

## BIO-DATA of Dr. M. P. Tripathi



### 1. General Information

Name (In Capital Letters)	Dr. MAHENDRA PRASAD TRIPATHI
Date of Birth (Day / Month / Year)	19/09/1964
Correspondence Address	(1) B-01, Vishal Nagar, Ravigram, Raipur (Chhattisgarh) 492006 (2) Professor/Principal Scientist, Department of Soil and Water Engineering, IGKV, Krishak Nagar, Raipur (Chhattisgarh) 492012
Permanent Address	(3) Village: Kushiyara Post office: Maidnipur Via: Jaitwara Distt.: Satna M. P.
Contact Number	Mobile Number: 9826128564 Landline Number: 771-2970216
email	mktripathi64@gmail.com

### 2. Present Position

a.	Designation	Professor/Principal Scientist and Dean
b.	Organization	Indira Gandhi Krishi Vishwavidyalaya Raipur, Chhattisgarh
c.	Pay Scale (with Grade Pay)	Rs. 37,400-67,000/- GP Rs.10,000/-
d.	Date of appointment to the present post	29/03/2008
e.	Total Experience (In Years and Months)	<b>14 years 4 months</b>

### 3. Details of Experience

S. No.	Post held	Pay Scale	Organization	Nature of duties	Experience (In Years and Months)
1	Assistant Professor/Junior Scientist	Rs. 2200-4000/-	Indira Gandhi Krishi Vishwavidyalaya, Raipur	Research and Teaching	11 years 7 months
2	Associate Professor/Senior Scientist	Rs. 12,000-18,300/-	Indira Gandhi Krishi Vishwavidyalaya, Raipur	Research and Teaching	8 years
3	Professor/Chief Scientist/Principal Scientist	Rs. 37,400-67,000/- + GP Rs.10,000/-	Indira Gandhi Krishi Vishwavidyalaya, Raipur	Research and Teaching	<b>14 years 4 months</b>

### 4. Educational Qualification

S. No.	Qualification	University	Year	Subject(s)/ Topic(s)	% Achieved	Distinctions etc.
1	Ph. D.	Indian Institute of Technology, Kharagpur, W.B.	2000	Title of Thesis: Hydrological Modelling for Effective Management of A Small Watershed		

2	M. Tech. (Agril. Engg.)	Jawaharlal Nehru Krishi Vishwavidyalaya, Jabalpur, M.P.	1987	All subjects of Soil and Water Engineering	78.29 (3.79/4)	First Division & 2 <sup>nd</sup> in Merit
3	B. Tech. (Agril. Engg.)	Jawaharlal Nehru Krishi Vishwavidyalaya, Jabalpur, M.P.	1984	All subjects of Agricultural Engineering	74.28 (3.42/4)	First Division
4	"C" Certificate during graduation	Directorate of National Cadet Carps, Bhopal, M.P.	1982	Electrical and Mechanical Engineering	C-Grade	Sergeant

### 5. Administrative Experience

S. No.	Post	Organization / University	Duration		Experience (In Years and Months)
			From (Date)	To (Date)	
1	Dean of College	BRSM College of Agricultural Engineering and Technology & RS, Mungeli, Faculty of Agricultural Engineering, IGKV, Raipur	04/07/2022	Continue	1 month
2	Dean of College & Faculty	SV College of Agricultural Engineering and Technology & RS, Faculty of Agricultural Engineering, IGKV, Raipur	19/05/2020	03/10/2021	1 years 4 months
3	Dean of College	College of Food Technology, IGKV, Raipur	26/10/2020	04/07/2022	1 year 9 months
4	Head of the Department	Dept. of Soil and Water Engineering, SV College of Agricultural Engineering and Tech. & RS, IGKV, Raipur	01/07/2013	03/10/2021	8 years 3 months
5	Head of the Department	Dept. of Soil and Water Engineering, SV College of Agricultural Engineering and Tech. & RS, IGKV, Raipur	21/10/2021	15/07/2022	1 year 9 months
6	Head of the Department	Dept. of Agricultural Processing and Food Engineering, SV College of Agricultural Engineering and Tech. & RS, IGKV, Raipur	19/05/2020	15/07/2022	2 years 2 months
7	Professor/ Principal Scientist/Chief Scientist	All India Coordinated Research Project on Irrigation Water Management, IGKV, Raipur	29/03/2008	Continue	14 years 4 months
8	Member Academic Council	Indira Gandhi Krishi Vishwavidyalaya, Raipur	02/07/2013	Till date	9 years

9	Member Administrative Council	Indira Gandhi Krishi Vishwavidyalaya, Raipur	30/05/2015	17/07/2016	1 year 1 month
10	Member Administrative Council	Indira Gandhi Krishi Vishwavidyalaya, Raipur	30/06/2020	15/08/2021	1 year 1 months
11	Member of Professional Academic Bodies	I. Indian Society of Agricultural Engineers, LM-477 (1989) and F-244 (08/01/2018) (worked as Chairman of ISAE-CG Chapter for 3 terms, each terms having 2 calendar years) II. Indian Water Resources Society, LM-92-4090 (09/11/1992) and F-1424 (2018) III. The Institution of Engineers (India), F-113555-0 (14/03/2009) IV. Indian Association of Soil and Water Conservationists, LM-885 (22/11/1996) V. Indian Society of Remote Sensing, LM-2135 (01/12/2001) VI. Soil Conservation Society of India, LM- 2399 (23/10/2009) VII. Indian Association of Hydrologists, LM-1516 (22/11/2008) VIII. Association of Global Groundwater Scientist, Coimbatore, LM-AGGS-070 (05/09/2013) IX. Agriculture Education & Research Foundation, IGKV, Raipur, LM- 411 (29/05/2015) X. Journal of Agricultural Issues, IGKV, Raipur, LM-759 (20/04/2012) XI. Indian Climate Congress, Cuttack, Founder LM-100 (01/04/2018) XII. Agricultural Technology Development Society (ATDS) LM-957 (15/06/2019)			

#### 6. (a). Academic/Teaching/Research Experience

S. No.	Post	Organization / University	Duration		Experience (In Years and Months)
			From (Date)	To (Date)	
1	Chief Scientist / Professor & Head	Indira Gandhi Krishi Vishwavidyalaya, Raipur	29/03/2008	15/07/2022	14 years 4 months
2	Senior Scientist/ Associate Professor	Indira Gandhi Krishi Vishwavidyalaya, Raipur	29/03/2000	28/03/2008	8 years
3	Junior Scientist/ Assistant Professor	Indira Gandhi Krishi Vishwavidyalaya, Raipur	12/08/1999	28/03/2000	11 years 7 months

#### (b). Participation and contribution in relevant areas in higher education

Position	Organization	Area of specialization
Resource Person	National Institute of Technology, Raipur, C.G.	Application of Remote Sensing and GIS for Water Resources Development
Resource Person	State Chapter - Institution of Engineers (India), Raipur, C.G.	Surface and Groundwater Development and Management
Resource Person	Central Ground Water Board, Raipur C.G.	Estimation of Water Requirement using CROPWAT model
Resource Person	Water Technology Centre, Tamil Nadu Agricultural University, Coimbatore	Groundwater Modelling and Management Using visual MODFLOW Model
Resource Person	National Institute of Technology, Raipur, C.G.	Watershed Modelling and Management Using SWAT Model

Resource Person	Indian Association of Soil and Water Conservationists, Dehradun, Uttarakhand	Groundwater Assessment of a Small Agricultural Watershed Using Visual Modflow
Resource Person	ICAR-IISWC, Research Centre, Koraput, Odisha	Soil and Water Conservation Techniques Based on Farming Situations of Chhattisgarh State

**(c). Involvement with formulation of academic programmes**

S. No.	Nomenclature of Innovative Academic Programmes formulated	Date of approval of Academic Council	Year of Introduction
1	B. Tech. (Agricultural Engineering) 4th Dean's Committee	12/09/2008	2009
2	M. Tech. (Soil and Water Engineering) 4th Dean's Committee	29/05/2014	2014
3	Ph. D. (Soil and Water Engineering) 4th Dean's Committee	29/05/2014	2014
4	B. Tech. (Agricultural Engineering) 5th Dean's Committee	17/07/2017	2017
5	B. Tech. (Food Technology) New UG Degree based on 5th Dean's Committee	08/06/2020	2020

**(d). Important MoUs formulated for academic collaborations**

S. No.	MoUs formulated	Name of Agencies / Departments involved	Year of MoU
1	Student's research work (PG and Ph.D.) of IGKV, Raipur, C.G.	ICAR-Indian Institute of Water Management, Bhubaneswar, Odisha	2014
2	Student's research work (PG and Ph.D.) of IGKV, Raipur, C.G.	National Institute of Hydrology, Roorkee, Uttarakhand	2016
3	Student's research work (PG and Ph.D.) of IGKV, Raipur, C.G.	Regional Remote Sensing Center-RRSC is located in Nagpur, Maharashtra	2016
4	Student's research work (PG and Ph.D.) of IGKV, Raipur, C.G.	National Remote Sensing Center (ISRO) Hyderabad, Telengana	2017
5	Student's research work (PG and Ph.D.) of IGKV, Raipur, C.G.	Water and Land Management Training and Research Institute, Hyderabad	2018
6	Student's research work (PG and Ph.D.) of IGKV, Raipur, C.G.	Central Agricultural University, Iroisemba, Imphal, Manipur	2020
7	Research and Development (National Hydrology Project), IGKV, Raipur, C.G.	National Remote Sensing Centre ISRO, Department of Space, Govt. of India, Balanagar, Hyderabad	2021

**(e). Position of Chairs**

S. No.	Name of Chair	Name of Agencies / Departments involved	Period of holding the Chair
1	Dean of the College	BRSM College of Agricultural Engineering and Technology & Research Station, Mungeli, FAE, IGKV, Raipur	04/07/2022 to till date
2	Dean of the Faculty	Swami Vivekanand College of Agricultural Engineering and Technology & Research Station, FAE, IGKV, Raipur	19/05/2020 to 03/10/2021
3	Dean of the College	College of Food Technology, IGKV, Raipur	26/10/2020 to 04/07/2022

4	Head of Department	Department of Soil and Water Engineering, FAE, IGKV, Raipur	01/07/2013 to 03/10/2021
5	Head of Department	Department of Soil and Water Engineering, FAE, IGKV, Raipur	21/10/2021 to 15/07/2022
6	Head of Department	Department of Agricultural Processing and Food Engineering, FAE, IGKV, Raipur	19/05/2020 to 15/07/2022
7	Principal Investigator	AICRP on Ground Water Utilization, Department of Soil and Water Engineering, SVCAET, IGKV, Raipur	09/10/2004 to 29/06/2018
8	Chief Scientist	AICRP on Irrigation Water Management, Department of Soil and Water Engineering, SVCAET, IGKV, Raipur	30/06/2018 to 15/07/2022
9	Convener of Webinar	AICRP on Irrigation Water Management, Department of Soil and Water Engineering, SVCAET, IGKV, Raipur	23/07/2021 to 23/07/2021
10	Convener of Webinar	Swami Vivekanand College of Agricultural Engineering and Technology & Research Station, IGKV, Raipur	03/07/2020 to 03/07/2020
11	Course Director, Model Training Course	Swami Vivekanand College of Agricultural Engineering and Technology & Research Station, IGKV, Raipur	24/08/2018 to 31/08/2018
12	Organizing Secretary, Chief Scientist Meet of AICRP on IWM	Swami Vivekanand College of Agricultural Engineering and Technology & Research Station, IGKV, Raipur	09/07/2019 to 11/07/2019
13	Organizing Secretary, QRT Meeting of AICRP on IWM	Swami Vivekanand College of Agricultural Engineering and Technology & Research Station, IGKV, Raipur	02/01/2018 to 03/01/2018
14	Co-course Coordinator, Training Programme on Drought Risk and its Mitigation in Agriculture	Indira Gandhi Krishi Vishwavidyalaya, Raipur	01/02/2015 to 31/03/2015
15	Course Director, Training Programme on Drought Risk and its Mitigation in Agriculture	Indira Gandhi Krishi Vishwavidyalaya, Raipur	16/02/2015 to 21/02/2015
16	Chairman/Co-chairman Counseling, UG, PG and Ph.D. admission	Indira Gandhi Krishi Vishwavidyalaya, Raipur	01/07/2015 to Till date
17	Coordinator, State Working Group-5 (SWG-5) for Surface and Ground Water Governance and Policy	Agriculture and Allied Sector Task force, State Planning Commission, Govt. of Chhattisgarh, Mahanadi Bhavan, Naya Raipur	20/04/2016 to 29/07/2021
18	Expert/Nodal Officer for Mahanadi Water Dispute Tribunal from IGKV, Raipur	Department of water Resources, Govt. of Chhattisgarh, Mahanadi Bhavan, Naya Raipur	28/02/2019 to Till date
19	Organizing Secretary, Brainstorming Workshop and National Seminar on ETEWP-2016	Indira Gandhi Krishi Vishwavidyalaya, Raipur and Information Technology Research Academy (ITRA), Ministry of Communication and Technology, New Delhi	17/11/2016 to 18/11/2016
20	Organizing Secretary, QRT Meeting of AICRP on IWM	SV College of Agricultural Engineering and Technology and Research Station, IGKV, Raipur	07/03/2007 to 09/03/2007

