



DR. S. EZIL VENDAN

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RESEARCH AREAS

- Food Protection & Safety
- Volatilomics & Chromatography
- Nanotechnology & Pesticide Toxicology
- Green Technology & Grain Storage Systems
- Fumigation Technology & Insect Toxicology

EDUCATION

| | | |
|------|---|---|
| 2010 | Ph.D. Integrated Biology -Entomology | Entomology Research Institute, Loyola College, Chennai, India. |
| 2004 | M.Sc. Integrated Biology | School of Biological Sciences, Madurai Kamaraj University, Madurai, India. |
| 2001 | B.Sc. Zoology | Department of Zoology, The Madura College, Madurai, India. |

RESEARCH EXPERIENCE

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| 2025 – till date | Principal Scientist , Food Protectants & Infestation Control Dept., CSIR-Central Food Technological Research Institute, Mysore, India. |
| 2021 – 2025 | Senior Scientist , Food Protectants & Infestation Control Dept., CSIR-Central Food Technological Research Institute, Mysore, India. |
| 2017 – 2021 | Scientist , Food Protectants & Infestation Control Dept., CSIR-Central Food Technological Research Institute, Mysore, India. |

- 2015 – 2017 **Scientist Fellow** (CSIR-QHS), Food Protectants & Infestation Control, CSIR-Central Food Technological Research Institute, Mysore, India.
- 2013 – 2014 **Entomologist**, AL-Yamama Co., Post Box 3746, Dammam 31481, Saudi Arabia.
- 2010 – 2013 **Research Associate** (DST-RA), Research Centre, Mahavir Cancer Sansthan, Patna, Bihar, India.

TEACHING EXPERIENCE

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|------------------|---------------|---------------------|---------------------|
| 2017 – till date | AcSIR Faculty | Ph.D. Course Work | Biological Sciences |
| 2017 – till date | AcSIR Faculty | M.Sc. Degree Course | Food Technology |
| 2015 – till date | STC Faculty | Short Term Course | Entomology |

HONOURS, AWARDS & FELLOWSHIPS

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| 2026 | Editor of Distinction Award | Scientific Reports, Springer Nature. |
| 2025 | Senior Scientist Award | Indian Academy of Biopesticides (InABP), Kanyakumari, Tamil Nadu. |
| 2024 | AZRA Scientist Award | Applied Zoologists Research Association (AZRA), Bhubaneswar, Odisha. |
| 2023 | Fellow of Entomological Society of India | Entomological Society of India (ESI), ICAR-IARI, New Delhi. |
| 2022 | Green Technology Innovative Award | National Environmental Science Academy (NESA), New Delhi. |
| 2022 | Fellow of Royal Entomological Society | Royal Entomological Society (RES), St. Albans, Hertfordshire, AL2 3NS, United Kingdom. |
| 2021 | Innovative Design Thinking Award | Karpagam Academy of Higher Education, Deemed to be University, Coimbatore, Tamil Nadu. |
| 2019 | Gold Medal & Young Scientist Award | Motilal Nehru National Institute of Technology, Allahabad, Uttar Pradesh. |
| 2018 | Jagar Nath Raina Memorial All India Best Publication Award | Sadhna, Dr. Y. S. Parmar University of Horticulture and Forestry, Solan, Himachal Pradesh. |

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| 2018 | Best Poster Award | 8 th International Food Convention from Association of Food Scientists and Technologists, CSIR-CFTRI, Mysore, Karnataka. |
| 2017 | Har Gobind Khorana Memorial Best Young Scientist Award | Bose Science Society, Tamil Nadu Scientific Research Organization (TNSRO), Thiruchirapalli, Tamil Nadu. |
| 2015 | International Travel Fellowship | Centre for International Co-operation in Science (CICS), Chennai, Tamil Nadu. |
| 2012 | Reward of Honour | Institute for Educational Research & Innovative Action (IERIA), Bhopal, Madhya Pradesh. |
| 2006 | JRF Fellowship | UGC, Ministry of HRD, Govt. of India, New Delhi. |
| 2003 | GATE JRF Qualified | IIT, Ministry of HRD, Govt. of India, New Delhi. |
| 2003 | CSIR-UGC JRF/NET Qualified | CSIR-UGC, Ministry of HRD, Govt. of India, New Delhi. |

KEYNOTE ADDRESS, INVITED & GUEST LECTURES

- **Green pesticides for grain storage management: Current scenario and future prospects**, *7th Biopesticides International Conference*, Indian Academy of Biopesticides, Kanyakumari, 27th September 2025.
- **Biorational approaches for eco-friendly management of stored-product insect pests**, *National Conference on Emerging Trends and Innovations in Biosciences*, J.J. College of Arts and Science, Pudukkottai, 22nd August 2025.
- **Fumigants for stored-product insect pest management: Challenges and future perspectives**, *International Conference on Agroecology and Pest Management: Balancing Environment and Human Health*, Lalit Narayan Mithila University, Darbhanga, Bihar, 18th - 19th July 2025.
- **Modern technologies for food protection: Disinfestation of insects in stored food grains**, *National Conference on Biotechnological Innovations for Sustainable Development*, Thiagarajar College, Madurai, 09th Jan. 2025.
- **Scope and opportunities in life sciences research**, *National Seminar on Research and Its Employability in Life Sciences*, K.M.G. College of Arts and Sciences, Gudiyattam. 09th Feb. 2024.
- **Fumigation and modern technologies for safe storage of food grains**, *National Seminar on Thrive for Safe Food: New and Novel Technologies*, D.D.G.D. Vaishnav College, Chennai, 06th Oct. 2023.
- **Warehouse designing and infestation control**, *17th Training Course on Advance Supply Chain Management and Food Technology*, Defence Food Research Laboratory (DFRL), Mysore, 19th July 2023.

- **Bio-fumigants from edible plant sources for the protection of stored food grains: current status and future prospects**, *2nd International Conference on Food, Bio and Nano Materials*, Karpagam Academy of Higher Education (Deemed to be University), Coimbatore, 18th March 2023.
- **Prevention and management of household pests**, *Refresher Course for Cooks of JNVs of Karnataka, Kerala and Andhra Region*, Jawahar Navodaya Vidyalaya, Mysore, 16th January 2023.
- **Fumigation and infestation control for safe storage of spices**, *Hybrid Workshop on Entrepreneurship Development in Spice Processing*, CSIR-CFTRI, Mysore, 20th September 2022.
- **Prospects of phytochemicals for stored grain and seed protection**, *Stakeholders Workshop on Grain Storage and Pest Management*, CSIR-CFTRI, Mysore, 17th - 18th August 2022.
- **Biofumigants from plant volatiles**, *7th Meeting of Indian Grain Storage Working Group*, Indian Council of Agricultural Research (ICAR), New Delhi, 20th May 2022.
- **Phytochemical volatiles as food grain protectants: opportunities and challenges**, *National Conference on Emerging Trends in Plant Science for Sustainable Development*, Bharathidasan University, Tiruchirappalli, 30th March 2022.
- **Chemical versus natural: pesticides for safe storage of food grains from insect pests**, *Guest Lecture under Star College Scheme*, St. Mary's College, Thoothukudi, 28th Jan. 2022.
- **Advanced technologies for post-harvest grain storage and insect pest control**, *Farmers Training Programme on Food Protection and Management*, Karnataka Institute of Co-operative Management, Mysore, 23rd December 2021.
- **Current challenges and future prospects in food grain storage and protection**, *National Level Seminar Series on Opportunities and Challenges in Food Processing and Preservation*, Kalasalingam Academy of Higher Education (Deemed to be University), Krishnankoil, 25th October 2021.
- **Biochemical and physiological responses against toxicants in stored product insects**, *National Seminar Series on Career Opportunities for Food Technologists*, Karpagam Academy of Higher Education (Deemed to be University), Coimbatore, 18th June 2021.
- **Post-harvest grain storage and food processing: a view**, *National Workshop on Chemistry in Everyday Life*, Vellore Institute of Technology (VIT-AP), Vijayawada, Andhra Pradesh, 17th Apr. 2021.
- **Impact of chemical pesticides in environment and status of eco-friendly pesticides use**, *2nd Virtual International Conference on Modern Biology and Environmental Management*, Vivekanandha College of Arts and Sciences for Women, Tiruchengode, 29th Mar. 2021.
- **Bioweapons: a view on crop defense and food protection against insects**, *G. N. Ramachandran Science Club Webinar Series*, Mar Athanasios College for Advanced Studies Tiruvalla (MACFAST), Kerala, 29th Sep. 2020.
- **Pesticide chemicals: present status and future challenges**, *National Conference on Environmental Sustainability Health and Pollution Abatement*, M.S.S. Wakf Board College, Madurai, 02nd Mar. 2020.
- **Insect-plant interactions and infestation tactics of insect pests**, *National Seminar on Recent Trends in Zoology*, S.B.K. College, Aruppukottai, 28th Feb. 2020.

