

: FACULTY DETAILED RESEARCH DATA:

Name of the Faculty: DR. SUDIP SENGUPTA

Designation: Assistant Professor

Department: Agriculture

School: Agriculture

Research Area: Agricultural Chemistry, Soil Science, Soil Chemistry, Environmental Science, Arsenic, Nutrient Management

Details of research portfolio of faculty:

A. Researcher's ID details:

Google Scholar ID: <https://scholar.google.com/citations?user=vG5pqdAAAAAJ&hl=en>

Orcid ID: 0000-0002-8636-1004

Scopus ID: 57221227511

Vidwan ID: <https://vidwan.inflibnet.ac.in/profile/270320>

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.
	N/A						

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	Irrigation Science (WoS, Scopus)	Response of cabbage to soil test-based fertilization coupled with different levels of drip irrigation in an inceptisol	Nov, 2021	Chandan Saha, Parijat Bhattacharya, Sudip Sengupta, Shubhadip Dasgupta, Sanmay Kumar Patra, Kallol Bhattacharyya & Pradip Dey	https://doi.org/10.1007/s00271-021-00761-z	40	239-253	0342-7188

2	Journal of Plant Nutrition (WoS, Scopus)	Effect of gravity-fed drip irrigation and nitrogen management on flowering quality, yield, water and nutrient dynamics of gladiolus in an Indian inceptisol	March, 2022	Sanmay Kumar Patra & Sudip Sengupta	https://doi.org/10.1080/01904167.2022.2057327	45:13	2049-2067	1532-4087
3	Journal of Environmental Management (WoS, Scopus)	Complexation, retention and release pattern of arsenic from humic/fulvic acid extracted from zinc and iron enriched vermicompost	June, 2022	Sudip Sengupta , Kallol Bhattacharyya, Jajati Mandal , Asoke Prasun Chattopadhyay	https://doi.org/10.1016/j.jenvman.2022.115531	318	115531	1095-8630
4	International Journal of Polymer Science (WoS, Scopus)	Prospects of Hydrogels in Agriculture for Enhancing Crop and Water Productivity under Water Deficit Condition	June, 2022	Sanmay Kumar Patra , Ratneswar Poddar, Marian Brestic, Pravat Utpal Acharjee, Parijat Bhattacharyya, Sudip Sengupta, Payel Pal, Nyape Bam, Barun Biswas, Viliam Barek, Peter Ondrisik, Milan Skalicky and Akbar Hossain	https://doi.org/10.1155/2022/4914836	2022(2)	1-15	1687-9430
5	Communications in Soil Science and Plant Analysis (WoS / Scopus)	Assessment of the Potassium Supplying Capacity of Coastal Entisols and Inceptisols under Intensive Cropping and Fertilization	June, 2022	Ranajit Panda , Sanmay Kumar Patra & Sudip Sengupta	https://doi.org/10.1080/00010362.2022.2094943	53:21,	2878-2891	15322416
6	World Journal of Microbiology and Biotechnology (WoS / Scopus)	Recent advances in the bioremediation of arsenic-contaminated soils: a mini review	Aug, 2022	Aritri Laha , Sudip Sengupta, Parijat Bhattacharyya, Jajati Mandal, Somnath Bhattacharyya & Kallol Bhattacharyya	https://doi.org/10.1007/s11274-022-03375-5	38	189	1573-0972
7	Soil and Sediment Contamination: An International Journal (WoS / Scopus/ UGC Care)	Appraisal of environmental, ecological and carcinogenic risk due to heavy metals in a sewage and solid waste contaminated area	Aug, 2022	Shreya Das , Sudip Sengupta , Prasanta Kumar Patra, Pravat Utpal Acharjee & Susanta Kumar Pal	https://doi.org/10.1080/01532038.2022.2112651	32:5	591-614	1549-7887

