiwari, M. K. (2018). Assessment of land use/land cover change in hadaf watershed using different transformation methods employing remote sensing, GIS and HEC-HMS modelling technique.Journal of Soil and Water Conservation, 17(3): 226-231.
8. Kumar, D., Tiwari, M.K. (2018). Scheduling irrigation in a selected Panam canal command in Panchmahal district for optimum water use. Journal of Soil and Water Conservation. 17(2): 127-133.
9. Makwana, J., Tiwari, M. K. (2017). Hydrological stream flow modelling using soil and water assessment tool (SWAT) and neural networks (NNs) for the Limkheda watershed, Gujarat,India. Modeling Earth Systems and Environment, 3(2):635-645.
10. Deo, R.C., Tiwari, MK, Adamowski, JF, Quilty, JM. (2017). Forecasting effective drought index using a wavelet extreme learning machine (W-ELM) model. Stochastic Environmental Research and Risk Assessment, 31(5), 1211–1240. DOI: 10.1007/s00477-016-1265-z.
11. Kumar D., Tiwari, M.K., Vyas, D.K. (2016). Canal based Irrigation Scheduling and Conjunctive Water Use Planning for Optimal Cropping Pattern -A Review. International Journal of Agriculture Sciences, ISSN: 0975-3710 & E-ISSN: 0975-9107, 8 (58), 3240-3244.
12. Pampaniya, N. K., Tiwari, M. K. (2016). Morphometric analysis and prioritization of Hadaf Watershed in Semi-Arid middle region of Gujarat. Advances in Life Sciences, 5(17), 7062-7074.

13. Makwana, J., Tiwari, M.K., (2016). Prioritization of agricultural sub-watersheds in semi arid middle region of Gujarat using Remote Sensing and GIS. Environmental Earth Sciences. Environmental Earth Sciences. 75 (2), 1-12.
14. Tiwari, M. K., Adamowski, J. Adamowski, K. (2016). Water demand forecasting using extreme learning machines. Journal of Water and Land Development. 28 (1), 37-52.
15. Tiwari, M. K., Adamowski, J. (2017). An ensemble wavelet bootstrap machine learning approach to water demand forecasting: A case study in the city of Calgary, Canada. Urban Water Journal. 14 (2), 185-201. DOI:10.1080/1573062X.2015.1084011.
16. Kumar, S., Tiwari, M.K., Chatterjee, C., Mishra, A. (2015). Reservoir Inflow Forecasting Using Ensemble Models Based on Neural Networks, Wavelet Analysis and Bootstrap Method. Water Resources Management, Water Resources Management, 29(13): 4863–4883.DOI: 10.1007/s11269-015-1095-7.
17. Tiwari, M.K., Adamowski, J.F. (2015). Medium-term urban water demand forecasting with limited data using an ensemble wavelet–bootstrap machine-learning approach. Journal of Water Resources Planning and Management. 141(2): 04014053.
18. Adamala, S., Raghuwanshi, N., Mishra, A., Tiwari, M.K. (2015). "Closure to "Evapotranspiration Modeling Using Second-Order Neural Networks" by Sirisha Adamala, N. S. Raghuwanshi, Ashok Mishra, and Mukesh K. Tiwari." Journal of Hydrologic Engineering, 10.1061/(ASCE)HE.1943-5584.0001207, 07015015.
19. Makwana, J.J., Tiwari, M.K. (2014). Intermittent Streamflow Forecasting and Extreme Event Modelling using Wavelet based Artificial Neural Networks. Water Resources Management, 28:4857-4873.
20. Sehgal, V., Tiwari, M.K., Chatterjee, C. (2014). Wavelet Bootstrap Multiple Linear Regression Based Hybrid Modeling for Daily River Discharge Forecasting. Water Resources Management, 28(10): 2793-2811.
21. Adamala, S, Raghuwanshi, N.S., Mishra, A., Tiwari, M.K. (2014). Development of generalized higher-order synaptic neural based ETo models for different agro-ecological regions in India. Journal of Irrigation and Drainage Engineering, 140(12): 04014038.