21	Member, Working Group-05 for Agricultural Education	State Planning Commission, Govt. of Chhattisgarh, Mahanadi Bhavan, Naya Raipur	30/07/21 to Till date
----	---	--	-----------------------

## 7. International academic Exposure, if any

S. No.	Post / Assignment	Organization / University	Area of Assignment	Duration		
				From	To	In Years & Months
1	Delegate	Asian Institute of Technology, Bangkok, Thailand	International Conference on "Civil and Environmental Engineering"-New Frontiers and Challenges	8/11/1999	12/11/1999	5 days
2	Participant	Indian Institute of Technology Delhi, Houzkhass, New Delhi	Indo-US Training School on "SWAT/ADAPT Modelling for Integrated Water Resource Management"	20/8/2007	30/8/2007	11 days
3	Member 5344	International Association for Water, Environment, Energy and Society	Development of the Association in the area of Soil, Water and Environment Engineering	January 2020	December 2020	1 year
4	Life Member AGGS-070	Association of Global Groundwater Scientists	Development of the Association in the area of Groundwater Utilization Management	5/9/2013	Till date	8 years 1 month
5	Reviewer	International Journals	Biosystems Engineering, Hydrological Processes, Int. Journal of Soil and Water Conservation	1/4/2003	Till date	18 years 6 months
6	Member	Global Economic Progress & Research Association	Development of the Association in the area of Agricultural Engineering Research	1/2/2019	31/1/2020	1 year
7	My Name is included in the Marquis "Who's Who in the World" Biographical Reference Book (2009 Edition), Published by New Providence, NJ, 07974 USA					

## 8. Scholarly Achievements

### A. Contribution to Journals and Books

Journals and Books	Details *
Books authored	01
Editor in Chief	-
Editorship	04
Peer reviewer	05
Member of International Advisory Board	-
<b>Others (Specify)</b>	
Book Chapter	22

Paper in Conference Proceedings	29
Technical Manual	04
Practical Manual	03
Technical Bulletin	10
Lecture Note in Training Manual	01
Chapter in Monograph	01
Micro Irrigation Plan submitted to CG Govt.	01

**\* Details**

S. No.	Date	Title	Details of Proceedings, Books, Bulletins, Manuals	Publications
1	Jan 20, 1990	Natural Resources Management for Bastar-A need for Past, Present and Future.	Symposiums report on Chhattisgarh Agricultural System, IGAU, Raipur, P: 134-135.	Paper, Conference Proceedings
2	Oct 18, 1999	Runoff Estimation from a Small Watershed Using SWAT Model.	Proceedings of International Conference on Water, Environment, Ecology, Socio-Economics and Health Engineering (eds. V. P. Singh, II Won Seo and Jung H. Sonu), held at Seoul, National University, Seoul, Korea from October 18 to 21, P: 143-152.	Book Chapter
3	Nov 8, 1999	Estimation of Sediment Yield from a Small Watershed Using SWAT Model.	Proceedings of Civil and Environmental Engineering Conference-New Frontiers and Challenges, held at Asian Institute of Technology, Bangkok, Thailand from November 8 to 12, P: I-87 - I-96.	Paper, Conference Proceedings
4	Feb 15, 1999	A Conceptual Storage Routing Model of Hydrologic Response.	Proceedings of the Seminar on "Watershed Management in Hilly Areas-Problem and Prospects", held at North Eastern Regional Institute of Water and Land Management, Tezpur from February 15-16, P: 9-20.	Paper, Conference Proceedings
5	Dec 15, 2003	Hydrological Modelling of a Small Watershed using Satellite Data and GIS.	Advances in Hydrology (ed. V.P. Singh and R.N. Yadava), Proc. of International Conference on Water and Environment (WE-2003) held at Bhopal from 15 to 18 December, P: 313-329.	Book Chapter
6	Dec 15, 2003	Alleviation of Drought through Water Harvesting in Chhattisgarh.	Watershed Management (ed. V.P. Singh and R.N. Yadava), Proceeding of International Conference on Water and Environment (WE-2003) held at Bhopal from 15 to 18 December, P: 365-374.	Book Chapter
7	Oct 12, 2003	Extraction of Watershed Parameters for SWAT Model Using Satellite Data and GIS Technique.	In Proceedings of International Conference on Agriculture Science and Technology (ICAST) held at Texas, U.S.A. from October 12 to 15.	Book Chapter

8	Sep 15, 2003	Hydrological Modelling Using SWAT Model for Effective Management of Critical Sub-watersheds.	36th Engineers Day in Commemoration of 143rd Birth Anniversary of Bharat Ratna Sir Mokshagundam Visvesvaraya organized by The Institutions of Engineers (India) Chhattisgarh State Centre, held at Raipur on 15 September, 2003, P: 39-40.	Paper, Conference Proceedings
9	Dec 14, 2004	Estimation of ET and Crop Planning for Bastar Plateau Zone of Chhattisgarh. Natural Resources Engineering and Management and Agro-Environment Engineering.	Proc. of International Conference on "Emerging Technologies in Agricultural and Food Engineering" (etae 2004) held at Indian Institute of Technology, Kharagpur from 14-17 December, P:201-208.	Book Chapter
10	Jan 16, 2004	Effect of Watershed Subdivisions on Surface Runoff and Sediment Yield Simulated by SWAT Model.	Soil and Water Engineering – Vol. II (ed. Virendra Kumar) Proc. of 38th ISAE Annual Convention and Symposium, held at CAET, Dr. B. S. K. K. V., Dapoli from 16 -18 January, P: V-18 - V-26.	Book Chapter
11	Jan 16, 2004	Calibration and Validation of SWAT Model for Simulation of Surface Runoff and Sediment Yield from a Small Watershed.	Soil and Water Engineering – Vol. II (ed. Virendra Kumar) Proceedings of 38th ISAE Annual Convention and Symposium, held at CAET, Dr. B. S. K. K. V., Dapoli from 16 - 18 January, P: V-27 - V-36.	Book Chapter
12	Jan 16, 2004	Design and Development of a Small Unit of Rainfall Simulator.	Soil and Water Engineering – Vol. II (ed. Virendra Kumar) Proc. of 38th ISAE Annual Convention and Symposium, held at CAET, Dr. B. S. K. K. V., Dapoli from 16 -18 January, P: I-97- I-105.	Book Chapter
13	Jan 24, 2004	Role of Information Technology in Watershed Management.	Proc. of All India Seminar-2004 on "Role of Information and Communication Technology for Over-all Development", organized by The Institutions of Engineers (India) Chhattisgarh State Centre, at Raipur from 24-25 January, P: 15-19.	Paper, Conference Proceedings
14	Jan 24, 2004	Role of Geographical Information System and Remote Sensing in Precision Farming.	Proc. of All India Seminar-2004 on "Role of Information and Communication Technology for Over-all Development", organized by The Institutions of Engineers (India) Chhattisgarh State Centre, at Raipur from 24-25 January, P: 107-110.	Paper, Conference Proceedings
15	Feb 3, 2004	Conceptual Frame Work of Water Demand for Different Duration Rice and Strategies for Maximizing Yield and Water Use Efficiency.	National Training on Production Technology of Rainfed Rice held from 3-10 February, 2004 sponsored by GOI, Directorate of Extension, Krishi Vistar Bhawan, New Delhi, P: 30-39.	Paper, Conference Proceedings



16	Feb 27, 2004	Suitable Water Management Practices for Rice Based Chickpea under Midland Situation.	Creativity in Water Management (ed. S.K. Pathak), Proceedings of National Seminar held at M. P. Water & Land Management Institute, Bhopal, from 27-28, February, P:214-227.	Book Chapter
17	Mar 31, 2005	NRrhlx<+ ds ty L=ksr ,oa y?kq flapkbZ ;kstuk;sa ¼d`f`k ,oa m kfudh fodkl ds ifjis{; esa½	NRrhlx<+ “kklu }kjk d`f`k ,oa lgdkfjrk ea=ky; Hkkjr ljdkj dks fuf/k vuqeksnu gsrq izLrko] ifCyds”ku ua- IGAU/Pub./2005/06.	Micro Irrigation Plan submitted to CG Govt.
18	Mar 31, 2005	flapkbZ ty dk leqfpr izca/ku	e`nk ,oa ty vfHk;kaf=dh foHkkx] d`f`k vfHk;kaf=dh ladk;] bafnj kxka/kh d`f`k fo”ofo ky;] jk;iqj ¼N-x-½ ifCyds”ku ua- IGAU/Pub./2005/05.	Technical Bulletin
19	Nov 23, 2005	Rainfall-Runoff Modelling of a Agricultural Watershed Using GIUH_CAL Model.	Hydrological Perspectives for Sustainable Development- Volume I. P (ed. D.C. Singhal, D.S. Arya, D.K. Srivastava, N.K. Goel, B.S. Mathur, H. Joshi, Ranveer Singh and M.D. Nautiyal), Proceedings of the International Conference held at IIT, Roorkee, from 23- 25, November, P: 376-384.	Book Chapter
20	Nov 23, 2005	Prioritization of Critical Sub-watersheds for Effective Management using Simulation Technique.	Recent Advances in Water Resources Development and Management-Volume II (ed. D. Khare, S.K. Mishra, N. Sharma, S.K. Tripathi and G. Chauhan), Proceedings of the International Symposium held at IIT, Roorkee, from 23-25, November, P:688-696.	Book Chapter
21	Nov 23, 2005	Socio-Economic Impact assessment of Irrigation Methods on Productivity of Wheat in Northern Hill Region of Chhattisgarh.	Recent Advances in Water Resources Development and Management-Volume II (ed. D. Khare, S.K. Mishra, N. Sharma, S.K. Tripathi and G. Chauhan), Proceedings of the International Symposium held at at IIT, Roorkee, from 23-25, November, P:832-837.	Book Chapter
22	Mar 31, 2005	Technical Manual on “Watershed Management for Horticultural Crops in Chhattisgarh”.	Published by Department of Soil and Water Engineering, Faculty of Agricultural Engineering, Indira Gandhi Agricultural University, Raipur (C.G.), Publication No. IGAU/Pub./2005/04.	Technical Manual
23	Mar 31, 2005	Watershed Management.	Published by Department of Soil and Water Engineering, Faculty of Agricultural	Technical Manual

			Engineering, Indira Gandhi Agricultural University, Raipur (C.G.), Publication No. IGAU/Pub./2005/02.	
24	Mar 31, 2005	Practical Manual on "Precise Irrigation".	Published by Department of Soil and Water Engineering, Faculty of Agricultural Engineering, Indira Gandhi Agricultural University, Raipur (C.G.), Publication No. IGAU/Pub./2005/03.	Practical Manual
25	Mar 31, 2006	Hydrological water balance modelling of rainfed watershed for improved water management	National Agricultural Technology Project Research Highlights of Competitive grant Projects (CGP): Directorate of Research Services, IGKV, Raipur. Publication No. IGAU/Pub./2006/62.	Book Chapter
26	Sep 19, 2006	Abstracts (Conference Proceedings)	Proceedings, National Conference on "Role of Soil and Water Conservation in Rural Employment (RSWCRE-2006) organized by IGAU, Raipur and sponsored by Soil and Water Conservation Society of India, New Delhi from 19-21 September 2006, Publication No. IGAU/Pub./2006/84.	Edited Book
27	Dec 14, 2006	Ground water scenario of Chhattisgarh and scientific interventions for its effective management.	Proceedings (ed. Rajendra Lakpale et al.) of the National Symposium on "Conservation and Management of Agro-resources in accelerating the food production for 21st century" held at IGKV, Raipur from 14-15 December, P: 11-14.	Book Chapter
28	Dec 14, 2006	Using GIS, remote sensing and hydrological information for effective management of small watersheds in CG region.	Proceedings (ed. Rajendra Lakpale et al.) of the National Symposium on "Conservation and Management of Agro-resources in accelerating the food production for 21st century" held at IGKV, Raipur from 14-15 December, P: 44-46.	Book Chapter
29	Nov 23, 2007	Determination of Water Requirement of Horticultural Crops: An important component for Design of Micro Irrigation System.	Micro Irrigation Technology for Horticultural Crops (Editors: Vinay K. Pandey, M. P. Tripathi, A. K. Dave and A.S. Nain), 23 November 2007, published by Indira Gandhi Krishi Vishwavidyalaya, Raipur (C.G.), P: 276-297.	Book Chapter
30	Nov 23, 2007	State of Art of Drip Irrigation System in Chhattisgarh.	Micro Irrigation Technology for Horticultural Crops (Editors: Vinay K. Pandey, M. P. Tripathi, A. K. Dave and A.S. Nain), 23 November 2007, published by Indira Gandhi Krishi Vishwavidyalaya, Raipur (C.G.), P: 276-297.	Book Chapter

