

Curriculum Vitae



Satya Sundar Bhattacharya PhD

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Academic/Professional Summary:

Qualification	Institution	Specialization	Year of Passing	Class/Divn
Ph.D.	Institute of Agriculture, Visva Bharati (A Central University)	Vermiconversion Technology	2003	-----
M.Sc.	University of Calcutta	Agronomy	1996	1 st
B.Sc.	Institute of Agriculture, Visva Bharati (A Central University)	Agriculture	1994	1 st
Pre-Degree	Visva Bharati (A Central University)	Science	1990	1 st
School Certificate	Visva Bharati (A Central University)	General	1988	1 st

Ph.D. Thesis:

Utilization of Fly Ash in Agriculture through Vermicomposting

Under the guidance of Professor G N Chattopadhyay.

Nature of study

- **Soil quality enhancement**
- **Bioavailability of plant nutrients**

Master's Dissertations:

Studies on micronutrients on growth and yield of groundnut grown on red lateritic soil of West Bengal.

Under the guidance of Professor B Bhattacharya.

Nature of study

- **Crop improvement**
- **Nutrient balance**

Professional Experience

Position held	Name of employer	Nature of employment	Nature of job	Period of employment
Assistant Professor	Tezpur Central University, Govt. of India	Permanent	Teaching and Research	September 2010 to till date
Research Professor	Hanyang University, Seoul, Korea	Contractual: On study leave from Tezpur University	Teaching and Research	September 2014 to February 2015
Forest Ranger	Directorate of Forests, Govt. of West Bengal, India	Permanent	Administrative and executive	September 2001 to August 2010

Patent granted: Novel Soil Conditioners. No. 343590 grant dt. 07/08/2020

International Patent filed: (PCT/IN2017/050114). Preparation and application of iron oxalate capped-Fe₃O₄, iron oxalate capped-Fe-CuOx, and iron oxalate capped-Fe-MnOx nanoparticles for use as micronutrient source to crop plants and soil conditioner. The technology transfer is under process.

Details of Research Projects being on-going/ completed

SI	Project title	As PI/Co-PI	Duration	Funded by	Amt. Sned. (Rs. in Lakh)	Present status
1	Utilization of textile industry sludge through application of vermitechnology: An in-sight on metal accumulation potential of earthworms	PI	2017-2020	DST-SERB	57.606	Ongoing
2	Elucidating the mechanism and assessing amelioration potential of Ocimum and Lucas in stress-induced impaired homeostasis on growth and reproduction in Zebra-fish	PI (CCPI)	2017-2020	ICAR-NASF	46.572	Ongoing
3	Prospect of a novel protein in earthworm gut to minimize heavy metal risk in vermicompost for sustainable crop production	PI	2017-2020	CSIR	26.9	Ongoing
4	Sustainable utilization of solid waste as a source of plant nutrition in rice based agroecosystem of North East India	PI	2012-2015	CSIR	15.0	Completed
5	Qualitative development of vermicompost technology through isolation of novel microorganism and their application in agricultural waste management of Assam	PI	2012-2015	DBT	63.057	Completed
6	Polymer supported green nano particles: using plants of north east India; studies on toxicity and anticancer property	Co-PI	2014-2017	DBT-NER (Twinning)	33.0	Completed

Details of PhD guidance:

Graduated (PhD awarded): 05

1. Dr Linee Goswami –

Thesis title: VERMISTABILIZATION OF COAL ASH PRODUCED IN TEA FACTORIES OF ASSAM BY USING *EISENIA FETIDA* (SAVIGNY) AND *LAMPITO MAURITII* (KINBERG)

2. Dr Banashree Sahariah-

Thesis title: OPTIMIZATION OF VERMI-TECHNOLOGY TO TRANSFORM MUNICIPAL SOLID WASTE GENERATED UNDER TEZPUR MUNICIPALITY INTO VALUABLE SOIL CONDITIONER

3. Dr. Subhasish Das -

Thesis title: INFLUENCE OF SOIL QUALITY, LOCATION, AND NUTRIENT MANAGEMENT ON *CAJANUS CAJAN* [L.] (MILL. SP.) AND *CAPSICUM CHINENSE* (JACQ.) WITH SPECIAL REFERENCE TO THE EXPRESSION OF CARLINOSIDE AND CAPSAICIN