22. Tiwari, M.K., Adamowski, J.F. (2013). Urban water demand forecasting and uncertainty assessment using ensemble

	wavelet-bootstrap-neural network models. Water Resources Research, 49: 6486-6507. DOI: 10.1002/wrcr.20517. 23. Adamala, S., Raghuwanshi, N.S., Mishra, A., Tiwari, M.K. (2013). Evapotranspiration modeling using second-order neural networks. Journal of Hydrologic Engineering, 19(6): 1131-1140. 24. Kant, A., Suman, P.K., Giri, B.K., Tiwari, M.K., Chatterjee, C., Nayak, P.C., Kumar, S. (2013). Comparison of multi-objective evolutionary neural network, adaptive neuro-fuzzy inference system and bootstrap-based neural network for flood forecasting. Neural Computing and Applications, 23 (Supp 1):S231–S246. 10.1007/s00521-013-1344-8. 25. Tiwari, M.K., Song, K.-Y., Chatterjee, C., Gupta, M. (2013). Improving reliability of riverflow forecasting using neural networks and self organising maps (SOMs). Journal of Hydroinformatics, 15(2):486-502. 26. Tiwari, M.K., Song, K.-Y., Chatterjee, C., Gupta, M. (2012). River flow forecasting using higher order neural networks. Journal of Hydrologic Engineering, 17(5):655-666. 27. Tiwari, M.K., Chatterjee, C. (2011). A new Wavelet-Bootstrap-ANN hybrid model for daily discharge forecasting. Journal of Hydroinformatics, 13(3):500-519. 28. Tiwari, M.K., Chatterjee, C. (2010). Uncertainty assessment and ensemble flood forecasting using bootstrap based artificial neural networks (BANNs). Journal of Hydrology, 382:20-33. 29. Tiwari, M.K., Chatterjee, C. (2010). Development of an accurate and reliable hourly flood forecasting model using Wavelet-Bootstrap-ANN hybrid approach. Journal of Hydrology, 394:458–470. 30. Tiwari, M.K., Jha, M.K. (2008). Development and Testing of SISCASDE: Computer software for the selection, design and evaluation of surface irrigation systems. International Journal of Environment and Development, 5(2): 227-249. 31. Tiwari, M.K., Chatterjee, C. (2009). Daily discharge forecasting using WANNs coupled with nonlinear bias correction techniques. IAHS Publ. 331.
Publications in conferences/symposium	1. Tiwari, M. K., Subbaiah, R. (2019). Rainfall forecasting using soft computing techniques coupled with maximum overlap discrete wavelet transform (MODWT) and Principal component analysis (PCA). In the Proceedings of 53rd Annual Convention of Indian Society of Agricultural Engineers and International Symposium on "Engineering Technologies for Precision and Climate Smart Agriculture" held during January 28-30, 2019, at BHU, Varanasi, UP. pp. 221, ISAE-2019/SWC/HGIM-15.