31	Mar 31, 2007	Ground Water Scenario of Chhattisgarh.	Published by AICRP on GWU, Faculty of Agricultural Engineering, Indira Gandhi Krishi Vishwavidyalaya, Raipur (C.G.), Publication No. IGKV/Pub./2007/12.	Technical Bulletin
32	Nov 21, 2007	Micro Irrigation Technology for Horticultural Crops.	Published by Indira Gandhi Krishi Vishwavidyalaya, Raipur, C.G.	Edited Book
33	Nov 21, 2007	Spatial and temporal GW availability and its optimum utilization through water efficient irrigation technologies in CG.	Micro Irrigation Technology for Horticultural Crops, Published by IGKV, Raipur, C.G.	Book Chapter
34	Jan 1, 2008	Studies on rainwater balance of a micro-watershed using SWAT model.	Groundwater Resources Assessment, Recharge and Modelling (editors: M.V. Ranghaswami, K. Palanisami and C. Mayilswami) MACMILLAN Advance Research Series, India.	Book Chapter
35	Jan 12, 2009	Development of Effective Management Plan for the Critical Sub- Watersheds of Arang Watershed in Chhattisgarh.	Proceedings of International Conference on "Water, Environment, Energy and Society" (WEES-2009) held at New Delhi from 12-19 January, P: 1823-1830.	Paper, Conference Proceedings
36	Dec 17, 2009	Groundwater Flow Modelling for Multi Layer Aquifer System of a Small Agricultural Watershed in CG.	Proceedings (CD) of International Conference on "Food Security and Environmental Sustainability" (FSES-2009) held at IIT, Kharagpur from December 17-19, P; 61-70.	Paper, Conference Proceedings
37	Jan 17, 2009	Renewable Energy Sources for Agricultural Development in Chhattisgarh.	Proceedings of 24th National Convention on "Energy Security through Renewable Energy Sources" held at Raipur from 17-18 January 2009, P: 51-52.	Paper, Conference Proceedings
38	Mar 4, 2009	Groundwater Flow and Mass Transport Modelling for Multi Layer Aquifer System of Small Agricultural Watersheds in Chhattisgarh.	Proceedings of Workshop on "Ground Water Scenario and Quality in Chhattisgarh" held at Raipur from 4- 5 March 2009, P: 9-16.	Paper, Conference Proceedings
39	Feb 3, 2010	Hydrological Modelling of Arang Watershed Using Weather Generator in the SWAT Model.	Proceedings of 3rd International Conference on "Hydrology and Watershed Management" held at Hyderabad from 3-6 February 2010, P: 193-201.	Paper, Conference Proceedings
40	Feb 3, 2010	Hydrological Modelling of Arang Watershed Using Weather Generator in the SWAT Model.	Proceedings of 3rd International Conference on "Hydrology and Watershed Management" held at Hyderabad from 3-6 February, P: 193-201.	Paper, Conference Proceedings
41	Jan 3, 2011	Water resources status and future prospects in Chhattisgarh.	Proceedings of Engineering Interventions in Agriculture, held at NSAE, IGKV, Raipur from 03-04, January 2011, P: 313-326.	Paper, Conference Proceedings

42	Jan 3, 2011	Effect of artificial recharge structures on ground water availability in semi-critical area in Chhattisgarh.	Proceedings of Engineering Interventions in Agriculture, held at NSAE, IGKV, Raipur from 03-04, January 2011, P: 385-391.	Paper, Conference Proceedings
43	Jan 3, 2011	Watershed parameterization using geographic information system and satellite remote sensing.	Proceedings of Engineering Interventions in Agriculture, held at NSAE, IGKV, Raipur from 03-04, January 2011, P: 360-368.	Paper, Conference Proceedings
44	Aug 2, 2011	Hydrological modeling of chhokranala watershed using weather generator with SWAT model.	Proceedings of Indian Journal of Soil Conservation, held at IJSC, Dehradun, Uttarakhand on 2nd August 2011, P: 89-94.	Paper, Conference Proceedings
45	Jun 15, 2011	A Case Study of Multi Layer Aquifer System.	A Handbook on Groundwater Modelling System, Water Technology Centre Tamil Nadu Agricultural University Coimbatore, 2011, P: 174-190.	Book Chapter
46	Jan 3, 2011	Engineering Interventions in Agriculture.	Published during National Seminar on "Agricultural Engineering: The Way to Improve Rural Economy" organized by IGKV, Raipur from 03-04 January, 2011.	Edited Book
47	Nov 23, 2011	Performance evaluation of artificial groundwater recharge structures of a small watershed in semi-critical area of Chhattisgarh.	Water Resources Assessment, Recharge and Modelling (editors: M. Thangrajan, C. Mayilswami and P. S. Navaraj), IGWC, groundwater Research Series No. 4, p:277-289.	Book Chapter
48	Mar 15, 2013	Conjunctive Water Use Planning of a Distributory Command of Mandhar Branch Canal.	Proceedings of Workshop on "Management of Ground Water for Sustenance of Agriculture and Industries in the State of Chhattisgarh, held at Central Ground Water Board North Central Chhattisgarh Region, Ministry of Water Resources Government of India, Raipur, from 15 March 2013, P:48-55.	Paper, Conference Proceedings
49	Mar 15, 2013	Groundwater Use Planning of Upper Mahanadi Watershed Using Visual MODFLOW.	Proc. of Workshop on "Management of Ground Water for Sustenance of Agriculture and Industries in the State of Chhattisgarh, held at Central Ground Water Board North Central Chhattisgarh Region, Ministry of Water Resources Government of India, Raipur, from 15 March 2013, P:76-83.	Paper, Conference Proceedings
50	Nov 11, 2013	Estimation of Water Requirement and Irrigation Water Requirement for Crops in Canal Command Areas.	Training course on Conjunctive use of Surface and Ground Water on held at Govt. of India, Rajiv Gandhi National Ground Water Training & Research Institute, Central Ground Water Board from 11-14 November 2013, P: 100-120.	Lecture Note in Training Manual
51	Mar 31,	Hydrological Measuring	Published jointly by	Practical

	2014	Instruments.	Measurement to Management (M2M) Project, ITRA and Department of Soil and Water Engineering, FAE, IGKV, Raipur (C.G.), Publication No. IGKV/Pub./P.MI./ 2014/08.	Manual
52	Mar 31, 2014	Groundwater Flow and Mass Transport Modelling.	Published jointly by AICRP on Irrigation Water Management (IWM) and Department of Soil and Water Engineering, FAE, IGKV, Raipur, C.G., Publication No. IGKV/Pub./T.MI./ 2014/09.	Technical Manual
53	Mar 31, 2014	Watershed Modelling and Management Using SWAT.	Published jointly by Measurement to Management (M2M) Project, ITRA and Department of Soil and Water Engineering FAE, IGKV, Raipur, C.G., Publication No. IGKV/Pub./T.BI./ 2014/10.	Technical Bulletin
54	Mar 24, 2014	Groundwater Planning and Management of Kharun Watershed of Sheonath Subbasin.	Proceedings of Workshop on "Water Conservation Practices in Chhattisgarh–A Futuristic Vision", held at Central Ground Water Board, North Central Chhattisgarh Region, Raipur from 24, March 2014, P: 39-50.	Paper, Conference Proceedings
55	Mar 21, 2015	Development of User Friendly Software for Drip Irrigation System Design.	Proceedings of ISNCESR-2015, published by International Journal of Engineering Research & Technology (IJERT), International Seminar on "Utilization of Non-conventional Energy Sources for Sustainable Development of Rural Areas" held from 21 to 22 March at CSVTU, Bilai, pp.1-3.	Paper, Conference Proceedings
56	Mar 31, 2015	Vid flapkbZ iz.kkyh ,oa izca/ku	izdk"kd vf/k'Bkrk] nkÅ dY;k.k flag d`f`k egkfo   ky;] HkkVvkikjk] ba-xka-d`-fo-fo-] jk;iqj] N-x-IGKV/Pub./T.bl./2015/01.	Authored Book in Hindi
57	Dec 22, 2015	Water management studies on Zaid maize ( <i>Zea Mays L.</i> ) in midland situation of Chhattisgarh.	Symposium on Hydrology, organized by IAH, Roorkee from 22-23 December 2015, New Delhi, India.	Paper, Conference Proceedings
58	Dec 22, 2015	Evaluation of different combination of moisture conservation practices on yield of finger millet ( <i>Eleusine coracana</i> ) in mid land situation of Chhattisgarh plains.	Symposium on Hydrology, organized by IAH, Roorkee from 22-23 December 2015, New Delhi, India.	Paper, Conference Proceedings
59	Dec 22, 2015	Validation of ArcSWAT model using generated rainfall for a small agricultural watershed in Chhattisgarh.	Symposium on Hydrology, organized by IAH, Roorkee from 22-23 December 2015, New Delhi, India.	Paper, Conference Proceedings

60	Mar 17, 2016	Identification of Appropriate Sites for Artificial Ground Water Recharging using Geospatial Techniques.	Proc. of 2nd International Seminar On "Utilization of Non-Conventional Energy Sources for Sustainable Development of Rural Areas (ISNCESR'16) held from 17 to 18 March at Parthivi College of Engineering & Management, C.S.V.T. University, Bhilai, CG, pp.33-36.	Paper, Conference Proceedings
61	Nov 17, 2016	Abstracts (Conference Proceedings)	Proceedings (Eds. M.P. Tripathi and Dhiraj Khalkho): Brainstorming Workshop and National Seminar on Emerging Technologies for Enhancing Water Productivity. Published by Dept. of Soil and Water Engineering, IGKV, Raipur	Edited Book
62	Jan 20, 2017	Surface and Groundwater Status and Irrigation Potential in Chhattisgarh.	Souvenir of 1st Asian Conference on "Water and Land Management for Food and Livelihood Security", held from January 20 to 22 at IGKV, Raipur, C.G., India; P: 04-14.	Paper, Conference Proceedings
63	Jan 20, 2017	Optimal Crop Plan for a Small Area in Chhattisgarh.	Souvenir of 1st Asian Conference on "Water and Land Management for Food and Livelihood Security", held from January 20 to 22 at IGKV, Raipur, C.G., India; P: 22-25.	Paper, Conference Proceedings
64	Jan 20, 2017	Efficient Land and Water Resource Planning of a Micro Watershed Using Geospatial Techniques.	Souvenir of 1st Asian Conference "Water and Land Management for Food and Livelihood Security", January 20-22, at IGKV, Raipur, C.G., India; P: 148- 155.	Paper, Conference Proceedings
65	Jan 20, 2017	Morphometric Analysis of a Seonath River of Chhattisgarh using Remote Sensing and Geographical Information System (GIS) Technique.	Souvenir of 1st Asian Conference "Water and Land Management for Food and Livelihood Security", January 20-22 at IGKV, Raipur, C.G., India; P: 189-200.	Paper, Conference Proceedings
66	Jan 20, 2017	User Friendly Computer Software for the Design of Drip Irrigation System.	Souvenir of 1st Asian Conference "Water and Land Management for Food and Livelihood Security", January 20-22 at IGKV, Raipur C.G., India; P: 253-267.	Paper, Conference Proceedings
67	Jun 13, 2017	Measurement to Management (M2M): Improved Water Use efficiency and Agricultural productivity through Experimental Sensor Network.	Published by Information Technology Research Academy, Ministry of Communication and Information Technology, Govt. of India, Chapter-1, Springer Nature Singapore Pte. Ltd. :1-29.	Chapter in Monograph
68	Mar 31, 2018	Fluid Mechanics.	Published Department of Soil and Water Engineering, SVCAET&RS, FAE, IGKV, Raipur, C.G., Publication No. IGKV/Pub./2018/P.M./07.	Practical Manual

69	Mar 31, 2019	Groundwater Recharge Plan for Semi-critical Blocks of Bilaspur, Rajnandgaon, Kawardha, Raigarh and Raipur districts.	Published by AICRP on Irrigation Water Management, Department of Soil and Water Engineering, IGKV, Raipur Publication No. IGKV/Pub./2019/T.BI./04.	Technical Bulletin
70	Mar 31, 2019	Micro Level Agricultural Resource Information System for Dabo MWS in Mungeli Block.	Published by AICRP on Irrigation Water Management, Department of Soil and Water Engineering, IGKV, Raipur Publication No. IGKV/Pub./2019/T.BI./05.	Technical Bulletin
71	Mar 31, 2019	Cadastral Level Natural Resources Planning of Maniari Watershed of Mungeli District using Geospatial Technology.	Published by Department of Soil and Water Engineering, IGKV, Raipur Publication No. IGKV/Pub./2019/ T.BI./06.	Technical Bulletin
72	Mar 31, 2019	Land and Water Resources Plan for a Small Watershed in Chhattisgarh.	Published by Department of Soil and Water Engineering, IGKV, Raipur Publication No. IGKV/Pub./2019/ T.BI./07.	Technical Bulletin

