

FACULTY DETAILED RESEARCH DATA

Name of the Faculty: Dr. Tanmoy Sarkar

Designation: Assistant Professor and Head

Department: Agriculture

School: Agriculture

Research Area: Fruit Science, Fruit Breeding, Germplasm Conservation

Details of research portfolio of faculty:

A. Researcher's ID details:

Scopus Author ID: 57014454900

Google Scholar ID: <https://scholar.google.com/citations?user=ei2op7IAAAAJ&hl=en>

Orchid ID: <https://orcid.org/0000-0002-7611-9361>

Vidwan ID: <https://vidwan.inflibnet.ac.in/profile/270326>

B. Publication details:

1. Conference proceedings/ Conference paper:

Sl. No.	Name of the Conference	Title of the paper	Month & Year of Publication	Author(s) Name	National/ International	doi number (if any)	ISSN/ISBN no.
1	ICSA,2024	Recent advances and achievements in mutation breeding of fruit crops	2024	Tanmoy Sarkar and Tanmoy Mondal	International	https://doi.org/10.33545/2664844X.2024.v6.i2c.220	2664-8458
2	ICSA, 2024	Karonda: An underutilized fruit crop, promise as a significant asset for rural economies	2024	Tanmoy Sarkar	International	https://doi.org/10.33545/2664844X.2024.v6.i2b.217	2664-8458
3	ICSA, 2024	Exploring new frontiers in banana (Musa spp.) farming: Challenges and opportunities	2024	Tanmoy Sarkar, Kaushik Das	International	10.33545/26646064.2024.v6.i2a.181	2664-6064

4	ICSA, 2024	A comparative statement on sustainable development of horticulture in West Bengal (India): Climate change and food security	2024	Aritra Malik, Dipa Sanyal, Rachita Paul, Tanmoy Sarkar .	International	10.33545/26174693.2024.v8.i4a.906	2617-4707
5	ICSA, 2023	Rambai (Baccaurea sapida): A prospective lesser-known fruit with the potential to uplift the socio-economic conditions of rural communities in West Bengal	2024	Dipa Sanyal, Aritra Malik, Rachita Paul and Tanmoy Sarkar	International	10.33545/26174693.2024.v8.i4b.934	2617-4707
6	ICSA, 2023	Emerging postharvest technologies to enhance the shelf-life of horticultural crops: An overview	2024	Rachita Paul, Dipa Sanyal, Aritra Malik and Tanmoy Sarkar	International	10.33545/26174693.2024.v8.i4a.907	2617-4707
7	ICSA, 2023	Advance agriculture system using artificial intelligence: Way towards future farming	April , 2024	Vibhor Raj, Sudip Sengupta, Suprabuddha Kundu and Tanmoy Sarkar	International	https://doi.org/10.33545/26180723.2024.v7.i4a.498	2618-0731
8	ICSA, 2023	Nutritional and pharmacological aspects of Trapa natans: An underutilized boon crop of West Bengal	April , 2024	Tanmoy Mondal, Tanmoy Sarkar , Sudip Sengupta and Suprabuddha Kundu	International	https://doi.org/10.33545/2618060X.2024.v7.i4b.522	2618-0618
9	ICSA, 2023	A comparative	April , 2024	Aritra Malik, Dipa Sanyal,	International	10.33545/26174693.2024.v8.i4a.906	2617-4707

		statement on sustainable development of horticulture in West Bengal (India): Climate change and food security		Rachita Paul and Tanmoy Sarkar			
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2. Publications in SCI/Scopus indexed Journals:

