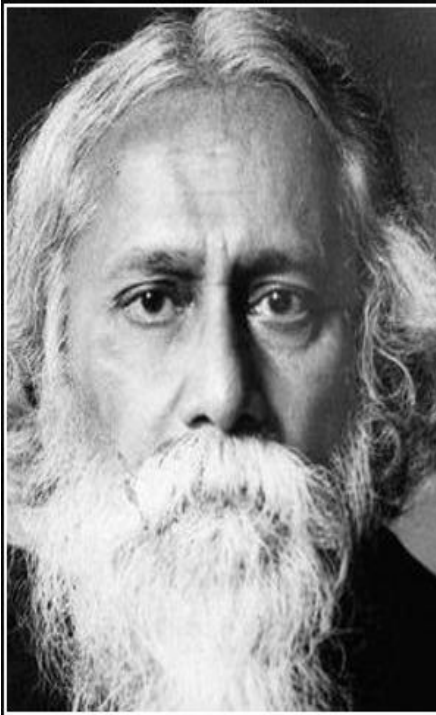


Department of Agricultural Extension: An Overview



**Palli-Siksha Bhavana
(Institute of Agriculture)
Visva-Bharati, Sriniketan
West Bengal**

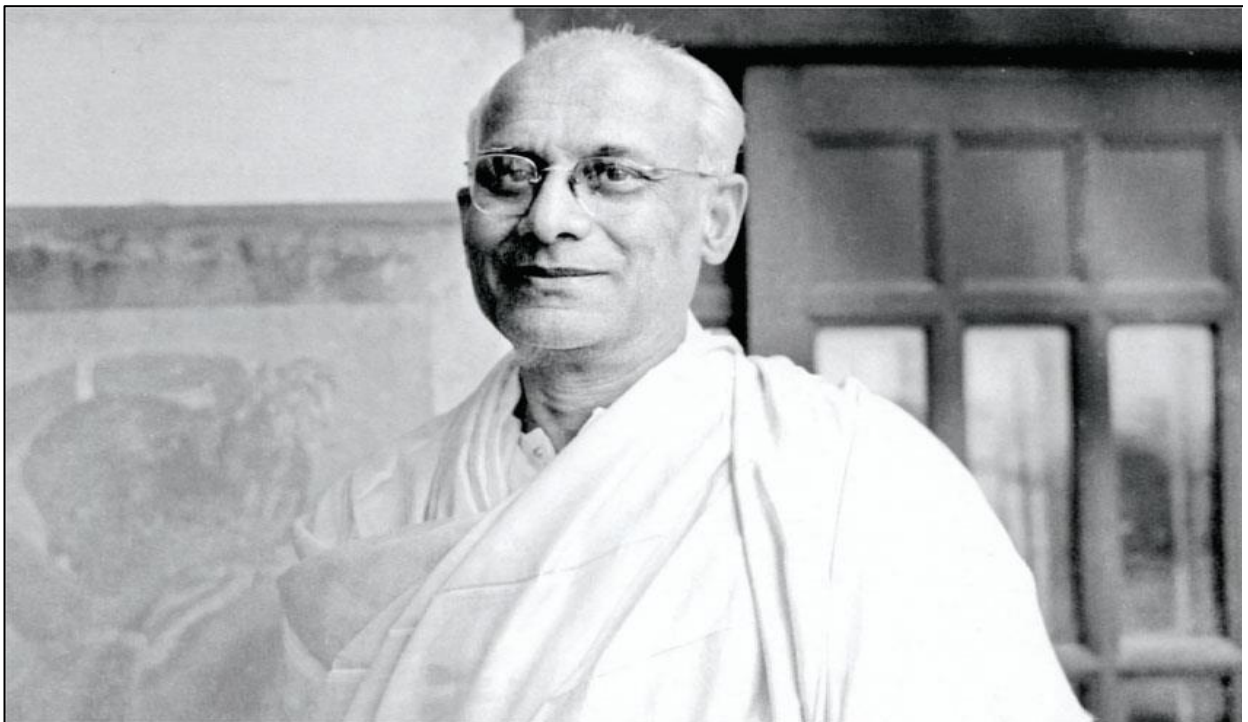


A teacher can never truly teach unless he is still learning himself. A lamp can never light another lamp unless it continues to burn its own flame. The teacher who has come to the end of his subject, who has no living traffic with his knowledge but merely repeats his lesson to his students, can only load their minds, he cannot quicken them....

— *Rabindranath Tagore* —

AZ QUOTES

Gurudev Rabindranath Tagore; First Non-European Nobel Laureate and Founder of Visva-Bharati (A Central University)



Rathindranath Tagore, First Agriculture Graduate in British-India & First Vice Chancellor of Visva-Bharati

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Introduction

Department of Agricultural Extension has been created with reference to the Office Order Memo No.: Estab./E-I/AOH&IC/2016-17, dated 30.09.2016. Consequent upon the creation of nine new Departments from erstwhile four Departments of Palli Siksha Bhavana (Institute of Agriculture) in Visva-Bharati, the Department of Agricultural Extension has been created as one of two new Departments from the erstwhile Department of Agricultural Extension, Agricultural Economics and Agricultural Statistics.

The Department of Agricultural Extension offers eight courses for Under Graduate programme of the Bhavana and Coordinates Rural Awareness and Work Experience (RAWWE) programme. It conducts two-years M. Sc. (Ag.) in Agricultural Extension programme and Ph.D. in Agricultural Extension programme. The Department has made significant accomplishments in teaching, research and extension fronts which are evident from the students' success in ICAR-JRF, ICAR-SRF, ICAR-NET and UGC-NET examinations, implementation of three externally funded research projects and coordination of rural awareness work experience programme as well as field demonstrations on vegetables, pulses and oilseeds crops, respectively. This department has developed two new elective courses i.e. Communication and Information Management (2+1=3 Credits) and Emerging Trends in Agricultural Extension (2+1= 3 Credits) and three Instruction and Practical Manuals on extension training, communication and information management in the context of entrepreneurship development, and extension management and participatory extension methods. The Department conducts field level demonstration programmes and train the students and farmers every year.

Department of Agricultural Extension used to organize the demonstrations on summer season vegetables farming and *rabi* season vegetables farming in the Demonstration Unit, which are witnessed by the students and farmers. Field level demonstrations on cultivation of pulses and oilseeds are organised during *rabi* season covering more than 100 farmers and 20 hectare area in about 20 villages of Bolpur-Sriniketan and Illambazar blocks of West Bengal. Under these demonstrations seeds of high yielding varieties of lentil, gram and mustard are given to the farmers to grow the crops in the areas under rice-based cropping systems, where the farmers obtained an average yield of 0.75 t/ha, 0.85 t/ha and 0.95 t/ha in case of lentil, gram and mustard, respectively.

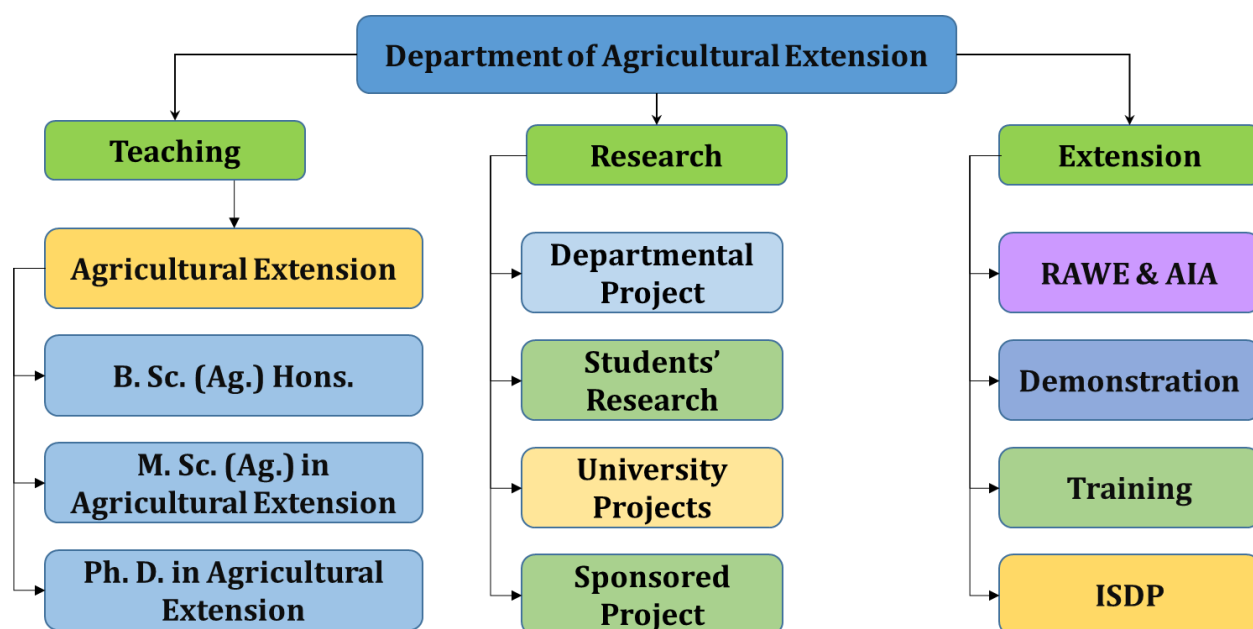
Genesis of the Department:

1963: Palli Siksha Sadan (PSS) was established

1984: PSS Renamed as Palli Siksha Bhavana (PSB)

1989: Department of Agricultural Extension, Agricultural Economics & Agricultural Statistics (EES) was established

2016: Department of Agricultural Extension as independent department was established



Organisational Structure of the Department

Thrust Areas

UG, PG & Ph. D. Teaching

- Focus on emerging areas like Advances in Agricultural Extension, ICT/ e-Extension, Entrepreneurship, Extension management, etc.
- Emphasis on use of multimedia & hands on exercises using ICT
- Interactive teaching with continuous assessment & feedback
- Continuous revision of courses (in every 5 years)

Experiential Learning

Rural Agricultural Work Experience and Agro-industrial Attachment (RAWA & AIA):

- Focus on village attachment, industrial attachment & placement in financial and development institutions

Research on Emerging Issues of Agril. Extension:

- Impact Assessment studies
- Constraints Analysis
- Livelihood Analysis
- Entrepreneurship Development
- Institutional & Gender studies
- Information and Communication studies
- Policy Analysis
- Natural Resource Management- Water & Forest

Exploratory Data Analysis , Content Analysis & Case Studies

Infrastructure of the Department

Class Room: One

- ↳ Seating capacity of 15 students
- ↳ Floor area: 150 Sq. ft.

Seminar-cum-Lecture Hall: One

- ↳ Seating capacity of 50 students
- ↳ Floor area: 610 Sq. ft.

Audio-Visual Laboratory: One

- ↳ Seating capacity of 15 students
- ↳ Floor area: 180 Sq. ft.