## B. Publication

**Total Publications: 89**

### B.I List of Papers in International Journals (38)

S. No.	Date	Title	Name of Journal	Refereed journal yes or not	Number of Citations (where possible)
1	Mar 20, 2003	Identification and Prioritization of Critical Sub-watersheds for Soil Conservation Management Using the SWAT Model.	Biosystems Engineering, Vol. 85 (3), P: 365-379.	Yes	354
2	Apr 23, 2003	Hydrological Modelling of a Small Watershed Using Generated Rainfall in the Soil and Water Assessment Tool Model.	Hydrological Processes, Vol.18 (10), P:1811-1821.	Yes	71
3	Jan 1, 2003	Calibration and Validation of SWAT Model for Predicting Runoff and Sediment Yield of a Small Watershed in India.	International Agricultural Engineering Journal, Asian Institute of Technology, Bangkok, Thailand, Vol.12 (1 & 2): 95-118.	Yes	25

4	May 7, 2004	Development of Effective Management Plan for Critical Sub-watersheds Using SWAT Model.	Hydrological Processes-Special Issue on "Regional Assessment of Climate and Management Impacts Using the SWAT Hydrological Model", Vol. 19(3), P:809-826.	Yes	127
5	Feb 9, 2005	Effect of Watershed Subdivision on Simulation of Water Balance Components.	Hydrological Processes, Vol.18 (10),P:1137-1156.	Yes	127
6	Aug 17, 2007	Development of a Geomorphological Instantaneous Unit Hydrograph Model for Scantily Watersheds.	Environmental Modeling and Software, Vol. (XX), P: 1-13.	Yes	48
7	Jan 1, 2009	Evaluation of the SWAT Model for Predicting the Daily Surface Runoff and Sediment Yield from a Small Watershed.	International Journal of Agricultural Engineering, Vol. 2 (1), P: 39-45.	Yes	3
8	Feb 1, 2009	Identification and Prioritization of Critical Sub-watersheds Using SWAT Model.	International Journal of Agricultural Engineering, Vol. 2 (1), P: 113-123.	Yes	1
9	Jul 1, 2009	Estimation of Surface Runoff from Agricultural Watershed Using Remote Sensing and GIS Technique.	International Journal of Agricultural Engineering, Vol. 2 (2) P: 254-258.	Yes	5
10	Aug 1, 2009	Estimation of Monthly Surface Runoff and Sediment Yield from a Small Watershed by Using Simulation Technique.	International Journal of Agricultural Engineering, Vol. 2 (2) P: 278-284.	Yes	2
11	Sep 1, 2009	Prediction of Runoff for Small Watershed using GIUH_CAL Model and GIS Approach in Chhattisgarh.	International Journal of Agricultural Engineering, Vol. 2 (2) P: 310-314.	Yes	1
12	Oct 31, 2014	Assessment of Macro and Micro Nutrients of Soil in a Small Agricultural Watershed.	International Journal of ChemTech Research, Vol.6, No.7, pp 3658-3664.	Yes	9
13	Jul 16, 2015	Studies on Hydraulic Performance of Drip Irrigation System Under Different Operating Pressure.	International Journal of Applied Engineering and Technology, Vol. 5 (2):pp.58-63.	Yes	11
14	Jan 13, 2016	Studies on the Effect of Soil Water Balance in	Progressive Research – An International Journal,	Yes	-



		Finger Millet (Eleusine coracana) Under Midland Condition of Chhattisgarh Plains.	Vol. 11 (spl. II):672-676.		
15	Dec 31, 2016	Cadastral Level Efficient Land and Water Resource Planning of Village Dabo of Mungeli District.	Progressive Research – An International Journal, Vol. 11 (spl. VI):4070-4074.	Yes	-
16	Jan 22, 2016	Influence of Irrigation and Mulch on Growth and Yield of Summer Maize (Zea mays L.).	Research Journal of Agricultural Sciences An International Journal, Vol. 7(2): 282-284	Yes	2
17	Jan 1, 2017	Optimal Crop Plan for a Small Area in Chhattisgarh.	Research Journal of Agricultural Sciences An International Journal, Vol. 8(1):113-116.	Yes	-
18	Jan 1, 2017	Identification of Appropriate Location for Artificial Groundwater Recharging using Geospatial Technique in Rajnandgaon District.	Research Journal of Agricultural Sciences An International Journal, Vol. 8(1):117-119.	Yes	-
19	Jan 1, 2017	Morphometric Analysis of Drainage Basin using Arial Photographs: A Case Study of Kharun Watershed of Seonath Sub-basin of Chhattisgarh.	International Journal of Advanced Biological Research, Vol. 7(3), 623-626.	Yes	1
20	Apr 16, 2017	Geospatial Techniques for Prioritization of Sub-watersheds of Hump Watershed of Upper Mahanadi Basin using Morphometric Analysis.	Trends in Bio Sciences-An international Journal, Vol. 11(15): 2705-2713.	Yes	1
21	Jan 1, 2018	Development of Groundwater Recharge Plan for Bemetara District of Chhattisgarh Using GIS.	Groundwater, Published by Springer Nature Singapore Pte Ltd. VP Singh et al. (eds), Groundwater, Water Sci.,Tech. Library, 978-981-10-5788-5, 448039_1_En,(8),p.85-95.	Yes	-
22	Feb 26, 2018	Water Balance Studies on Micro Watershed (Chhokra Nala) of Raipur district, Chhattisgarh.	Research Journal of Agricultural Sciences An International Journal, Vol. 9(spl.):187-190.	Yes	-
23	Nov 14, 2018	Infiltration characteristics and water distribution	An Asian Journal of Soil Science. Vol. 13 (2):109-	Yes	3

		studies of border irrigation and furrow irrigation influenced by depth.	113.		
24	Sep 26, 2018	Fabrication and Performance Evaluation of A Shaped Frame Hydroponic System.	International Journal of Pure & Applied Bioscience, Vol. 6 (5): 76-83.	Yes	7
25	Dec 31, 2018	Response of cabbage under different levels of irrigation and fertigation through drip	Int. J. Curr. Microbial. App. Sci. Special, Issue 6: 750-759	Yes	12
26	Jul 22, 2019	Generation of Groundwater Zones for Selection of Prospective Suitable Water Harvesting Structure Sites for Sustainable Water Supply Towards the Agricultural Development.	Agricultural Research, ISSN 2249-720X, through Springer Nature Singapore Pte Ltd.	Yes	2
27	Oct 17, 2019	Drainage Morphometric Analysis of a Catchment of Upper Hasdeo Subbasin Using Remote Sensing and Geographical Information System (GIS) Technique.	International Journal of Current Microbiology and Applied Sciences, Vol. 8 (11), P:1887-1897.	Yes	2
28	Feb 27, 2019	Performance of Sprinkler Irrigation System in Mungeli District of Chhattisgarh.	International Journal of Chemical Studies, Vol.7(2):986-989.	Yes	4
29	Feb 24, 2019	Morphometric Analysis of Pathardih Catchment Using Remote Sensing and GIS.	International Journal of Chemical Studies, Vol.7(2):980-985.	Yes	-
30	Jan 1, 2019	Reuse of Waste Water In Agriculture.	Water Conservation Recycling and Reuse: Issues and Challenges (Eds. R. P. Singh, Alan S. Kolok and Shannon L. Bartelt - Hunt). Springer Nature Singapore Pte. Ltd. 2019; pp. 231-258.	Yes	3
31	Jan 1, 2020	Soil Moisture Depletion-Based Irrigation Technology for Summer Finger Millet Under Midland Situation of Chhattisgarh Plains.	Hydrological Extremes - River Hydraulics and Irrigation Water Management (Eds. Ashish Pandey, S.K. Mishra, M.L. Kansal, R.D. Singh and V.P. Singh). Water Science and	Yes	45

			Technology Library, Springer Nature Singapore Pte. Ltd. 2020, ISSN: 978-3-030-59148-9, pp. 381-389.		
32	May 23, 2020	Effect of Irrigation and Fertigation on Gladiolus Crop Water Requirement, Yield and Water Use Efficiency in Chhattisgarh Plain.	International Journal of Current Microbiology and Applied Sciences, Vol. 9 (6), P:2913-2923	Yes	118
33	Apr 20, 2020	Fabrication and Performance Evaluation of U Shaped Hydroponic System.	International Journal of Current Microbiology and Applied Sciences, ISSN: 2319-7706 Vol. 9(5), P: 1-8	Yes	121
34	Dec 21, 2020	Effect on combinations of growing media for cultivation of horticultural crops in troughs, grow bag and pots: A review.	International Journal of Chemical Studies, Vol. 9(1): 1545-1548	Yes	31
35	Dec 7, 2020	Optimization of Water Resources for Maximizing Crop Production in the Coastal Areas of Odisha.	International Journal of Current Microbiology and Applied Sciences, Vol. 9(12):446-455	Yes	59
36	Feb 28, 2020	Preparation of Curve Number Map for Hydrologic Simulation using GIS and HEC-Geo-HMS Model.	International Journal of Current Microbiology and Applied Sciences, Vol.9(3):3264-3270	Yes	340
37	Dec 27, 2021	Annual and Seasonal Trend Analysis of Rainfall and Temperature Pattern in Arpa Catchment, Chhattisgarh	Biological Forum – An International Journal, 14(1): 632-636	Yes	-
38	May 7, 2022	Impacts of Future Climate and Land use Change on Water Yield in Arpa Catchment	International Journal of Environment and Climate Change 12(10): 305-313	Yes	-

#### B.II List of Papers in National Journals (51)

S. No.	Date	Title	Name of Journal	Refereed journal yes or not	Number of Citations (where possible)
1	Jul 1, 1994	Analysis of Drop Size Distribution Produced by Designed and Developed Rainfall Simulator.	Hydrology Journal of Indian Association of Hydrologists, Vol. xvii (3 & 4), P: 14-21.	Yes	-

2	Nov 28, 1992	Design and Development of Rainfall Simulator.	Technical Journal of the Institution of Engineers (India), Orissa State Centre, Bhubaneswar, P: 106-113.	Yes	-
3	Jan 21, 1995	Drip Irrigation System- A Controlled Water Supply Tool for Horticultural Crops for Sarguja Region in Madhya Pradesh.	Technical Journal of the Institution of Engineers (India), Orissa State Centre, Bhubaneswar, P:1-3.	Yes	11
4	Jan 1, 1997	Effect of Earthen Channel Coating on Seepage Losses.	Current Research, UAS, Hebbal, Bangalore, India, Vol. 26, P: 1-2.	Yes	-
5	Mar 31, 2001	Estimation of Sediment Yield from a Small Watershed Using MUSLE and GIS.	Journal of the Institution of Engineers (India), Vol. 82, P: 40-45.	Yes	12
6	Feb 15, 2002	Runoff Modelling of a Small Watershed Using Satellite Data and GIS.	Journal of the Indian Society of Remote Sensing, Vol. 30 (1 & 2), P: 39-52.	Yes	26
7	Nov 7, 2003	Hydrological Modelling of a Small Watershed Using Satellite Data and GIS Technique.	Journal of the Indian Society of Remote Sensing, Vol. 32(2), P:25-37.	Yes	32
8	Dec 31, 2003	Studies on Energy Consumption and Thermal effect on Hybrid Rice under different Agro-input Mgt. Practices.	Journal of Agricultural Issues, Vol. 8(1 & 2), P:87-92.	Yes	-
9	Jan 1, 2003	Estimation of Sediment Yield from a Micro Watershed Using SWAT Model.	Indian Journal of Soil Conservation. Vol. 31(1), PP: 1-9.	Yes	2
10	April 1, 2004	Runoff Modelling of a Small Watershed in Chhattisgarh.	Shodh Prakalp, Vol. XXVII (2), P:22-33.	Yes	-
11	Jul 1, 2004	Techno-Economic Feasibility of Drainage With Reference to Soil Loss in Low Lying Areas of Bastar.	Chhattisgarh Journal of Allied Science and Technology, Vol.1(1) :1-7.	Yes	2
12	July 1, 2004	Subsurface Drip Irrigation: Future Prospective.	Shodh Prakalp, Vol. XXIX (3), P:5-8	Yes	4
13	Jan 1, 2005	Estimation of surface runoff from micro watershed using Soil and Water Assessment Tool (SWAT) model.	Indian Journal of Dryland Agricultural Research and Development, Vol. 20(1): 46-56.	Yes	3
14	Jan 1, 2006	Estimation of Surface Runoff from Micro	Indian Journal of Soil Conservation, Vol. 34(1),	Yes	4