4. Dr. Pallabi Das –

Thesis Title: INFLUENCE OF SILVER AND OXALATE CAPPED IRON OXIDE NANOMATERIALS ON PLANT AND SOIL ENVIRONMENT

5. Dr. Nazneen Hussain-

Thesis Title - QUALITATIVE DEVELOPMENT OF VERMICOMPOST TECHNOLOGY EXPLORING N-FIXING AND P-SOLUBILIZING MICROORGANISMS AND METAL ACCUMULATION MECHANISM IN EARTHWORMS

Publications: Peer-reviewed journal: 64; Book/Book chapter/monographs: 9+1=10;

Conference papers: 6; PATENT – 1 (WO2017/168446 A1)

Citations (as on July 17, 2021): 1869 (Google Scholar); 1346 (Scopus)

h-index: Google Scholar – 25; Scopus – 23; i-10-index: Google Scholar - 43

List of publications:

1. S. Roy, D. Sarkar, R. Dutta, **Satya Sundar Bhattacharya (Corresponding author)**, P. Bhattacharyya. Assessing the arsenic-saturated biochar recycling potential of vermitechnology: Insights on nutrient recovery, metal benignity, and microbial activity. **Chemosphere (Elsevier)**, 2022, 286: 131660 (I.F. 7.086).
2. A. Bharali, K.K. Baruah, **Satya Sundar Bhattacharya (Corresponding author)**, K-H, Kim. The use of *Azolla caroliniana* compost as organic input to irrigated and rainfed rice ecosystems: Comparison of its effects in relation to CH₄ emission pattern, soil carbon storage, and grain C interactions. **Journal of Cleaner Production (Elsevier)**, 2021, 313: 127931 (I.F. 9.297).
3. S. Das, S. Sarkar, M. Das, P. Banik, **Satya Sundar Bhattacharya (Corresponding author)**. Influence of soil quality factors on capsaicin biosynthesis, pungency, yield, and produce quality of chili: An insight on Csy1, Pun1, and Pun1² signaling responses. **Plant Physiology and Biochemistry (Elsevier)**, 2021, 166: 427-436 (I.F. 4.27).
4. B. Paul, **Satya Sundar Bhattacharya (Corresponding author)**, Nayanmoni Gogoi. Primacy of ecological engineering tools for combating eutrophication: An ecohydrological assessment pathway. **Science of the Total Environment (Elsevier)**, 2021, STOTEN-143171, <https://doi.org/10.1016/j.scitotenv.2020.143171>, (I.F. 7.963).
5. P. Das, S. Paul, **Satya Sundar Bhattacharya**, P. Nath. Smartphone-Based Spectrometric Analyzer for Accurate Estimation of pH Value in Soil. **IEEE Sensors Journal**, 2021, DOI 10.1109/JSEN.2020.3027587 (I.F. 3.301).
6. N. Hussain, S.K. Chatterjee, T.K. Maiti, L. Goswami, S. Das, U. Deb, **Satya Sundar Bhattacharya (Corresponding author)**. Metal induced non-metallothionein protein in earthworm: A new pathway for cadmium detoxification in chloragogenous tissue. **Journal of Hazardous Materials (Elsevier)**, 2021, 401, 123357 (I.F. 10.588).