- **Food production and protection: a view on insect pest management**, *National Conference on Wetland Biodiversity and its Conservation Strategy*, A.V.V.M. Sri Pushpam College, Thanjavur, 31st Jan. 2020.
- **Agrobiodiversity and its conservation measures**, *National Level Awareness Programme on Biodiversity and Biodiversity Act*, Arulmigu Palaniandavar Arts College, Palani, 25th Sep. 2019.
- **Current status and future perspectives in post-harvest insect pest management**, *National Seminar on Recent Development in Animal Sciences*, Aditanar College of Arts and Science, Tiruchendur, 22nd Aug. 2019.
- **Stored food protection and observation of insect pests under foldscope microscope**, *National Workshop on Foldscope & its Research Utilities*, Anandaram Dhekial Phookan College, Nagaon, Assam, 19th Aug. 2019.
- **Plant volatiles and non-volatiles: a view on food protection and biodiversity conservation**, *National Seminar on Science and Technology for Insect Diversity Conservation and Agricultural Progressive*, KAS College, Coimbatore, 29th July 2019.
- **Stored product insect pests and infestation control**, *Workshop on Integrated Pest Management Programme in Museums: A Modern Approach*, Regional Conservation Laboratory, Mysore, Karnataka 20th & 21st May 2019.
- **Foldscope microscopy and applications**, *Foldscope Workshop Programme*, GPWC, Imphal, Manipur, 22nd Sep. 2018.
- **Microscopic insights into the sensory systems and infestation tactics of seed borer beetles**, *Seminar cum Hands-on Training on Foldscope*, RIPANS, Ministry of Health & Family Welfare, Govt. of India, Aizawl, Mizoram, 18th Sep. 2018.
- **Insect and plant metabolites: role in defense system and applications**, *Faculty Development Programme on Techniques in Genomics, Proteomics and Bioinformatics*, Mepco Schlenk Engineering College, Virudhunagar, 16th Dec. 2017.
- **Pesticides for food protection: current status and future prospectives in india**, *International Conference on Food Microbiology & Food Safety*, D.D.G.D. Vaishnav College, Chennai, 11th Oct. 2017.
- **Natural pesticides in india in the context of intellectual property rights**, *National Conference IPRBB-2015*, A.V.V.M. Sri Pushpam College, Thanjavur, 16th Sep. 2015.
- **Assessment of carcinogenic pesticides by hplc and arsenic by arsenic-kit in biological samples**, *Contact and Motivational Programme*, Mahavir Cancer Sansthan, Patna, Bihar, 22nd Apr. 2012.
- **Environmental carcinogens and cancer risks**, Department of Zoology and Biotechnology, The Madura College, Madurai, 03rd Aug. 2011.
- **Phytochemicals in insect pest management**, P.G. and Research Department of Zoology, Ayya Nadar Janaki Ammal College, Sivakasi, 06th Sep 2010.

THESIS

Vendan, S. E. 2010. Biological effects and pest control properties of chosen botanicals against *Helicoverpa armigera* Hub. and *Spodoptera litura* Fab. (Lepidoptera: Noctuidae). *Ph.D. Thesis. University of Madras, Chennai.*

Vendan, S. E. 2003. Roost and diet selection in the Indian flying fox *Pteropus giganteus* (Megachiroptera). *M.Sc. Thesis. Madurai Kamaraj University, Madurai.*

MAJOR RESEARCH PROJECTS (Ongoing/Completed)

| | | | | | | |
|-------------------|---------------------------|--|---------------------------------|-------------------|------------|-------------|
| 2026 - 2026 | Co- Investigator | Assessment of Gumtree sticky trap solutions as a tool in integrated pest management for food security | Gumtree traps private Ltd., Goa | Consultancy | CNP578 | - |
| 2024 - 2026 | Principal Investigator | Design and development of grain storage system with pushing force mechanism for the prevention of insect infestation in stored food products | CFTRI | In-House | MLP320-WP7 | - |
| 2024 - 2026 | Co- Investigator | Exploring silica loaded biopolymers for insect-resistant packaging | CFTRI | RDSF Scheme | CSP24005 | ₹12.00 Lakh |
| 2024 - 2026 | Co- Investigator | Development of essential oil based prophylactic agents for prevention of stored grain insect pests | CSIR | CSIR-FTT Scheme | FTT20506 | ₹15.00 Lakh |
| 2024 - 2025 | Team Member | Development of multi-optional sustainable sterilization processes for spices as an alternative to ethylene oxide and their risk assessment | CFTRI | In-House | MLP317-WP2 | - |
| 2023 - 2025 | Co- Investigator | Shelf life enhancement of millets through non-hermetic, hermetic and advanced methods of storage system | CSIR | Millet Mission | HCP52 | ₹34.68 Lakh |
| 2023 - 2024 | Team Member | Development of export protocol for fresh okra, <i>Abelmoschus esculentus</i> | CFTRI | In-House | MLP307 | - |
| 2022 - 2024 | Principal Investigator | Disinfestation and management of phosphine resistance insect pests: design | CSIR | CSIR-FIRST Scheme | CSIR300 | ₹41.78 Lakh |

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| | | and development of multi-fume grain storage system | | | | |
| 2021 - 2024 | Co- Investigator | Development of an industrial scale cold plasma unit for decontamination of fruits and vegetables | MoFPI | R & D Scheme | GAP615 | ₹21.29 Lakh |
| 2021 - 2022 | Team Member | An integrated program for value addition to the superfood – Chia (<i>Salvia hispanica</i>) | CFTRI | In- House | MLP296 | - |
| 2021 - 2022 | Team Member | Ozone system development for iron removal from water and aflatoxin, bacterial mitigation in food grains | ORAIP L | R & D Applica tions | CLP21 | - |
| 2020 - 2024 | Principal Investigator | Scaling up the bio-fumigation technology for protection of stored food commodities from insect pests | CSIR | CSIR- ATLAS Mission | HCP31- WP1.4 | ₹70.02 Lakh |
| 2020 - 2024 | Team Member | Development of a novel effective bioformulation against stored grain and vegetable pest | CSIR | Flori- culture Mission | HCP37 | - |
| 2019 - 2020 | Principal Investigator | Development of aromatic bio-fumigation process with air pressure for safe storage of post-harvest pulses and grains in storage bags | CFTRI | In- House | MLP252 | - |
| 2019 - 2020 | Team Member | Design and development of fruits and vegetable washer | CFTRI | In- House | MLP222 | - |
| 2018 - 2020 | Principal Investigator | Development of bio-fumigation system for safe storage of food commodities against stored product insect pests | MoFPI | R & D Scheme | GAP533 | ₹16.46 Lakh |
| 2018 - 2019 | Principal Investigator | Can visual sensation super impose olfactory sensation in the oviposition behavior of | DBT | Foldsco pe Scheme | GAP527 | ₹8.00 Lakh |