Sl. No	Name of the Journal (mention SCI/scopus)	Title of the paper	Month & Year of Publication	Author(s) Name (Highlight the corresponding and 1 st author in every article)	doi number	Issue No. & Volume No.	Page no.	ISSN of the journal
1.	Journal of Survey in Fisheries Sciences (Scopus)	Vegetative Multiplication Of Psidium Guajava L. Through Stem Cutting	2023	Tanmoy Sarkar , Sudip Sengupta, Suprabuddha Kundu, Kaushik Das	10.53555/sf.s.v10i1S.2310	10(1S)	705-7056	2368-7487
2.	Journal of Survey in Fisheries Sciences (Scopus)	Morpho-Physicochemical Studies of Kusum (Schleichera oleosa (Lour.) Oken): A Potential Multipurpose Tree Species	2023	Tanmoy Mondal , Sanghamitra Layek, Tanmoy Sarkar , Samarpita Roy, Rajdeep Mohanta, Fatik Kumar Bauri	10.53555/sf.s.v10i1S.2295	10(1S)	698-6986	2368-7487
3.	Journal of Survey in Fisheries Sciences (Scopus)	Physico-Chemical Properties of Star Gooseberry (Phyllanthus acidus) Fruits Grown in New Alluvial Zone of West Bengal.	2023	Sanghamitra Layek , Tanmoy Mondal, Rajdeep Mohanta, Samarpita Roy, Tanmoy Sarkar , Debalina Majhi	10.53555/sf.s.v10i1S.2309	10(1S)	705-7053	2368-7487
4.	Journal of Applied Horticulture (Scopus)	Genetic diversity analysis of guava (Psidium guajava L) genotypes in West Bengal, India.	2023	Tanmoy Sarkar , Ashanta Kumar Sarkar	10.37855/jah.2022.v24i03.69	24(03)	381-387	0972-1045

5.	Journal of Survey in Fisheries Sciences (Scopus)	Studies On Different Planting System Cum High Density Planting in Litchi Cv. Bombai for Plant Vigour, Fruit Yield and Quality Under New Alluvial Zone of West Bengal.	2023	Kaushik Das , Pallab Dutta, Tanmoy Sarkar	10.53555/sf.s.v10i1S.2298	10(1S)	699 6- 70 03	2368- 7487
6.	Vegetos (scopus)	Molecular characterization of <i>Psidium guajava</i> using microsatellite markers	2025	Tanmoy Sarkar , Anirban Roy, Sushanta Kumar Sarkar, Georgios Merkouropoulos, Georgios Kouboris , Somnath Bhattacharya	10.1007/s42535-025-01279-x			2229- 4473

3. Book chapter:

Sl. No.	Title of the book	Publishers	Author(s) Name (Highlight the corresponding and 1 st author in every article)	Year	ISBN No.	doi no. (if applicable)
1.	Agroforestry to Combat Global Challenges,	Springer Nature, Singapore	Tanmoy Sarkar , Sudip Sengupta, Sahely Kanthal &Suprabuddha Kundu	2024	978-981-99-7281-4	https://doi.org/10.1007/978-981-99-7282-1_12
2.	Balancing Tradition and Innovation: Sustainable Strategies for Modern Farming	Integrated Publication	Rabindranath Acharya, Tanmoy Sarkar	2025	978-93-5834-233-8	https://doi.org/10.62778/int.book.536
3.	Harvesting Tomorrow: Innovations Redefining Agriculture	AkiNik Publications	Monalisa Adhikary, Tanmoy Sarkar	2024	9789362351136	https://doi.org/10.22271/ed.book.2965
4.	Cultivating Progress: New Frontiers in Agricultural Science and Technology	AkiNik Publications	Sultana Moriom Biswas, Dipak Giri, Tanmoy Sarkar	2025	978-93-6135-454-0	https://doi.org/10.22271/ed.book.3189
5.	Innovations and Challenges in Modern Agriculture	Integrated publications	Mriganka Mandal, Tanmoy Sarkar	2024	978-93-5834-874-3	https://doi.org/10.62778/int.book.460
6.	Agriculture Re-imagined: Innovations and Strategies for Sustainable Growth	Bright Sky Publications	Aritra Malik, Tanmoy Sarkar	2024	978-93-6233-556-2	https://doi.org/10.62906/bs.book.198
7.	Modern Facets of Agriculture in India	SVU	Tanmoy Sarkar Suprabuddha Kundu Sudip Sengupta Avishek Chatterjee	2023	978-9359-6-7754-5	doi.org/10.62715/trp.2024.book.978-93-6039-440-0.pp01-102
8.	Resource Conservation: A Way to foster the crop production	SVU	Tanmoy Sarkar Rakesh Das Tanmoy Majhi Sayani Bhowmick	2024	978-93-304-3456-1	
9.	Emerging Trends in Sustainable Agriculture	SVU	Tanmoy Sarkar Sahely Kanthal Parijat Bhattacharya Ria Mukhopadhyay	2024	978-93-340-0372-7	doi.org/10.62715/trp.2024.book.978-93-3400-372-7.pp01-83
10	Cultivating the Future-Strategies for Sustainable Agriculture	SVU	Shantanu Bag and Tanmoy Sarkar	2025	978-93-340-074154	
11	Farming 5.0: The Digital Revolution Of Agriculture	SVU	Ujjwal Naskar and Dr. Tanmoy Sarkar	2025	978-93-341-9253-7	
12	Frontiers in Agriculture: AI, Automation and the future of food	SVU	Tanmoy Sarkar	2025	978-93-341-9534-7	
13	Nutrient Management Practices in Crops and Cropping System	SVU	Tanmoy Sarkar	2025	978-93-341-9685-6	