		Watersheds Using SWAT Model.	PP:6-11.		
15	Aug 1, 2008	Study on rainfall simulator in special reference to design and development.	Journal of Research on Crops, Vol. 9(2): 409-413.	Yes	2
16	Oct 1, 2009	Effective Management of Critical Sub-watersheds Using SWAT Model, Remote Sensing and GIS.	Agricultural Engineering Today, Vol. 33(4), P:15-20.	Yes	1
17	Jan 2, 2009	Identification and Management of Critical Sub-watersheds through GIS and SWAT Model.	CSVTU Research Journal, Vol. 2 (1):17-23.	Yes	-
18	Jan 1, 2009	Calibration and Validation of the SWAT Model for Small Agricultural Watershed using Satellite Data and GIS.	CSVTU Research Journal, Vol. 2 (2):18-23.	Yes	2
19	Jan 1, 2010	Development of Effective Management Plan for Critical Areas of Chhokranala Watershed Using SWAT Model and GIS.	Journal of Indian Water Resources Society, Vol. 30(2), P; 12-26.	Yes	-
20	Jul 1, 2011	Hydrological Modelling of Chhokranala Watershed Using Weather Generator with SWAT Model.	Indian Journal of Soil Conservation. Vol. 39 (2) PP:89-94.	Yes	2
21	Dec 31, 2012	Water Balance Studies of a Small Watershed Using Distributed Parameter Model.	Journal of Agricultural Issues, Vol. 17 (1&2), 39-48.	Yes	-
22	Dec 6, 2014	Evaluation of storage capacity of ponds and water quality analysis of tube well and stream in small watershed.	Journal of Soil and Water Conservation Vo. 13 (4) Pp. 356-363.	Yes	1
23	Dec 31, 2014	Calibration and Validation of ArcSWAT Model for Estimation of Surface Runoff and Sediment Yield from Dhangaon Watershed.	Journal of Agricultural Issues, Vol.19 (2): 23-34.	Yes	-
24	Oct 1, 2015	A Methodology for Incorporating Variability of Soil's Drainage Properties in Relation to Water Table Depth.	Journal of Agricultural Issues, Vol.20 (1&2): 55-60.	Yes	-
25	Oct 3, 2015	Water balance studies on summer maize (Zea mays L.) in alfisol of mid- land	Journal of Agricultural Issues, Vol. 20 (1&2): 61-64	Yes	3

		situation in Chhattisgarh plains.			
26	Oct 16, 2015	Water balance studies on finger millet (Eleusinecoracona) in alfisol of mid-land situation during summer in Chhattisgarh plains.	Journal of Agricultural Issues, Vol. 20 (1&2): 65-68.	Yes	-
27	Feb 27, 2016	Augmented Ground Water Availability by Artificial Recharge Structures in Semi- Critical Area in Chhattisgarh.	Journal of Soil and Water Conservation, 15 (1) P: 46-51.	Yes	3
28	Mar 30, 2016	Groundwater Recharge Plan for Durg District of Chhattisgarh Using Satellite Data and GIS Technique.	Agricultural Research Journal, Vol.53(2): 234-242.	Yes	5
29	Dec 15, 2017	Stochastic Modelling for Selecting an Appropriate Autoregressive Model to Predict Average Annual River Flows in to Shahid Veer Narayan Singh Dam.	Journal of Soil and Water Conservation, Vol.17(1) P: 91-96.	Yes	-
30	Aug 11, 2017	Morphometric Analysis of a Seonath River of Chhattisgarh Using Remote Sensing and Geographical Information System (GIS) Technique.	Journal of Soil and Water Conservation, Vol.16(3), P:251-259.	Yes	2
31	Nov 20, 2017	Rainfall Analysis for Agricultural Planning in Mungeli Region of Chhattisgarh Plain.	Environment and Ecology, Vol. 36 (1A):243-246.	Yes	-
32	Jan 31, 2018	Meteorological Drought Assessment for Agricultural Planning at Mungeli District of Chhattisgarh Plain.	Indian Journal of Ecology, Vol. 45(1): 44-47.	Yes	1
33	Jul 1, 2018	Design of Gravity Flow Underground Pipe Distribution Network in the Canal Command Area.	Indian Journal of Soil Conservation. Vol. 46 (2) PP:218-224.	Yes	1
34	Oct 15, 2018	Accuracy Assessment of three tire land use/land cover classification using very high resolution satellite data of Maniari sub- watershed.	Journal of Agricultural Issues, IGKV, Raipur, Vol. 23(1): 37-44.	Yes	-
35	Dec 29, 2018	Design and Hydraulic Performance of Drip	The Andhra Agricultural Journal 65 (spl):226-234.	Yes	-

		Irrigation System on Vegetable Crops.			
36	Feb 13, 2018	Soil Moisture Depletion Based Irrigation Technology for Summer Finger Millet Under Midland Situation of Chhattisgarh Plains.	Trends in Biosciences, Vol. 11(6): 951-956.	yes	-
37	Jan 1, 2018	Land Use/Cover Change Analysis of Seonath Sub-Basin Using RS Data and GIS Techniques.	Trends in Biosciences, Vol. 11(2), 235-237.	Yes	-
38	Oct 18, 2019	Sub-watershed Characterization and Prioritization Using Geoinformatics for Natural Resources Management.	Journal of Soil and Water Conservation, Vol. 18(4) P: 342-353.	Yes	1
39	Jun 27, 2019	Estimation of surface runoff for an agricultural watershed using remote sensing and GIS based curve number method.	Journal of Soil and Water Conservation, Vol. 20(1):74-80.	Yes	-
40	Apr 1, 2020	Identification of Critical Sub-watersheds in Hamp Watershed of Upper Mahanadi Basin Using Arc-SWAT.	Indian Journal of Soil Conservation. Vol. 48 (1) PP:86-96.	Yes	-
41	Apr 14, 2020	Fabrication and performance evaluation of A shaped frame hydroponic system for leafy garlic.	Journal of Pharmacognosy and Phytochemistry 2020; 9(3), P:688-692.	Yes	2
42	Oct 6, 2020	Assessment of groundwater quality using GIS in Kurud block of Dhamtari district Chhattisgarh.	Journal of Soil and Water Conservation, Vol. 19(4): 426-435.	Yes	-
43	Dec 19, 2020	Distributed parameter modelling for sediment yield estimation from Hamp watershed in upper Mahanadi basin.	Journal of Soil and Water Conservation, Vol. 20(1):22-34.	Yes	1
44	Oct 23, 2020	Hydroponic systems for cultivation of horticultural crops: A review.	Journal of Pharmacognosy and Phytochemistry, Vol. 9(6): 2083-2086.	Yes	-
45	Dec. 1, 2020	Performance evaluation of modified soil moisture sensor based automated drip irrigation system	Indian Journal of Soil Conservation, Vol. 48, No. 3, PP: 269 276	Yes	-

46	Sep 1, 2021	Remote Sensing and GIS based approach in morphometric analysis of thirteen sub-watersheds of Mand river catchment, Chhattisgarh.	Journal of Soil and Water Conservation 20 (3): 269-278	Yes	-
47	Sep 1, 2021	Delineation and characterization of land resources to assess agro-climatic zone based farming situation in Chhattisgarh plains	Journal of Soil and Water Conservation 20 (3): 257-268	Yes	-
48	March 1, 2022	Optimal land and water management - A case study of Krishi Vigyan Kendra Bilaspur, Chhattisgarh	Journal of Soil and Water Conservation 21 (1): 86-92	Yes	-
49	Jan 27, 2022	Application of remote sensing and GIS technology for identification and development of management scenario of critical agricultural watershed	Journal of Soil and Water Conservation. 20 (4)	Yes	-
50	March, 2022	Morphometric analysis for sustainable development of natural resource management by using remote sensing and GIS techniques in Tikamgarh District, M.P., central India	Environment Conservation Journal. 23 (1 &2): 417-425	Yes	-
51	April, 2022	Assessment of crop water demand and irrigation water supply in a runoff-the-river based canal system	Journal of Indian Soc. Coastal Agric. Res. 40 (1) 63-73	Yes	-

### B.III List of articles in popular magazines or newspapers

**Total Articles: 26**

S. No.	Date	Title	Name of magazines or newspapers
1	Dec 25, 1992	ty xzg.k {ks= ,oa d`f"k dk fodkl	d``kd txr] fnukad 25&27 flrEcj] 1992 i`-dz- 8 ,oa 12
2	Jan 11, 1993	flapkbZ dh esaM+ iVVh fof/k- jch Qlyksa dh flapkbZ	d``kd txr] fnukad 11&17 tuojh] 1993 i`-dz- 4



		dh mUur rduhd	
3	Jun 30, 1995	cLrj essa e`nk ,oa ty laj{k.k D;ksa vkSj dSlS	NRrhIx<+ [ksrh vizSy&twu] 1995-bafnjx xka/kh d`f`k fo`fo ky;] jk;iqj ¼N-x-½ i`-la- 14&17
4	Dec 31, 2002	NRrhIx<+ esa ty xzg.k izca/ku	lajf{kdk izdk`kd% NRrhIx<+ Hkwfe laj{k.k d`f`k losZ;j la?k] jk;iqj ¼N-x-½ i`- la- 7&10
5	Dec 31, 2002	NRrhIx<+ esa e`nk vijnu rFkk mlds laj{k.k dh ;kaf=d fof/k;ka	lajf{kdk izdk`kd% NRrhIx<+ Hkwfe laj{k.k d`f`k losZ;j la?k] jk;iqj ¼N-x-½ i`- la- 13&18
6	Jan 1, 2003	Micro Irrigation and Fertigation Management for Intensive Cultivation	Farmers' Forum, Vol. 3(10), P: 10-14
7	Mar 31, 2003	flapkbZ izca/ku ,oa o`kkZ ty laxzg.k	izdk'kd% funs'kky; foLrkj lsok;sa] bafnjx xka/kh d`f`k fo`fo ky;] jk;iqj ¼N-x-½
8	Feb 29, 2004	ty laxzg.k&vko`;drk ,oa izca/ku	d`kd Ja`[kyk] Qojh 2004] vad 5] i`-laa- 41&42
9	Jun 30, 2004	gkbM@ksykftdy ekWMfyax ls ty xzg.k {ks=ksa dk izHkkoh izca/ku	d`kd Ja`[kyk] twu 2004] vad 6] i`-laa- 32 o 37
10	Jun 30, 2004	ty laj{k.k egRo ,oa izca/ku gsrq mik;	d`kd Ja`[kyk] twu 2004] vad 6] i`-laa- 48&49
11	Jan 31, 2005	flapkbZ ty cpr ds lpy mik;	d`kd J`a[kyk] tuojh 2005] i`-la- 27&28
12	Mar 31, 2006	ILrh rduhd viuk,a vkSj Hkw&ty Lrj c<+k,	NRrhIx<+ [ksrh] tuojh&ekpZ 2006] i`-la- 30&32
13	Jan 31, 2006	okVj`ksM esa Hkw&ty Lrj c<+kus dh oSKkfud rduhd	d`kd J`a[kyk] tuojh 2006] i`-la- 39&40] 42
14	Jul 31, 2008	Hkw&ty dh miyC/krk ,oa mldk leqfpr izca/ku	d`kd J`a[kyk] tqykbZ 2008] i`-la- 29&32
15	Sep 30, 2009	NRrhIx<= esa Hkw&ty dh miyC/krk ,oa mldk leqfpr izca/ku	NRrhIx<+ [ksrh ¼tqykbZ&flrEcj 2009½ bafnjx xka/kh d`f`k fo`fo ky;] jk;iqj] ist ua- 4&7
16	Jun 30, 2010	m kfudh Qlyksa ds vf/kdre mRiknu gsrq Vid flapkbZ dh mi;ksfxrk	NRrhIx<+ [ksrh ¼vizSy&twu 2010½] bafnjx xka/kh d`f`k fo`fo ky;] jk;iqj ist ua- 4&9
17	Mar 31, 2012	ty xzg.k izca/k	NRrhIx<+ [ksrh ¼tuojh&ekpZ 2012½] bafnjx xka/kh d`f`k fo`fo ky;] jk;iqj ist ua- 30&34
18	Mar 31, 2012	vkt ds ifjizs; esa Hkw&ty iquHkZj.k dh egRrk	NRrhIx<+ [ksrh ¼tuojh&ekpZ 2012½] bafnjx xka/kh d`f`k fo`fo ky;] jk;iqj ist ua- 23&26