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| | | pulse beetle and rice weevil? | | | | |
| 2018 - 2018 | Team Member | Study of ovicidal action of phosphine generated from quickphos aluminium phosphide tablets on selected stored grain insects | UPL | R & D Scheme | SSP247 | ₹11.80 Lakh |
| 2017 - 2019 | Principal Investigator | Development of domestic scale storage bin for control of insect pests in stored food grains using plant based repellents | CFTRI | In- House | MLP210 | ₹28.25 Lakh |
| 2016 - 2017 | Team Member | Multifaceted strategy for detection and control of insect infestation in rice | CFTRI | In- House | MLP196 | - |

TRAINING & CERTIFICATE COURSES

- 2025 **ISO/IEC 17025:2017 assessors training course** conducted by NABL at CSIR-CFTRI, Mysore.
- 2024 **ISO 9001:2015 audit training course** conducted by Lloyd's Register Quality Assurance (LRQA) and CSIR-CFTRI, Mysore.
- 2017 **Intellectual property rights and related issues**, workshop organized by CSIR-HRDC, Ghaziabad and CSIR-CFTRI, Mysore.
- 2007 **Post harvest entomological techniques for insect free grain storage to achieve nutritional security**, training programme sponsored by ICAR and organized by Tamil Nadu Agricultural University (TNAU), Coimbatore.
- 2001 **CCA (Certificate Course in Computer Application)** course conducted by TMC education, Madurai, India, recognized by New Delhi government.

SCIENTIFIC PROGRAMMES ORGANIZED

- Panel Discussion on **Academia – Industry** under CSIR-CFTRI One Week One Lab event, **Convener**, CSIR-CFTRI, Mysore, Karnataka, 06th July 2023.

- Industry Meet, **Bio-Fumigation Technology for Safe Storage of Food Grains, Programme Coordinator**, CSIR-CFTRI, Mysore, Karnataka, CSIR (ATLAS Mission) sponsored, 21st March 2023.
- Workshop Programme, **NER Twinning Programme cum Foldscope Seminar & Training, Organizing Secretary**, CSIR-CFTRI, Mysore, Karnataka, DBT sponsored, 19th Feb. 2019.
- Outreach Programme, **Observation of Stored Product Insect Pests under Foldscope, Programme Coordinator**, Soorahalli, Karnataka, DBT sponsored, 29th Nov 2018.
- Student Motivation Programme, **Contact Programme for Talented +2 Science Students 2010, Active Volunteer Organizer**, Mahavir Cancer Sansthan, Patna, Bihar, Prof. A. Nath, PI-DST & Head, 19th to 25th Sep. 2010.
- Farmers Awareness Programmes, **Promotion of Biopesticides, Biofertilizers and Biocontrol agents, Team Leader**, Dr. S. Ignacimuthu, PI-DST & Director, Entomology Research Institute, Chennai, 2006 – 2010.

COUNTRIES VISITED [Professional / Academic purpose]

- Saudi Arabia
- Egypt

SELECTED PUBLICATIONS [Total Citations – 1365; i10-index – 24; h-index - 18]

1. Varghese, J. A., **Vendan, S. E.**, Rajashekar, Y. and S. S. Mamatha. 2026. Sustainable insect pest management using bioactive compounds derived from marine macroalgae: A comprehensive review. *Bioresource Technology*. 455: 134672 (<https://doi.org/10.1016/j.biortech.2026.134672>) (**IF – 9.00**)
2. Sreekrishnakumar, A. K., Ramachandra, A. B., Parthiban, P., Perumal, M. K. and **S. E. Vendan**. 2025. Biorational food protectants: Prediction of effective biofumigant against *Callosobruchus maculatus* adults with a comparison of residue persistence on beetle body surface. *Food Bioscience*. 74: 108022 (<https://doi.org/10.1016/j.fbio.2025.108022>) (**IF – 5.90**)
3. Sreekrishnakumar, A. K., Anand, A., Natesh, J., Meeran, S. M. and **S. E. Vendan**. 2025. Diallyl disulfide as potential fumigant: Prediction of target site and deciphering ovicidal action in *Callosobruchus maculatus* (F.) (Coleoptera: Bruchidae) egg. *Environmental Science and Pollution Research*. (<https://doi.org/10.1007/s11356-025-37074-z>) (**IF – 5.034**)
4. Ibrahim, S. S., Aswathi, K. S., Anand, A. and **S. E. Vendan**. 2025. PEGylation as a tool to improve the stability of garlic sulfides as nano-protectants from stored-product beetles

infestation. *Journal of the Saudi Society of Agricultural Sciences*. 24:23 (https://doi.org/10.1007/s44447-025-00030-x) (IF - 5.910)

5. Kanakhara, M., Arunkumar, P., Parthiban, P. and **S. E. Vendan**. 2025. Enhancing food safety and security through silicon-based approaches in pre-harvest and post-harvest pest management. *Pest Management Science*. (https://doi.org/10.1002/ps.8876) (IF - 4.850)
6. Lokesh, M., Amal, A., Sreekrishnakumar, A. K., and **S. E. Vendan**. 2025. Morphological characteristics of the antenna and its sensilla of three stored-product beetle species. *The Journal of Basic and Applied Zoology*. 86:36 (https://doi.org/10.1186/s41936-025-00456-3) (IF - 1.10)
7. Parthiban, P., Soren, B., Geetha, T., Babu, C. S. V. and **S. E. Vendan**. 2025. Effects of silica on stored product pest, *Sitophilus oryzae* L. (Coleoptera: Curculionidae) and its residual impact on *Triticum aestivum* L. grain. *Journal of Stored Product Research*. 112: 102664. (https://doi.org/10.1016/j.jspr.2025.102664) (IF - 2.80)
8. Sreekrishnakumar, A. K., Lokesh, M., Sahu, U. and **S. E. Vendan**. 2025. Can volatile sulfides act as fumigant or contact toxicant in cowpea weevil, *Callosobruchus maculatus* F.?: a comparative analysis. *Natural Product Research*. (https://doi.org/10.1080/14786419.2025.2451220) (IF – 2.465)
9. Sreelakshmi, V. P., **Vendan, S. E.** and P. S. Negi. 2025. Cold plasma treatment for decontamination of pesticide residues and preservation of spinach leaves. *Postharvest Biology and Technology*. 220: 113322. (https://doi.org/10.1016/j.postharvbio.2024.113322) (IF – 6.80)
10. Madhurya, L., Panneerselvam, A., Sreekrishnakumar, A. K., Anand, A., Gowda, T. S. and **S. E. Vendan**. 2024. Intensification of biofumigant stability: Preparation of peppermint-piperitone nanoemulsion for effective fumigation against stored-product beetles. *Journal of Food Science and Technology*. (https://doi.org/10.1007/s13197-024-06181-z) (IF – 3.508)
11. Madhurya, L., Aswathi, K. S., Sahu, U., Gowda, T. S., Anand, A. and **S. E. Vendan**. 2024. Insight into the synergistic action of plant volatiles as biofumigants against *Sitophilus oryzae*, *Tribolium castaneum*, and *Callosobruchus maculatus* adults. *Journal of Biological Control*. 38(4): 438-452. (https://doi.org/10.18311/jbc/2024/44278) (IF – 0.316)
12. Murugesan, R., Rejoy, P. A. P., Aswathi, K. S. and **S. E. Vendan**. 2024. Foldscope coupled with smartphone view on antennal and wing morphometrics of the stored-product beetle pests. *Journal of Entomological Research*. 48(3): 384-386. (https://doi.org/10.5958/0974-4576.2024.00075.8) (IF – 0.248)
13. Lokesh, M., Aswathi, K. S., Sahu, U. and **S. E. Vendan**. 2024. Influence of molecular descriptors of plant volatilomics on fumigant action against the three major stored-product beetle pests. *Environmental Science and Pollution Research*. 31: 35455-35469. (https://doi.org/10.1007/s11356-024-33483-8) (IF – 5.034)