8	Water SA (WoS / Scopus/ UGC Care)	Improving the growth, yield, and quality of ginger (Zingiber officinale Rosc.) through irrigation and nutrient management: a study from an Inceptisol of India	Oct, 2022	Sanmay Kumar Patra, Sudip Sengupta, Ratneswar Poddar, Kallol Bhattacharyya	https://doi.org/10.17159/wsa/2022.v48.i4.3951	48: 4	-	1816-7950
9	Israel Journal Of Plant Sciences (WoS / Scopus/ UGC Care)	Enhancing yield of lettuce through irrigation and nitrogen management in a subtropical <i>Inceptisol</i>	Jan, 2023	Sanmay Kumar Patra, Sudip Sengupta, Parijat Bhattacharya & Kallol Bhattacharyya	https://doi.org/10.1163/2238980-bja10071	70(1-2)	76-90.	1537-2537
10	Journal of Environmental Quality (WoS / Scopus)	Determination of bioavailable arsenic threshold and validation of modeled permissible total arsenic in paddy soil using machine learning	Jan, 2023	Jajati Mandal, Vinay Jain, Sudip Sengupta, Md. Aminur Rahman, Kallol Bhattacharyya, Mohammad Mahmudur Rahman, Debasis Golui, Michael D. Wood, Debapriya Mondal	https://doi.org/10.1002/jeq2.20452	52 (2)	315-327	1537-2537
11	Clean – Soil, Air, Water (WoS / Scopus)	Remediation of Lead Toxicity Using Phosphorus in Lead-Contaminated Agricultural Soils	Mar, 2023	Sanmay Kumar Patra, Sudip Sengupta, Som Sankar Das, Debashis Mazumdar	https://doi.org/10.1002/clen.202200309	52 (2): 2200309	----	1863-0669
12	Journal of the Geological Society of India (WoS / Scopus/ UGC Care)	Spatiotemporal Analysis and Trend Detection of Groundwater Levels Using Gis Techniques in Nadia District of West Bengal, India	June, 2023	Aniket Baishya, Alivia Chowdhury, Rahul Chakrabarty, Sudip Sengupta, Anupam Das, Ambarnil Panda, Uday Pratap Singh Bhadoriya & Dipankar Mandal	https://doi.org/10.1007/s12594-023-2394-x	99,	868–874	0974-6889
13	Journal of Plant Nutrition (WoS / Scopus/ UGC Care)	Assessment of the suitability of selected extractants for boron in some inceptisols of Eastern India under sunflower (<i>Helianthus annuus</i> L.)	July, 2023	Amit Phonglosa, Kallol Bhattacharyya, Arnab Pari, Krishnendu Ray, Hirak Banerjee, Sanjay Halder, Sudip Sengupta, Parijat Bhattacharya & Jajati Mandal	https://doi.org/10.1080/01904167.2023.2231020	46(17)	4340–4355.	1532-4087
14	Journal of Cleaner Production (WoS / Scopus/ UGC Care)	Zinc and iron enrichment of vermicompost can reduce the arsenic load in rice grain:	Sept, 2023	Sudip Sengupta, Kallol Bhattacharyya, Jajati Mandal, Parijat Bhattacharya, Asoke & Prasun Chattopadhyay	https://doi.org/10.1016/j.jclepro.2023.138267	419, 138267	--	0959-6526