19	Sep 1, 2015	Hkwfe ,oa ty izca/ku gsrq d`f`k dk;Z	fo'o d`f`k lapkj] flrEcj 2015] ist ua- 13 ls 16
20	Jul 1, 2017	o`kkZ ty laj{k.k ,oa lncj;ksx	fo'o d`f`k lapkj] tqykbZ 2017] ist ua- 13 ,oa 14
21	Aug 1, 2017	[kjhQ Qly ds fy, ikuh cpr djus dh rduhds	fo'o d`f`k lapkj] vxLr 2017] ist ua- 17 ,oa 18
22	Aug 1, 2017	ty laj{k.k [ksrkSa esa gh cuk ys Mcjh	fo'o d`f`k lapkj] vxLr 2017] ist ua- 13 ,oa 14
23	Dec 31, 2018	ty foKku vkSj ty dh xq.koRrk ds ekWMy }kjk f`koukFk mi&csflu ds leL;kxzLr ty xzg.k {ks=ksa ds izca/ku gsrq lq>ko	Hkkd`vuqi&Hkkjrh; ty izca/ku laLFkku] Hkqous`oj }kjk d`f`k ty&fgUnh if=dk ds vad 5 la[;k 2 tqykbZ&fnlEcj 2018 esa izdkf`kr
24	Dec 31, 2018	e`nk vknzrk laosnd dk xq:Rokd`kZ.k iz.kkyh ds lkFk fu`iknu ,oa ewY;kadu	Hkkd`vuqi&Hkkjrh; ty izca/ku laLFkku] Hkqous`oj }kjk d`f`k ty&fgUnh if=dk ds vad 5 la[;k 2 tqykbZ&fnlEcj 2018 esa izdkf`kr
25	Jun 30, 2018	eqaxsyh ds y?kq ty xzg.k {ks= ds rgr Hkwfe vkSj ty lalk/kuksa dk fu;kstu	Hkkd`vuqi&Hkkjrh; ty izca/ku laLFkku] Hkqous`oj }kjk d`f`k ty&fgUnh if=dk ds vad 5 la[;k 1 tuoJh&twu 2018 esa izdkf`kr
26	Mar 15, 2019	IGKV, Raipur Scientists Developed Sensor Smart Drip Irrigation System	Daily News Paper "Hitvada", "Nai Duniya" and "Hari Bhumi"

### C. Participation and scholarly presentations in conferences

#### C. I National

S. No.	Date	Title of Conference or Institution	Title/Subject of Presentation (if made)
1	20/01/1990	Symposium on Chhattisgarh Agricultural System held at IGAU, Raipur.	Natural Resources Management for Baster - A need for Past, Present and Future.
2	28/11/1992	7th National Convention of Agricultural Engineers organized by the Institution of Engineers (India), Orissa State, Bhubaneswar.	Design and Development of Rainfall Simulator.
3	02/03/1993	28th Annual Convention of Indian Society of Agricultural engineers held at CIAE, Bhopal.	An instrumental Aid for Measurement of Hydraulic Conductivity.
4	21/09/1998	33th Annual Convention of Indian Society of Agricultural engineers held at CIAE, Bhopal.	Runoff Modelling of a Small Watershed Using Satellite Data and GIS.
5	16/12/1999	34th Annual Convention of Indian Society of Agricultural engineers held at CCS HAU, Hisar.	Attended and Participated in different Technical Sessions.
6	20/01/2001	Workshop cum Seminar on Sustainable agriculture for 21 <sup>st</sup> Century held at IGKV, Raipur.	Techno-economical Feasibility of Drainage Channels with Reference to Soil Loss in Low

			Lying Areas of Bastar Plateau.
7	29/12/2001	National Seminar on Sustainable Development of Agricultural Engineering vis-à-vis Application of High Technology organized by the IE(India) Local Center, Jabalpur.	Effect of Various Drainage Systems on Grain Yield of Sorghum under Mid Land Situation.
8	22/01/2001	35 <sup>th</sup> Annual Convention of Indian Society of Agricultural Engineers held at OUAT, Bhubaneswar.	Effect of Various Drainage System on Grain Yield of Sorghum Under Mid Land Situation.
9	28/01/2002	36th Annual convention of Indian Society of Agricultural Engineers, at IIT, Kharagpur.	Extraction of watershed parameters for SWAT model using satellite data and GIS technique.
10	18/04/2002	Workshop on Water Saving, WRD, Raipur.	Utility of Watercourses /Field Channels.
11	29/01/2003	37th Annual Convention of Indian Society of Agricultural Engineering, MPAU, Udaipur.	Hydrological modelling of a small watershed using generated rainfall in SWAT model.
12	15/09/2003	36th Engineers Day organized by The IE(India) Chhattisgarh State Centre, Raipur.	Hydrological Modelling Using SWAT Model for Effective Management of Critical Sub-watersheds.
13	16/01/2004	38th ISAE Annual Convention and Symposium, held at CAET, Dr. B. S.K.K.V., Dapoli.	Effect of Watershed Subdivisions on Surface Runoff and Sediment Yield Simulated by SWAT Model.
14	24/01/2004	All India Seminar-2004 on "Role of ICT for Overall Development", organized by The IE(India), Raipur.	Role of Information Technology in Watershed Management.
15	15/09/2005	38 <sup>th</sup> Engineers Day held at Govt. Engineering College, Raipur.	Attended and participated in the technical session.
16	09/11/2005	39th Annual Convention and Symposium of Indian Society of Agricultural Engineers held at Rajendra Nagar, Hyderabad.	Estimation of Surface Runoff from a Small Watershed Using Satellite Data and GIS.
17	26/02/2005	National seminar on Medicinal and Aromatic Plants Biodiversity, Conservation, Cultivation and Processing held at IGKV, Raipur.	Effect of Various Drainage Systems on Grain Yield of Zinger Under Mid land Situations in Bastar Plateau Zone.
18	14/12/2006	National Symposium on "Conservation and Management of Agro-resources in Accelerating the Food Production for 21 <sup>st</sup> Century, Raipur.	Using GIS, remote sensing and hydrological information for effective management of small watersheds.
19	21/11/2007	National Seminar on Micro Irrigation Technology for Horticultural Crops in Chhattisgarh State held at IGKV, Raipur.	Determination of Water Requirement of Horticultural Crops: An important component for Design of Micro Irrigation.
20	28/01/2008	5th Convention of Indian Dairy Engineers Association and National Seminar on Dairy Engineering for the Cause of Rural India held at IGKV, Raipur.	Attended and participated in the different technical sessions.

21	17/01/2009	24th National Convention on "Energy Security through Renewable Energy Sources" held at The IE(I) CG State centre, Raipur.	Renewable Energy Sources for Agricultural Development in Chhattisgarh.
22	28/02/2009	7th CG Young Scientist Congress held at IGKV, Raipur.	Worked as Judge in of the Theme i.e. Engineering Science and Technology.
23	04/03/2009	Workshop on "Ground Water Scenario and Quality in Chhattisgarh" held at CGWB, Raipur.	GW Flow and Mass Transport Modelling for Multi Layer Aquifer System of Small Agricultural Watershed in CG.
24	16/09/2009	Conference on Food and Environmental Security through Resource Conservation in Central India: Challenges and Opportunities, held at CS&WCR&TI, Agra.	Groundwater Assessment of a Small Agricultural Watershed Using Visual MODFLOW.
25	22/01/2010	Workshop on Water Quality Management held at CGWB, Raipur.	Attended and Participated in the Technical Sessions.
26	04/10/2010	Workshop cum Group Discussion on Modelling Hydrologic System, WTC, TNAU, Coimbatore.	Groundwater Potential Assessment: A Case Study of Multi Layer Aquifer System.
27	28/01/2010	44th Annual Convention of Indian Society of Agricultural Engineers and Symposium on Engineering Intervention for Food Security held at IARI, New Delhi.	Effect of Artificial Groundwater Recharge on Ground Water Level in a Small Watershed of Semi Critical Area of the Chhattisgarh.
28	02/08/2011	Regional Convention of Indian Society of Soil and Water Conservationists, held Agra, UP.	Hydrological modeling of Chhokranala watershed using weather generator with SWAT model.
29	15/01/2011	National Conference on Groundwater Modelling System, held at WTC, TNAU, Coimbatore.	A Case Study of Multi Layer Aquifer System.
30	03/01/2011	National Seminar on "Agricultural Engineering: The Way to Improve Rural Economy" held at IGKV, Raipur.	Water Resources Status and Future Prospects in Chhattisgarh.
31	15/03/2011	National seminar on Restructuring of Irrigated Agriculture Status and Strategies held at JNKVV, Jabalpur.	Attended and participated in different Technical Sessions.
32	27/02/2012	46th Annual Convention of Indian Society of Agricultural Engineering, Govind Ballabh Pant University of Agriculture & Technology, Pantnagar.	Performance Evaluations of Artificial groundwater Recharge Structures of a Small watershed in Semi-critical Area of Chhattisgarh.
33	05/12/2012	National Symposium on Space Technology for Food & Environmental Security (ISRS & ISG 2012 Symposium) held at NASC Complex, New Delhi.	Planning of Ground Water Recharge for Durg District of Chhattisgarh Using Remote Sensing and GIS.
34	15/03/2013	Workshop on "Management of GW for Sustenance of Agriculture and Industries in the State of CG, at CGWB, Raipur.	Conjunctive Water Use Planning of a Distributory Command of Mandhar Branch Canal.
35	24/03/2014	Workshop on "Water Conservation Practices in Chhattisgarh–A Futuristic Vision" at CGWB, Raipur.	Groundwater Planning and Management of Kharun Watershed of Sheonath Subbasin.

36	22/12/2015	Symposium on Hydrology organized by IAH, Roorkee held at New Delhi.	Evaluation of Different Combination of Moisture Conservation Practices on Yield of Finger Millet.
37	23/02/2015	49th Annual Convention of ISAE and Symposium on "Engineering Solutions for Sustainable Agriculture and Food Processing" CAET, PAU, Ludhiana.	(1) Watershed modeling using generated rainfall by ArcSWAT model. (2) Ground water recharge planning for Bemetara District of Chhattisgarh using satellite data and GIS.
38	28/02/2015	13th CG Young Scientist Congress held at IGKV, Raipur.	Worked as Judge in of the Theme i.e. Earth and Atmospheric Science.
39	19/01/2016	50th Annual Convention of Indian Society of Agricultural Engineers held at OUAT, Bhubaneswar.	Water balance studies on finger millet ( <i>Eleusine Coracana</i> ) in mid land situation of Chhattisgarh Plains.
40	17/11/2016	Brainstorming Workshop and National Seminar on Emerging Technologies for Enhancing Water Productivity, held at IGKV, Raipur	Identification of suitable locations for groundwater recharging for semi critical blocks in Chhattisgarh plains using geospatial techniques.
41	16/02/2017	51st Annual Convention of Indian Society of Agricultural Engineers held at HAU, Hisar.	Land and Water Resources Planning for a Small Agricultural Watershed of Mungeli District in Chhattisgarh.
42	28/10/2017	National conference on Managing Soil health for Sustainable and Nutritional Food Production held at JNKVV, Jabalpur.	Prioritization of Watershed for Management using Morphometric Analysis through Geospatial Technology.
43	27/02/2017	Indian Climate Congress, held at OUAT, Bhubaneswar.	Attended and participated in different technical sessions.
44	23/10/2017	ladYi ls flf) U;w bafM;k ewoesUV ¼2017&2022½ jk"VªHkk"kk fgUnh dh d`f"k fodkl esa mikns;rk] vk;kstd ba-xka-d`-fo-] jk;iqjA	d`f"k esa ty izca/ku gsrq lq>ko
45	20/01/2018	National Seminar on Sustainable Rice Production Technology for Increasing the Farmers' Income, held at IGKV, Raipur.	Soil and Water Management Technology for Different Farming Situation in C.G.
46	08/01/2018	52nd Annual Convention of Indian Society of Agricultural Engineers held at AAU, Anand	Participated in the Annual Convention and received Fellowship of ISAE-2018.
47	06/02/2019	Farmers First for conserving Soil and Water Resources in Eastern Region, Koraput	Studies on GW Behavior in Relation to Climatic Scenario of Kharun Watershed in CG Plains.