7. S. Paul, L. Goswami, R. Pegu, **Satya Sundar Bhattacharya (Corresponding author)**. Vermiremediation of cotton textile sludge by *Eudrilus eugeniae*: Insight into metal budgeting, chromium speciation, and humic substance interactions. **Bioresource Technology (Elsevier)**, 2020, 314, 123753 (I.F. 9.642).
8. S. Das, S. Barman, R. Teron, **Satya Sundar Bhattacharya (Corresponding author)**, K-H Kim. Secondary metabolites and anti-microbial/anti-oxidant profiles in *Ocimum spp.*: Role of soil physico-chemical characteristics as eliciting factors. **Environmental Research (Elsevier)**, (2020), 188, 109749, (I.F. 6.498).
9. A. Mondal, L. Goswami, N. Hussain, S. Barman, E. Kalita, P. Bhattacharyya, **Satya Sundar Bhattacharya (Corresponding author)**. Detoxification and eco-friendly recycling of brick kiln coal ash using *Eisenia fetida*: A clean approach through vermitechnology. **Chemosphere (Elsevier)**, 2020, 244 , 125470, (I.F. 7.086).
10. U. Deb, N. Bhuyan, **Satya Sundar Bhattacharya**, R. Kataki. Characterization of agro-waste and weed biomass to assess their potential for bioenergy production. **International Journal of Renewable Energy Development (2019)**, 8 (3), 242-251.
11. J. Devi, U. Deb, S. Barman, S. Das, **Satya Sundar Bhattacharya (corresponding author)**, Y.F. Tsang, J-H. Lee, K-H Kim. Appraisal of lignocellulosic biomass degrading potential of three earthworm species using vermireactor mediated with spent mushroom substrate: Compost quality, crystallinity, and microbial community structural analysis. **Science of the Total Environment (Elsevier)**, (2019), doi: <https://doi.org/10.1016/j.scitotenv.2019.135215> (I.F. 7.963)
12. B. Sahariah, S. Das, L. Goswami, S. Paul, P. Bhattacharyya, **Satya Sundar Bhattacharya (corresponding author)**. An avenue for replacement of chemical fertilization under rice-rice cropping pattern: Sustaining soil health and organic C pool via MSW-based vermicomposts. **Archives of Agronomy And Soil Science (Taylor & Francis)**, (2019), <https://doi.org/10.1080/03650340.2019.1679782>, (I.F. 3.092).
13. P. Saikia, K. K. Baruah, **Satya Sundar Bhattacharya (corresponding author)**, C. Choudhury. Organic based integrated nutrient management scheme enhances soil carbon storage in rainfed rice (*Oryza sativa*) cultivation. **Soil Research (CSIRO Pub.)**, (2019), <https://doi.org/10.1071/SR17287> (I.F. 1.99).
14. S. Paul, M. Choudhury, U. Deb, R. Pegu, S. Das, **Satya Sundar Bhattacharya (corresponding author)**. Assessing ecological impacts of ageing on hazard potential of solid waste landfills: A green approach through vermitechnology. **Journal of Cleaner Production (Elsevier)**, (2019), 117643 (I.F. 9.297).

15. S. Das, R. Teron, B. Duary, **Satya Sundar Bhattacharya (corresponding author)**, K-H. Kim. Assessing C–N balance and soil rejuvenation capacity of vermicompost application in a degraded landscape: A study in an alluvial river basin with *Cajanus cajan*. **Environmental Research (Elsevier)**, (2019), 108591 (I.F. 6.492).
16. K. Vikrant, K. Roy, K-H Kim, **Satya Sundar Bhattacharya (corresponding author)**. Insights into storage stability of ammonia in polyester aluminium bags. **Environmental Research (Elsevier)**, (2019), 108596 (I.F. 6.492).
17. S. Das, S-H. Lee, P. Kumar, K.-H. Kim, S.S. Lee, **Satya Sundar Bhattacharya (corresponding author)**. Solid waste management: Scope and the challenge of sustainability. **Journal of Cleaner Production (Elsevier)**, (2019), 228: 658-678 (I.F. 9.297).
18. K. Taki, A. Gogoi, P. Mazumder, **Satya Sundar Bhattacharya**, M. Kumar. Efficacy of vermitechnology integration with Upflow Anaerobic Sludge Blanket (UASB) and activated sludge for metal stabilization: A compliance study on fractionation and biosorption. **Journal of Environmental Management (Elsevier)**, (2019), 236: 603-612 (I.F. 6.789).
19. E.. Ahmed, J.E Szulejko, A.A. Adelodun, **Satya Sundar Bhattacharya**, B.H. Jeon, S. Kumar, K-H. Kim. Sorptive process and breakthrough behavior of odorous volatile compounds on inert surfaces. **Nature-Scientific Reports (Nature Publishing Group)**, (2018), DOI:10.1038/s41598-018-31362-0 (I.F. 4.379).
20. S. Paul, S. Das, P. Raul, **Satya Sundar Bhattacharya (corresponding author)**. Vermi-sanitization of toxic silk industry waste employing *Eisenia fetida* and *Eudrilus eugeniae*: Substrate compatibility, nutrient enrichment and metal accumulation dynamics. **Bioresource Technology (Elsevier)**, (2018), 266: 262–274 (I.F. 9.642)
21. L. Goswami, R. Mukhopadhyay, **Satya Sundar Bhattacharya**, P. Das, R. Goswami. Detoxification of chromium-rich tannery industry sludge by *Eudrillus eugeniae*: Insight on compost quality fortification and microbial enrichment. **Bioresource Technology (Elsevier)**, (2018), 266: 472–481 (I.F. 9.642)
22. N. Hussain, S. Das, L. Goswami, P. Das, B. Sahariah, **Satya Sundar Bhattacharya, (corresponding author)**. Intensification of vermitechnology for kitchen vegetable waste and paddy straw employing earthworm consortium: Assessment of maturity time, microbial community structure, and economic benefit. **Journal of Cleaner Production (Elsevier)**, (2018), 182: 414-426 (I.F. 9.297)
23. S. Das, K.C. Teja, S. Mukherjee, S., Seal, S., Sah, B. Duary, K.H. Kim, **Satya Sundar Bhattacharya (corresponding author)**. Impact of edaphic factors and