4. Text/Reference book published from reputed national/international publishers:

Sl. No.	Title of the Text/Reference book	Publishers	Author(s) Name (Highlight the corresponding and 1 st author in every article)	Year	ISBN No.	doi no. (if applicable)
	Resource Conservation: A Way to foster the crop production	SVU	Tanmoy Sarkar Rakesh Das Tanmoy Majhi Sayani Bhowmick	2024	978-93-304-3456-1	
	Emerging Trends in Sustainable Agriculture	SVU	Tanmoy Sarkar Sahely Kanthal Parijat Bhattacharya Ria Mukhopadhyay	2024	978-93-340-0372-7	doi.org/10.62715/t rp.2024.book.978- 93-3400-372- 7.pp01-83
	Modern Facets of Agriculture in India	SVU	Tanmoy Sarkar Suprabuddha Kundu Sudip Sengupta Avishek Chatterjee	2023	978-9359-6-7754-5	doi.org/10.62715/t rp.2024.book.978- 93-6039-440- 0.pp01-102
	Agriculture Re-imagined: Innovations and Strategies for Sustainable Growth	Bright Sky Publications	Tanmoy Sarkar Sudip Sengupta	2024	978-93-6233-556-2	https://doi.org/10.62906/bs.book.198
	Harvesting Tomorrow Innovations Redefining Agriculture	AkiNik Publications	Tanmoy Sarkar Sudip Sengupta	2024	978-93-6135-113-6	https://doi.org/10.22271/ed.book.2965
	Innovations and Challenges in Modern Agriculture	Integrated publications	Tanmoy Sarkar Sudip Sengupta	2024	978-93-5834-874-3	https://doi.org/10.62778/int.book.460
	Balancing Tradition and Innovation: Sustainable Strategies for Modern Farming	Integrated publications	Tanmoy Sarkar Sudip Sengupta	2025	978-93-5384-233-8	https://doi.org/10.62778/int.book.536
	Cultivating Progress: New Frontiers in Agricultural Science and Technology	Akinik Publications	Tanmoy Sarkar Sudip Sengupta	2025	978-93-6135-454-0	https://doi.org/10.22271/ed.book.3189

5. Project granted:

Sl. No	Sponsoring Agency	Name of the project	Duration		Amount in Lakhs	PI/ CO-PI
			Starting Month & Year	Ending month & Year		