		An investigation through pot and field experiments						
15	Journal of Survey in Fisheries Sciences (WoS/NAAS)	Influence Of Varietal Duration And Nitrogen Fertilization In Augmenting Micronutrient Uptake And Yield Of Rice.	Aug, 2023	Souptik Sarkar , Sudip Sengupta, Kallol Bhattacharyya, Samrin Parveen, & Parijat Bhattacharya	https://doi.org/10.53555/sfs.v10i1S.2292	10(1S)	6973-6978	2368-7487
16	Journal of Survey in Fisheries Sciences (WoS/NAAS)	Relating Soil Available Zinc With Physicochemical Properties In New Alluvial Zone Of West Bengal, India.	Aug, 2023	Parijat Bhattacharya , Sudip Sengupta & Kallol Bhattacharyya	https://doi.org/10.53555/sfs.v10i1S.2305	10(1S)	7037-7040	2368-7487
17	Journal of Survey in Fisheries Sciences (WoS/NAAS)	Modeling The Uptake Of Cationic Micronutrients And Rice Grain Yield At Different Graded Dose Of Nitrogen Fertilization.	Aug, 2023	Rohit Kumar Choudhury , Parijat Bhattacharya Samrin Parveen Kallol Bhattacharyya & Sudip Sengupta	https://doi.org/10.53555/sfs.v10i1S.2300	10(1S)	7017-7021	2368-7487
18	Journal of Survey in Fisheries Sciences (WoS/NAAS)	Vegetative Multiplication Of Psidium Guajava L. Through Stem Cutting	Aug, 2023	Tanmoy Sarkar , Sudip Sengupta, Suprabuddha Kundu, Kaushik Das	https://doi.org/10.53555/sfs.v10i1S.2310	10(1S)	7054-7056	2368-7487
19	Agricultural Research (WoS/NAAS)	Modelling and Assessment of Climate Change Impact on Rainfed Rice Cultivation in a Sub-humid Subtropical Region	Sep, 2023	Aniket Baishya , Ashok Mishra & Sudip Sengupta	https://doi.org/10.1007/s40003-023-00671-W	13,	85–95	2249-7218
20	Groundwater for Sustainable Development (WoS / Scopus/ UGC Care)	Replacing conventional surface irrigation with micro-irrigation in vegetables can alleviate arsenic toxicity and improve water productivity	Sep, 2023	Sudip Sengupta , Sanmay Kumar Patra, Aritri Laha, Ratneswar Poddar, Kallol Bhattacharyya, Pradip Dey, Jajati Mandal	https://doi.org/10.1016/j.gsd.2023.101012	23, 101012	—	2352-801X
21	Communications in Soil Science	Assessment of the Suitability of	Oct, 2023	Sudip Sengupta , Parijat Bhattacharya , Kallol	https://doi.org/10.1080/00	55(2)	243–260	1532-2416

	and Plant Analysis (WoS / Scopus/ UGC Care)	Extractants for Predicting Plant Available Arsenic in Some Tropical Rice Growing Inceptisols of Eastern India.		Bhattacharyya, B. J. Pandian, & A. R. Chinchmalatpure	103624.2023.2268132			
22	3 Biotech (WoS / Scopus/ UGC Care)	Isolation and characterization of rhizobacteria from lentil for arsenic resistance and plant growth promotion	Jan, 2024	Aritri Laha , Sudip Sengupta, Somnath Bhattacharyya, Kallol Bhattacharyya & Sanjoy GuhaRoy	https://doi.org/10.1007/s13205-023-03873-9	14 (30):	—	2190-5738
23	Chemosphere (WoS / Scopus)	Limestone and yellow gypsum can reduce cadmium accumulation in groundnut (Arachis hypogaea): A study from a three-decade old landfill site	March, 2024	Shreya Das, Sudip Sengupta , Prasanta Kumar Patra, Pradip De y	https://doi.org/10.1016/j.chemosphere.2024.141645	2024	141645	1879-1298
24.	Journal of Plant Nutrition (WoS / Scopus/ UGC Care)	Cationic micronutrient fractions in some tropical Alfisols and Inceptisols as affected by organic amendments and simulated moisture regimes: an incubation study	March, 2024	Parijat Bhattacharya Sudip Sengupta & Kallol Bhattacharya	https://doi.org/10.1080/01904167.2024.2315971	47(10)	1527-1545.	1532-4087
25	South African Journal of Botany(WoS / Scopus/ UGC Care)	Unraveling the potential of Acinetobacter calcoaceticus for arsenic resistance and plant growth promotion in contaminated lentil field	March, 2024	Aritri Laha , Subhasis Sarkar, Sudip Sengupta, Amlan Das, Santanu Paul , Somnath Bhattacharyya	https://doi.org/10.1016/j.sajb.2024.03.005	168	61-70	1727-9321
26	Irrigation and Drainage (WoS / Scopus)	Improving the root yield, quality, water productivity and economics of sarpagandha (Rauwolfia serpentina L. Benth.) through	April, 2024	Sanmay Kumar Patra, Sudip Sengupta , Madhurima Banik, Ratneswar Poddar	https://doi.org/10.1002/ird.3020	2024	1-15	1531-0361