nutrient management on the hepatoprotective efficiency of Carlinoside purified from pigeon pea leaves: An evaluation of UGT1A1 activity in hepatitis induced organelles. **Environmental Research (Elsevier)**, (2018), **161:512-523 (I.F. 6.492)**

24. P. Das, S. Barua, S. Sarkar, N. Karak, P. Bhattacharyya, N. Raza, K-H. Kim, **Satya Sundar Bhattacharya (corresponding author)**. Plant extract-mediated green silver nanoparticles: Efficacy as soil conditioner and plant growth promoter. **Journal of Hazardous Materials (Elsevier)**, 2018, **346: 62-72 (I.F. 10.588)**
25. P. Das, S. Barua, S. Sarkar, S.K. Chatterjee, S. Mukherjee, L. Goswami, S. Das, S. Bhattacharya, N. Karak, **Satya Sundar Bhattacharya (corresponding author)**. Mechanism of toxicity and transformation of silver nanoparticles: Inclusive assessment in earthworm-microbe-soil-plant system. **Geoderma (Elsevier)**, 2018, **314: 73-84 (I.F. 6.114)**.
26. A. Mondal, S. Das, R.K. Sah, P. Bhattacharyya, **Satya Sundar Bhattacharya (corresponding author)**. Environmental footprints of brick kiln bottom ashes: Geostatistical approach for assessment of metal toxicity. **Science of the Total Environment (Elsevier)**, (2017), **609:215-224 (I.F. 7.963)**
27. L. Goswami, A. Nath, S. Sutradhar, **Satya Sundar Bhattacharya (corresponding author)**, A. Kalamdhad, K. Vellingiri, K-H. Kim. Application of drum compost and vermicompost to improve soil health, growth, and yield parameters for tomato and cabbage plants. **Journal of Environmental Management (Elsevier)**, (2017), **200: 243-252 (I.F. 6.789)**.
28. M.D. Dey, S. Das, R. Kumar, R. Doley, **Satya Sundar Bhattacharya, R. Mukhopadhyay**. Vermiremoval of methylene blue using *Eisenia fetida*: A potential strategy for bioremediation of synthetic dye-containing effluents. **Ecological Engineering (Elsevier)** **106 (2017) 200-208 (I.F.: 4.035)**.
29. L. Goswami, K-H. Kim, A. Deep, P. Das, **Satya Sundar Bhattacharya (corresponding author)**, S. Kumar, A.A. Adelodun. Engineered nano particles: Nature, behavior, and effect on the environment. **Journal of Environmental Management (Elsevier)**, (2017), **196: 297-315 (I.F. 6.789)**.
30. T. Dutta, E. Kwon, S. S. Bhattacharya, B-H. Jeon, A. Deep, M. Uchimiya, K-H., Kim. Polycyclic aromatic hydrocarbons and volatile organic compounds in biochar and biochar-amended soil: a review. **GCB Bioenergy (Wiley)** (2017), **9:990-1004 doi: 10.1111/gcbb.12363 (I.F- 4.745)**.
31. P. Das, K. Sarmah, N. Hussain, S. Pratihari, S. Das, P. Bhattacharyya, S. A. Patil, H-S., Kim, M. I. A. Khazi, **Satya Sundar Bhattacharya (corresponding author)**,

Novel synthesis of an iron oxalate capped iron oxide nanomaterial: a unique soil conditioner and slow release eco-friendly source of iron sustenance in plants. **RSC Advances (Royal Society of Chemistry)**, (2016), **6**: 103012–103025 (I.F. 3.361).