6. Consultancy Project Grant:

Sl No.	Project title	Funding Agency	Duration	Completed (yes/no)	Sanctioned amount (in Rs.)	PI and CO- PI (if any)

7. Patent/IPR granted:

8. Patent/IPR granted:

Sl. No.	Name of the patent	Name of the applicant	Name of the inventor	Date of File	Date of Publication	Whether Granted (yes/no); If yes, Date of Grant	Application No.
1	Automated Water Control of Biofloc	Swami Vivwkananda University	Tanmoy Sarkar, Sudip Sengupta,	03/08/2023	29/09/2023	No	2023310590 46A
2	Energy Shoes	Swami Vivwkananda University	Tanmoy Sarkar	24/08/2023	29/09/2023	No	2023310566 37A
3	Paper Spray Bulb Camera	Swami Vivwkananda University	Tanmoy Sarkar	22/08/2023	29/09/2023	No	2023310560 69A
4	Voice Control Hydroponics and With Hydropower	Swami Vivwkananda University	Tanmoy Sarkar	20/08/2023	29/09/2023	No	2023310556 96A
5	Agri Solar Weight Trolley	Swami Vivwkananda University	Tanmoy Sarkar	18/08/2023	08/09/2023	No	2023310556 91A
6	From Fields to Future: 4-Wheel Drive Robots are Reshaping Agriculture	Swami Vivwkananda University	Tanmoy Sarkar, Sudip Sengupta,	16/01/2024	09/02/2024	No	2024310036 36A
7	Grow Sense Plant Support System	Swami Vivwkananda University	Tanmoy Sarkar, Sudip Sengupta, Suprabuddha Kundu	10/04/2024	26/04/2024	No	2024310292 82A
8	Thermo Guard Agri Sprayer	Swami Vivwkananda University	Tanmoy Sarkar, Sudip Sengupta	09/04/2024	19/04/2024	No	2024310290 02A
9	Exploring Wireless Charging technologies for smartphones	Swami Vivwkananda University	Tanmoy Sarkar, Sudip Sengupta	15/01/2024	02/02/2024	No	2024310027 98A
10	Turning Tap Water Into Electricity: A Green Solution	Swami Vivwkananda University	Tanmoy Sarkar, Sudip Sengupta	14/01/2024	02/02/2024	No	2024310027 83A
11	Artificial Rain Technology: A Game Changer in Agriculture	Swami Vivwkananda University	Tanmoy Sarkar, Suprabuddha Kundu	23/03/2024	12/04/2024	No	2024310226 72A
12	Nutri Waste Home Liquid Fertilizer Maker	Swami Vivwkananda University	Tanmoy Sarkar	04/04/2024	19/04/2024	No	2024310277 55A

13	Revolutionizing Agriculture: Vermicompost Innovations	Swami Vivwkananda University	Tanmoy Sarkar, Sudip Sengupta	07/04/2024	19/04/2024	No	20243102875A
14	Pest Guard Pro-Air	Swami Vivwkananda University	Tanmoy Sarkar	07/04/2024	19/04/2024	No	202431028478A
15	Smart Flora Hub	Swami Vivwkananda University	Tanmoy Sarkar	07/04/2024	19/04/2024	No	202431028486A
16	Eco Flow Irrigation	Swami Vivwkananda University	Tanmoy Sarkar	26/03/2024	05/04/2024	No	202431024196A
17	Sustainable Spin Blade Weeder	Swami Vivwkananda University	Tanmoy Sarkar	09/04/2024	19/04/2024	No	202431029001A
18	Development of aqua Secure Transporter: An Advanced System for Safe and Efficient Water Transportation	Swami Vivwkananda University	Tanmoy Sarkar, Parijat Bhattacharya, Suprabuddha Kundu	21/11/2024	13/12/2024	No	202431090712A
19	Automated Sanitization system for Laboratory Environments	Swami Vivwkananda University	Tanmoy Sarkar, Sudip Sengupta	21/11/2024	13/12/2024	No	202431090713A
20	Sun Blow Seed Separator: An Innovative Solar-Powered Solution For Efficient Seed Separation in Agriculture	Swami Vivwkananda University	Tanmoy Sarkar, Ria Mukhopadhyay	21/11/2024	13/12/2024	No	202431090727A
21	Application of Micro nutrients and Organic manures on plant growth of Dragon fruit c.v. Moroccan Red	Swami Vivwkananda University	Tanmoy Sarkar	23/11/2024	29/11/2024	No	202431091402A
22	Eco Seed Hydro-Seeding Technology for Sustainable and Efficient Vegetation Establishment	Swami Vivwkananda University	Tanmoy Sarkar, Tanmoy Majhi	23/11/2024	29/11/2024	No	202431091411A
23	AgroMist Mobile Irrigator: Advanced Precision Irrigation System for Efficient Crop	Swami Vivwkananda University	Tanmoy Sarkar	23/11/2024	29/11/2024	No	202431091416A