		irrigation and nitrogen management						
27	Journal of Advances in Biology and Biotechnology (WoS/NAAS)	An Overview of the Importance of Biochar in Sustainable Agriculture	June, 2024	Emili Adak , Sonai Halder, Biresh Koley, Soumyajit Biswas, Sudip Sengupta , Suprabuddha Kundu and Tanmoy Sarkar	https://doi.org/10.9734/ijabb/2024/v27i6956	27 (6)	924-937	2394-1081
28.	International Journal of Research in Agronomy (WoS/NAAS)	Site specific nutrient management: An overview	April, 2024	Biresh Koley , Sonai Halder, Soumyajit Biswas, Emili Adak, Sudip Sengupta , Suprabuddha Kundu and Tanmoy Sarkar	https://doi.org/10.33545/2618060X.2024.v7.i4Sb.563	7(4)	117-126	2618-060X
29.	International Journal of Agriculture Extension and Social Development (WoS/NAAS)	The role of precision farming in sustainable agriculture: An overview	April, 2024	Soumyajit Biswas , Sonai Halder, Biresh Koley, Emili Adak and Sudip Sengupta	https://doi.org/10.33545/26180723.2024.v7.i4c.536	7(4)	219-228	2618-0723
30.	International Journal of Agriculture Extension and Social Development (WoS/NAAS)	Effect of vermicompost on soil quality and crop productivity	April, 2024	Akram Gazi , Ani Maity, Nabanita Khatua, Sudip Sengupta , Suprabuddha Kundu and Tanmoy Sarkar	https://doi.org/10.33545/26180723.2024.v7.i4Sa.517	7(4)	13-23	2618-0723
31.	International Journal of Advanced Bio chemistry Research (WoS/NAAS)	Biological nitrogen fixation: Reducing the N footprints of the environment	April, 2024	Krishnendu Roy , Kazi Nazimul Haque, Kousik Samanta, Rabindranath Acharya, Sahely Kanthal, Suprabuddha Kundu, Tanmoy Sarkar and Sudip Sengupta	10.33545/26174693.2024.v8.i4Sb.936	8(4)	133-137	2617-4693
32.	International Journal of Advanced Bio chemistry Research (WoS/NAAS)	A brief outlook on soil pollution and its control measures	April, 2024	Sonai Halder , Biresh Koley, Soumyajit Biswas, Emili Adak and Sudip Sengupta	10.33545/26174693.2024.v8.i4Sa.932	7(4)	59-69	2618-0723
33.	International Journal of Research in Agronomy (WoS/NAAS)	Organophosphate Pesticide: Environmental impact and toxicity to organisms	April, 2024	Shreya Modak , Priya Ghosh, Supratim Mandal, Debasma Sasmal, Suprabuddha Kundu , Sudip Sengupta, Sahely Kanthal and Tanmoy Sarkar	https://doi.org/10.33545/2618060X.2024.v7.i4Sb.566	7(4)	138-141	2618-060X
34.	International Journal of Research in Agronomy (WoS/NAAS)	Climate change impact on soil health and crop production	April, 2024	Rabindranath Acharya , Kousik Samanta, Kazi Nazimul Haque, Sofikul Box, Sudip Sengupta, Parijat Bhattacharya and Sahely Kanthal	https://doi.org/10.33545/2618060X.2024.v7.i4c.540	7(4)	150-156	2618-060X