## C. II International

S. No.	Date	Title of Conference or Institution	Title/Subject of Presentation (if made)
--------	------	------------------------------------	---

1	08/11/1999	Environmental Engineering Conference- New Frontiers and Challenges, held at AIT, Bangkok.	Estimation of Sediment Yield from a Small Watershed Using SWAT Model.
2	20/01/2003	International Chickpea Conference, at IGKV, Raipur.	Suitable water management Practices for rice and gram utilizing harvested rain water.
3	15/12/2003	International Conference on Water and Environment (WE-2003) held at Bhopal.	Hydrological Modelling of a Small Watershed using Satellite Data and GIS.
4	13/10/2004	International Symposium on Rainfed Rice Ecosystems: Perspective and Potential, at IGKV, Raipur.	Simulation of rice yield using Satellite data and GIS for effective management of a small agricultural watershed in Chhattisgarh.
5	14/12/2004	International Conference on Emerging Technologies in Agricultural and Food Engineering held at IIT, Kharagpur.	Estimation of ET and Crop Planning for Bastar Plateau Zone of Chhattisgarh.
6	09/02/2005	International Conference on Sustainable Crop Production in Stress Environments: Management and Genetic Options held at JNKVV, Jabalpur.	Water management for Vegetables Under Badi situation of Bastar Plateau Zone in India.
7	26/10/2005	International Conference on Plant Genomics and Biotechnology: Challenges and Opportunities held at IGKV, Raipur.	Development of Effective Management Plan for Bio Degraded Sub-watersheds Using Simulation Technique.
8	23/11/2005	International Symposium on Recent Advances in Water Resources Development and Management held at IIT, Roorkee.	Prioritization of Critical Sub-watersheds for Effective Management using Simulation Technique.
9	05/12/2006	2nd International Conference on Hydrology and Watershed Management, at JNTU, Hyderabad.	Verification of SWAT model for a small watershed in Chhattisgarh.
10	15/11/2007	South Asian Conference on Water in Agriculture: Management Options for Increasing Crop Productivity Per Drop of Water, held at IGKV, Raipur.	Groundwater Flow modeling for Multi-layer Aquifer System of a Small Watershed Using Visual MODFLOW.
11	07/02/2007	3rd International Groundwater Conference on Water, Environment and Agriculture – Present Problems and Future Challenges held at TNAU, Coimbatore.	Groundwater Scenario of Chhattisgarh and Scientific Intervention for its Effective Management.
12	19/03/2008	International Groundwater Conference on Groundwater Dynamics and Global Change, at University of Rajasthan, Jaipur.	Groundwater flow modelling for multi-layer aquifer system of a small agricultural watershed in Chhattisgarh.
13	12/01/2009	International Conference on “Water, Environment, Energy and Society” (WEES-2009) held at New Delhi.	Development of Effective Management Plan for the Critical Sub- Watersheds of Arang Watershed in Chhattisgarh.
14	17/12/2009	International Conference on “Food Security and Environmental Sustainability” held at IIT, Kharagpur.	Groundwater Flow Modelling for Multi Layer Aquifer System of a Small Agricultural Watershed in CG.
15	03/02/2010	International Conference on “Hydrology and Watershed	Hydrological Modelling of Arang Watershed Using

		Management” held at Hyderabad.	Weather Generator in the SWAT Model.
16	14/12/2010	International Workshop on River Management organized by the IWRS, DWRDM, IIT, Roorkee at NASC complex, IARI, New Delhi.	Studies on Conjunctive Use Planning of Selud Distributory Command in Durg District of Chhattisgarh.
17	17/01/2011	45th Annual Convention of Indian Society of Agricultural Engineers and International Symposium on Water for Agriculture held at College of Agriculture (Dr. PDKV, Akola Campus), Nagpur.	Assessment and Management of Ground Water for the Upper Mahanadi Watershed using Simulation Technique.
18	03/01/2011	National Conference on Engineering Interventions in Agriculture, held at NSAE, IGKV, Raipur.	Water resources status and future prospects in Chhattisgarh.
19	23/11/2011	4 <sup>th</sup> International Groundwater Conference Water Resources Assessment, Recharge and Modelling held at, WTC, TNAU, Coimbatore.	Performance evaluation of Artificial Groundwater recharge structures of a small WS in Semi-critical Areas of CG.
20	18/07/2012	2012 International SWAT Conference, held at IIT, Delhi.	Management scenario for the critical sub-watersheds of small agricultural watershed using SWAT model.
21	20/01/2012	National Conference on Demonstrated Options for Improved Livelihood in Disadvantaged Areas of India, held at IGKV, Raipur.	Attended and participated in different technical sessions.
22	14/12/2014	International Conference on “Emerging Technologies in Agricultural and Food Engineering” held at IIT, Kharagpur.	Estimation of ET and Crop Planning for Bastar Plateau Zone of Chhattisgarh.
23	22/12/2015	Symposium on Hydrology, organized by IAH, Roorkee.	Water management studies on zaid maize ( <i>Zea Mays L.</i> ) in midland situation of Chhattisgarh.
24	10/02/2015	International Conference on Natural Resource Management for Food Security and rural Livelihood held at NASC complex, New Delhi.	Estimation of Surface Runoff from a Small Agricultural Watershed Using Satellite Data and ArcGIS.
25	07/01/2015	The 2nd International Conference on Bio-resource and Stress Management held at PJTSAU, Rajendra Nagar, Hyderabad.	Water Management studies on Maize ( <i>Zea Mays L.</i> ) in Alfisol of Mid Land Situation in Chhattisgarh Plain.
26	21/03/2015	International Seminar on “Utilization of Non-Conventional Energy Sources for Sustainable Development of Rural Areas, held at Parthivi College of Engineering and Management, Bhilai, C.G.	Development of user friendly software for drip irrigation system design.
27	17/03/2016	2nd International Seminar on “Utilization of Non-Conventional Energy Sources for Sustainable Development of Rural Areas, held at Parthivi College of Engineering and Management, Bhilai, C.G.	Identification of Appropriate Sites for Artificial Ground Water Recharging Using Geospatial Techniques.

28	15/03/2016	International Conference on Water, Energy, Environment and Society held at AISECTU, Bhopal.	Development of Groundwater Recharge Plan for Bemetara District of Chhattisgarh Using GIS.
29	20/01/2017	1st Asian Conf. on “Water and Land Management for Food and Livelihood Security”, held at IGKV, Raipur.	Surface and Groundwater Status and Irrigation Potential in Chhattisgarh.
30	23/10/2017	38th Asian Conference on Remote Sensing: Space Applications: Touching Human Lives, New Delhi.	Development of Land and Water Resources Plan for a Small Watershed in Chhattisgarh.
31	16/02/2018	International Conference on Sustainable Technologies for Intelligent Water Management, held at IIT, Roorkee.	Soil Moisture Depletion- Based Irrigation Technology for Summer Finger Millet Under Midland Situation.
32	10/01/2018	International SWAT Conference 2018, held at IIT Madras, Chennai, India.	Modelling stream flow rate and sediment concentration for Seonath Subbasin using Arc-SWAT model.
33	03/10/2018	Global Water Security Conference for Agriculture and Natural Resources, ASABE and ISAE, Hyderabad.	Estimation of Stream Flow and Sediment Yield from Seonath Subbasin Using SWAT Model.
34	28/01/2019	53rd Annual Convention and International Symposium on Engineering Technology for Precision and Climate Smart Agriculture, held at IAS, BHU, Varanasi.	Fabrication and performance evaluation of A- frame hydroponic system for cultivation of lettuce and leafy garlic.
35	28/05/2019	11th Swadesh Prem Jagriti Sangosthi and International Conference on Innovative Horticulture and Value Chain Management – Shaping Future Horticulture, GBPUA&T, Pantnagar.	Fabrication and performance evaluation of different hydroponic systems for cultivation of vegetables.
36	07/01/2020	54th Annual Convention and International Symposium on Artificial Intelligence Based Future Technology, organized by Dr. ASCAE&T, MPKV, Rahuri at Pune.	Land Utilization Plan Based on Farming Situations of Pathalgaon Block of Jashpur.

**D. Participation and contribution in National / International Fora in the area of your academic and professional expertise**

		Number(s)
Plenary Lectures / Invited Talks	International	03
	National	14
Congresses attended	International	36
	National	47
Examinership etc. PG and Ph.D. thesis evaluation and final viva-voce examination. Oral comprehensive examination for Ph.D.	International	
	National	25
<b>Others (Specify)</b>		
Paper setter for PSC of different states including Jharkhand, Uttarakhand, Bihar and Odisha	International	
	National	06
Member Selection Committee for scientists and principal scientists in ASRB, New Delhi	International	
	National	03



Member Selection Committee in SAUs including IGKV, Raipur, JNKVV, Jabalpur, OUAT, Bhubaneswar and RVSKVV, Gwalior	International	
	National	07
Paper setter for UG, PG and Ph.D. of SAUs. Paper setter for NET and ARS of ICAR, New Delhi	International	
	National	32
Deliver Lectures in the Training Programmes organized by Department of Agriculture, Govt. of Chhattisgarh, IGKV, Raipur, TNAU, Coimbatore, AICRP on IWM, Bhubaneswar	International	
	National	50
Training programme attended (one weeks - 4 , two weeks - 5, three weeks - 5, four weeks - 2)	International	01
	National	15
Chairman/Co-chairman of technical sessions in the conference/seminar Symposium/workshop	International	03
	National	12

### 9. Research Projects

S. No.	Client / Organization's name	Nature of project	Duration of project	Amount of grant (Rupees)
1.	ICAR, New Delhi	Hydrological Modelling for Effective Management of Small Watersheds of Chhattisgarh	4 years	17.04 lakh
2.	NATP, ICAR, New Delhi	Strategies to Increase Cropping Intensities in Area of Protective Irrigation during Kharif and Rainfed during Rabi Season in Eastern India	4 years	24.92 lakh
3.	ITRA, New Delhi	Measurement to Management (M2M): Improved Water Use Efficiency and Agricultural Productivity through Experimental Sensor Network	5 years	122.48 lakh
4.	NATP, ICAR, New Delhi	Hydrological Water Balance Modelling of Rainfed Watersheds for Improved Water Management	3 years	45.02 lakh
5.	INCOH, NIH, Roorkee	Hydrological Modelling of a Watershed using Remote Sensing, Geographical Information System and AVSWAT	3 years	19.47 lakh
6.	IGKV, Raipur	Development of Cadastral Level Land Use Plan for the Chhattisgarh	4 years	50.00 lakh
7.	IGKV, Raipur	Setting-up and Development of Low Cost Sensor System Based Automated Drip Irrigation System at KVK, Raipur	2 years	3.50 lakh
8.	IGKV, Raipur	Delineation of Farming Situations of Agro-climatic Zones of Chhattisgarh State Based on Digital Satellite Soil Mapping and Development of Cadastral Level land Use Plan for the Chhattisgarh	2 years	4.50 lakh
9.	IGKV, Raipur	Fabrication and Development of Different Hydroponic System for Horticulture Crop Under Protected Structures.	1 year	2.50 lakh
10.	IGKV, Raipur	Development of Groundwater Recharging Models at IGKV Farm, Raipur	1 year	2.50 lakh

**10. Consulting experience : List key consulting assignments undertaken**

S. No.	Client / Organization's name	Nature of assignment	Duration of assignment
1.	NRSC, Hyderabad	Establishment of field stations for measuring ET and Soil Moisture under National Hydrology Project (NHP)	3 years 6 months

**11. Honours / Awards and Fellowships for Outstanding Work**

S. No.	Name of Award / Fellowship etc.	Elected / Honorary Fellow	Awarded by	Year of Award
1	Chartered Engineer (India)	Elected	Institution of Engineers (India)	1995
2	Research Associateship	Elected for higher studies	CSIR, New Delhi	1996
3	Vijay Shree Award and Certificate of Excellency	Elected	IIFS, New Delhi	1998
4	Certificate of Excellence	Elected for outstanding work	IGKV, Raipur	2003
5	Bhagirath Samman	Honorary Fellow	Hon'ble Chief Minister, Government of Chhattisgarh	2008
6	Fellow (F-113555-O)	Honorary Fellow	Institution of Engineers (India)	2009
7	Fellow (F0224)	Honorary Fellow	Indian Society of Agricultural Engineers, New Delhi	2017
8	Fellowship (F-2018-1424)	Honorary Fellow	Indian Water Resources Society, Roorkee	2018
9	Bharat Ratna Indira Gandhi Gold Medal	Elected	Global Economic Progress & Research Association, Bangalore, Tamil Nadu	2019
10	Distinguished Scientist	Elected	Agricultural Technology Development Society, Utter Pradesh	2019
11	Certificate of Honor	Honorary Fellow	IGKV, Raipur and ITRA, Ministry of Communication and Information Technology, New Delhi	2016
12	Certificate of Honor	Honorary Fellow	Directorate of Extension, Dept. Agriculture and Cooperation, Ministry of Agriculture, Govt. of India, New Delhi	2018
13	Certificate of Appreciation	Honorary Fellow	Rastriya Krishi Viyan Mela, Indira Gandhi Krishi Vishwavidyalaya, Raipur	2014
14	Certificate of Appreciation	Honorary Fellow	Indira Gandhi Krishi Vishwavidyalaya, Raipur	2017
15	Certificate of Appreciation	Honorary Fellow	1st Asian Conference WLMFLS-2017, Indira Gandhi Krishi Vishwavidyalaya, Raipur	2017
16	Certificate of Appreciation	Honorary Fellow	Agricultural Technology Development Society, Ghaziabad (U.P.)	2019
17	IASWC Fellow-2020	Honorary	Indian Association of Soil and	2020