14. Sreelakshmi, V. P., **Vendan, S. E.** and P. S. Negi. 2024. The effect of cold plasma treatment on quality attributes and shelf life of apples. *Postharvest Biology and Technology*. 214: 112975. (<https://doi.org/10.1016/j.postharvbio.2024.112975>) (IF – **6.710**)
15. Gawali, P. P., Toragall, V., Madhurya, L., Yannam, S. K. and **S. E. Vendan**. 2024. Physicochemical comparison of chitin characteristics in three major stored-product beetle pests: Implications for biofumigant toxicity. *International Journal of Biological Macromolecules*. 265: 130759. (<https://doi.org/10.1016/j.ijbiomac.2024.130759>) (IF – **8.50**)
16. Lokesh, M., Panneerselvam, A., Gawali, P. P., Aswathi, K. S., Sahu, U. and **S. E. Vendan**. 2024. Profiling of semiochemicals of three stored product beetles by headspace solid-phase microextraction coupled with gas chromatography-mass spectrometry. *Natural Product Research*. 38(17): 3063-3069. (<https://doi.org/10.1080/14786419.2023.2200945>) (IF – **2.465**)
17. Sahu, U., Theertha, D. P., Nazeer, M., Madhurya, L. and **S. E. Vendan**. 2023. Physico-chemical stress alters cuticular semiochemical secretions in the red flour beetle, *Tribolium castaneum* adults. *Journal of Pest Science*. 97: 1259-1268. (<https://doi.org/10.1007/s10340-023-01692-8>) (IF – **5.974**)
18. Madhurya, L., Nazeer, M., Sahu, U. and **S. E. Vendan**. 2023. Contamination risk of aluminium phosphide residues on the packed wheat grain sacs. *Journal of Entomological Research*. 47(2): 458-460. (<https://doi.org/10.5958/0974-4576.2023.00083.X>) (IF – **0.248**)
19. Ibrahim, S. S., Sahu, U., Karthik, P. and **S. E. Vendan**. 2023. Eugenol nanoemulsion as bio-fumigant: enhanced insecticidal activity against the rice weevil, *Sitophilus oryzae* adults. *Journal of Food Science and Technology*. 60: 1435-1445. (<https://doi.org/10.1007/s13197-023-05690-7>) (IF – **3.508**)
20. Madhurya, L., Sahu, U., **Vendan, S. E.**, Devi, S. S. and C. S. V. Babu. 2021. Scope of herbal disinfectants to fight against SARS-CoV2 virus. *Tropical Biomedicine*. 38(4): 605-612. (<https://doi.org/10.47665/tb.38.4.104>) (IF – **0.776**)
21. Noore, S., Ramesh, G., **Vendan, S. E.** and V. D. Nagaraju. 2021. Persistence and diffusion behaviour of chlorpyrifos in five different species of vegetables: a comparative analysis. *Ecotoxicology and Environmental Safety*. 217: 112208. (<https://doi.org/10.1016/j.ecoenv.2021.112208>) (IF – **6.680**)
22. Sahu, U., Ibrahim, S. S. and **S. E. Vendan**. 2021. Persistence and ingestion characteristics of phytochemical volatiles as bio-fumigants in *Sitophilus oryzae* adults. *Ecotoxicology and Environmental Safety*. 210: 111877. (<https://doi.org/10.1016/j.ecoenv.2020.111877>) (IF – **6.680**)
23. **Vendan, S. E.**, Manivannan, S., Sunny, A. M. and P. Murugesan. 2017. Phytochemical residue profiles in rice grains fumigated with essential oils for the control of rice weevil.

PLoS ONE. 12(10): 1-17 e0186020. ([https://doi.org/ 10.1371/journal.pone.0186020](https://doi.org/10.1371/journal.pone.0186020)) (IF – 3.582)

24. Manivannan, S. and **S. E. Vendan**. 2017. Insights into the functional potential of the rice weevil rostrum based on microstructure. *The Journal of Animal and Plant Sciences*. 27(2): 688-690. (IF – 0.606)
25. **Vendan, S. E.** 2017. Innovation in green-chemical technology for insect pest management: need for application oriented research and commercialization of products. *Trends in Biosciences*. 10(6): 1327-1329.
26. **Vendan, S. E.** 2016. Current scenario of biopesticides and eco-friendly insect pest management in India. *South Indian Journal of Biosciences*. 2(2): 268-271. (<https://doi.org/10.22205/sijbs/2016/v2/i2/100315>)
27. Balamurugan, R., **Vendan, S. E.**, Aravinthan A. and Jong-Hoon Kim. 2015. Isolation and structural characterization of 2R, 3R taxifolin 3-O-rhamnoside from ethyl acetate extract of *Hydnocarpus alpina* and its hypoglycemic effect by attenuating hepatic key enzymes of glucose metabolism in streptozotocin-induced diabetic rats. *Biochimie*. 111: 70-81. (<https://doi.org/10.1016/j.biochi.2015.02.003>) (IF – 4.273)
28. Nattudurai, G., **Vendan, S. E.**, Paulraj, M. G. and S. Ignacimuthu. 2014. Vermicomposting of coirpith with cowdung by *Eudrilus eugeniae* Kinberg and its efficacy on the growth of *Cyamopsis tetragonaloba* (L) Taub. *Journal of The Saudi Society of Agricultural Sciences*. 13: 23-27. (<https://doi.org/10.1016/j.jssas.2012.12.003>) (IF – 5.910)
29. Nath, A., **Vendan, S. E.**, Priyanka, Singh, J. K., Singh, C. K. and S. Kumar. 2013. Carcinogenic pesticides residue detection in cow milk and water samples from Patna, India. *Current Trends in Biotechnology & Chemical Research*. 3(1): 1-7.
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1. Raveendran, A., **Vendan, S. E.**, Babu, C. S. V. and S. A. Singh. 2025. Mitigation of contaminants in foods: Pesticide residues, heavy metals, mycotoxins in various food commodities and strategies for their mitigation to ensure food safety. In *Food Toxicity and Safety*, D. Mondal and M. M. Rahman (Eds), Springer Nature Publishers, pp 3-36. (ISBN: 978-9819641277)
2. Sahu, U., Malik, T., Ibrahim, S. S., **Vendan, S. E.** and P. Karthik. 2022. Pest management with green nanoemulsions. In *Bio-based Nanoemulsions for Agri-Food Applications*, Kamel A. Abd-Elsalam and Kasi Murugan (Eds), Elsevier Publishers, pp 177-195. (ISBN: 978-0-323-89846-1)
3. Sahu, U., Sreevathsan, S., Mudliar, S. N. and **S. E. Vendan**. 2021. Fumigant toxicity of garlic essential oil with the combined effect of ozone gas and determination of phytochemical residues from the treated rice weevil *Sitophilus oryzae* and wheat grains. In: Jayas D.S. and F. Jian (eds), Proceedings of the 11th International Conference on Controlled Atmosphere and Fumigation in Stored Products (CAF2020), CAF Permanent Committee Secretariat, Winnipeg, Canada. Pp. 261 – 268. (ISBN: 978-0-323-89846-1)
4. **Vendan, S. E.**, Paulraj, M. G. and S. Ignacimuthu. 2010. Glutathione S-transferase activity and larval mortality in taxifolin 3-O-rhamnoside treated *Helicoverpa armigera* Hub. and *Spodoptera litura* Fab. In *Non-chemical Insect Pest Management*, Ignacimuthu, S. and David, B.V. (Eds), Elite Publishers, New Delhi, pp 64-71. (ISBN-13: 978-8188901418)
5. **Vendan, S. E.**, Baskar, K., Paulraj, M. G. and S. Ignacimuthu. 2009. Antifeedant and larvicidal effects of *Hydnocarpus alpina* Wt. (Flacourtiaceae) extracts against the larvae of *Helicoverpa armigera* Hub. (Lepidoptera: Noctuidae). In *Ecofriendly Insect Pest Management*, Ignacimuthu, S. and David, B.V. (Eds), Elite Publishers, New Delhi, pp 210-216. (ISBN-13: 978-8188901371)
6. **Vendan, S. E.**, Kaleeswaran, B., Baskar, K. and A. A. P. Anand. 2008. Conservation Status of Indian flying fox, *Pteropus giganteus* in Tamil Nadu, South India. In *Wildlife Biodiversity Conservation*, Vikram Reddy, M. (Ed.), Daya Publishers, New Delhi, pp 81-91. (ISBN 13: 978-8170355298)