Demonstration Unit:

- ↳ 0.30 acre of land



Class Room [Capacity: 15 Students]



Audio-Visual Laboratory [Capacity: 15 Students]



Conference Hall [Capacity: 50 Students]



Demonstration Unit [0.30 acre]

Equipment/Software in Audio-Visual Laboratory

Sl. No.	Name of the Equipment / Software in Audio-Visual Laboratory	Quantity
1.	DSS Digital Video Camera (Sony)+ Black Magic Decklink Capture Card	01
2.	Wireless lapel microphone	01
3.	Handhold microphone	01
4.	Mixer Amplifier	01
5.	Wall Speakers	02
6.	Cables and Connectors	01
7.	RICOH Colour Photocopier	01
8.	LCD Projector (Epson)	02
9.	LED Television	02
10.	Handy-cam Camera (Sony Handy-cam Camcorder HDR PJ410)	02
11.	Computers at work station	03
12.	Printers	01
13.	Corel Draw Graphics Suite X8 Software with two years maintenance	01
14.	Adobe Photoshop Creative Cloud Software	01
15.	SPSS Software	01

Course Curriculum (Academic Programme)

The Department presently offers

Courses under Four Years B.Sc. (Ag) Hons.

- Five courses (7+4 credits) and Two Elective Courses (4+2 credits) as per Fifth Dean Committee recommendations for new batches of students (2017-18 onwards);
- Four courses (5+3 credits) as per Fourth Dean Committee recommendations for old batches of students
- One Experiential Learning Module on Agro-advisory Services (10 credits) as per Fifth Dean Committee recommendations for new batches of students (2017-18 onwards);
- Four Experiential Courses offered as per Fourth Dean Committee recommendations for old batches of students
- Rural Agricultural Work Experience and Agro-industrial Attachment

Two Years M.Sc. (Ag) in Agricultural Extension

Ph. D. in Agricultural Extension

Undergraduate Courses in Agricultural Extension

Course Code	Name of the Course	Theory	Practical	Total
UG Courses as per ICAR Fifth Deans' Committee Recommendations for New Batches of Students (2017-18 onwards)				
AEX 111	Comprehension & Communication Skills in English	1	1	2
AEX 112	Rural Sociology & Educational Psychology	2	0	2
AEX 121	Fundamentals of Agricultural Extension Education	2	1	3
AEX 122	Communication Skills and Personality Development	1	1	2
AEX 311	Entrepreneurship Development and Business Communication	1	1	2
Elective Courses				
AEX 312	Communication and information management	2	1	3
AEX 321	Emerging Trends in Agricultural Extension	2	1	3
Experiential Learning				
ELAEX 411	Agro-advisory Services	0	10	10
Rural Agricultural Work Experience and Agro-industrial Attachment (RAWE & AIA)		0	20	20
UG Courses as per ICAR Fourth Deans' Committee Recommendations for Old Batches of Students				
AEX 211	Fundamentals of Rural Sociology and Educational Psychology	2	0	2
AEX 221	Dimensions of Agricultural Extension	1	1	2
AEX 311	Extension Methodologies for Transfer of Agricultural Technologies	1	1	2
AEX 321	Entrepreneurship Development and Communication Skill	1	1	2
Experiential Learning (Four Courses are offered)				
ELABM 02	Information Communication Management	2	1	3
ELABM 03	Organization Behaviour and Human Resource Management	2	1	3
ELSS 01	Agricultural Journalism	2	1	3
ELSS 02	Visuals and Graphic Communications	2	1	3
ELSS 03	Project Development, Appraisal and Monitoring	1	2	3
ELSS 04	Emerging Trends in Agricultural Extension	1	1	2
ELSS 09	Multimedia Technologies	2	1	3
ELSS 10	Behavioral Skills	2	1	3
RAWE Programme				
RAWE 04	Extension Programme	0	4	4
RAWE 05	Research Station/KVK/DAATT Center Activities and Attachment to the Agro-based Industries	0	4	4

Genesis of the PG Programme:

- ❖ The Programme started in 1990 with five seats
- ❖ Three students were admitted in 1990
- ❖ Presently ten students are enrolled in each year out of which 03 (three) students get admission through ICAR-JRF Examination

Objectives of the M.Sc. (Ag.) in Agricultural Extension Programme:

- Focus on advances in Agricultural Extension, developmental communication, extension research methodology, e-extension, training & networking, entrepreneurship development, extension management, etc.
- Emphasis on use of multimedia & hands on exercises using ICT in audio-visual laboratory
- Interactive teaching with continuous assessment & feedback
- Research through Master's Thesis on emerging issues of Agricultural Extension:
 - ✓ Rural livelihood
 - ✓ Entrepreneurial behaviour
 - ✓ Institutional innovations
 - ✓ Mainstreaming gender in agriculture
 - ✓ Information and communication technology
 - ✓ Policy analysis
 - ✓ Natural resource management- land, water, forest
 - ✓ Climate change adaptation
 - ✓ Impact assessment
 - ✓ Constraints analysis
 - ✓ Content analysis

Ph.D. Programme

Ph.D. in Agricultural Extension is offered on the basis of the UGC (Minimum Standards and Procedure of Award of Ph.D. Degree) Regulations, 2016 vide Govt. of India notification dated 5th May 2016. As per the UGC regulation course work is conducted in one semester. Professor, Associate professor, Assistant Professor can guide eight, six and four scholars respectively. At present all the four faculties of this department are guiding Ph.D. student. At present as on June' 2019 nineteen Ph.D. scholars are enrolled.

Courses under Master's Degree Agricultural Extension Curriculum

Course Code	Name of the Course	Theory	Practical	Total
EXT 501	Genesis and Evolution of Extension Concept	1	0	1
EXT 502	Development Perspectives of Extension Education	1	1	2
EXT 503	Development Communication and Information Management	2	0	2
EXT 504	Educational Technology in Extension	1	1	2
EXT 505	Concept of Sociology and Educational Psychology in Extension	2	1	3
EXT 506	Diffusion and Adoption of Innovations	1	1	2
EXT 507	Research Methods in Behavioural Science	2	1	3
EXT 508	Gender Studies in Agricultural Development	2	1	3
EXT 509	Distance Education as Extension Intervention	1	1	2
EXT 510	Training and Networking	1	1	2
EXT 511	e-Extension	1	1	2
EXT 512	Entrepreneurship Development & Management in Extension	1	1	2
EXT 513	Concept of Organisational, Human Resource and Marketing Management Relevant to Extension	2	1	3
EXT 514	Project Management- Principles and Techniques	1	1	2
EXT 515	Participatory Methods for Technology Development and Transfer	1	1	2
EXT 516	Visual Communication	2	1	3
EXT 517	Market led Extension	1	1	2
EXT 518	Group Dynamics and Leadership	2	1	3
EXT-591	Seminar	0	1	1
EXT-599	Research Work	0	20	20

Courses under Ph.D. Agricultural Extension Course Work Curriculum

Course Code	Name of the Course	Theory	Practical	Total
AEX 601	Research Methodology and Techniques	4	0	4
AEX 602	Advances in Extension Education	4	0	4
AEX 603	Innovations in Education	4	0	4
AEX 604	Courses on Thesis Writing	4	0	4

Faculty Profile

Faculty Strength of the Department

Sl. No.	Sanctioned Faculty	Faculty in place	Vacant position
1.	Professor	01	-
2.	Associate Professor	01	-
3.	Assistant Professor	02	01

Faculty Credentials

Name of the Faculty & Designation	Highest Qualification	Work Experience (in Years)	Specialisation	Supervision of Scholars	
				M.Sc.	Ph.D.
Souvik Ghosh (Professor and Head)	Ph.D. in Agricultural Extension	19	Extension management, group dynamics, livelihood analyses, climate change adaptation, adoption and communication studies, etc.	09* 02**	01# 06**
Sarthak Chowdhury (Professor)	Ph.D. in Agricultural Extension	30	Technology assessment, communication studies, gender analyses, human resource management in extension organisations, etc.	19* 02**	10* 02**
Siddhartha Dev Mukhopadhyay (Professor)	Ph.D. in Agricultural Extension	27	Constraints analysis, impact assessment, ICT applications, adoption studies, etc.	22* 02**	07* 02# 04**
Anindita Saha [Assistant Professor (Stage III)]	Ph.D. in Agricultural Extension	15	Documentation on and validation of ITKs, knowledge information system, linkage mechanisms, adoption studies, etc.	19* 02**	05* 02# 02**

* Completed

Thesis Submitted and Degree Awaited

** Continuing

Research Projects Undertaken during Last Five Years:

Name of the faculty / PI	Title of the Project	Sponsoring Agency	Duration	Amount (Rs.)
Prof. Souvik Ghosh	Socio-Economic, Institutional and Gender Issues Influencing Spatiotemporal Variations and Sustainability of Participatory Irrigation Management Reforms in India (under Lal Bahadur Shastri Outstanding Young Scientist Award 2011 of ICAR)	ICAR, New Delhi	2015-2018	₹ 35 lakh
Prof. Souvik Ghosh	Vulnerability to Climate Change in Eastern India: Livelihood Sensitivity, Adaptation and Institutional Analyses in the Context of Extension Interventions (under Extramural Research Project of ICAR)	ICAR- Agricultural Extension Division, New Delhi	2016-2017	₹ 11.40 lakh
Prof. S. D. Mukhopadhyay	Intensive Sugarcane Development Programme (ISDP)	Govt. of West Bengal	1989- till date, yearly sanction basis	₹ 12.5 lakh/yr

Non-Academic Staff Position of the Department

Sl. No.	Sanctioned Staff	Staff in place	Vacant positions
1.	Technical staff (Extension Supervisor, AV Operator)	-	02
2.	Supporting staff	05	-

Name	Designation
Mozammel Haque Mallick	Office Assistant
Jamshed Molla	Gram Karmi
Abinas Chandra Biswas	Gram Karmi
Mihir Pal	Gram Karmi
Manab Kumar Das	Gram Karmi
Madhusudan Ghosh	Job Assistant, ISDP
Brindaban Ghosh	Job Assistant, ISDP
Hara Prasad Chatterjee	Job Assistant, ISDP
Vacant: 01 Post of Deputy Superintendent of Agricultural Extension; 01 Post of Audio Visual Operator	

Students Strength in M.Sc. (Ag.) in Agricultural Extension

Degree Programme	Actual No. of Students Admitted			Attrition (%)
	Male	Female	Total	
2013-14	5	1	6	0
2014-15	4	2	6	16
2015-16	8	2	10	0
2016-17	6	4	10	0
2017-18	6	4	10	0
2018-19	4	6	10	20

Admission Details:

Particulars			2012-13		2013-14		2014-15		2015-16		2016-17		2017-18		2018-19	
			AW	AD	AW	AD	AW	AD	AW	AD	AW	AD	AW	AD	AW	AD
M. Sc. (Ag.) in Agril. Extn.	Visva-Bharati Entrance	M	6	2	2	3	2	4	5	7	7	6	5	4	5	3
		F	0	2	2	1	1	0	0	1	1	1	1	3	2	5
		T	6	4	4	4	3	4	5	8	8	7	6	7	7	8
	ICAR-JRF Exam	M	0	1	0	2	3	0	0	1	1	0	0	2	2	0
		F	0	2	2	0	0	1	1	1	1	3	3	1	0	0
		T	0	3	2	2	3	1	1	2	2	3	3	3	2	0
	Total Student		06	07	06	06	06	05	06	10	10	10	09	10	09	08
	AW: Degree Awarded; AD: Admitted; M: Male Student; F: Female Student; T: Total Student															