		2. Makwana, J. J., Pampaniya N., Tiwari, M. K. (2019). Estimation of Daily Reference Evapotranspiration (ET_o) using Artificial Neural Networks in Semi Arid Middle Gujarat Region. In the Proceedings of 53rd Annual Convention of Indian Society of Agricultural Engineers and International Symposium on "Engineering Technologies for Precision and Climate Smart Agriculture" held during January 28-30, 2019, at BHU, Varanasi, UP. pp. 273, ISAE-2019/SWC/WRCC-16. pp. 274, ISAE-2019/SWC/WRCC-17. 3. Parmar, S. H., Tiwari, M. K., Pampaniya, N. K., Subbaiah, R. (2019). Estimation of Reference and Crop Evapo-transpiration in Panam Canal Command using Remote Sensing and GIS. In the Proceedings of 53rd Annual Convention of Indian Society of Agricultural Engineers and International Symposium on "Engineering Technologies for Precision and Climate Smart Agriculture" held during January 28-30, 2019, at BHU, Varanasi, UP. 4. Tiwari, M. K., Makwana, J., Pampaniya, N., (2018). Impact Assessment of Future Climate Change on Water Availability in the Semi-Arid Middle Region of Gujarat, India. In the proceeding of 52nd Annual Convention of ISAE and National Symposium on "Doubling Farmer's Income Through Technological Interventions". pp. 249. ISAE-2018/SWE/HCWM-06. 5. Tiwari, M. K., Mehra, V., Kulshreshta, M. S. (2018). Monthly rainfall forecasting using extreme learning machines. In the proceeding of 52nd Annual Convention of ISAE and National Symposium on "Doubling Farmer's Income Through Technological Interventions". pp. 250. ISAE-2018/SWE/HCWM-08. 6. Kumar, D., Tiwari, M. K. (2018). Optimization modeling of conjunctive use of the irrigation water resources for agricultural sustainability. In the proceeding of 52nd Annual Convention of ISAE and National Symposium on "Doubling Farmer's Income Through Technological Interventions". pp. 272. ISAE-2018/SWE/SP-01. 7. Rajani, N., Tiwari, M. K., Chinchorkar, S. S., Parmar, S. (2018). Analysis of trend and periodicity of rainfall in middle Gujarat region using non parametric method and discrete wavelet transform. In the proceeding of 52nd Annual Convention of ISAE and National Symposium on "Doubling Farmer's Income Through Technological Interventions". pp. 273. ISAE-2018/SWE/SP-04.

		8. Patel, R., Patel, D., Brahmbhatt, M., Tiwari, M.K. (2018). Estimation of Crop Water Requirement of Different Crops in Panam Canal Command Area, Middle Gujarat Region. In the proceeding of 52nd Annual Convention of ISAE and National Symposium on "Doubling Farmer's Income Through Technological Interventions". pp. 275. ISAE-2018/SWE/SP-06. 9. Tiwari, M.K., Anand, A., Raval, V., and Kumar, D. (2017). Estimation and performance evaluation of evapotranspiration using MOD16 thermal remote sensing and ground based meteorological data for semi-arid middle Gujarat region, India. In the proceeding of 51st Annual Convention of ISAE and National Symposium on "Agricultural Engineering for Sustainable and Climate Smart Agriculture". pp. 187. ISAE-2017/SWE/WR-30. 10. Kumar, D., Tiwari, M., Patel, V., Panchal, C. (2017). Performance evaluation of Panam irrigation canal in the middle Gujarat region, India. In the proceeding of 51st Annual Convention of ISAE and National Symposium on "Agricultural Engineering for Sustainable and Climate Smart Agriculture". pp. 188. ISAE-2017/SWE/WR-33. 11. Tiwari, M.K., Parmar, S., Pargi, D., Rajani, N. (2017). Evapotranspiration modeling using thermal remote sensing and geographical information system (GIS). In the proceeding of 51st Annual Convention of ISAE and National Symposium on "Agricultural Engineering for Sustainable and Climate Smart Agriculture". pp. 189. ISAE-2017/SWE/WR-36. 12. Pampaniya, N. K., Tiwari, M. K. (2017). Rainfall Runoff modeling using Remote Sensing, GIS and HEC-HMS Model. In proceeding of National Conference on Sustainable Engineering Practices in Materials, Water and Energy Technologies held at BRCM CET, Bahal during 18th – 19th March, 2017, pp-80-85. 13. Tiwari, M. K., Kumar Sanjeet. (2016). Reservoir Inflow Forecasting Using Extreme Learning Machines. In proceedings of International Conference on Water Environment, Energy & Society-2016 (ICWEES-2016) organized by Texas A & M University, USA & AISECT University, Bhopal, India. 14. Sardhara, B. P., Dholariya, J. P., Tiwari, M. K., Gaur, M. L. (2016). Estimation of Minimum and Maximum Air Temperature using MODIS Remote Sensing Imagery and Geographical Information System (GIS). In proceedings of International Conference on Water Environment, Energy & Society-2016 (ICWEES-2016) organized by Texas A & M University, USA & AISECT University, Bhopal, India.