7. **Vendan, S. E.**, Baskar, K., Lingadurai, S., Ramar, M., Paulraj, M. G. and S. Ignacimuthu. 2008. Effect of plant extracts on larval development of *Helicoverpa armigera*. In *Recent Trends in Insect Pest Management*, Ignacimuthu, S. and Jayaraj, S. (Eds), Elite Publishers, New Delhi, pp 215-219. (ISBN 13: 978-8188901333)
8. Lingathurai, S., **Vendan, S. E.**, Paulraj, M. G. and S. Ignacimuthu. 2008. Antifeedant and growth inhibiting effects of *Morinda tinctoria* Roxb. against *Spodoptera litura* (Fab.) (Lepidoptera: Noctuidae). In *Recent Trends in Insect Pest Management*, Ignacimuthu, S. and Jayaraj, S. (Eds), Elite Publishers, New Delhi, pp 195-200. (ISBN 13: 978-8188901333)
9. Duraipandiyan, V., **Vendan, S. E.**, Khaleel, K. M. and S. Ignacimuthu. 2008. Antifeedant activity of golden leather fern, *Acrostichum aureum* L. against asian armyworm *Spodoptera litura* Fab. In *Recent Trends in Insect Pest Management*, Ignacimuthu, S. and Jayaraj, S. (Eds), Elite Publishers, New Delhi, pp 191-194. (ISBN 13: 978-8188901333)
10. Kaleeswaran, B., **Vendan, S. E.**, Ganesh, B. P. and S. Bhavatarini. 2008. Biodiversity and Niches of Ants in Alagar Hills, Tamil Nadu. In *Wildlife Biodiversity Conservation*, Vikram Reddy, M. (Ed.), Daya Publishers, New Delhi, pp 188-208. (ISBN 13: 978-8170355298)
11. Baskar, K., Kingsley, S., **Vendan, S. E.** and S. Ignacimuthu. 2008. Feeding deterrence of some plant extracts against asian armyworm, *Spodoptera litura* Fab. (Lipidoptera: Noctuide). In *Recent Trends in Insect Pest Management*, Ignacimuthu, S. and Jayaraj, S. (Eds), Elite Publishers, New Delhi, pp 225-227. (ISBN 13: 978-8188901333)
12. Ramar, M., Duraipandiyan, V., Paulraj, M. G., **Vendan, S. E.** and S. Ignacimuthu. 2008. Larvicidal and pupicidal properties of *Croton sparciflorus* Linn. (Euphorbiaceae) leaf extract against *Culex quinquefasciatus* Say. In *Recent Trends in Insect Pest Management*, Ignacimuthu, S. and Jayaraj, S. (Eds), Elite Publishers, New Delhi, pp 236-239. (ISBN 13: 978-8188901333)

BOOKLETS / BOOKS

1. Negi, P. S., Debnath, S., Kapoor, M., Thimmaiah, G. R., Patil, N., **Vendan, S. E.***, Joshi, S., Kudre, T., Chaudhri, S. R., Gopinath, M., Sarma, M. V. R. K., Kumar, M. P., Reddy, J. P., Kusuma, K., Somashekar, K. S. and P. Tejas. 2026. 75 Years of R&D at CSIR-CFTRI. *Published by The Director, CSIR-CFTRI, Mysore.*
2. Hospet, R., **Vendan, S. E.#**, Babu, C. S. V. and P. M. Halami. 2022. Compendium on Biology of Stored Product Insects and their Management. *Published by The Director, CSIR-CFTRI, Mysore, V.1.0, pp 1-46.*

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PATENTS

1. **Vendan, S. E.**, Babu, C. S. V., Hospet, R and P. G. Pratiksha. 2024. Biofumigation system for food grain storage and process for food protection therefrom. (Filed reference no. 202411071606; dt 20.09.2024)
2. **Vendan, S. E.**, Babu, C. S. V., Hospet, R and P. G. Pratiksha. 2024. Synergistic biofumigant formulation for the control of stored product insect pests. (Filed reference no. 202411061532; dt 13.08.2024)

PRODUCTS / TECHNOLOGIES DEVELOPED

1. Biofumigation technology for stored pulse protection (CFTRI PDRU No. CMF 3760; 2025)*
2. Herbal bulk sanitizer product (CFTRI PDRU No. CMF 3680; 2021)*
3. Herbal fogging disinfectants for mist sanitizer system (CFTRI PDRU No. CMF 3660; 2021)#
4. Herbal potable spray sanitizer (CFTRI PDRU No. CMF 3670; 2021)#
5. Herbal hand sanitizer - Gel form (CFTRI PDRU No. CMF 3640; 2021)#
6. Herbal hand sanitizer - Liquid form (CFTRI PDRU No. CMF 3650; 2021)#

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RESEARCH PAPER PRESENTATIONS

- 2025 19th AZRA International Conference on Environmental Shift Impact on Animal Biota, Food, Feed and Nutritional Security and Human Health, Siksha-O-Anusandhan, Bhubaneswar, Odisha. (*Oral Presentation*)
- 2022 International Conference on Natural Science and Green Technologies for Sustainable Development, Goa University, Goa. (*Oral Presentation*)
- 2019 National Conference on Advances in Microscopy and Foldscope, Motilal Nehru National Institute of Technology (MNNIT), Allahabad, Uttar Pradesh. (*Oral Presentation*)
- 2017 6th National Conference on Natural Science, Holy Cross College, Trichy, Tamil Nadu. (*Oral Presentation*)
- 2016 Institute Seminar Programme, CSIR-Central Food Technological Research Institute, Mysore, Karnataka. (*Oral Presentation*)
- 2016 International Conference on Climate Change and its Implications on Crop Production and Food Security, BHU, Varanasi, Uttar Pradesh. (*Oral Presentation*)