State Wise Break-Up of Students: M.Sc. (Ag.) in Agricultural Extension

State	2013-14		2013-14		2014-15		2015-16		2016-17		2017-18		2018-19		Total		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	T
Bihar		1					2			1		1		1	2	4	6
Chhattisgarh			1								1			1	2	1	3
Karnataka						1				1	1				1	2	3
Kerala														1	0	1	1
Maharashtra			1												1	0	1
Manipur		1									1				1	1	2
Meghalaya												1		1	0	2	2
Nagaland		1								1					0	2	2
Odisha							1		1	1	1	1	2	1	3	4	7
Sikkim		1	1	1											1	2	3
Tripura							1		2		1	1	1		5	1	6
Uttar Pradesh	1														1	0	1
West Bengal	2		2		4		5	1	4		1				18	1	19
Total	3	4	5	1	4	1	8	2	6	4	6	4	3	5	35	21	56
	(7)		(6)		(5)		(10)		(10)		(10)		(8)				
About 35% Students from West Bengal and 65% from 12 other States																	

Practical and Hands-on-Training

Practical Exercises on:

- Organizational communication
- Analysis of organizational process
- Assessment of attitudes, values, motivation, achievement motivation, leadership, etc., Study on organizational structure of different development departments,
- Exercise on delegation of authority,
- Exercise on team-building process, group dynamics, etc.,
- Training need assessment of different stakeholders,
- Case studies/ analyses,
- Project development including CPM, PERT, GERT, GOPP, etc.
- Different aspects of extension research methodologies – sampling framework, preparation of questionnaire, schedule for data collection, testing of reliability and validity, etc.

Hands-On Training on:

- Photography
- Videography
- Video editing
- Webcasting
- Short educational film making
- Preparation of e-magazine, photo features, leaflet, folder, poster and other audio, visual and audio-visual aids as per the syllabi
- Mobile applications in agriculture
- Undertaking demonstration in the demonstration unit of the department of agricultural extension
- Curriculum development of a training programme, preparation of training schedule etc.



Practical Class



Training on ICT in Audio-visual Lab



Audio-Visual Laboratory Hands on Training



Agro-Ecosystem Analysis through PRA



Industrial-Linkage Programme



SOWT Analysis



Personal Interview Method



Visit to KVK Azolla Unit



Demonstration during Magh Mela

Demonstration on Rabi Season Vegetables Farming 2015-16



Demonstration on Summer Season Vegetables Farming 2016



Demonstration on Summer Season Vegetables Farming 2016



Demonstration on Rabi Season Vegetables Farming 2016-17



Field Demonstration on Pulse & Oilseed during Rabi Season 2016-17



Demonstration on Summer Season Vegetables Farming 2017

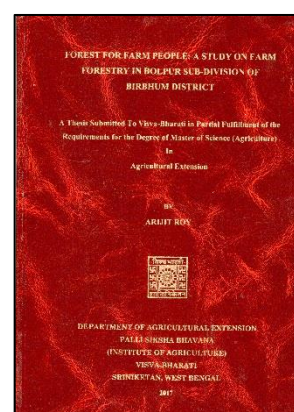
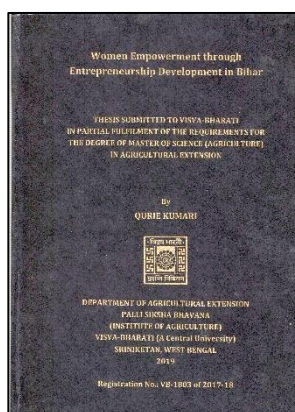
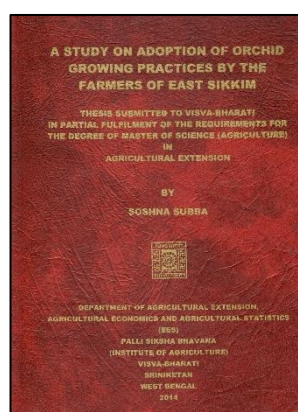
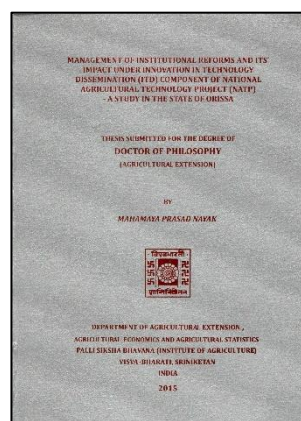
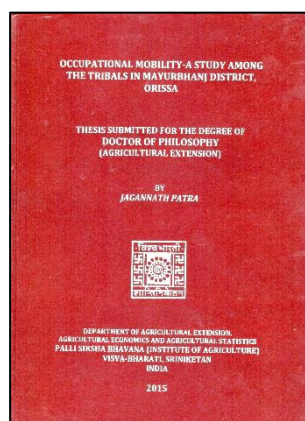
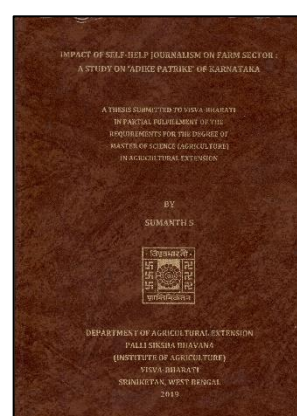
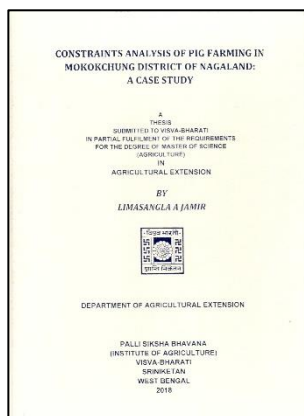


Students Awarded M.Sc. (Ag.) in Agricultural Extension during 2012-19

Sl. No.	Thesis Title	Student's Name	Name of the Supervisor
Academic Year 2018-19			
1.	Study of Knowledge and Adoption Level of Turmeric Growers of Meghalaya	Angelina Dkhar	Dr. S. D. Mukhopadhyay
2.	Problem, Prospects and Impact of Rubber Cultivation in South Tripura	Chiranjit Roy	Dr. S. D. Mukhopadhyay
3.	Occupational Stress of University Teachers: A Study among the Faculties of Orissa University of Agriculture and Technology (OUAT)	Maitreyee Tripathy	Prof. S. Chowdhury
4.	Factors influencing the Impact of Training Programmes: A Study among the Small Holders Women Farmers of Bolpur Sub-Division	Prashant Limbu	Prof. S. Chowdhury
5.	A Study on Decision Making Pattern of Rural Women in Agricultural and Dairy Activities in Tripura	Priyanka Das	Dr. (Mrs.) A. Saha
6.	Women Empowerment through Entrepreneurship Development in Bihar	Qurie Kumari	Prof. S. Ghosh
7.	Farmers Awareness, Knowledge and Adoption Levels of SRI Methods: A Study in Nayagarh District of Odisha	Rajanikanta Sahoo	Dr. S. D. Mukhopadhyay
8.	A Study on Entrepreneurial Behaviour of Tribal Dairy Farmers in Northern Hill Region of Chhattisgarh	Ravi Kumar Gupta	Dr. (Mrs.) A. Saha
9.	Impact of Participatory Irrigation Management (PIM) in Minor Irrigation Command Areas of West Bengal	Subhajit Mukherjee	Prof. S. Ghosh
10.	Impact of Self-Help Journalism on Farm Sector: A Study on 'Adike Patrike' of Karnataka	Sumanth. S	Prof. S. Chowdhury
Academic Year 2017-18			
1.	Perception Of Vegetable Growers Towards Excessive Use Of Chemicals : A Study In Bankura District Of West Bengal	Arnab Kumar Paine	Dr. (Mrs.) A. Saha
2.	Changes In Knowledge, Skill And Practices Of The Farmers As The Result Of The Intervention Of KVK- A Study In Purulia District Of West Bengal	Kartick Chandra Bauri	Dr. S. D. Mukhopadhyay
3.	Information Needs Of Rice Growers : A Study Among The Small Farmers Of Bolpur Subdivision	Koushik Mahato	Prof. S. Chowdhury
4.	Awareness and used of digitized Communication Sources in Farm Sector: An Analysis Of Farmer's Information And Communication In Bihar	Kumari Madhuri	Prof. S. Ghosh
5.	Constraint Analysis Of Pig Farming In Mokokchung District Of Nagaland	Limasangla A Jamir	Dr. S. D. Mukhopadhyay
6.	Farmers' Awareness ,Knowledge And Adoption Level Of Plant Protection Technique: A Study In West Bengal	Milan Pahari	Dr. S. D. Mukhopadhyay
7.	Awareness And Perception About Environmental Issues: A Study Among The Farmer Of Bolpur Subdivision	Randip Pal	Prof. S. Chowdhury
8.	A Study On Achievement Motivation Of Farmers Practicing Organic Farming In Birbhum District Of West Bengal	Udayan Battacharjee	Dr. (Mrs.) A. Saha
9.	Vulnerability To Climate Change In Odisha : Livelihood Sensitivity And Adoption Of The Farmers	Usha Das	Prof. S. Ghosh
10.	Determinants Of Communication Fidelity On Training : A Study Among Peasant Women In Bolpur Subdivision Of Birbhum District	Vinutha Pinto	Prof. S. Chowdhury