35.	International Journal of Research in Agronomy (WoS/NAAS)	Agroforestry: socio-economic impact and future aspect	April, 2024	Supratim Mandal , Debasma, Sasmal, Shreya Modak, Priya Ghosh, Suprabuddha Kundu , Sudip Sengupta, Sahely Kanthal and Tanmoy Sarkar	https://doi.org/10.33545/2618060X.2024.v7.i4Sb.565	7(4)	131-137	2618-060X
36.	International Journal of Agriculture Extension and Social Development (WoS/NAAS)	Prospect of nano-fertilizers in agriculture: An overview	April, 2024	Ankan Bakshi , Rimita Dutta, Suprabuddha Kundu , Sudip Sengupta, Sahely Kanthal and Tanmoy Sarkar	https://doi.org/10.33545/26180723.2024.v7.i4Sa.516	7(4)	8-12	2618-0723
37.	International Journal of Research in Agronomy (WoS/NAAS)	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	https://doi.org/10.33545/2618060X.2024.v7.i4b.522	7(4)	69-72	2618-060X
38.	International Journal of Agriculture Extension and Social Development (WoS/NAAS)	Exploring the progress and techniques of cultivating oyster mushrooms: A comprehensive review	April, 2024	Rimita Dutta , Ankan Bakshi, Suprabuddha Kundu , Sudip Sengupta, Sahely Kanthal and Tanmoy Sarkar	https://doi.org/10.33545/26180723.2024.v7.i4b.511	7(4)	138-143	2618-0723
39.	International Journal of Agriculture Extension and Social Development (WoS/NAAS)	Advance agriculture system using artificial intelligence: Way towards future farming	April, 2024	Vibhor Raj , Sudip Sengupta, Suprabuddha Kundu and Tanmoy Sarkar	https://doi.org/10.33545/26180723.2024.v7.i4a.498	7(4)	31-34	2618-0723
40.	International Journal of Agriculture and Food Science (WoS/NAAS)	The role of microorganisms in agriculture: Enhancing soil health, crop productivity, and sustainable farming practices	Sep, 2024	Debanjan Das and Sudip Sengupta	https://doi.org/10.33545/2664844X.2024.v6.i2c.219	6(2)	163-165	2664-844X
41.	International Journal of Agriculture and Food Science (WoS/NAAS)	Integrated nutrient management (INM) in sustainable plant nutrition	Sep, 2024	Soumyadip Samanta and Sudip Sengupta	https://doi.org/10.33545/2664844X.2024.v6.i2b.216	6(2)	128-130	2664-844X
42.	International Journal of Agriculture and	Role of polyhalite in soil-plant	Sep, 2024	Emili Adak and Sudip Sengupta	https://doi.org/10.33545/26646064.2	6(2)	32-34	2664-6064

	Nutrition (WoS/NAAS)	nutrition studies			024.v6.i2a.179			
43	Discover Soil (WoS)	Assessment of the interaction of copper and zinc with cadmium to reduce its toxicity in heavy metal-contaminated river basin soils	Jan, 2025	Sanmay Kumar Patra, Sudip Sengupta, Som Sankar Das & Debashis Mazumdar	https://doi.org/10.1007/s44378-025-00030-x	2:2	—	3005-1223
44	Irrigation and Drainage (WoS / Scopus)	Optimizing Onion Yield by Exploring Seasonal Evapotranspiration, Water Productivity and Crop Water Production Functions Under Microsprinkler Irrigation and Nitrogen Fertilization	June, 2025	Sanmay Kumar Patra, Madhurima Banik, Sudip Sengupta, Ashim Datta	https://doi.org/10.1002/ird.70004	—	1-18	1531-0353
45	Science of The Total Environment (WoS / Scopus)	Regenerating rural soil and ecosystems: A 15-year systematic review of emerging methods and technologies	June, 2025	Sumanta Das, Suman Dutta, Malini Roy Choudhury, Sourav Garai, Siddhartha Mukherjee, Sudip Sengupta, Soujanya Jana, Saikat Dey, Anannya Dhar, Sayantika Dutta, Amit Awasthi	https://doi.org/10.1016/j.scitotenv.2025.179926	990	179926	0048-9697