- 2015 4th International Conference of Eco-friendly Applied Biological Control of Agricultural Pests and Phytopathogens, Cairo, Egypt. (*Oral Presentation*)
- 2012 International Conference on Reproductive Health with Emphasis on Strategies for Family Planning, ICMR, New Delhi. (*Poster Presentation*)
- 2012 National Conference on Climate Change, Biodiversity and Conservation, St. Andrew College, Gorakhpur, Uttar Pradesh. (*Oral Presentation*)
- 2012 National Seminar on Frontiers in Environmental Pollutants, Health and Applied Genetics, Mahavir Cancer Sansthan, Bihar. (*Oral Presentation*)
- 2011 AACR International Conference on New Horizons in Cancer Research: Biology to Prevention to Therapy Conference, Delhi. (*Poster Presentation*)
- 2011 4th Bihar Science Conference 2011, L.S. College, Muzaffarpur, Bihar. (*Poster Presentation*)
- 2009 5th International Conference on Biopesticides: Stakeholders Perspectives, The Energy and Resources Institute (TERI), New Delhi, India. (*Poster Presentation*)
- 2009 National Conference on Biotechnological Approaches for Ecofriendly Insect Pest Management, University of Madras, Chennai, Tamil Nadu. (*Oral Presentation*)
- 2009 National Symposium on Non-chemical Insect Pest Management, Entomology Research Institute, Loyola College, Chennai, Tamil Nadu. (*Oral Presentation*)
- 2009 Seminar on Recent Trends in Biological Sciences, Post-Graduate and Research Pachaiyappa's College, Chennai, Tamil Nadu. (*Oral Presentation*)
- 2008 National Symposium on Ecofriendly Insect Pest Management, Entomology Research Institute, Loyola College, Chennai, Tamil Nadu. (*Oral Presentation*)
- 2007 National Symposium on Recent Trends in Insect Pest Management, Entomology Research Institute, Loyola College, Chennai, Tamil Nadu. (*Oral Presentation*)
- 2006 National Seminar on Wildlife Biodiversity Conservation, School of Life Sciences, Pondicherry University, Pondicherry. (*Oral Presentation*)
- 2006 National Conference on Biodiversity, Dept. of Advanced Zoology and Biotechnology, Loyola College, Chennai, Tamil Nadu. (*Oral Presentation*)
- 2003 Science Day and Aqua-Terr Annual Symposium, School of Biological Sciences, Madurai Kamaraj University, Madurai, Tamil Nadu. (*Poster Presentation*)

RESEARCH GUIDANCE - PG / DOCTORAL / POST DOCTORAL (Ongoing/Completed)

| | | | |
|-------------------------------|---|----------------------------|------------------|
| Ms. Madhubala S | PG Research Scholar | Internship Program | 2026 – till date |
| Mr. Sathishkumar T | Ph.D. Research Scholar | Short-Term Project Program | 2026 – till date |
| Dr. Aswathi K S ^{1@} | Ph.D. Research Scholar (JRF & SRF-UGC) | AcSIR Ph.D. Program | 2020 – 2025 |
| Dr. Gawali P P ² | Ph.D. Research Scholar (JRF & SRF-CSIR) | AcSIR Ph.D. Program | 2020 – 2025 |

| | | | |
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| Dr. Madhurya L ^{1S} | Ph.D. Research Scholar (JRF & SRF-UGC) | Mysore Univ. Program | 2020 – 2024 |
| Dr. Mohamed S S I ^{3#} | Post-Doctoral Fellow (TWAS-CSIR) | International PDF Program | 2020 – 2021 |
| Dr. Sahu U ^{1*} | Ph.D. Research Scholar (JRF & SRF-CSIR) | AcSIR Ph.D. Program | 2018 – 2023 |

¹Guide, ²Co-Guide, ³Mentor

*Received Young Researcher Award – NESA 2023

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§Received Best Oral Presentation Award – WARM-FoST 2023

§Received Best Oral Presentation Award – MFPS 2023

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#Received Best Oral Presentation Award – ICETB 2020

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RESEARCH GUIDANCE - PROJECT FELLOWS / TRAINEE (Completed)

| | | |
|---|--|--|
| Mrs. Theertha D P* (JRF, GAP-527) | Mrs. George L (SRF, GAP-533) | Dr. Sowndhararajan K (Trainee, SRTP-2020) |
| Dr. Swamy A L V (Trainee, SRTP-2020) | Mr. Selvan V T T (Trainee, SRTP-2020) | Ms. Noore S (PA, MLP222) |
| Ms. Mathews A S [§] (PG Research) | Ms. Tripathy S (PA, GAP-615) | Mr. Anand A (PA, HCP-37) |
| Ms. Tanushree S (PA, HCP-37) | Ms. Devi M [#] (PG Research) | Mr. Nazeer M ^a (PA, HCP-31) |
| Ms. Yazhini V S (PA, MLP-300) | Mr. Macarius N M N ^b (PA, MLP-300) | Mr. Viji K (SA, HCP-31) |
| Ms. Sreelakshmi (PA, GAP-615) | Mrs. Venkatama S (SA, HCP-31) | Mr. Shivakumar A R [@] (PG Research) |
| Dr. Murugesan R (PA, MLP-300) | Dr. Hospet R (RA, HCP-31) | Mr. Rejoy P A P (PA, MLP-300) |
| Dr. Smruthi M R (RA, HCP-31) | Ms. Chithra R (PA, HCP-31) | Mr. Manikannan S ^c (PG Research) |

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DOCTORAL RESEARCH GUIDANCE – Ph.D. Degree Awarded

¹Aswathi, K. S. 2026. Development of potential biofumigation process using phytochemical volatile for the control of *Sitophilus oryzae* and *Callosobruchus maculatus*. *Ph.D. Thesis. Academy of Scientific and Innovative Research (AcSIR), Ghaziabad.*

¹Madhurya, L. 2025. Insecticidal activity of phytochemical volatiles against insect pests in food grains. *Ph.D. Thesis. University of Mysore, Mysore*

²Gawali, P. P. 2025. Development of essential oil based bio-fumigant and its efficacy against major stored-product insect pests. *Ph.D. Thesis. Academy of Scientific and Innovative Research (AcSIR), Ghaziabad.*

¹Sahu, U. 2024. Physiological and toxicological effects of phytochemical volatiles on *Sitophilus oryzae* (Rice weevil): A comprehensive study. *Ph.D. Thesis. Academy of Scientific and Innovative Research (AcSIR), Ghaziabad.*

¹Guide, ²Co-Guide

POST-DOCTORAL RESEARCH GUIDANCE – Completed

Mohamed, S. S. I. 2021. Nanoencapsulation and bioformulation of essential oils to control the grain beetle *Sitophilus oryzae* and pulse beetle *Callosobruchus chinensis*. *Post-Doctoral Project Report, Council of Scientific and Industrial Research – The World Academy of Sciences (CSIR-TWAS).*

DISSERTATION / SHORT-TERM RESEARCH GUIDANCE - Completed

Mahesha, M. N. 2026. Generation of volatile emission from the fresh food substances and evaluation of the fumigation efficacy against the pulse beetle. *M.Sc. Organic Chemistry, University of Mysore, Mysore, Karnataka.*