Sl. No.	Thesis Title	Student's Name	Name of the Supervisor
Academic Year 2016-17			
1.	Agriculture Related Information Needs of the Farmers and Effectiveness of Communication Source: An Empirical Study In Bihar	Aditya Karn	Prof. S. Ghosh
2.	A Study on Extent of Participation of Rural Women in Decision Making Process in Dairy Farming in Surguja District of Chhattisgarh	Ankur Gupta	Dr. (Mrs.) A. Saha
3.	Forest for Farm People : A Study on Farm Forestry in Bolpur Sub-Division Of Birbhum District	Arijit Roy	Prof. S. Chowdhury
4.	Farmers Response to Innovations in Farming: A Study Among The Resources Poor Farmers in Bolpur Sub - Division	Arindam Maji	Prof. S. Chowdhury
5.	Evaluation of Surface and Groundwater Irrigation Service Utility from the Perspective of Farmers in West Bengal	Golam Torab Ali	Prof. S. Ghosh
6.	Analysis of Constraints of Crop Production as Perceived by Farmers and Selected Areas of Tripura	Jagathjhuti Datta	Dr. S. D. Mukhopadhyay
7.	Assessment of Cropping Scenario and Irrigation Management under Different Groundwater Market Regimes in West Bengal	Mamani Besra	Prof. S. Ghosh
8.	Change in Knowledge, Skills and Practices of the Farmers as the Result of Intervention of KVK- A study in Nadia District of West Bengal	Sabyasachi Karak	Dr. S. D. Mukhopadhyay
9.	A Study on Nature and Extent of use of Information Communication Technology in Farming Community of Khurdha District of Odisha	Suprava Sethy	Dr. S. D. Mukhopadhyay
10.	A Study on Information Needs of Paddy Growers in Bankura District of West Bengal	Swaraj Chakraborty	Dr. (Mrs.) A. Saha
Academic Year 2015-16			
1.	Impact of Crop Diversification on Farming and Livelihood of Farmers in West Bengal	Debkumar Kisku	Prof. S. Ghosh
2.	Training Needs of Farmers : A Study Among the Farm Youth in Bolpur Sub-Division, Birbhum District	Hemant Chhetri	Prof. S. Chowdhury
3.	A Study on Knowledge and Opinion of the Farmers Regarding Kissan Credit Card Scheme in Dharwad District of Karnataka	Shridevi S. Valamannavar	Dr. (Mrs.) A. Saha
4.	Study on Adoption of Dairy Farming Practices by the farmers of Bankura District of West Bengal	Somnath Lohar	Dr. (Mrs.) A. Saha
5.	A Study on Computer Use Efficiency Among the Agricultural Students and Academic Professionals	Suman Saha	Dr. S. D. Mukhopadhyay
Academic Year 2014-15			
1.	Determinants of Adoption Behaviour: A Study among the Rice Growers of Bolpur Subdivision , Birbhum District	Aditya Lama	Prof. S. Chowdhury
2.	Study on Extension Needs on Onion Growers in Akola District, Maharastra	Awatade Sudarshan Chandrakant	Dr. (Mrs.) A. Saha
3.	Effectiveness of Self Help Group (SHGs) in improving Livelihood and Empowerment of Rural Poor in Chattisgarh	Banshi Lal Sahu	Prof. S. Ghosh
4.	A Study on Computer Use Efficiency Among the Development Officials Working in Rural Sectors in District of West-Sikkim	Ranjit Subba	Dr. S. D. Mukhopadhyay
5.	A Study on Indigenous Chilli Growing Practices by the Farmers of East Sikkim	Smriti Subba	Dr. (Mrs.) A. Saha
6.	Perception of Farmers Towards Training Programme Conducted by Rathindra Krish Vigyan Kendra : A Study in Birbhum District	Subrato Gorain	Dr. S. D. Mukhopadhyay

Sl. No.	Thesis Title	Student's Name	Name of the Supervisor
Academic Year 2013-14			
1.	Computer anxiety of Rural youth : A Study in Bolpur Sub-Division of Birbhum District	Abhinay Thapa	Prof. S. Chowdhury
2.	A Study on Management Practices of Pineapple Growers in west Garo Hills, Meghalaya	Asha Rani Marak	Dr. S. D. Mukhopadhyay
3.	Information Need of the Potato Growers : A Study in Bolpur Sriniketan Block of Birbhum District	Kailash Chandra Mahato	Prof. S. Chowdhury
4.	Participation of Farm Women in Agro Sector –A Case Study in Nalanda District of Bihar	Khushboo Kumari	Dr. S. D. Mukhopadhyay
5.	A study on Adoption Behaviour of Rabi Vegetable Crops by the Farmers of Bishnupur (CD) Block of Bishnupur District, Manipur	Nikita Khoisnam	Dr. S.D. Mukhopadhyay
6.	A Study on Adoption of Orchid Growing Practices By The Farmers of East Sikkim	Soshna Subba	Dr. (Mrs.) A. Saha
7.	A Study on Backward and Forward Linkage with Respect to Gram Cultivators of Hamirpur District, Uttar Pradesh	Vikas Bajpai	Dr. (Mrs.) A. Saha



Higher Education & Employability of Passed Out M.Sc. Students

Year	Total No. of Students	Taken Admission in Ph.D.		Qualified in ICAR-SRF Exam.
		No. of Students	Name of University/ Institute	
2013-14	6	2	Punjab Agriculture University PSB, Visva-Bharati	-
2014-15	6	4	PSB, Visva-Bharati	-
2015-16	6	1	Assam Agriculture University	1
2016-17	10	4	BAU, Sabour BCKV Visva-Bharati UBKV	2
2017-18	09	2	GBPUA&T, Pantnagar Nagaland University	2

Year	Total No. of Students	Govt. Service		Govt. undertaken Scheme/ Project (eg. ATM/ BTM/Agril. Asst., etc)		Private Service	
		No. of Students	Name of the Employer	No. of Students	Name of the Employer/ Agency/ Project	No. of Students	Name of the Employer
2013-14	6	1	Punjab National Bank (PNB), Bihar	4	Agriculture Dept. of WB Agriculture Dept. of Meghalaya Agriculture Dept. of Sikkim	-	-
2014-15	6	1	Agriculture Dept. of Chhattisgarh	1	Agriculture Dept. of West Bengal	-	-
2015-16	6	-	-	1	Agriculture Dept. of West Bengal	3	Salasar Weather Services Pvt. Ltd. Liebigs Agrochem. Pvt. Ltd.
2016-17	10	3	Agriculture Dept. of Chhattisgarh Krishi Vigyan Kendra (KVK) West Bengal School Service Commission	2	Agriculture Dept. of West Bengal Agriculture Insurance Company	1	Yara Fertilizers India Pvt. Ltd.
2017-18	10	-	-	5	Agriculture Insurance Company Soil Testing Laboratory, VB Agriculture Dept. of WB	1	Sumitomo Chemical India Ltd.

Ph.D. in Agricultural Extension Admission details

Particulars			2012-13		2013-14		2014-15		2015-16		2016-17		2017-18		2018-19	
			AW	AD	AW	AD	AW	AD	AW	AD	AW	AD	AW	AD	AW	AD
Ph.D. in Agril. Extension	Visva-Bharati Entrance	M	0	2	7	1	0	3	6	7	4	2	0	0	4	3
		F	0	2	2	1	1	0	0	1	1	1	1	3	3	5
		T	6	4	4	4	4	4	4	8	8	6	5	7	7	8
	ICAR-JRF Exam	M	0	1	1	2	2	0	0	1	1	0	0	2	2	0
		F	0	2	2	0	0	1	1	1	1	3	3	1	0	0
		T	0	3	3	2	2	1	1	2	2	3	3	3	2	0
	Total Student		0	2	7	1	0	3	6	7	4	2	0	0	09	08
AW: Degree Awarded; AD: Admitted; M: Male Student; F: Female Student; T: Total Student																

State wise break-up of Existing Students: Ph.D. in Agricultural Extension

(as on June 2019)

State	Male	Female	Total
West Bengal	08	-	08
Manipur	01	01	02
Tripura	02	-	02
Odisha	01	01	02
Sikkim	01	01	02
Meghalaya	-	01	01
Bihar	-	01	01
Maharashtra	01	-	01
Total	14	05	19
42% Students from West Bengal and 58% from 07 other States			

Students Awarded Ph.D. Degree in Agricultural Extension during 2012-19

Sl. No.	Thesis Title	Student's Name	Name of the Supervisor(s)	Date of Notification
Academic Year 2016-17				
1.	Management of Institutional Reforms and its Impact Under Innovation in Technology Dissemination (ITD) Component of NATP- A Study in the State of Orissa	Mahamaya Prasad Nayak	Prof. S. Chowdhury & Prof. C. Satapathy	05-07-2016
2.	A Study on Entrepreneurial Behaviour of Vegetable Growers in Dhubri District of Assam	Md. Muzammel Haque	Dr. S. D. Mukhopadhyay	05-07-2016
3.	Impact of Watershed Development Programme on Socio Economic Upliftment of Tribal People in Western Undulating Zone, Odisha	Samir Ranjan Dash	Dr. S. D. Mukhopadhyay & Dr. R. K. Raj	05-07-2016
4.	Impact Assessment on Research and Extension Activities of Govt. Agencies for Plantation Crops- A Study in Jalpaiguri District of West Bengal	Saran Kumar Rizal	Prof. S. Chowdhury and Dr. A. Kr. Sit	01-05-2017
5.	Panchayats in Disaster Preparedness and Management: A Study in the Coastal District of West Bengal	Debabrata Mondal	Prof. S. Chowdhury Prof. D. Basu	28-06-2017
Academic Year 2015-16				
1.	Disaster Management in Coastal Districts of Orissa- Stakeholders Responses to Disaster	Manoranjana Mahapatra	Prof. S. Chowdhury and Dr. R. K. Raj	04-12-2015
2.	Socio Economic Impact Assessment of System of Rice Intensification (SRI) in North 24 Parganas of West Bengal	Riya Ghoshal	Dr. (Mrs) A. Saha and Prof. D. Basu	01-10-2015
3.	Farmers Knowledge Base and Adoption Behaviour in relation to Plant Protection- A Study in Purba Medinipur District of West Bengal	Anuttam Pariari	Dr. S. D. Mukhopadhyay	06-08-2015
4.	Occupational Mobility- A Study among the Tribal's in Mayurbhanj District, Orissa	Jagannath Patra	Prof. S. Chowdhury and Prof. R. K. Raj	30-01-2016
5.	Management and Development Determinants of Agricultural Entrepreneurship in Hill Ecosystem	Basu Deo Kharga	Dr.(Mrs) A. Saha and Dr. K. Pradhan	12-09-2016
6.	Functioning of Self Help Group (SHGs) and its Impact on Empowerment of Rural Women	Madhumita Jena	Dr. S. D. Mukhopadhyay & Prof. R. K. Raj	16-06-2016
Academic Year 2013-14				
1.	Management of Rural Livelihood System- An Exploratory Study on Technological Interventions in Orissa, India	Bineeta Satpathy	Dr. (Mrs) A. Saha & Prof. D. Das Gupta	30-11-2013
2.	Access of Farm Women to Farm Information and Credit Institutions : A Study in Bolpur Sub-Division of Birbhum District, West Bengal	Suparna Basu	Prof. S. Chowdhury	25-11-2013
3.	Role Performance of Farm Women in Rice Based Farming System in Orissa – An Explorative Study	Sujit Kumar Nath	Prof. S. Chowdhury and Prof. R. K. Raj	04-11-2013
4.	Women Participation in Agro-Sector- A Study in Hill Areas of West Bengal	Mendel Wangchuk Muktan	Dr. S. D. Mukhopadhyay	13-08-2013
5.	Impact of Training by Krishi Vigyan Kendra towards Upliftment of Tribals in Orissa	Narayan Bar	Dr. S. D. Mukhopadhyay & Prof. R. K. Raj	June 2014
6.	Contract Farming of Sugarcane Cultivation in Orissa – An Exploratory Study	Sangram Paramaguru	Dr. (Mrs) A. Saha and Prof. R. K. Raj	30-06-2014
7.	Environmental Studies as First Degree Common Course at Campus Based Institutes of West Bengal- An Exploration	Soma Bhattacharjee Biswas	Dr. (Mrs) A. Saha	30-06-2014

Students Submitted in Agricultural Extension Ph.D. Thesis & Degree Awaited 2018-19

Sl. No.	Name of the Ph.D. Scholar	Thesis Title	Name of the Supervisor
1	Nikita Khoisnam	SHG and Its Impact on Rural Women Empowerment: A Study in Manipur	Dr. Siddhartha Dev Mukhopadhyay
2	Ranjit Subba	Study of Consequences and Constraints of Agricultural Technology Management Agency as perceived by the Stakeholders of Sikkim	Dr. Siddhartha Dev Mukhopadhyay
3	Binoy Tripura	Adoption of Different Potato Planting Techniques: Levels and Dynamics	Prof. Souvik Ghosh
4	Kharendra Reang	Impact assessment of forest rights act in Tripura	Dr.(Ms.) Anindita Saha and Dr. D. Basu, BCKV
5	Manaranjan Biswas	Study on agriculture knowledge information System with respect to betel vine growers in Nadia district, W.B.	Dr.(Ms.) Anindita Saha