15. Tiwari, M. K., Sardhara, B. P., Dholariya, J. P., Pampaniya, N., Gaur, M. L. (2016). Estimation of Evapo-transpiration using MODIS Satellite Imagery, Remote Sensing, Geographical Information Systems and Artificial Neural Networks. In proceedings of 29th National Convention of Agricultural Engineers on "Agro-Tech Industries: Status, Scope and Strategies for Food Security" organized jointly by The Institutions of Engineers (India) and Anand Agricultural University, Anand during February 20-21, 2016 at AAU, Anand
16. Pampaniya, N. K., Tiwari, M. K., Gaur, M. L. (2016). Hydrological Modeling of an Agricultural Watershed using HEC-HMS Hydrological Model, Remote Sensing and Geographical Information System. In proceedings of 29th National Convention of Agricultural Engineers on "Agro-Tech Industries: Status, Scope and Strategies for Food Security" organized jointly by The Institutions of Engineers (India) and Anand Agricultural University, Anand during February 20-21, 2016 at AAU, Anand.
17. Tiwari, M. K. (2015). River Flow Forecasting using Neural Networks Coupled with Wavelet Analysis. Proceedings of National Conference on Recent Advancement in Civil and Environmental Engineering (28th and 29th Nov, 2015) RACEE-2015, held at Civil Engineering Department, BRCM College of Engineering and Technology, Bahal-127028, Bhiwani, Haryana pp-174-179.
18. Tiwari, M. K., Gaur, M. L. Siyag, Pappu Ram and Kumar, Ankush. (2014). Impact Assessment of Land Use Change on Runoff Generation using Remote Sensing & Geographical Information System. In proceedings of the 15th ESRI India User Conference "Geo-Enabling Digital India" held During December 9-11, 2014 at Delhi.
19. Tiwari, M.K., Gaur, M.L., Baria, Sonal V., Jayesh, Nakum K. (2013). Rainfall-Runoff Modeling using HEC-HMS, Remote Sensing and Geographical Information System in Middle Gujarat, India. In proceedings of National Seminar on Climate Change Impacts on Water Resources Systems 27th-29th November 2013, pp. 140-146.
20. Tiwari, M.K., Chatterjee, C. (2009). Hourly flood forecasting using BANN coupled with nonlinear bias correction technique. Paper presented at International Conference on Food Security and Environmental Sustainability, FSES-2009, December, 17-19, IIT, Kharagpur.
21. Tiwari, M.K., Chatterjee, C. (2008). Ensemble Flood Forecasting Using Artificial Neural Networks in Mahanadi River Basin. Paper

	presented at 1[3th] National Symposium on Infllow Forecasting During Extremes, August 28-29, IIT, New Delhi. 22. Tiwari, M.K., Patel, Neelam, Rajput, T.B.S. (2005): Computer Software for the Design and Evaluation of Micro-sprinkler Irrigation Systems. Paper presented at ICPPF-2005, Nov. 17-21 held at The Ashok, New Delhi. 23. Tiwari, M.K., Jha, M.K. (2005): Designing Furrow Irrigation Systems Using SISCASDE. Paper presented at National Symposium on Efficient Water Management for Eco-friendly, Sustainable and Profitable Agriculture. December 1-3, WTC, New Delhi.