- Chawla P. K. 2026. Biochemical and non-chemical approaches of disinfestation and decontamination of beetles and fungi from stored food grains. *M.Sc. Life Sciences, Bharathidasan University, Trichy, Tamil Nadu.*
- Samraj, J. M. 2026. Investigation of fumigant bioactivities against the stored-product insect pests using *in vivo* and *in silico* models. *PAT Project Report, Indian Council of Agricultural Research – National Institute of Seed Science and Technology (ICAR-NISST), Mau, Uttar Pradesh.*
- Achar, S. 2026. Insights into the stability of spice derived phytochemicals under ozone, thermal and UV exposures and their fumigant action in red flour beetle. *M.Sc. Organic Chemistry, University of Mysore, Mysore, Karnataka.*
- Manikannan, S. 2025. Characterization of benzoquinone secretes of red flour beetle and formulation of nanoemulsion using benzoquinones against grain storage fungi. *M.Sc. Biotechnology, VELS University, Chennai, Tamil Nadu.*
- Ragul, A. 2025. Green chemical extraction efficiency: A comparative analysis of physicochemical characteristics of phytochemicals with particle size of green gram flour. *M.Sc. Biotechnology, VELS University, Chennai, Tamil Nadu.*
- Mandhata, S. 2024. Determination of thermal stability of garlic sulphides by gas chromatography techniques and analysis of toxicities by insecticidal bioassays. *M.Tech. Internship Report, Biotechnology, KIIT University, Bhubaneswar, Odisha.*
- Udhayashri, S. 2024. Influence of host plant volatiles in ovipositional preference behavior of female, *Callosobruchus chinensis*, L. (Coleoptera: Chrysomelidae). *M.Sc. Internship Report, Microbiology, Dr. N.G.P. Arts and Science College, Coimbatore, Tamil Nadu.*
- Benarji, N. 2024. Self-life enhancement of biofumes using nanoemulsions for the protection of stored food grains from insect pests. *M.Sc. Thesis, Biotechnology, SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu.*
- Aravind, S. 2024. Diffusion and toxicological characteristics of phytochemical volatile against stored grain insect pests. *M.Sc. Thesis, Biotechnology, SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu.*
- Shivakumar, A. R. 2023. Contamination risk of carcinogenic benzoquinones in flour beetle infested grain flours. *M.Sc. Thesis, Food Technology, CSIR-CFTRI, Mysore, Karnataka.*
- Abinaya, V., Kesavapriya, S., Mahalakshmi, R. and R. Ramyapriya. 2023. Investigation of fumigant toxicity of selected gases and phytochemicals against *Sitophilus oryzae*. *B.Tech. Thesis, Biotechnology, Dhanalakshmi Srinivasan Engineering College, Perambalur, Tamil Nadu.*
- Kumari, S. 2022. Preparation of essential oil and phytochemical volatiles based nanoemulsion formulations and evaluation of fumigant toxicity against pulse and grain beetle pests. *M.Sc. Thesis, Biotechnology, Vinoba Bhave University, Hazaribag, Jharkhand.*
- Nihal, M. C. 2022. Comparative analysis of fumigant toxicity of phytochemical extracts of spice wastes with spice essential oils: An approach for ecofriendly insect pest management and waste management. *M.Sc. Thesis, Food Technology & Quality Assurance, Mount Royal College, Munnar, Kerala.*
- Thomas, A. V. 2022. Fumigant toxicity of selected three essential oils against *Sitophilus oryzae* and *Callosobruchus macualtus* and diffusional characteristics of bioactives on the stored food grains. *M.Sc. Thesis, Food Technology & Quality Assurance, Mount Royal College, Munnar, Kerala.*

- Thampikutty, S. 2022. Estimation of dust, heavy metals and pesticide residue contaminants on the fresh food market samples collected at Mysuru, Karnataka, India. *M.Sc. Thesis, Food Science and Technology, St. Joseph's College, Bangalore, Karnataka.*
- Devi, M. 2022. Impact of phytochemical fumigants on the cuticular surface chemical secretion of three major stored product beetle pests. *M.Sc. Thesis, Botany, Bharathidasan University, Trichy, Tamil Nadu.*
- Mathews, A. S. 2020. Investigation of structure-activity relationship of selected phytochemicals against *Callosobruchus maculatus* Fab. *B.Tech. Thesis, Biotechnology, Vellore Institute of Technology, Vellore, Tamil Nadu.*
- Harshini, A. V. S. G. 2020. Investigation of quinone secretion variations in flour beetle at different stress exposures. *M.Sc. Thesis, Biotechnology, GITAM Institute of Science, Visakhapatnam, Andhra Pradesh.*
- Nehaa, K. 2019. Optimization of biofumigation process for the control of stored product insect pests. *B.Tech. Thesis, Biotechnology, Rajalakshmi Engineering College, Chennai, Tamil Nadu.*
- Srimathi, J. 2019. Generation of plant volatiles and evaluation of toxicity against stored product insect pests. *B.Tech. Thesis, Biotechnology, Rajalakshmi Engineering College, Chennai, Tamil Nadu.*
- Swathi, R. 2019. Fumigation effect of selected phytochemicals and cuticular surface chemical profile analysis in stored product insect pests. *B.Tech. Thesis, Biotechnology, Jeppiaar Engineering College, Chennai, Tamil Nadu.*
- Das, A. 2018. Determination of topical sedimentation and uptake of phytochemicals through cuticular surface in fumigated stored product insect pests. *M.Sc. Thesis, Biotechnology, Siksha 'O' Anusandhan University, Bhubaneswar, Odisha.*
- Dayi, A. S. 2018. Phytochemical residue determination and development of residue removal process from fumigated grains. *M.Sc. Thesis, Food Technology and Quality Assurance, St. Mary's College for Women, Paliakara, Kerala.*
- Prince, A. 2018. Investigating the bio-fumigant properties of garlic and ginger essential oils for stored product insect control. *M.Sc. Thesis, Food Technology and Quality Assurance, St. Mary's College for Women, Paliakara, Kerala.*
- Srivastav, S. 2016. Responses of rice weevil (*Sitophilus oryzae*) to volatiles of grains and essential oils. *M.Tech. Thesis, Food Technology, Gautam Budha University, Lucknow, Uttar Pradesh.*

EDITOR IN JOURNALS

- Guest Editor - Scientific Reports, *Nature* (2026 – till date)
- Editorial Board Member - Archives of Phytopathology and Plant Protection, *Taylor & Francis* (2026 – till date)
- Editorial Board Member - Scientific Reports, *Nature* (2025 – till date)
- Academic Editor - PLOS ONE Journal (2024 – till date)
- Editorial Board Member - Discover Agriculture, *Springer* (2024 – till date)

REVIEWER IN JOURNALS

- Discover Chemistry, *Springer* (2026)
- Journal of Stored Product Research, *Elsevier* (2024 - 2026)
- Applied Food Research, *Elsevier* (2026)
- Journal of Agriculture and Food Research, *Elsevier* (2026)
- PLOS ONE Journal (2021 - 2026)
- International Journal of Tropical Insect Science, *Springer* (2019-2021, 2025-2026)
- Environmental Sustainability, *Springer* (2018 & 2026)
- RSC Advances, *Royal Society of Chemistry* (2025 - 2026)
- Journal of Food Science, *Wiley* (2025)
- Plasma Processes and Polymers, *Wiley* (2025)
- Crop Protection, *Elsevier* (2025)
- Biological Control, *Elsevier* (2025)
- Journal of Pest Science, *Springer* (2025)
- LWT-Food Science and Technology, *Elsevier* (2025)
- Food and Humanity, *Elsevier* (2025)
- Journal of Applied Entomology, *Wiley* (2025)
- Ecotoxicology and Environmental Safety, *Elsevier* (2025)
- Scientific Reports, *Nature* (2024 - 2025)
- Forests, *MDPI* (2024 - 2025)
- Biomimetics, *MDPI* (2025)
- Entomological News, *BioOne* (2025)
- Chemistry and Biodiversity, *Wiley* (2025)
- Circular Agricultural Systems (2025)
- Biology, *MDPI* (2024-2025)
- Journal of Food Processing and Preservation, *Wiley* (2022 & 2025)
- Metabolites, *MDPI* (2025)
- Journal of Nanotechnology, *Wiley* (2024 - 2025)
- The Journal of Basic and Applied Zoology, *Springer* (2025)
- Processes, *MDPI* (2024 - 2025)
- Agriculture, *MDPI* (2024 - 2025)
- Psyche: A Journal of Entomology, *Wiley* (2020, 2022 - 2025)
- Insects, *MDPI* (2025)
- Agronomy, *MDPI* (2025)
- Journal of Environmental Biology (2023 - 2025)
- Pharmaceuticals, *MDPI* (2025)
- Food and Bioprocess Technology, *Springer* (2024)
- Chemical and Biological Technologies in Agriculture, *Springer* (2024)
- Journal of Food Science and Technology, *Springer* (2024)
- Biology, *MDPI* (2024)
- Journal of Invertebrate Pathology, *Elsevier* (2024)
- Pest Management Science, *Elsevier* (2021 & 2024)
- Sustainable Food Technology, *Royal Society of Chemistry* (2023)
- Discover Environment, *Springer* (2023)
- Natural Product Research, *Taylor & Francis* (2023)
- Journal of King Saud University – Science, *Elsevier* (2023)
- Indoor and Built Environment, *SAGE* (2023)
- Current Science (2021 - 2023)
- International Journal of Food Science, *Hindawi* (2021 & 2023)
- Indian Food Industry Magazine (2022)
- Journal of Food Process Engineering, *Wiley-Blackwell* (2022)
- Journal of Environmental Biology (2022)
- International Journal of Agricultural Science and Food Technology (2022)
- Journal of Environmental Biotechnology (2021)