Ph.D. Students in Agricultural Extension Continuing as on 2018-19

Sl. No.	Name of the Ph.D. Scholar	Thesis Title	Name of the Supervisor
1.	Partha Banerjee	A Study on the Knowledge, Attitude and Adoption of Sustainable Rice Cultivation Practices in Birbhum District of West Bengal	Dr. (Ms.) Anindita Saha
2	Subrato Gorain	Performance Assessment of Farmers' Managed Minor Irrigation Systems in West Bengal	Prof. Souvik Ghosh
3	Arijit Roy	Determinants of Employees Participation: A Study among the Agricultural Graduates in Banking Sector	Prof. Sarthak Chowdhury
4	Ganesh Das	Role of Farm Science Centre on Agricultural Information Networks: A Study among the Farm Women of North Bengal	Prof. Sarthak Chowdhury
5	Pinkey Kumari	Role of Information and Communications Technology in Fishery Enterprise- An Exploratory Study in Coastal Odisha	Dr. Siddhartha Dev Mukhopadhyay
6	Sabyasachi Roy	A critical review and analysis of organic agriculture policies in India	Dr. Siddhartha Dev Mukhopadhyay
7	Santanu Kumar Patra	Capability and Performance of Extension Functionaries and KVK Scientists in Computer Based Extension Activities-A Study in Odisha	Dr. Siddhartha Dev Mukhopadhyay

8	Subir Kumar Sinha	Impact Assessment of Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) in three District of West Bengal.	Dr. Siddhartha Dev Mukhopadhyay
9	Pynphriang Bareh	Impact of SHG Movement on Livelihood and Empowerment of Rural People in Meghalaya.	Prof. Souvik Ghosh
10	Smriti Subba	Potentials and Constrains of Large Cardamom Cultivation in Sikkim	Prof. Souvik Ghosh
11	Awatade Sudarshan Chandrakant	Diverse Needs of Farmers from Agricultural Extension System in changing Agricultural scenario in Maharashtra.	Prof. Souvik Ghosh and Dr. R B Singandhupe, ICAR-CICR, Nagpur
12	Haobijam James Watt	Impact of Integrated Fish Farming on Scaling Up Water Productivity & Farmers Livelihood	Prof. Souvik Ghosh
13	Aditya Lama	Diversified farming systems in northern region of West Bengal: An empirical study.	Prof. Souvik Ghosh
14	Khushboo Kumari	Study of organic farming system in potato in Bihar- an exploratory study	Dr. (Ms.) Anindita Saha

Employability of Ph.D. Passed Out Students

Year	Total students	Govt. Service	
		No. of Students	Name of the Employer
2013-14	7	6	Krishi Vigyan Kendra (KVK) Govt. of Jharkhand
2015-16	6	6	Agriculture Dept. of West Bengal Agriculture Dept. of Odisha West Bengal School Service Commission Krishi Vigyan Kendra (KVK)
2016-17	5	5	Agriculture Dept. of West Bengal Agriculture Dept. of Assam Agriculture Dept. of Odisha West Bengal School Service Commission Krishi Vigyan Kendra (KVK)

Publications during 2014-19

Research Papers: 67

Papers are in Journals with NAAS Rating > 6.0: 08

Papers are in Journals with NAAS Rating >5.0 to 6.0: 37

Based on Research Projects undertaken by the Faculties: 14

↳ Papers in Journals with NAAS Rating >6.0 06

↳ Papers in Journals with NAAS Rating >5.0 to 6.0 03

Based on M.Sc. Thesis: 20

↳ Papers in Journals with NAAS Rating >6.0 01

↳ Papers in Journals with NAAS Rating >5.0 to 6.0 17

Based on Ph.D. Thesis: 33

↳ Papers in Journals with NAAS Rating >6.0 01

↳ Papers in Journals with NAAS Rating >5.0 to 6.0 17

Books:

Book Chapters:

Manuals:

Papers Presented by Faculties:

• In International Conference/Seminar: 10

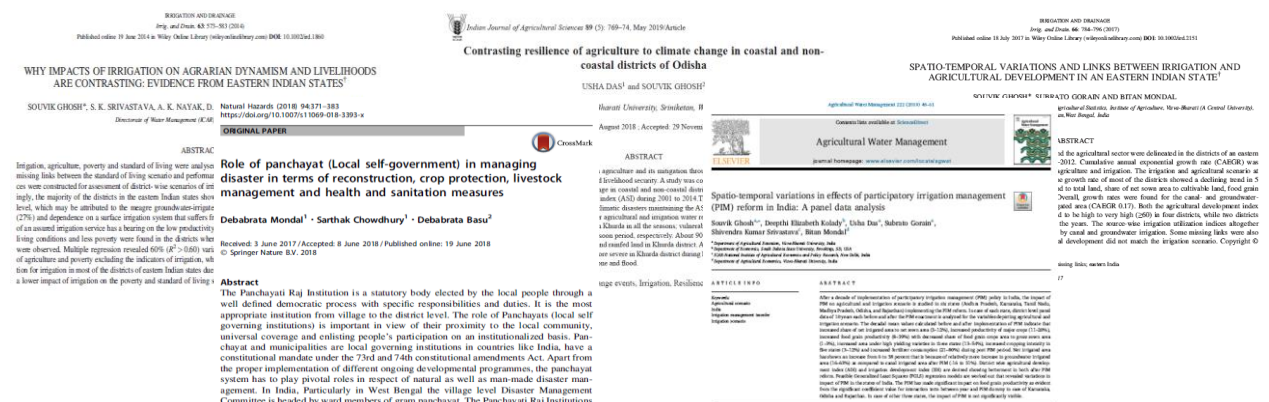
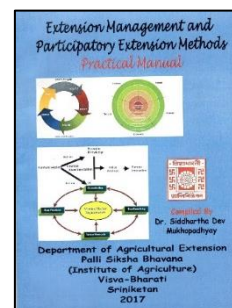
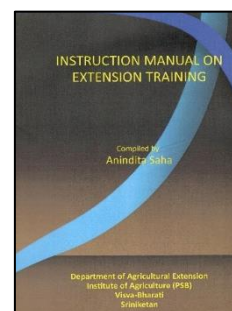
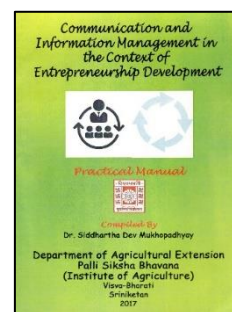
• In National Conference/Seminar: 17

Google Scholar Citation (Since 2014):

• Total Citations: 261

• h index: 11

• i10 index: 06



Awards/Recognitions Received by Faculties

- Visiting Scientist at Department of Economics, College of Agriculture and Biological Sciences, South Dakota State University, Brookings, SD, USA (September 1 to October 31, 2016).
- Dr. K. N. Singh Memorial Award 2017 of Indian Society of Extension Education, ICAR-IARI, New Delhi in recognition of excellence achieved in extension research.
- Prof. Y. P Singh Memorial Award 2018 of Indian Society of Extension Education, ICAR-IARI, New Delhi in recognition of excellence achieved in teaching, research and extension.
- MOBILIZATION Fellow 2016 of Society for Community Mobilization and Sustainable Development (MOBILIZATION), ICAR-IARI, New Delhi.
- BKJF-INCSW *Sooksha Sinchai Puraskar* 2018 as one of the members of research team of scientists for significant contribution towards development of participatory irrigation water management and integrated farming system conferred by Indian National Committee on Surface Water (INCSW), Central Water Commission, Government of India on 20th January 2019.
- Presidential Appreciation Award 2017 of Society for Community Mobilization for Sustainable Development, ICAR-IARI, New Delhi during 8th National Seminar on Potential, Prospects and Strategies for Doubling Farmers' Income: Multi-Stakeholder Convergence organised by Society for Community Mobilization for Sustainable Development, New Delhi in Collaboration with Assam Agricultural University and ICAR-ATARI, Guwahati at Guwahati during 9-11 November 2017.
- Best Oral Paper Presentation Award for the paper on '*Extension Strategy for Enhancing farm Income: Some Issues*' in INSEE National Seminar on Integrated Farming System for Enhancing Farmers' Income and Nutritional Security organised by Indian Society of Extension Education, New Delhi held at West Bengal University of Animal and Fisheries Science (WBUAFS), Kolkata during 5th to 7th December 2018.
- Best Paper Presentation Award for the paper on "How Participatory Irrigation Management (PIM) Reform Influence Crop Production Scenario in India: A Spatio-Temporal Panel Data Analysis" in 8th National Seminar on Potential, Prospects and Strategies for Doubling Farmers' Income: Multi-Stakeholder Convergence organised by Society for Community Mobilization for Sustainable Development, New Delhi in Collaboration with Assam Agricultural University and ICAR-ATARI, Guwahati at Guwahati during 9-11 November 2017.
- Best Paper Presentation Award for the paper on '*Resilience of Agriculture to Reducing Vulnerability to Climate Change: Key to Increasing Farmers Income and Farm Production*' in National Seminar on Doubling Farmers' Income and Farm Production through Skill Development and Technology Application organised by Indian Society of Extension Education, New Delhi and Bihar Agricultural University at Sabour during 28-30 November 2017.
- Best Paper Presentation Award for the paper on '*Resilience of Agriculture in Changing Climate Scenario in West Bengal*' in International Conference on Climate Change and Bio-diversity held at ICAR-CIARI, Port Blair during 8-10 December 2016.
- Best Paper Award 2014 for the paper 'Performance evaluation of rice under intermittent irrigation and drainage in eastern India' conferred by Purushottam Jiban Dash Memorial Bio-Research, GCBR, Bhubaneswar, Odisha



Awards/Recognitions Received by Students

- Mr. Sumanth S., M.Sc. Scholar, Dept. of Agril. Extension received Best Paper Presentation Award in National Conference on Impact of Social Change and Technology on Family and Community organised by Banaras Hindu University, Varanasi during 11-12 March 2019 for the paper on "Impact of AdikePatrike on Disseminating the Technology to the Farmers of Karnataka".
- Ms. Usha Das, M.Sc. Scholar, Dept. of Agril. Extension received Best Paper Presentation Award in ISEE National Seminar on Integrated Farming System for Enhancing Farmers' Income and Nutritional Security organised by Indian Society of Extension Education (ISEE), New Delhi during 5-7 December 2018 for the paper on "Resilience of Agriculture and Livelihood Sensitivity of Rural Households to Climate Change in the State of Odisha, India".
- Ms. Smriti Subba, Ph.D. Scholar, Dept. of Agril. Extension received Best Poster Award in 8th National Seminar on Potential, Prospects and Strategies for Doubling Farmers' Income: Multi-Stakeholder Convergence organised by Society for Community Mobilization for Sustainable Development, New Delhi in Collaboration with Assam Agricultural University and ICAR-ATARI, Guwahati at Guwahati during 9-11 November 2017 for the paper on "Prospects of Large Cardamom (*Amomum Subulatum*) Crop Cultivation for Improving Income of Farmers in Sikkim".
- Mr. Ganesh Das, Ph.D. Scholar, Dept. of Agril. Extension received Certificate of Excellence, Honorable Jury Mention, Young Scientist Category in 7th Science & Technology Awards-18 held at Bangalore on 17 June 2018.
- Mr. Ganesh Das, Ph.D. Scholar, Dept. of Agril. Extension received Best KVK Professional Award from Society of Extension Education in 9th National Extension Education Congress 2018 (15-17 November 2018) held at Ranipool, Gangtok.