		Fellow	Water Conservationists, Dehradun (Uttarakhand)	
--	--	--------	---	--

### Awarded Best Poster Presentation of Research Papers

- Karnika Dwivedi, **M. P. Tripathi**, Yatnesh Bisen, Priti Tiwari & Dileshwari awarded 1<sup>st</sup> position in poster presentation in the Brain Storming Workshop and National Seminar on “Emerging Technology for Enhancing Water Productivity organized by Dept. of SWE, SVCAET&RS, FAE, IGKV, Raipur during November 17-18, 2016.
- Gaurav Kant Nigam, R. K. Sahu, Jitendra Sinha, **M. P. Tripathi** and Yatnesh Bisen (2016) “A Study: Effect of Open Cast Mining on Soil Properties, Runoff, Soil Erosion and Sediment Yield”. Participation and Awarded 1<sup>st</sup> Position in Poster presentation in Brainstorming Workshop and National Seminar on Emerging Technologies for Enhancing Water Productivity organized by Dept. of SWE, SVCAET&RS, FAE, IGKV, Raipur during November 17-18, 2016.
- Love Kumar, Dhiraj Khalkho, Prafull Katre, **M. P. Tripathi**, S. K. Patil and G. K. Nigam (2016) “Assessment of Critical Growth Stage of Kharif Rice in Dhersiwa block of Raipur District in Chhattisgarh”. Participation and Awarded 1<sup>st</sup> position in Poster presentation in Brainstorming Workshop and National Seminar on Emerging Technologies for Enhancing Water Productivity organized by Dept. of SWE, SVCAET&RS, FAE, IGKV, Raipur during November 17-18, 2016.
- Priti Tiwari, **M. P. Tripathi**, Yatnesh Bisen and D. Khalkho (2017) “Watershed modeling using SWAT or prioritization of Critical Sub watersheds of Dhangaon Watershed”. Participated and got Best Poster Presentation Award in 1<sup>st</sup> Asian Conference on Water and Land Management for Food and Livelihood Security (WLMFLS-2017), held at IGKV, Raipur from 20-22 January 2017.
- G. K. Nigam, **M. P. Tripathi**, S. K. Ambast, D. Khalkho and L. Kumar (2017) “Morphometric Analysis of a Seonath River of Chhattisgarh using Remote Sensing and GIS Technique”. Participated and got Best Poster Presentation Award in 1<sup>st</sup> Asian Conference on Water and Land Management for Food and Livelihood Security (WLMFLS-2017) held at IGKV, Raipur from 20-22 January 2017.
- Love Kumar, D. Khalkho, P. Katre, **M. P. Tripathi**, S. K. Patil and G. K. Nigam (2017) “Natural Resources Management Planning of Micro watershed using Remote Sensing and GIS Technique”. Participated and got Best Poster Presentation Award in 1<sup>st</sup> Asian Conference on Water and Land Management for Food and Livelihood Security (WLMFLS-2017) held at IGKV, Raipur from 20-22 January 2017.

### 12. Number of Research Scholars successfully guided

Name of Programme	Awarded (No.) (Under-progress not to be included)
<b>Ph. D.</b>	<b>08 (Major Advisor/Co-major Advisor)</b>
<b>M. Tech.</b>	<b>31 (Major Advisor)</b>
M. Tech. /M. Sc.	74 (Member-Advisory Committee)
Ph. D.	14 (Member-Advisory Committee)

S. No.	Name of Student	Year	Title of Thesis	Remark
<b>Ph. D. (Soil and Water Engineering)</b>				

1	Narendra Agrawal	2007	Development of effective management plan for critical areas of small watersheds using SWAT model and GIS.	Co-Major Advisor
2	Dhiraj Khalkho	2017	Distributed parameter modelling for development of effective watershed management plan of upper Mahanadi basin.	Major Advisor
3	Yatnesh Bisen	2018	Development of water management technologies for summer maize (ZEA MAYS L.) and finger millet (ELEUSINE CORACONA) under midland situation of Chhattisgarh plains.	Major Advisor
4	Pushpendra Kumar Singh	2018	Evaluation of different drainage configurations and subsequent water balance studies of selected crops under raised bed system.	Major Advisor
5	Gaurav Kant Nigam	2018	Hydrological and water quality modelling of Seonath sub-basin and development of management scenario for problematic watersheds.	Major Advisor
6	Karnika Dwivedi	2020	Hydrological modelling and development of surface water resource management plan for a watershed of upper Hasdeo subbasin.	Major Advisor
7	Rajesh Kumar Agrawal	2020	Development and performance evaluation of hydroponic systems with different media and irrigation methods.	Major Advisor
8	Dileshwari	2022	Development of optimal crop plans for different farming situations based on water potential of <i>kotani</i> watershed.	Major Advisor

**M. Tech. (Soil and Water Engineering)**

1	Sanjay Dhanphule	2001	Studies on estimation of evapotranspiration of different crops using modelling technique for effective crop planning.	Major Advisor
2	A. M. Kamble	2001	Hydrological modelling of micro watersheds using SWAT model.	Major Advisor
3	G.S. Panchariya	2001	Performance evaluation of subsurface irrigation in vertisols.	Major Advisor
4	P. K. Shrivastava	2002	Hydrological modelling of a small watershed using remote sensing and GIS.	Major Advisor
5	Vikas G. Jadhao	2003	Hydrological modelling of small watershed using simulation technique.	Major Advisor
6	Samiran Sarkar	2003	Design and development of rainfall simulator for soil erosion studies.	Major Advisor
7	Anil K. Jadhao	2004	Hydrological modelling of a small watershed using remote sensing and GIS technique.	Major Advisor
8	Vivek Thakur	2004	Development of soil and water conservation plan for a small agricultural watershed.	Major Advisor
9	Johnson K. Eappen	2005	Water Balance Studies of a Micro Watershed.	Major Advisor
10	Shashi Kant	2005	Data Base Generation for Variable Infiltration Capacity (VIC) Hydrologic Based Model-Remote Sensing and GIS Approach.	Major Advisor
11	Divya Jyothi K.	2007	Groundwater modelling for multi-layer aquifer system of a small agricultural watershed in CG	Major Advisor
12	Dheeraj Kumar	2008	Groundwater flow and mass transport modelling for multi-layer aquifer system of small watersheds in Chhattisgarh.	Major Advisor
13	Mudasir A. Shah	2010	Assessment and management of groundwater for the upper Mahanadi basin using modelling technique.	Major Advisor

14	Ku. Geeta	2011	Runoff modelling of a small agricultural watershed using satellite data and GIS.	Major Advisor
15	Tarun Kumar	2012	Planning of groundwater recharge for Durg district using remote sensing and GIS.	Major Advisor
16	Ku. Neelu Rana	2012	Groundwater use planning of upper Mahanadi watershed using Visual MODFLOW model.	Major Advisor
17	Madhuri Sawarkar	2013	Groundwater planning and management of Kharun watershed of Seonath subbasin.	Major Advisor
18	Priti Tiwari	2014	Prioritization of critical areas of an agricultural watershed for effective management using SWAT model.	Major Advisor
19	Karnika Dwivedi	2015	Water balance studies on finger millet (Eleusine coracana) in mid land situation of Chhattisgarh plains.	Major Advisor
20	Shilpi Rani Bhattacharya	2016	Planning of land and water resources for a small watershed of Mungeli district.	Major Advisor
21	Surjeet Singh Adile	2016	Optimization of Water Resources for Maximizing Crop Production in Coastal Areas of Odisha.	Major Advisor
22	Lov Kumar Gupta	2018	Studies on groundwater behaviour in relation to climatic scenario of Kharun watershed.	Major Advisor
23	Kavita Krishan	2018	Fabrication and performance valuation of different hydroponic system under protected structures.	Major Advisor
24	Nidhi Sharma	2019	Land utilization plan based on farming situation of Pathalgaon and Kunkuri blocks of Jashpur district.	Major Advisor
25	Khyati Jain	2019	Performance evaluation of hydroponics systems for different crops under soil less media.	Major Advisor
26	Aekesh Kumar	2020	Studies on spatial and temporal variability of groundwater quality in semi-critical blocks of Chhattisgarh plains.	Major Advisor
27	Shreeya Baghel	2020	Water conservation plan based on groundwater potential of mand catchment in Mahanadi basin.	Major Advisor
28	Divyanshu Ganjir	2020	Assessment of runoff potential of jhal watershed in Bemetara district for identification of suitable sites for rainwater harvesting structures.	Major Advisor
29	Sankara Anusha	2021	Land and water resources studies of Pennar subbasin using geospatial techniques.	Major Advisor
30	Srishti Kumbhakar	2021	Studies on spatial and temporal variability of groundwater quality in Dharsiwa block of Raipur district in Chhattisgarh.	Major Advisor
31	Jay Prakash Nag	2021	Designing of minor irrigation tank and crop planning in kotadadar village of Mahasamund district.	Major Advisor

### 13. My Strength

I am qualified from the well-recognised and premier institutes of the country. I have more than 32 years of long experience of teaching, research and extension in an Agricultural University. Completed 10 research projects. Guided 31 PG and 08 Ph. D. students. Published more than 150 research papers. Honoured with Bhagirath Samman by the Hon'ble Chief Minister of Chhattisgarh. I am an excellent and energetic collaborator with leadership quality. During this long journey I have developed a good linkage with number of Universities and National Institutes for collaborative education and research programmes. Possessing

the experience of establishing the Department of Soil and Water Engineering in the University and started PG and Ph.D. programmes. Recently a College of Food Technology is added to the University and I got opportunity to establish this College as a Dean, this shall be additional contribution under my leadership. I have the experience of working on different capacities namely, Professor and Head, Dean of the College and Faculty of Agricultural Engineering, Chief Scientist of AICRP on Irrigation Water Management and led the University on many platforms. I have proved my leadership capability in getting the accreditation of Department of Soil and Water Engineering from ICAR as Head. Being a member of academic council and administrative council I have closely associated with the University administration for quality education, policy and decision making on many areas.

#### 14. My Vision

Utilizing the advantage of long experience and educational career I would focus in transforming the College/Institute/University in to a world-class College/Institute/University through continuous adoption of innovation in higher education, research, creativity and entrepreneur development with the aim to have transformative impact in the society with the adoption of following broad visions.

- Providing an educational environment where students can realize their full potential in their chosen discipline/career and attain quality education to face the challenges of life.
- **Initiation** of variety of high quality programs at Undergraduate, Postgraduate and Doctoral levels for need based specialization and disciplines.
- Providing a dynamic, challenging and ethical environment to maintain high quality teaching, learning, research and service, where students, faculty and other stakeholders can interact well, collaborate and establish associationship with the national and international community for the creation and dissemination of knowledge and transform lives of the people through innovation and excellence in higher education.
- Creation of effective outreach activities to accelerate the adoption of technology which will further extend the opportunities of education and knowledge for practicing professionals in the State of Chhattisgarh at the national and international levels. This will overall aim in educating and training human resources for the integral development of Chhattisgarh.
- To establish workable linkages with premium College/Institutes/Universities and organizations engaged in higher education, skill development and management for the exchange of programs and overall development of students, faculty and also practicing professionals.
- The College/Institute/University will also serve the state/country and society at large academically, technically, professionally and culturally with able human resource.
- To explore the possible areas for entrepreneurs programs for the students, rural youths and women and other stakeholders for bringing self-reliance and sustainable development in the society which is the main focus of the National Education Policy-2020 of Government of India.
- Introduction of career oriented courses at Undergraduate and Postgraduate levels particularly on entrepreneur and skill development.
- To transform the education system with the adoption of newer technologies such as Information Technology and Management Practices along with the adoption of e-resources.
- Adoption and promotion of e-classes and training through multimedia to benefit the student mass at lower cost and also to provide opportunity to the students of the remote places/disadvantage areas.
- To enhance the effective utilization of faculty/resource person with the adoption of e-classes and information technology and its promotion.
- To evolve the mechanism for supporting teaching, research and their autonomy in the affiliated collages to emerge as Center of Excellence.
- To bring transparency and maintain the time line in all the activities at every stage for education, training and development programs in the College/Institute/University.
- Initiation and creation of facilities for research and development programs to address the local needs of the society in general and Uttarakhand in particular.
- To establish Center of Excellence for documentation, conservation/preservation of

Indigenous Traditional Knowledge (ITK) of the state and develop synergy with the technology for validation and refinement.

- Creation of infrastructural facilities to support and sustain various activities of the College/Institute/University at large.
- Mobilization of funding support through synergy from various stakeholders.
- To explore the possibilities of different activities/ programmes under Public-Private-Partnership (PPP) mode.
- To integrate agricultural technologies with different key areas such as sensors, artificial intelligence, automation and engineering for accelerating change of the reach of agriculture to new means, places and areas of the economy.

Place : Raipur  
Date : 01/08/2022



(Signature of the Applicant)