3. Book chapter:

Sl. No.	Title of the book	Publishers	Author(s) Name (Highlight the corresponding and 1st author in every article)	Year	ISBN No.	doi no. (if applicable)
1	Book Innovation in Small-Farm Agriculture Chapter A Pandemic Resilient Framework for Sustainable Soil Health and Food Security: Response beyond COVID-19	CRC Press	Sudip Sengupta, Shubhadip Dasgupta, Kallol Bhattacharyya, Somsubhra Chakraborty, and Pradip Dey	2022	978-93-5834-874-3	https://doi.org/10.1201/9781003164968-7
2	Book Global Arsenic Hazard: Ecotoxicology and Remediation Chapter	Springer Nature Singapore Pte Ltd.	Sudip Sengupta, Tarit Roychowdhury, Amit Phonglosa, and Jajati Mandal	2022	978-3-031-16362-3	https://doi.org/10.1007/978-3-031-16360-9_3

	Arsenic Contamination in Rice and the Possible Mitigation Options					
3	Book Arsenic Toxicity Remediation: Biotechnological Approaches Chapter The Journey of Arsenic from Soil to Plant	Springer Nature Singapore Pte Ltd	Aritri Laha , Sudip Sengupta, Jajati Mandal, Kallol Bhattacharyya, and Somnath Bhattacharyya	2023	978-3-031-37560-6	https://doi.org/10.1007/978-3-031-37561-3_1
4	Book Arsenic Toxicity Remediation: Biotechnological Approaches Chapter The Role of Plant Growth Promoting Bacteria on Arsenic Removal: A Review of Existing Perspectives	Springer Nature Singapore Pte Ltd.	Aritri Laha , Sudip Sengupta, Jajati Mandal, Kallol Bhattacharyya, and Somnath Bhattacharyya	2023	978-3-031-37560-6	https://doi.org/10.1007/978-3-031-37561-3_12
5	Book Modern Facets of Agriculture in India Chapter Scientific advances in heavy metal pollution in the soil environment	Department of Agriculture, Swami Vivekananda University Barrackpore	Sudip Sengupta	2023	978-93-5967-754-5	----
6	Book Environmental Contaminants: Impact, Assessment, and Remediation Chapter Basics of Environment, Pollution, and Bioremediation Techniques	CRC Press	Pritam Ganguly , Jajati Mandal, Sudip Sengupta, Bishwajit Sinha	2024	9781003412236	https://doi.org/10.1201/9781003412236
7	Book Environmental Contaminants: Impact, Assessment, and Remediation Chapter A Comprehensive Overview on Contemporary Approaches in Soil Fertility Management	CRC Press	Parijat Bhattacharya , Purabi Banerjee, Soham Hazra, Sudip Sengupta , Saptarparnee Dey	2024	9781003412236	https://doi.org/10.1201/9781003412236
8	Book Agroforestry to Combat Global Challenges: Sustainable Development and Biodiversity Chapter Climate Change Mitigation Through Agro-Forestry Improves Natural Resource and Livelihood Security	Springer Nature Singapore Pte Ltd.	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
9	Book Agricultural Greenhouse Gas Emissions: Problems and Solutions	Springer Nature Singapore Pte Ltd.	Tiasha Dutta , Shilky, Neha Dwivedi, Jayanta Kumar Biswas, Purabi Saikia, Nirmali Bordoloi,	2024	978-981-97-7554-5	https://doi.org/10.1007/978-981-97-7554-5_6