Book Chapters	1. SardharaBharatkumar P., Dholariya Jay P., Tiwari M.K., Gaur M.L. (2018) Estimation of Minimum and Maximum Air Temperature Using MODIS Remote Sensing Imagery and Geographical Information System (GIS). In: Singh V., Yadav S., Yadava R. (eds) Hydrologic Modeling. Water Science and Technology Library, vol 81. Springer, Singapore, Pages 291-306 (https://link.springer.com/chapter/10.1007/978-981-10-5801-1_21) 2. Tiwari M.K., Kumar S. (2018) Reservoir Inflow Forecasting Using Extreme Learning Machines. In: Singh V., Yadav S., Yadava R. (eds) Hydrologic Modeling. Water Science and Technology Library, vol 81. Springer, Singapore, pp 565-585 (https://link.springer.com/chapter/10.1007/978-981-10-5801-1_40) 3. Tiwari, M. K., Chatterjee, C. (2018). Flood Forecasting and Uncertainty Assessment Using Wavelet and Bootstrap Based Neural Networks. In: Kim, D., Samui, P. (eds.) Handbook of Research on Predictive Modeling and Optimization Methods in Science and Engineering, IGI Global. (https://www.igi-global.com/book/handbook-research-predictive-modeling-optimization/185480#table-of-contents)
Extension /Popular Articles	૧. સૂર્યવંશી,એસ. બી.,ચાવડા જે. જે,તિવારી,એમ.કે. (૨૦૧૬). વરસાદી પાણીનાં સંગ્રહ દ્વારા જળ સંરક્ષણ. કૃષિગોવિધા, ૬૮(૧૨). ISSN2320-8902 ૨. ગોર એમ એલ,તિવારી,એમ.કે.(૨૦૧૬). મધ્ય ગુજરાતનાં વિસ્તારમાં વરસાદનાપાણીનો સંગ્રહ. કૃષિગોવિધા, ૬૯(૨). ISSN2320-8902

	૩. તિવારી એમ.કે., પંપાણિયા નિરવ, પારગી, એસ.જે. (૨૦૧૮). ખેતીમા દુષિત પાણી (ઔધોગિક અને ઘરેલુ) નું વ્યવસ્થાપન,કુદરતી સ્ત્રોતોનુ વ્યવસ્થાપન,EXT -૩:૧૫:૨૦૧૮: ૧૦૦૦; ISSN: 978-93-5346-260-4. ૪. તિવારી એમ.કે., પારગી, એસ.જે.,પંપાણિયા નિરવ, (૨૦૧૮).કુદરતી સંશાધનોની જાળવણી અને ગુણવત્તા માપનના સંચાલનમા રિમોટ સેન્સિંગ અને જીઆઈએસનો ફાળો,EXT -૩:૧૫:૨૦૧૮: ૧૦૦૦;ISSN: 978-93-5346-260-4. ૫. પંપાણિયા નિરવ,તિવારી એમ.કે, કુનપરા, અરવિંદ. (૨૦૧૮). ખેતીમાં વરસાદી પાણીનું વ્યવસ્થાપન અને ભૂગર્ભજણ સંગ્રહ. EXT -૩:૧૫:૨૦૧૮: ૧૦૦૦; ISSN: 978-93-5346-260-4.
Practical Manuals:	Pampaniya, Nirav, Tiwari, M.K. (2019). **Irrigation Engineering-Practical Manual**. College of Agricultural Engineering and Techno.logy, AAU, Godhra. EDU-4: 18: 2019: 200 Pampaniya, Nirav K., Tiwari, M.K. (2018). **Practical Manual on Remote Sensing and GIS Applications**. College of Agricultural Engineering and Technology, AAU, Godhra. EDU-4: 3: 2018: 150 Balas, Duda, Tiwari, M.K.. (2019). **Practical Manual on Ground Water, Wells and Pumps**. Department of Irrigation and Drainage Engineering, College of Agricultural Engineering and Technology, AAU, Godhra.EDU-4: 29:2019:200
Honors and Awards:	i. Achieved Certificate of Appreciation for valuable contribution and outstanding performance as a Member of the Scientific Committee of the 2nd Conference of the Arabian Journal of Geosciences (CAJG), Springer, Springer Nature, held in Sousse, Tunisia on 25-28 November 2019.
	ii. Received Certificate of Outstanding Reviewing from the **Journal of Applied Soft Computing**, Elsevier in August 2018.
	iii. Adjudges the award of outstanding performance during a 10 days training programme on **"Strategic Issues in Agricultural Trade under WTO Regime"** to be held from January 19- January 28, 2015 at International Agribusiness Management Institute, AAU, Anand, Gujarat.