Success of Students in ICAR JRF, SRF and NET Examinations in Social Science and/or Agricultural Extension

Particular	2012	2013	2014	2015	2016	2017	2018
No. of successful students							
ICAR-JRF	02	03	01	01	02	02	02
<i>Best Rank (Top 25)</i>	-	05, 09, ST 01	10	09	15, 20	20, ST 04	09
ICAR-SRF	-	-	01	-	01	02	02
<i>Best Rank (Top 25)</i>	-	-	-	-		18, 23	6, 21
ICAR-NET	-	01	01	-	-	01	02
UGC-NET				01	02	01	02

- **Following Students qualified in JRF conducted by ICAR (Top 25)**
 - Mr. Santanu Rakshit (2012)
 - Ms. Sukanya Som (2013)
 - Mr. Abhinay Bagdas (2013)
 - Ms. Sangeeta Bhattacharya (2014)
 - Mr. Samarpan Chakrobarby (2015)
 - Ms. Suchandra Dutta (2016)
 - Mr. Souvik Mondal (2016)
 - Mr. Surjakanta Roy (2017)
 - Mr. Deepak Chand Meena (2017)
 - Mr. Sudip Gorai (2018)
- **Following Students qualified in SRF conducted by ICAR**
 - Ms. Sridevi S. V. (2016)
 - Mr. Subrata Gorain (2017)
 - Ms. Suprava Sethi (2017)
 - Mr. Aditya Karn (2018)
 - Ms. Usha Das (2018)
- **Following students qualified in NET conducted by UGC**
 - Mr. Binoy Tripura (2015)
 - Ms. Nikita Khoisnam (2016)
 - Ms. Pynphriang Bareh (2016)
 - Mr. Haobijam James Watt (2017)
 - Mr. Partha Banerjee (2018)
 - Ms. Suprava Sethi (2018)
- **Following students qualified in NET conducted by ICAR**
 - Mr. Ganesh Das (2014)
 - Mr. Binoy Tripura (2016)
 - Mr. Aditya Karn (2018)
 - Ms. Suprava Sethi (2018)
- **Following student qualified in ARS Prelims, ARS Mains and appeared in Interview conducted by ICAR**
 - Mr. Binoy Tripura (2017)
- **Following students are the recipient of National Fellowship for Higher Education for OBC/SC/ST student**
 - Mr. Binoy Tripura
 - Ms. Pynphriang Bareh
 - Ms. Smriti Subba
 - Mr. Ranjit Subba
- **Following students are the recipient of DST (Inspire)**
 - Mr. Ganesh Das

Publications of Department of Agricultural Extension (2014-19)

List of Papers as Per Naas Journal Rating Score >6. 00

Sl. No.	Authors	Year	Title	Journal	NAAS Journal ID and Score 2019
1	Ghosh, S., Kolady, D. E., Das, U., Gorain, S., Srivastava, S. K. and Mondal, B.	2019	Spatio-Temporal Variations in Effects of Participatory Irrigation Management (PIM) Reform in India: A Panel Data Analysis.	Agricultural Water Management (Elsevier), 222: 48-61	A097 9. 18
2	Mandal, K. G., Padhi, J., Kumar, A., Ghosh, S., Panda, D. K., Mohanty, R. K. and Roychaudhuri, M.	2015	Analyses of rainfall using probability distribution and Markov chain models for crop planning in Daspalla region in Odisha, India.	Theoretical and Applied Climatology (Springer), 121(3-4): 517-528	T054 8. 32
3	Mondal, D., Chowdhury, S., and Basu, D.	2018	Role of Panchayat (Local Self Government) in Managing Disaster in terms of Reconstruction, Crop Protection, Livestock Management and Health and Sanitation Measures.	Natural Hazards (Springer), 94 (1): 371-383	N013 7. 90
4	Ghosh, S., Gorain, S. and Mondal, B.	2017	Spatio-temporal variations and links between irrigation and agricultural development in an eastern Indian state.	Irrigation and Drainage (Wiley), 66:784-796	I364 6. 71
5	Mohanty, S., Mohanty, R. K., Mandal, K. G., Ghosh, S., Rautray, S. K. and Kumar, A.	2016	Impact of water resources development and technology introductions on livelihood of farmers in eastern India: A case study.	Irrigation and Drainage (Wiley), 65: 724-733	I364 6. 71
6	Srivastava, S. K., Ghosh, S., Kumar, A., and Brahmanand, P. S.	2014	Unravelling the spatio-temporal pattern of irrigation development and its impact on Indian agriculture	Irrigation and Drainage (Wiley), 63: 1-11	I364 6. 71
7	Ghosh, S., Srivastava, S. K., Nayak, A. K., Panda, D. K., Nanda, P. and Kumar, A.	2014	Why impacts of irrigation on agrarian dynamism and livelihood are contrasting: evidence from eastern Indian states	Irrigation and Drainage (Wiley), 63: 573-583	I364 6. 71
8	Das, U. and Ghosh, S.	2019	Contrasting Resilience of Agriculture to Climate Change in Coastal and Non-Coastal Districts of Odisha.	Indian Journal of Agricultural Sciences, 89 (5): 769-774	I029 6. 23

List of Papers as Per Naas Journal Rating Score >5. 00 To 6. 00

Sl. No.	Authors	Year	Title	Journal	NAAS Journal ID and Score 2019
1	Ghosh, S., Roy Chowdhury, S., Mohanty, R.K. and Brahmanand, P.S.	2016	Impact of integrated farming of water chestnut and cat fish on livelihood of farmers in seasonal waterlogged areas of Odisha.	Agricultural Economics Research Review. 29 (1): 159-165	A085 5. 90
2	Biswas, M., Saha, A. and Dash, S.R.	2019	Constraints faced by the Betel Vine Growers in Nadia District of West Bengal, India	International Journal of Current Microbiology and Applied Sciences, 8 (4): 80-85	I199 5. 38
3	Karak, S., Roy, S. and Mukhopadhyay, S.D.	2019	Studies of the perception of respondents regarding KVK training intervention in agriculture.	International Journal of Current Microbiology and Applied Sciences, 8 (2): 1275-1290	I199 5. 38
4	Subba, R. and Mukhopadhyay, S.D.	2019	Impact of ATMA (Agricultural Technology Management Agency) in changing knowledge, skill and adoption behaviour of farmers in Sikkim.	International Journal of Current Microbiology and Applied Sciences, 8 (3): 1493-1505	I199 5. 38
5	Awatade, S.C., Kashiwar, S.R., Ghosh, S., Singhandhupe, R. B., Dongarwar, U.R.	2018	An analytical study of long term rainfall variability of Washim (Maharashtra), India using GIS.	International Journal of Current Microbiology and Applied Science, 7 (8): 860-869	I199 5. 38
6	Awatade, S.C., Kashiwar, S.R., Ghosh, S., Singhandhupe, R. B., Dongarwar, U.R.	2018	Satellite based estimation and validation of rainfall distribution in monsoon over Washim district (Maharashtra), India.	International Journal of Current Microbiology and Applied Science, 7 (8): 1694-1704	I199 5. 38
7	Awatade, S.C., Saha, A. and Dhakre D.S.	2018	Sociological Status of Onion growing Farmers in Akola District of Maharashtra, India.	International Journal of Current Microbiology and Applied Sciences, 7 (2): 6-12	I199 5. 38
8	Awatade, S.C., Saha, A., Ghosh, S. and Singandhupe R.B.	2018	Agricultural Information Sources Used by Onion Farmers in Akola District of Maharashtra, India.	International Journal of Current Microbiology and Applied Science. 7(3): 1-5	I199 5. 38
9	Khoisnam, N. and Mukhopadhyay, S.D.	2018	Study of knowledge, skill and extent of participation of Self-Help Group members in managing SHGs and income generating activities	International Journal of Current Microbiology and Applied Sciences, 7 (1):2270-2279	I199 5. 38
10	Mondal, D., Chowdhury, S. and Basu, D.	2018	Role of Panchayats in Disaster: A New Vista for Disaster Management	International Journal of Current Microbiology and Applied Sciences, 7 (Special Issue): 133-138	I199 5. 38

11	Dash, S.R; Ray, P; Mukhopadhyay, S.D; Routray, B.K and Singh, D.V.	2017	Constraints perceived by tribal people in implementation of watershed development programme – A study in Odisha.	International Journal of Current Microbiology and Applied Sciences, 6 (8): 3296-3301.	I199 5. 38
12	Subba, S. and Ghosh, S.	2017	Status of Large Cardamom (<i>Amomum subulatum</i>) among the major crops in Sikkim, India.	International Journal of Current Microbiology and Applied Science. 6(11): 166-175	I199 5. 38
13	Ali, G.T. and Ghosh, S.	2018	Farmers' Participation in Irrigation Management and Influencing Factors in West Bengal.	Indian Journal of Extension Education. 54 (3): 67-72	I056 5. 32
14	Awatade, S.C., Ghosh, S. and Singandhupe, R.B.	2019	Extent of Farmers' Satisfaction from Agricultural Extension Services in Maharashtra.	Indian Journal of Extension Education, 55 (1): 1-7	I056 5. 32
15	Das, U. and Ghosh, S.	2019	Farm Household Scenario in Climatically Vulnerable Region in Odisha.	Indian Journal of Extension Education, 55 (1): 66-72	I056 5. 32
16	Das, U. and Ghosh, S.	2018	Livelihood Sensitivity Matrix: A Novel Technique for Mapping Vulnerability of Rural Households to Climate Change.	Indian Journal of Extension Education. 54 (4):201-205	I056 5. 32
17	Awatade, S.C., Ghosh, S. and Singandhupe, R.B.	2017	Agricultural information needs and their fulfilment as perceived by the farmers in changing agricultural scenario in Maharashtra.	Indian Journal of Extension Education. 53(2): 11-17	I056 5. 32
18	Karan, A. and Ghosh, S.	2017	Agriculture related information needs and their fulfilment as perceived by the farmers in Bihar.	Indian Journal of Extension Education. 53(3): 8-15	I056 5. 32
19	Kisku, D. and Ghosh, S.	2017	Crop diversity and farmers' livelihood in an agriculturally prosperous district of West Bengal.	Indian Journal of Extension Education. 53(1): 15-20	I056 5. 32
20	Ghosh, S., Brahmanand, P.S., Mandal, K.G., Nanda, P. and Patil, D.U.	2016	How Participatory is Participatory Irrigation Management	Indian Journal of Extension Education. 52(3 & 4): 1-6	I056 5. 32
21	Mondal, D., Chowdhury, S. and Basu, D.	2016	Comparisons of Performance of Non-Governmental Organization and Gram Panchayats in Disaster Management.	Indian Journal of Extension Education, 52 (3 & 4): 105-110	I056 5. 32
22	Sahu, B.L. and Ghosh, S.	2016	Dynamics and effectiveness of SHGs in Chhattisgarh.	Indian Journal of Extension Education. 52(1 & 2): 31-37	I056 5. 32