32. N. Hussain, A. Singh, S. Saha, M. V. Satish Kumar, P. Bhattacharyya, **Satya Sundar Bhattacharya (corresponding author)**. Excellent N-fixing and P-solubilizing traits in earthworm gut-isolated bacteria: A vermicompost based assessment with vegetable market waste and rice straw feed mixtures. **Bioresource Technology (Elsevier)**, (2016), **220**: 165–174 (I.F. 9.642).
33. S. Paul, M. Farooq, **Satya Sundar Bhattacharya**, N. Gogoi, Management strategies for sustainable yield of potato crop under high temperature. **Archives of Agronomy and Soil Science (Taylor & Francis)**, (2016), DOI: 10.1080/03650340.2016.1204542 (IF: 3.092).
34. L. Goswami, S. Pratihar, S. Dasgupta, P. Bhattacharyya, P. Mudoi, J. Bora, **Satya Sundar Bhattacharya (corresponding author)** & K-H Kim, Exploring metal detoxification and accumulation potential during vermicomposting of Tea factory coal ash: sequential extraction and fluorescence probe analysis. **Nature-Scientific Reports (Nature Publishing Group)**, (2016), **6**, 30402, DOI: 10.1038/srep30402 (I.F: 4.379).
35. **Satya Sundar Bhattacharya** and Ki-Hyun Kim. Utilization of coal ash: Is vermitechnology a sustainable avenue? **Renewable and Sustainable Energy Reviews (Elsevier)** **58** (2016) 1376–1386 (I.F. 14.982).
36. **Satya Sundar Bhattacharya**, K-H. Kim, Md. Ahsan Ullah, L. Goswami, B. Sahariah, P. Bhattacharyya, S-B Cho, O-H Hwang. The effects of composting approaches on the emissions of anthropogenic volatile organic compounds: A comparison between vermicomposting and general aerobic composting. **Environmental Pollution (Elsevier)** **208** (2016) 600-607 (I.F.: 8.071).
37. **Satya Sundar Bhattacharya**, K-H Kim, S. Das, M. Uchimiya, B.H. Jeon, E. Kwon, J.E. Szulejko, A review on the role of organic inputs in maintaining the soil carbon pool of the terrestrial ecosystem, **Journal of Environmental Management (Elsevier)**, 167: 214-227, (2016) (I.F. 6.789).
38. S. Das, P. Deka, L. Goswami, B. Sahariah, N. Hussain, **S. S. Bhattacharya (corresponding author)**. Vermi-remediation of toxic jute mill waste employing *Metaphire posthuma*. **Environmental Science and Pollution Research (Springer)** (2016) 23:15418–15431 DOI 10.1007/s11356-016-6718-x (I.F. 4.223).