	Hydration						
24	Optimizing Shelf Life of Pink Oyster Mushrooms with Potassium Metabisulphite and Modified Atmosphere Packaging	Swami Vivwkananda University	Tanmoy Sarkar, Suprabuddha Kundu, Parijat Bhattacharya	23/11/2024	29/11/2024	No	2024310914 35A
25	Application of Sewage on the Germination and Early Development of Amaranthus	Swami Vivwkananda University	Tanmoy Sarkar, Sudip Sengupta	24/11/2024	29/11/2024	No	2024310914 63A
26	Optimizing Guaiacol Oxidation: Activators of Watermelon Peel Peroxidase	Swami Vivwkananda University	Tanmoy Sarkar, Avishek Chatterjee	24/11/2024	29/11/2024	No	2024310914 64A
27	Development and Optimization of a Solar-Powered Chill Preservation Unit for Perishable Goods	Swami Vivwkananda University	Tanmoy Sarkar, Sudip Sengupta	24/11/2024	29/11/2024	No	2024310914 67A
28	Method for producing iron and zinc enriched vermicompost	Swami Vivwkananda University	Tanmoy Sarkar, Sudip Sengupta, Suprabuddha Kundu, Parijat Bhattacharya, Ria Mukhopadhyay, Mahafuzar Rahaman, Anirneeta De, Animesh Ghosh, Bag, Rakesh Das, Tanmoy Majhi, Sayani Bhowmick	12/03/2025	21/03/2025	No	2025310220 80A
29	Biophilic design system for architectural spaces	Swami Vivwkananda University	Tanmoy Sarkar, Sudip Sengupta, Suprabuddha Kundu, Parijat Bhattacharya, Ria Mukhopadhyay, Mahafuzar Rahaman, Anirneeta De, Animesh Ghosh	12/03/2025	28/03/2025	No	2025310221 05A

			30Bag Ra21kesh Das Tanmoy Majhi Sayani Bhowmick				
30	Method of making and preserving dry flowers	Swami Vivwkananda University	Tanmoy Sarkar, Sudip Sengupta Suprabuddha Kundu Parijat Bhattacharya Ria Mukhopadhyay Mahafuzar Rahaman Anirneeta De Animesh Ghosh Bag Rakesh Das Tanmoy Majhi Sayani Bhowmick	12/03/2025	28/03/2025	No	2025310221 04A
31	Biofloc-based aquaculture system	Swami Vivwkananda University	Tanmoy Sarkar, Sudip Sengupta Suprabuddha Kundu Parijat Bhattacharya Ria Mukhopadhyay Mahafuzar Rahaman Anirneeta De Animesh Ghosh Bag Rakesh Das Tanmoy Majhi Sayani Bhowmick	11/03/2025	28/03/2025	No	2025310219 18A
32	Beeswax processing system	Swami Vivwkananda University	Tanmoy Sarkar, Sudip Sengupta Suprabuddha Kundu Parijat Bhattacharya Ria Mukhopadhyay Mahafuzar Rahaman Anirneeta De Animesh Ghosh Bag Rakesh Das Tanmoy Majhi Sayani Bhowmick	11/03/2025	28/03/2025	No	2025310219 17A
33	Bee venom collection device	Swami Vivwkananda University	Tanmoy Sarkar, Sudip Sengupta Suprabuddha Kundu Parijat	11/03/2025	28/03/2025	No	2025310219 15A