	iv. Received the **Best Paper Award** for the research paper entitled "**Impact Assessment of Land Use Change on**

	Runoff Generation using Remote Sensing & Geographical Information System" authored by **Mukesh K. Tiwari,** M. L. Gaur, Pappu Ram Siyag and Ankush Kumar, presented in the 15th ESRI India User Conference "Geo-Enabling Digital India" held During December 9-11, 2014 at Delhi.
	v. Invited as **Visiting Scientist in Department of Biological Engineering, McGill University**, Montreal, Quebec, Canada (8thJul, 2011 to 8th Aug, 2011).
	vi. Awarded the **Canadian Commonwealth Exchange Program-Asia Pacific (formerly GSEP) Fellowship** to conduct research in the area of flood forecasting using some new tools from the field of neural networks and Fuzzy logic approach at the Intelligent Systems Research Laboratory, College of Engineering, **University of Saskatchewan, Canada** for 6 months from April 1st, 2010 to September 30th, 2010.
	vi. Best extension article award for an article entitled "મધ્ય ગુજરાતનાં વિસ્તારમાં વરસાદનાપાણીનો સંગ્રહ. કૃષિગોવિધા, ૬૯(૨)" in Gujarati Language.
Trainings Undertaken:	(i) Attended 19 days online certificate course during 13-06-2020 to 01-07-2020 on "**Remote Sensing & GIS Technology and Applications for University Teachers & Government Officials**" which was conducted by Indian Institute of Remote Sensing (IIRS),ISRO, Dehradun,. (ii) Attended 6 weeks online MOOC course on "**Cartography**" organized by ESRI, USA. (iii) Attended 21 days ICAR sponsored CAFT National Training Programme on "**Recent Advances in Crop Micrometeorology**" attended during 17 September 2019 to 07 October 2019 at Centre for Advanced Faculty Training (CAFT) in Agril.Meteorology, Department of Agricultural Meteorology, College of Agriculture, MPKV, Pune. (iv) Participated in 21 days summer school on "**Geo-Spatial Technologies and Its Applications**" held from 20 March to 09 April, 2017 at Centre of Geoinformatics, Tata Institute of Social Sciences (TISS), Mumbai. (v) Participated in 21 days Centre for Advanced Faculty Training (CAFT) Program on "**Recent Advances in Survey Design and Analysis of Survey Data using Statistical Software"**

	held from Oct 28-Nov 17, 2014, at Indian Agricultural Statistics Research Institute (IASRI), New Delhi. (vi) Participated in 10 days short course on "**Strategic Issues in Agricultural Trade under WTO Regime**" from 19th to 28th January, 2015 held at the International Agribusiness Management Institute (IABMI), Anand Agricultural University, Anand – 388 110 (Gujarat). (vii) Participated in a 5 days training programme on "**Sustainable Development and Management of Groundwater Resources**" from 16-20 March, 2015 held at College of Agricultural Engineering and Technology (CAET), AAU, Dholakuva, Dahod Road, Godhra-389001.
Organized Training (Centrally Sponsored)	(i) Organized a 08 days Model Training Course as a Course Coordinator On the topic entitled "**Hydrological and Crop Simulation Modeling in the Arena of Climate Change**", during 06-13 February, 2018 Sponsored by Department of Agriculture Cooperation & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Govt. of India, New Delhi. (ii) Organized a 21 days summer school as Course Co-director entitled "**Water and Energy Security in The Arena of Climate Change**" sponsored by Information Technology Research Academy (ITRA), MediaLabAsia, Ministry of Electroics and Information Technology, Govt of India, during 17 January-06 February, 2017 at College of Agricultural Engineering and Technology, Anand Agricultural University, Godhra, Gujarat, India.
Membership of Professional Societies	▪ Life member of Indian Association of Soil and Water Conservationists (IASWC), Life Membership No.-LM-1595. ▪ Life member of Indian Society of Agricultural Engineering, Life Membership No.- ISAE -LM-10943. ▪ Life member of The Institution of Engineers (India) (Membership No: M- 1552508). ▪ Life member of Association of Agrometeorologist (LM-1267)