23	Ghosh, S., Panda, D.K., Nayak, A.K., Nanda, P. and Verma, H.C.	2015	Links between irrigation, agriculture, level of living and poverty scenario in West Bengal.	Indian Journal of Extension Education. 51(1 & 2): 1-8	I056 5. 32
24	Karak, S. and Mukhopadhyay, S.D.	2019	The nature and extent of changes occurred in the knowledge and practices of the respondents: a study in Nadia district of West Bengal	International Journal of Chemical Studies, 7 (3): 389-394	I185 5. 31
25	Khoisnam, N, Mukhopadhyay, S.D. and Subba, R.	2018	Socio-economic profile and nature of constraints perceived by the women Self Help groups in Imphal West district of Manipur.	International Journal of Chemical Studies, 6 (4): 555-560	I185 5. 31
26	Das, U. and Ghosh, S.	2019	Adaptation and Coping Mechanisms of Farm Households for Reducing Vulnerability to Climate Change in Odisha.	J. of Community Mobilization and Sustainable Development, 14 (1): 147-154	J154 5. 30
27	Das, U. and Ghosh, S.	2018	Impact of Climate Change on Farm Households in Odisha.	J. of Community Mobilization and Sustainable Development, 13 (3): 396-402	J154 5. 30
28	Bareh, P. and Ghosh, S.	2018	Self Help Group (SHG) Movement in Meghalaya: A Potential Option to Improve Income and Livelihood Security of Farm Households.	J. of Community Mobilization and Sustainable Development. 13 (3), 540-547	J154 5. 30
29	Karn, A. and Ghosh, S.	2018	Effectiveness of Farmers' Information Sources in Bihar.	J. of Community Mobilization and Sustainable Development. 13 (2), 367-373	J154 5. 30
30	Besra, M., Ghosh, S. and Gorain, S.	2018	Cropping and irrigation dynamics under different groundwater market regimes in West Bengal.	J. of Community Mobilization and Sustainable Development. 13 (1), 27-35	J154 5. 30
31	Ali, G.T. and Ghosh, S.	2017	Surface and groundwater irrigation systems' performance as perceived by the farmers in West Bengal.	J. of Community Mobilization and Sustainable Development. 12(2), 277-285	J154 5. 30
32	Subba, S. and Ghosh, S.	2016	Knowledge Test on Large Cardamom (<i>Amomum subulatum</i>) Cultivation Practices in Sikkim.	J. of Community Mobilization and Sustainable Development. 11(2), 173-181	J154 5. 30
33	Bareh, P. and Ghosh, S.	2016	Self Help Group Effectiveness Index and Empowerment Index: An Analytical Approach for Monitoring and Evaluation of SHG.	J. of Community Mobilization and Sustainable Development. 11(2), 182-187	J154 5. 30
34	Kisku, D. and Ghosh, S.	2016	Spatio-temporal variation in status of crop diversification and its impact on farming in West Bengal.	J. of Community Mobilization and Sustainable Development. 11 (1): 29-38	J154 5. 30

35	Sahu, B.L. and Ghosh, S.	2015	Effectiveness of SHGs in improving livelihood of rural poor in Chhattisgarh.	J. of Community Mobilization and Sustainable Development. 10 (2): 177-189	J154 5.30
36	Chakraborty, S., Gupta, A., Saha, A. and Dhakre D.S.	2018	Sociological Status of Paddy Growers in Bankura District of West Bengal	The Pharma Innovation Journal; 7 (1): 05-09	T048 5.03
37	Haobijam, J. W. and Ghosh, S.	2017	Integrated pig-fish farming: a case study in Imphal West district of Manipur.	The Pharma Innovation Journal, 7 (1): 495-499	T048 5.03

List of Papers as Per Naas Journal Rating Score >4.00 To 5.00

Sl. No.	Authors	Year	Title	Journal	NAAS Journal ID and Score 2019
1	Bar, N., Mukhopadhyay, S. D and Raj, R. K.	2015	Perception of tribal farmers towards KVK training.	Economic Affairs, 60 (4): 585-589	E025 4.82
2	Ray, P. and Chowdhury, S.	2015	Economic Liberalization and Agricultural Policies in the Context of Planning	Economic Affairs, 60 (3): 505-515	E025 4.82
3	Mishra, A.; Ghosh, S.; Mohanty, R.K.; Brahmanand P.S. and Verma, H.C.	2014	Secondary Storage Reservoir: A Potential Option for Rainwater Harvesting in Irrigated Command for Improved Irrigation and Agricultural Performance.	Economic Affairs, 59 (3): 389-402	E025 4.82
4	Mondal, D., Chowdhury, S., and Basu, D.	2016	The role of gram panchayats in disaster management: A study in Aila affected areas in West Bengal	Indian Research Journal of Extension Education, 14(3): 51-54	I106 4.81
5	Ghosh, S., Mahato, K., Gorain, S., Das, U. and Mondal, B.	2017	Resilience of agriculture reducing vulnerability to climate change in West Bengal.	Current Advances in Agricultural Sciences, 9 (2): 170-177	C160 4.69
6	Lama, A., Ghosh, S. and Awatade, S.C.	2018	Horizontal Diversification Comprising Differential Agri-horticultural and Livestock Production in Hilly and Terai Region of West Bengal.	International Journal of Bioresource and Stress Management. 9 (6): 673-681	I179 4.65
7	Bose, S. and Chowdhury, S.	2014	A study on information gap among the farm women about rice cultivation	Karnataka Journal of Agricultural Sciences, 27(2):181-183	J223 4.42
8	Valamannavar, S., Saha, A. and Dhakre D. S.	2018	A Study on Knowledge and Opinion of the Farmers regarding Kisan Credit Card Scheme in Dharwad District of Karnataka	International Journal of Agricultural Science and Research, 8(6): 25-32	I151 4.13
9	Ray, P. and Chowdhury, S.	2015	Knowledge Gain Profile of the Elephant Foot Yam Growers - A Study among the Trainees of RKVK, Birbhum	Indian Agriculturist, 59 (1): 47 - 53	I020 4.11

List of Papers as Per Naas Journal Rating Score >3. 00 To 4. 00

Sl. No.	Authors	Year	Title	Journal	NAAS Journal ID and Score 2019
1	Nayak, A. K., Nanda, P., Srivastava, R.C., Das, M., Ghosh, S., Kumar, A., Ambast, S. K., Patil, R.G., Khodke, U. M. and Yadav, B. S.	2017	Application of ICT in development of agriculture water management portal.	Journal of the Indian Society of Coastal Agricultural Research, 35(1): 96-98	J289 4. 00
2	Nanda, P. and Ghosh, S.	2017	Adaptation strategies under climate induced natural disasters in coastal areas of Odisha.	Journal of the Indian Society of Coastal Agricultural Research. 35(1): 82-89	J289 4. 00
3	Ghosh, S., Panda, D. K., Nayak, A. K., Nanda, P. and Verma, H. C.	2016	Contrasting Irrigation, Agriculture, Livelihood Linkages in Coastal and Non-Coastal Districts of Odisha and West Bengal.	Journal of the Indian Society of Coastal Agricultural Research. 30 (2): 77-82.	J289 4. 00
4	Ghoshal, R., Saha, A. and Basu, D.	2014	Economic Impact of System of Rice Intensification (SRI) in North 24 Parganas District of West Bengal	Journal of Interacademia, 18(4): 635-639	J306 3. 96
5	Jena, M., Mukhopadhyay, S. D. and Raj, R. K.	2014	Self Help Groups – Competence of the members in managing group & vocation.	Journal of Interacademia. 18(3): 463-469	J306 3. 96
6	Kharga, B.D., Saha, A. and Pradhan, K.	2014	Analysing the Factors with Entrepreneurship Development and Management Index,	Journal of Interacademia, 19(1): 150-159	J306 3. 96
7	Pariari, A. and Mukhopadhyay, S. D.	2014	Adoption behavior of farmers of Purba Medinipur district about weed control in Paddy.	Journal of Interacademia. 18 (3): 430-441	J306 3. 96
8	Das, U. and Ghosh, S.	2018	Doubling Farmers' Income: Is it a Paradox or Possibility.	Journal of Agriculture and Technology, 5 (2): 7-14	J032 3. 39
9	Ray, P. and Chowdhury, S.	2015	Challenges in Indian Agriculture and Its Implications for Organizing Extension	International Journal of Social Science, 4 (2&3): 201-215	I329 3. 02
10	Ray, P. and Chowdhury, S.	2015	Kisan Call Centre - A New Vista for Indian Agricultural Extension System	International Journal of Social Science, 4 (2&3): 171-183	I329 3. 02
11	Ray, P. and Chowdhury, S.	2015	Popularizing Grape Cultivation and Wine Production in India- Challenges and Opportunities	International Journal of Social Science, 4 (1): 9-28	I329 3. 02
12	Das, G. and Chowdhury, S.	2014	Occupational aspirations of agricultural graduates	International Journal of Social Science, 3(4): 463-470	I329 3. 02
13	Bose, S. and Chowdhury, S.	2014	Study on access to change agents by the farm women in paddy cultivation in West Bengal	International Journal of Social Science, Vol. 3(4): 471-476	I329 3. 02

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1. Chowdhury, S. and Ray, P. (2019). *Training: An Intellectual Investment in Human Resource Development*. New Delhi Publishers (ISBN: 978-93-88879-15-6)
2. Chowdhury, S., and Bose. S. (2019). *Accessibility of Farm Women to Agricultural Information and Credit Institutions*, New Delhi Publishers, New Delhi, India (ISBN No: 978-93-86453-83-9)
3. Das, U. and Ghosh, S. (2019). *Climate Change Impact on Agriculture*. Agrobios Pub., Jodhpur, India, P. 235 (ISBN 978-81-939255-8-4)
4. Mondal, D., Chowdhury, S., and Basu, D. (2019). *Panchayats in Disaster Preparedness and Management*, Best Publishing House (ISBN No: 978-81-9382-168-8)
5. Chowdhury, S. and Ray, P. (2017). *Training the Rural Youths*. New Delhi Publishers (ISBN: 978-93-85503-81-8)
6. Mukhopadhyay, S.D., Dash, S.R., Acharya, S.K., Raj, R.K. and Mishra, G.C. (2017). *Watershed Development for Tribal People: The Approach and Impact*. Krishi Sanskriti Publications, New Delhi. (ISBN: 978-93-85822-31-5).
7. Panda, C.K. and Chowdhury, S. (2017). *Job Satisfaction and Motivation*. SSDN Publishers, New Delhi (ISBN No: 978-93-8357-606-7)
8. Bhattacharjee Biswas, S., Saha, A. and Das Gupta, D. (2016). *Sustainable Development through Tertiary Level Environmental Studies*. Agrobios Pub., Jodhpur, India, P. 192 (ISBN 978-81-7754-627-9)
9. Chowdhury, S., Sarkar, D., Mondal, B., Mukherjee, A. and Chatterjee, K. (2016). *Trailing the Footprint of Nutrition and Wellness: Entrapping Foothold of Healthy Nation*. Anand Prakashan, Kolkata (ISBN 978-81-88904-88-4).
10. Sahu, B.L. and Ghosh, S. (2016). *SHG Approach in Empowering of Rural Poor in Chhattisgarh*. New India Publishing Agency (NIPA), New Delhi. P. 155. (ISBN 978-93-85516-63-4).
11. Satpathy, B, Saha A. and Das Gupta, D. (2016). *Technological Interventions for Management of Rural Livelihood System*, Agrobios Pub., Jodhpur, India, P. 184 (ISBN 978-81-7754-626-2)