	Chapter Agricultural Non-CO2 Greenhouse Gases: Sources and Consequences		Sudip Sengupta, Bipradeep Mondal & Manoj Kumar			
10	Book Innovations and Challenges in Modern Agriculture Chapter Acid Sulphate Soil - The Silent Saboteur of Sustainable Crop Production	Integrated Publications	Soumyajit Biswas and Sudip Sengupta	2024	978-93-5834- 874-3	https://doi.org/10.62778/int.book.460
11	Book Harvesting Tomorrow: Innovations Redefining Agriculture Chapter Burning Fields, Burning Future: Unraveling the Menace of Indiscriminate Crop Residue Burning	AkiNik Publications	Emili Adak and Sudip Sengupta	2024	978-93-6135- 113-6	https://doi.org/10.22271/ed.book.2965
12	Book Agriculture Re-imagined: Innovations and Strategies for Sustainable Growth Chapter Revolutionizing Agriculture: Fertigation Unleashes the Power of Precision Feeding for Bountiful Harvests	Bright Sky Publications	Kousik Samanta and Sudip Sengupta	2024	978-93-6233- 556-2	https://doi.org/10.62906/bs.book.198
13	Book Emerging Trends in Sustainable Agriculture Chapter Radio Tracer Technique in Soil- Plant Studies	Department of Agriculture, Swami Vivekananda University Barrackpore	Sudip Sengupta	2024	978-93-340- 0372-7	----
14	Book Resource Conservation A Way to foster the crop production Chapter Ensuring Clean Water: Advanced Strategies for quality and management	Department of Agriculture, Swami Vivekananda University Barrackpore	Sudip Sengupta	2024	978-93-304- 3456-1	—
15	Book Farming 5.0: The Digital Revolution Of Agriculture Chapter Internet of Things and Advanced Sensor Technologies for Heavy Metal Contamination Monitoring	Department of Agriculture, Swami Vivekananda University Barrackpore	Sudip Sengupta	2025	978933419253 7	—

	and Human Health Impact Assessment					
16	Book Cultivating the Future Strategies for Sustainable Agriculture Chapter The Importance of Carbon Farming in Agriculture	Department of Agriculture, Swami Vivekananda University Barrackpore	Sudip Sengupta	2025	9789334074154	_____
17	Book Frontiers in Agriculture: AI, Automation and the future of food Chapter Artificial Intelligence and Machine Learning for Delineating Heavy Metals in Soil–Plant Systems	Department of Agriculture, Swami Vivekananda University Barrackpore	Sudip Sengupta	2025	9789334195347	_____
18	Book Nutrient Management Practices in Crops and Cropping System Chapter Vanadium in the Soil–Plant System: Importance for Nutrition in Agricultural Crops	Department of Agriculture, Swami Vivekananda University Barrackpore	Sudip Sengupta	2025	9789334196856	_____
19	Book Balancing Tradition and Innovation: Sustainable Strategies for Modern Farming Chapter Paving the green path to agricultural sustainability with nanourea in soil-plant synergy	Integrated Publications	Ankan Bakshi and Sudip Sengupta	2025	978-93-5834-233-8	https://doi.org/10.62778/int.book.536
20	Book Cultivating Progress: New Frontiers in Agricultural Science and Technologies Chapter Unearthing the menace of microplastic pollution in Earth’s Silent Crisis	AkiNik Publications	Rimita Dutta and Sudip Sengupta	2025	978-93-6135-454-0	https://doi.org/10.22271/ed.book.3189

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 1st author in every article)	Year	ISBN No.	doi no. (if applicable)
1	Modern Facets of Agriculture in India	Department of Agriculture, Swami Vivekananda University	Tanmoy Sarkar Suprabuddha Kundu Sudip Sengupta	2023	978-93-5967-754-5	_____