			Bhattacharya Ria Mukhopadhyay Mahafuzar Rahaman Anirneeta De Animesh Ghosh Bag Rakesh Das Tanmoy Majhi Sayani Bhowmick				
34	Method for tissue culture crop production	Swami Vivwkananda University	Tanmoy Sarkar, Sudip Sengupta Suprabuddha Kundu Parijat Bhattacharya Ria Mukhopadhyay Mahafuzar Rahaman Anirneeta De Animesh Ghosh Bag Rakesh Das Tanmoy Majhi Sayani Bhowmick	12/03/2025	28/03/2025	No	
35	Method of cultivating <i>Moringa oleifera</i>	Swami Vivwkananda University	Tanmoy Sarkar, Sudip Sengupta Suprabuddha Kundu Parijat Bhattacharya Ria Mukhopadhyay Mahafuzar Rahaman Anirneeta De Animesh Ghosh Bag Rakesh Das Tanmoy Majhi Sayani Bhowmick	12/03/2025	28/03/2025	No	
36	Instant mushroom soup composition	Swami Vivwkananda University	Tanmoy Sarkar, Sudip Sengupta Suprabuddha Kundu Parijat Bhattacharya Ria Mukhopadhyay Mahafuzar Rahaman Anirneeta De Animesh Ghosh Bag Rakesh Das Tanmoy Majhi	12/03/2025	28/03/2025	No	

			Sayani Bhowmick				
37	A System for poultry farming	Swami Vivwkananda University	Tanmoy Sarkar, Sudip Sengupta Suprabuddha Kundu Parijat Bhattacharya Ria Mukhopadhyay Mahafuzar Rahaman Anirneeta De Animesh Ghosh Bag Rakesh Das Tanmoy Majhi Sayani Bhowmick Souvik Halder, Rohan Mandal	28/04/2025	02/05/2025	No	2025310406 90A
38	A hydroponic farming system for soil-less plant cultivation	Swami Vivwkananda University	Tanmoy Sarkar, Sudip Sengupta Suprabuddha Kundu Parijat Bhattacharya Ria Mukhopadhyay Mahafuzar Rahaman Anirneeta De Animesh Ghosh Bag Rakesh Das Tanmoy Majhi Sayani Bhowmick Aritra Deb, Dipty Mondal	28/04/2025	02/05/2025	No	2025310406 91A
39	A method for tissue culture crop production	Swami Vivwkananda University	Tanmoy Sarkar, Sudip Sengupta Suprabuddha Kundu Parijat Bhattacharya Ria Mukhopadhyay Mahafuzar Rahaman Anirneeta De Animesh Ghosh Bag Rakesh Das Tanmoy Majhi Sayani Bhowmick Milan Ghosh, Arup Samanta, Kaneenika Santra	28/04/2025	02/05/2025	No	2025310406 94A

40	A bio-fertilizer composition	Swami Vivwkananda University	Tanmoy Sarkar, Sudip Sengupta Suprabuddha Kundu Parijat Bhattacharya Ria Mukhopadhyay Mahafuzar Rahaman Anirneeta De Animesh Ghosh Bag Rakesh Das Tanmoy Majhi Sayani Bhowmick Biswadeep Mazumder, Soumbrata Dutta, Anik Sinha, Anushree Laha	26/04/2025	02/05/2025	No	202431040470A
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