39. S. Das, N. Hussain, B. Gogoi, A. K. Buragohain, **S. S. Bhattacharya (corresponding author)**. Vermicompost and farm yard manure improves food quality, anti-oxidant and antibacterial potential of *Cajanus cajan* (L, Mill sp.) leaves. **Journal of the Science of Food and Agriculture (Wiley) (2016) 97: 956–966 doi: 10.1002/jsfa.7820 (I.F. 3.638)**.
40. S. Das, K.C. Teja, B. Duary, P.K. Agrawal, **S.S. Bhattacharya (corresponding author)**. Impact of nutrient management, soil type and location on the accumulation of capsaicin in *Capsicum chinense* (Jacq.): One of the hottest chili in the world. **Scientia Horticulturae (Elsevier) (2016), 213, 354-366 (IF. 3.463)**.
41. S. Das, S. Mukherjee, R. Kundu, P. Bhattacharyya, B. Duary, **S. S. Bhattacharya (corresponding author)**. Variations in soil alter availability of carlinoside: an anti-hepatitic compound from *Cajanus cajan* (Linn.) leaves. **Current Science (Indian Academy of Sciences) 110 (2016) 2148-2154 (I.F. 1.102)**.
42. T. Dutta, K-H, Kim, M. Uchimiya, P. Kumar, S. Das, **Satya Sundar Bhattacharya, J. Szulejko**. The micro-environmental impact of volatile organic compound emissions from large-scale assemblies of people in a confined space. **Environmental Research (Elsevier) 151 (2016): 304–312 (I.F. 6.492)**.
43. M-H Lee, K-H Kim, B-H Jeon, S-H Jo, Y-H Kim, B-W Kim, S-B Cho, O-H Hwang & **Satya Sundar Bhattacharya**. Effect of slurry treatment approaches on the reduction of major odorant emissions at a hog barn facility in South Korea. **Environmental Technology, 2016 DOI: 10.1080/09593330.2016.1199599 (IF: 3.247)**.
44. S-H Jo, K-H Kim, B-H Jeon, M-H Lee, Y-H Kim, B-W Kim, S-B Cho, O-H Hwang, **Satya Sundar Bhattacharya**. Odor characterization from barns and slurry treatment facilities at a commercial swine facility in South Korea. **Atmospheric Environment 119 (2015) 339-347 (I.F: 4.798)**.
45. B. Sahariah, L. Goswami, I. U. Faruqui, P. Raul, P. Bhattacharyya, **S. S. Bhattacharya (corresponding author)**. Solubility, hydro-geochemical impact, and health assessment of toxic metals in municipal wastes of two differently populated cities. **Journal of Geochemical Exploration 157 (2015) 100–109 (I.F.: 3.746)**.
46. B. Sarma, **S S Bhattacharya**, N. Gogoi, S Paul and B. Baroowa. Impact of N fertilization on C balance and soil quality in maize-dhaincha cropping sequence. **Journal of Agricultural sciences 60 (2015) 135-148**.

47. A. Islam, M.M. Rahman, M.S. Islam, **S S Bhattacharya**, K-H. Kim. Comparative Analysis of Wind Power Energy Potential at Two Coastal Locations in Bangladesh. **Asian Journal of Atmospheric Environment** **9** (2015) 288-297.
48. P. Saikia, **Satya Sundar Bhattacharya**, K.K. Baruah. Organic substitution in fertilizer schedule: Impacts on soil health, photosynthetic efficiency, yield and assimilation in wheat grown in alluvial soil. **Agriculture, Ecosystems and Environment (Elsevier)** **203** (2015) 102-109 (I.F. 5.567).
49. B. Sahariah, L. Goswami, K-H. Kim, P. Bhattacharyya, **S. S. Bhattacharya (corresponding author)**. Metal remediation and biodegradation potential of earthworm species on municipal solid waste: A parallel analysis between *Metaphire posthuma* and *Eisenia fetida*. **Bioresource Technology (Elsevier)** **180**: (2015) 230–236 (I.F. 9.642).
50. S. Das, J. Bora, L. Goswami, P. Bhattacharyya, P. Raul, M. Kumar, **S.S. Bhattacharya (corresponding author)**. Vermiremediation of Water Treatment Plant Sludge employing *Metaphire posthuma*: A soil quality and metal solubility prediction approach. **Ecological Engineering (Elsevier)** (2015) **81**, 200-206 (IF: 4.035).
51. A. Gogoi, S. Biswas, J. Bora, **S. S. Bhattacharya**, M. Kumar. Effect of vermicomposting on copper and zinc removal in activated sludge with special emphasis on temporal variation. **Ecohydrology & hydrobiology (Elsevier)** (2015) **15**, 101-107 (IF: 3.215).
52. L. Goswami, S. Sarkar, S. Mukherjee, S. Das, S. Barman, P. Raul, P. Bhattacharyya, N.C. Mandal, S. Bhattacharya and **S.S. Bhattacharya (corresponding author)**. Vermicomposting of Tea Factory Coal Ash: Metal accumulation and metallothionein response in *Eisenia fetida* (Savigny) and *Lampito mauritii* (Kinberg). **Bioresource Technology (Elsevier)** **166** (2014) 96–102 (I.F.: 9.642).
53. B. Sahariah, I. Sinha, P. Sharma, L. Goswami, P. Bhattacharyya, N. Gogoi, **S.S. Bhattacharya (corresponding author)**. Efficacy of bioconversion of paper mill bamboo sludge and lime waste by composting and vermiconversion technologies **Chemosphere (Elsevier)** **109** (2014) 77 – 83 (I.F: 7.086).
54. L. Goswami, P. Raul, B. Sahariah, P. Bhattacharyya and **Satya Sundar Bhattacharya (corresponding author)**. Characterization and risk evaluation of tea industry coal ash for environmental suitability. **Clean-Soil Air Water** **42** (9999) (2014), 1 – 7, doi: [10.1002/clen.201300670] (I.F: 1.603).
55. L. Goswami, A.K. Patel, G. Dutta, P. Bhattacharyya, N. Gogoi and **Satya Sundar Bhattacharya (Corresponding author)**. Hazard remediation and recycling of tea