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1. Mukhopadhyay, S.D. (2016). Practical Manual on Communication and Information Management in the Context of Entrepreneurship Development. Department of Agricultural Extension, Palli Siksha Bhavana, Visva-Bharati, Sriniketan. Page 123.
2. Mukhopadhyay, S.D. (2016). Practical Manual on Extension Management and Participatory Extension Methods. Department of Agricultural Extension, Palli Siksha Bhavana, Visva-Bharati, Sriniketan. Page 103.
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1. Das, U. and Ghosh, S. (2018). *Doubling farmers income in eastern Indian states: Importance of farm mechanization*. In: *Advance Technologies in Agriculture for Doubling Farmer's Income*. Swain, K. C., Chatterjee, A. K. and Kandasamy, P. (Eds.). New Delhi Publishers, New Delhi. pp. 37-50 (ISBN: 978-93-86453-61-7)
2. Mondal, D. and Chowdhury, S. (2017). *Impact of Disasters on the Socio-Economic Livelihoods of People: A Study in Coastal Areas of West Bengal*. In: *Growth and Diversification in India's Emerging Economy*. Chattopadhyay, P. and Kushwaha D. S. (Eds.) New Delhi Publisher, New Delhi. pp. 237-245. ISBN: 978-93-86453-06-8.
3. Mukhopadhyay, S.D. (2017). *A study on extent of use of ICT portals by the development officials in disseminating various agricultural information*. In *Family Farming challenges and opportunities*. (Ed). Renu Publishers, New Delhi. ISBN: 978-93-85502-22-4.
4. Mukhopadhyay, S.D. (2017). *Level of entrepreneurial behavior and perception of constraints among vegetable growers*. In: *Family Farming challenges and opportunities*. (Ed). Renu Publishers, New Delhi. ISBN: 978-93-85502-22-4.
5. Mukhopadhyay, S.D. (2017). *Participation of farm women in agro-sectors: A case study in Nalanda district of Bihar*. In *Family Farming challenges and opportunities*. (Ed). Renu Publishers, New Delhi. ISBN: 978-93-85502-22-4.
6. Awatade, S.C., Saha A., Subba, S. and Subba, R. (2016). *Non-availability of Crop Insurance: A Major Constraint faced by Onion Farmers in Akola District of Maharashtra*. Mondal, B., Sarkar, D., Mukhopadhyay, S. D., Ghosh, S., Roy, B. C. and Chowdhury, S. (Eds.), Renu Publishers, New Delhi. pp. 358-365. ISBN:978-93-85502-22-4
7. Bareh, P., Longchar, L.Y.; Ghosh, S., Tripura, B. and Khoisnam, N. (2016). *Factors discriminating the empowerment of women through self-help groups in Meghalaya*. In: *Family Farming: Challenges and Opportunities*. Mondal, B. et al. (Eds.), Renu Publishers, New Delhi. pp. 394-406. (ISBN 978-93-85502-22-4). In: *Family Farming: Challenges and Opportunities*. Mondal, B. et al. (Eds.), Renu Publishers, New Delhi. pp. 480-485. (ISBN 978-93-85502-22-4).
8. Chowdhury, S. and Ray, P. (2016). *Organic farming the challenges ahead*. In: *Development and Diversification Aspects of Rural Development*. Chattopadhyay, P. K. and Kushwaha, D. S. (Eds.), Renu Publishers, New Delhi. pp. 49-59. ISBN: 978-93-85502-27-9
9. Ghosh, S.; Panda, D.K.; Nayak, A.K.; Nanda, P. and Verma, H.C. (2016). *Missing links between living scenario and growth of irrigation and agriculture sector in eastern India*. In: *Family Farming: Challenges and Opportunities*. Mondal, B. et al. (Eds.), Renu Publishers, New Delhi. pp. 421-429. (ISBN 978-93-85502-22-4).

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15. Ray, P. and Chowdhury, S. (2016). *Pluralistic extension in new age India enhancing efficiencies of Krishi Vigyan Kendras (KVKs)*. In: Development and Diversification Aspects of Rural Development. Chattopadhyay, P. K. and Kushwaha, D. S. (Eds.), Renu Publishers, New Delhi. pp. 49-59. ISBN: 978-93-85502-27-9
16. Saha, A. (2016). Mapping of Dairy Knowledge Information System. In: Family Farming: Challenges and Opportunities. Mondal, B., Sarkar, D., Mukhopadhyay, S. D., Ghosh, S., Roy, B. C. and Chowdhury, S. (Eds.), Renu Publishers, New Delhi. pp. 375-381. ISBN:978-93-85502-22-4
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18. Subba, S., Saha, A. and Awatade, S. C. (2016). *Constraints regarding Indigenous Method of Chilli Growing Practices-A Study in Sikkim*. Mondal, B., Sarkar, D., Mukhopadhyay, S. D., Ghosh, S., Roy, B. C. and Chowdhury, S. (Eds.), Renu Publishers, New Delhi. pp. 467-472. ISBN:978-93-85502-22-4

19. Chowdhury, S. and Ray, P. (2014). *Dissemination of Farm Technologies for Poor Farmers*. In: Some Empirical Aspects of Economic Growth and Diversification in India's Emerging Economy. Chattopadhyay, P. K. (Ed.), New Delhi Publishers, New Delhi, pp. 149-154. ISBN: 978-93-81274-54-5
20. Chowdhury, S. and Ray, P. (2014). *Influence of the Socio-Personal Traits of the Vegetable Growers on their Knowledge Index regarding the Judicious Use of Pesticides in Brinjal Cultivation*. In: Growth and Diversification Aspects of Rural Development. Chattopadhyay, P. K. (Ed.), New Delhi Publishers, New Delhi, pp. 253-265. ISBN: 978-93-8127478-1
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27. Satpathy, B., Das Gupta, D. and Saha, A. (2014). Management of Rural Livelihood System through Technological Interventions: An Exploratory Study. In: Advances in Extension Education and Rural Development (Vol. III). Das Gupta, D. (Ed.), Agrobios (India). pp. 143-174. ISBN(13): 978-81-7754-531-9
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1. **Ghosh, S.,** Das, U. and Gorain, S. (2019). *Irrigation Intensification through Farmers' Participation*. Summary- Lead and Session Lectures, XIV Agricultural Science Congress on Innovations for Agricultural Transformation, organised by National Academy of Agricultural Sciences (NAAS) and ICAR- Indian agricultural Research Institute, New Delhi held at NASC Complex, New Delhi during 20-23 February 2019. pp. 163.
2. **Ghosh, S.,** Das, U. and Gorain, S. (2018). *Participatory Irrigation Management (PIM): Can it be a potential option for enhancing farmers' income in irrigated areas*. Souvenir Lead papers and Abstracts, International Conference on Doubling the Income of Farmers of SAARC Countries: Extension Strategies and Approaches organised by International Society of Extension Education, Nagpur, Maharashtra, India and Nepal Agriculture Extension Association, Nepal held at Kathmandu, Nepal during 20th to 23rd September 2018. pp. 159.
3. **Ghosh, S.,** Gorain, S. and Das, U. (2018). *Can Participatory Irrigation Management (PIM) be a Potential Model for Community based Extension and Game Changer for Enhancing Farmers' Income in Irrigated Areas*. Souvenir on Extension Strategies and Challenges for Doubling Farmers' Income. First International Extension Congress 2018 on New Horizons of Extension: Challenges and Opportunities held at ICAR-Central Institute of Women in Agriculture (ICAR-CIWA), Bhubaneswar during 1-3 February 2018. pp. 131-147.
4. **Saha, A.** (2018). *Indigenous way of Managing Dairy Herd – A Study in Birbhum District of West Bengal*. International Conference on Livelihood Promotion, Bio-Diversity Conservation and Social Security in Indian Sundarbans, December, 7th-9th, 2018 Organized by Deptt. of Plant Protection, PSB, Visva-Bharati
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6. **Saha, A.** (2017). *State-of the -Art of Sustainable Dairy Farming in West Bengal*. 1st International Conference on Bio-Resource, Environment and Agricultural Sciences, February, 4th-6th, 2017, Society of Bio-resource, Environment and Agricultural Research, Santiniketan and Institute of Agriculture, Visva-Bharati, Sriniketan.
7. **Ghosh, S.,** Gorain, S.; Mondal, B.; Mahato, K. And Roy, B.C. (2016). *Resilience of Agriculture in Changing Climate Scenario in West Bengal*. Abstract, International Conference on “Climate Change and Bio-diversity” held at ICAR-CIARI, Port Blair during 8th to 10th December 2016, pp. 51.
8. **Saha, A.** (2016), *Role of Agricultural Extension in Coping with Climate Change Issues*. 36th INCA International Congress on Cartography for Analysis and Management of Climate Change. December, 13th -16th, 2016, Department of Geography, Vidya- Bhavana, Visva-Bharati, Santiniketan
9. **Ghosh, S.,** Nayak, A.K., Panda, D.K.; and Nanda, P. (2015). *Differential impact of irrigation on agriculture and livelihood scenario in the districts of eastern Indian states*. Abstract, Global Social Science Conference 2015 on Management of Sustainable Livelihood Systems (February 14-17, 2015), OUAT, Bhubaneswar. pp 98-99.
10. **Saha, A.** (2014). *Coping with climate change through indigenous knowledge of rural women*. International Conference on Environmental Biology and Ecological Modelling. February, 14th-17th, 2017, Department of Zoology, Visva-Bharati

Papers Presented in National Conference/Seminar/Symposia: By the Faculties

1. **Saha, A.** (2019). *Indigenous Knowledge in Sustainable Natural Resource Management*. National Seminar on Sustainable Resource Management for Enhancing Farm Income, Nutritional Security and Livelihood Improvement. February, 1st-3rd, 2019, Deptt. of Agronomy, PSB, Visva-Bharati
2. **Ghosh, S.,** Das, U., Mahato, K. and Mondal, B. (2018). *Impact of Climate Change: Vulnerability and Adaptation of Farm Households*. Lead Papers and Abstracts, ISEE National Seminar on Integrated Farming System for Enhancing Farmers' Income and Nutritional Security organised by Indian Society of Extension Education, New Delhi held at West Bengal University of Animal and Fisheries Science (WBUAFS), Kolkata during 5th to 7th December 2018. pp. 305-311.
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