		Barrackpore	Avishek Chatterjee			
2	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
3	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
4	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
5	Farming 5.0: The Digital Revolution Of Agriculture	Department of Agriculture, Swami Vivekananda University Barrackpore	Tanmoy Sarkar Sudip Sengupta Suprabuddha Kundu Ria Mukhopadhyay	2025	9789334192537	_____
6	Cultivating the Future Strategies for Sustainable Agriculture	Department of Agriculture, Swami Vivekananda University Barrackpore	Tanmoy Sarkar Sudip Sengupta Suprabuddha Kundu Avishek Chatterjee	2025	9789334074154	_____
7	Balancing Tradition and Innovation: Sustainable Strategies for Modern Farming	Integrated Publications	Tanmoy Sarkar Sudip Sengupta	2025	978-93-5834-233-8	https://doi.org/10.62778/int.book.536
8	Cultivating Progress: New Frontiers in Agricultural Science and Technologies	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		
	N/A					

6. Consultancy Project Grant:

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

7. 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	"From Fields to Future: 4-Wheel Drive Robots are Reshaping Agriculture"	Tanmoy Sarkar, Vibhor Raj, Sudip Sengupta, Abhishek Dhar, Saurabh Adhikari, Subhranil Som	Tanmoy Sarkar, Vibhor Raj, Sudip Sengupta, Abhishek Dhar, Saurabh Adhikari, Subhranil Som	16/01/2024	09/02/2024	No	202431003636
2	"Grow Sense Plant Support System"	Tanmoy Sarkar, Vibhor Raj, Sudip Sengupta, Suprabuddha Kundu, Abhishek Dhar, Saurabh Adhikari, Subhranil Som	Tanmoy Sarkar, Vibhor Raj, Sudip Sengupta, Suprabuddha Kundu, Abhishek Dhar, Saurabh Adhikari, Subhranil Som	10/04/2024	26/04/2024	No	202431029282
3	"Thermo Guard Agri Sprayer"	Tanmoy Sarkar, Vibhor Raj, Sudip Sengupta, Abhishek Dhar, Saurabh Adhikari, Subhranil Som	Tanmoy Sarkar, Vibhor Raj, Sudip Sengupta, Abhishek Dhar, Saurabh Adhikari, Subhranil Som	09/04/2024	19/04/2024	No	202431029002
4	"Revolutionizing Agriculture: Vermicompost Innovations"	Tanmoy Sarkar, Vibhor Raj, Sudip Sengupta, Abhishek Dhar, Saurabh Adhikari, Subhranil Som	Tanmoy Sarkar, Vibhor Raj, Sudip Sengupta, Abhishek Dhar, Saurabh Adhikari, Subhranil Som	07/04/2024	19/04/2024	No	202431028475
5	"Exploring Wireless Charging technologies for smartphones"	Tanmoy Sarkar, Vibhor Raj, Sudip Sengupta, Abhishek Dhar, Saurabh Adhikari, Subhranil Som	Tanmoy Sarkar, Vibhor Raj, Sudip Sengupta, Abhishek Dhar, Saurabh Adhikari, Subhranil Som	15/01/2024	02/02/2024	No	202431002798

6	“Turning Tap Water into Electricity: A green solution”	Tanmoy Sarkar, Vibhor Raj, Sudip Sengupta, Abhishek Dhar, Saurabh Adhikari, Subhranil Som	Tanmoy Sarkar, Vibhor Raj, Sudip Sengupta, Abhishek Dhar, Saurabh Adhikari, Subhranil Som	14/01/2024	02/02/2024	No	202431002783
7	“Automated Sanitization System for Laboratory Environments”	Tanmoy Sarkar, Sudip Sengupta, Vibhor Raj, Avishek Chatterjee.	Tanmoy Sarkar, Sudip Sengupta, Vibhor Raj, Avishek Chatterjee.	21/11/2024	13/12/2024	No	202431090713 A
8	“Application of Sewage on the Germination and Early Development of Amaranthus”	Tanmoy Sarkar, Sudip Sengupta	Tanmoy Sarkar, Sudip Sengupta	24/11/2024	29/11/2024	No	202431091463 A
9	"Development and Optimization of a Solar-Powered Chill Preservation Unit for Perishable Goods"	Tanmoy Sarkar, Sudip Sengupta	Tanmoy Sarkar, Sudip Sengupta	24/11/2024	29/11/2024	No	202431091467 A