industry and paper mill bottom ash through vermiconversion. **Chemosphere (Elsevier) 92 (2013) 708 – 713 (I.F: 7.086).**

56. **Satya Sundar Bhattacharya**, S. Barman, R. Ghosh, R.K. Duary, L. Goswami and N. C Mandal. Phosphate solubilizing ability of *Emericella nidulans* strain V1 isolated from vermicompost. **Indian Journal of Experimental Biology (CSIR) 51(10) (2013) 840-848.**
57. S. Barua, R. Konwarh, **Satya Sundar Bhattacharya**, P. Das, S.P. Devi, T.K Maiti, M. Mandal and N. Karak. Non-hazardous anticancerous and antibacterial colloidal 'green' silver nanoparticles. **Colloids and Surfaces B: Biointerfaces (Elsevier) 105 (2013) 37– 42 (I.F: 5.268).**
58. **S. S. Bhattacharya**, W Iftikar, B Sahariah and G N Chattopadhyay. Vermicomposting converts fly ash to enrich soil fertility and sustain crop growth in red and lateritic soils. **Resources, Conservation & Recycling (Elsevier) 65, (2012) 100– 106 (I.F: 10.204).**
59. S. Paul and **Satya Sundar Bhattacharya**. Vermicomposted Water Hyacinth Enhances Growth and Yield of Marigold by Improving Nutrient Availability in Soils of North Bank Plain of Assam. **Research & Reviews: Journal of Agricultural Science & Technology (Indexed; Peer reviewed New Journal: ISSN 2278 - 2206) 2 (1) (2012) 36-46.**
60. **S S Bhattacharya** and G N Chattopadhyay. Effect of vermicomposting on transformation of some trace elements in fly ash. **Nutrient Cycling in Agroecosystems (Springer) 75 (2006) 223-231 (I.F: 3.270).**
61. **S S Bhattacharya**, Debkanta Mandal and G N Chattopadhyay. Effect of balanced fertilization on yield of mungbean in red and lateritic soils. **Indian Journal of Pulses Research (ICAR) 17(2) (2004) 186-187.**
62. **S S Bhattacharya**, Debkanta Mandal, G N Chattopadhyay and K. Majumdar. Effect of balanced fertilization on production of pulses in red and lateritic soils. **Better Crops with Plant Food (IPNI) 88(4) (2004) 25-26. (ISSN:0006-0089)**
63. **S S Bhattacharya** and G N Chattopadhyay. Transformation of nitrogen during vermicomposting in fly ash. **Waste Management & Research (SAGE) 22(6) (2004) 488-491. (I.F. 3.549)**
64. **S S Bhattacharya** and G N Chattopadhyay. Increasing bioavailability of phosphorus from fly ash through vermicomposting. **Journal of Environmental Quality (American Society of Agronomy) 31(2002), 2116-2119 (I.F: 2.751).**

Patent:

65. **S Pratihari, S S Bhattacharya, P Das, K Sarmah. Metal oxide based soil conditioners. PCT publication dated 5.10.2017.**

Book/Book Chapters:

66. G N Chattopadhyay and **S S Bhattacharya**. Monograph on the “Use of Fly Ash in agriculture” (2010) published by the Coal Ash Institute of India.
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80. S S Bhattacharya and G N Chattopadhyay (2001) Vermicomposting as a tool for increasing availability of nutrients in fly ash. ***Agricultural Applications of Fly Ash, Proceedings II, National seminar on Use of Fly ash in Agriculture***, March 5 & 6. 2001 Annamalai University Annamalainagar. **2009-2010.**

Oral Presentations:

1. ***Eco Summit-Ecological Sustainability, Columbus, Ohio, USA (2012).***
Poster title: Using vermicomposting as a tool for ecological conversion of paper mill solid waste
Oral talk title: Enhancing bioavailability of three major plant nutrients in coal ash through composting and vermiculture technologies

International Symposium on System Intensification toward Food and Environmental Security, Kalyani, West Bengal, India (2011).

2. *National symposium on Fly Ash as an emerging industrial material, Proceedings (2005).*
3. *International Conference - Fly Ash Utilization & Disposal, New Delhi, India (2002).*

Invited Talks in International Conference:

1. **International Conference on Environmental Biology and Ecological Modeling** organized by Dept. of Zoology, Visva-Bharati during 24-26 February 2014 in Santiniketan, West Bengal, India.
2. **Third International Conference on Recycling and Reuse of Materials** organized by International and Inter University centre for Nanoscience and Nanotechnology, Mahatma Gandhi University, Kottayam, Kerala & Wroclaw University of Technology, Wroclaw, Poland during 11-13 April 2014 at Kottayam. Talk title “Remediation of heavy metals from Coal Ash employing vermitechology
3. **Delivered Keynote lecture in the national Symposium on “*Management and Procurement of Integrated Waste Management System*”** under the MHRD Sponsored TEQIP-II Program during February 6 -7, 2015 at Indian Institute of Technology (IIT), Guwahati.
4. **International conference on molecular signaling: recent trend in Biosciences** Organized by the Dept. of Zoology, North-Eastern Hill University, Shillong during 20-22 November 2015. Title of the paper “Sequential extraction and fluorescence probe analysis of metal detoxification and accumulation potential of earthworm during vermicomposting”
5. **International conference on molecular signaling (ICMS 2018)** Organized by the _____ University _____ of Hyderabad (UoH) and National Institute of Animal Biotechnology (NIAB), Hyderabad during 8-10 February 2018. Title of the paper “Earthworms: The silent and neglected benefactors”.

6. **International Conference, India Biodiversity Meet – 2019 Organized by Indian Statistical Institute, Kolkata during February 14-16, 2019. Title of the paper “Earthworms: The quiet benefactors”.**

Session chaired in International Conferences:

1. **Chaired two technical sessions in the Third International Conference on Recycling and Reuse of Materials organized by International and Inter University centre for Nanoscience and Nanotechnology, Mahatma Gandhi University, Kottayam, Kerala & Wroclaw University of Technology, Wroclaw, Poland during 11-13 April 2014 at Kottayam.**

Poster Presentation:

1. *Eco Summit-Ecological Sustainability, Columbus, Ohio, USA (2012).*

Seminar/workshop organized:

Worked as a **joint convener** as well as resource person in a workshop entitled “**APPLICATIONS OF STATISTICAL TOOLS IN ENVIRONMENTAL SCIENCE**” jointly organized by ISI, Northeast Centre and the Department of Environmental Science, Tezpur University during March 15-27, 2017.

Awards and Honors:

- Qualified NET Examination 1999, I.C.A.R
- Recipient of Indian Forester Award, 2002 (EFRC).
- Recipient of **Gandhian Young Technological Innovation Award 2018** for the Innovation entitled “Nano-based soil conditioners for agricultural application” as Research Guide of the student awardees who received the Award from the Honorable President of India at a ceremony held in Rashtrapati Bhawan, New Delhi. The award comprised of a memento, citations, and a research grant of Rs. 1500000/- only.

- Recipient of Anniversary Teacher Award 2015 conferred by Tezpur University which includes a citation, honorarium of Rs. 10000/-, and a small research grant.

Personal Details:

Date of Birth : 19/09/1972

Marital Status : Married

A handwritten signature in blue ink, appearing to read 'Bhattacharya', is written over a light blue rectangular background.

Signature :

Date : 04/08/2021