- Journal of Asia-Pacific Entomology, *Elsevier* (2020)
- Proceedings of the Zoological Society, *Springer* (2020)
- Food Hydrocolloids, *Elsevier* (2019)
- Journal of Herbal Medicine, *Elsevier* (2019)
- Ethnobotany Research & Applications, *Georgia* (2019)
- European Journal of Integrative Medicine, *Elsevier* (2017)
- Journal of Food: Microbiology, Safety & Hygiene (2016 - 2017)
- International Journal of Insect Sciences, *Libertas Academica* (2015 - 2017)
- Entomology, Ornithology & Herpetology: Current Research Journal (2015 - 2017)

SCIENTIFIC/OUTREACH ACTIVITIES CITED IN SOCIAL MEDIA

| | | |
|--|---------------------------|----------------------------|
| Biofumigation Technology | The Hindu | 9 th Dec. 2023 |
| Herbal disinfectant and sanitizer products | FoodPro Newsletter | April 2021 |
| Fumigation services during COVID-19 lockdown | FoodPro Newsletter | June 2020 |
| New products display at the exhibition | Star of Mysore | 16 th June 2019 |
| Biopesticides | Deccan Chronicle | 16 th May 2008 |
| Kadavulin Thoodhuvalgai | Kalki Magazine | 08 th June 2008 |
| Yearikai Poochikolli Ponneem | Naveena Velanmai magazine | Sep 2008 |

PROFESSIONAL RECOGNITIONS & CONTRIBUTIONS

| | | |
|---|--|------------------|
| External Expert | Research Advisory Committee, Thiagarajar College, Madurai. | 2025 – till date |
| Member | Board of Studies (BoS), Food Technology, Karpagam Academy of Higher Education, Deemed to be University, Coimbatore, TN | 2022 – till date |
| Research Guide in Biotechnology | University of Mysore, Mysore | 2020 – till date |
| Assistant Professor in Biological Sciences | Academy of Scientific and Innovative Research (AcSIR) | 2015 – till date |

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|------------------------------------|--|-------------|
| Examiner | Ph.D. Thesis Evaluation, Anna University | 2026 March |
| Examiner | Ph.D. Thesis Evaluation, Bharathidasan University (13 Ph.D. thesis evaluated) | 2019 - 2026 |
| Chief Guest | National Seminar on ETIB -2025, J.J. College of Arts and Sciences, Pudukkottai. | 2025 Aug. |
| Examiner | Ph.D. Thesis Evaluation, Manonmaniam Sundaranar University (2 Ph.D. thesis evaluated) | 2017 & 2025 |
| Alternative Member | Bureau of Indian Standards (BIS) - Pesticide Residue Analysis Sectional Committee – FAD 27 | 2021 – 2025 |
| Chief Guest | National Seminar on RELS-2024, K.M.G. College of Arts and Sciences, Gudiyattam. | 2024 Feb. |
| Member, CSIR Exhibitor | World Food India, Ministry of Food Processing Industries (MoFPI), Pragati Maidan, New Delhi | 2023 Nov. |
| Examiner | Ph.D. Thesis Evaluation, Mother Teresa Women’s University (1 Ph.D. thesis evaluated) | 2023 Aug. |
| Chairperson | International Conference ICFBN-2023, Karpagam Academy of Higher Education, Deemed to be University, Coimbatore, TN | 2023 Mar. |
| Guest of Honour | Organic Farming Technology & Development, FDP-STP Programme, UGC-HRDC & Mahakaushal University | 2022 Mar. |
| Paper Setter / Examiner | University of Calicut, Kerala | 2022 Feb. |
| Paper Setter / Examiner | Kerala Agricultural University, Kerala | 2021 Oct. |

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| Chief Guest | 2 nd International Conference MBEM-2021, Vivekanandha College of Arts and Sciences for Women, Tiruchengode. | 2021 Mar. |
| Chief Guest | National Conference ESHPA-2020, M.S.S. Wakf Board College, Madurai. | 2020 Mar. |
| Reviewer – Project Report | Gandhian Young Technological Innovation (GYTI) Awards, SRISTI, Ahmedabad, Gujarat. | 2020 Feb. |
| Chief Guest | National Seminar RDAS-2019, ACAS College, Thiruchendur. | 2019 Aug. |
| Reviewer – Project Proposal | NECBH-DBT, IIT Guwahati, Assam. | 2019 Feb. |
| Paper Setter / Examiner | B.Tech. Food Engineering, Kerala Agricultural University, Kerala | 2017 Nov. |
| Chairperson | International Conference ICCB-2016, S.B.K. College, Aruppukottai | 2016 Sep. |
| Advisory Committee Member | National Conference IPRBB-2015, A.V.V.M. Sri Pushpam College, Thanjavur | 2015 Sep. |

ADMINISTRATIVE RESPONSIBILITIES / ACTIVITIES @ CFTRI

| | | |
|-------------------------|---|------------------|
| Resource Person | Orientation Programme for the Ph.D. Research Scholars | 2023 – till date |
| Co-Coordinator | M.Sc. Food Technology (FSS & TIC-C) | 2022 – till date |
| Internal Auditor | ISO Standard: Environmental Management System & Quality Management System | 2021 – till date |
| Member | Library Committee | 2021 – till date |
| Secretary | Pesticide Science Study Group | 2020 – till date |

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|---------------------|--|------------------|
| Member | Doctoral Advisory Committee | 2019 – till date |
| Member | Project Fellow Selection Committee | 2019 – till date |
| Member | QMS & EMS Documentation Committee | 2017 – till date |
| Member | 75 Years Journey of CFTRI Main Highlights | 2024 – 2026 |
| Member | Organizing Committee – National Symposium on Plant Proteins | 2025 July |
| Member | Jigyasa Team - One Day as a Scientist programme | 2025 July |
| Coordinator | Physical Verification Committee – PMC and ITS&CS | 2025 May |
| Member | Organizing Committee – One Day Industry Meet for Floriculture Mission | 2025 Mar. |
| Member | Special Campaign 4.0 Team for improving Swachhata and Disposal of Pending References | 2024 Oct. |
| Coordinator | Committee - Venue & Hall Arrangement, National Quiz Contest on Food Security Mission | 2023 Oct. |
| Paper Setter | Committee - Question Paper Setting for Regional Level Contest on Food Security Mission | 2023 July |
| Member | Organizing Committee - Panel Discussion on Supplementary Foods for Women & Child Development -OWOL event | 2023 July |
| Member | Organizing Committee - CSIR-CFTRI Licensee Meet Academia-Industry Interactions - OWOL event | 2023 July |

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| Member | Committee - Question Paper Setting for M.Sc. Food Technology | 2023 & 2024 |
| Member | Organizing Committee - Monitoring Committee meet of ATLAS Mission | 2022 Dec. |
| Moderator | GSPM Workshop 2022 | 2022 Aug. |
| Co-Chairman | Technical Session - National Webinar FASST2022 | 2022 May |
| Mentor | AcSIR CSIR800 Programme | 2022 Mar. |
| Expert Member | Panel Discussion - Workshop on 3Ps of Food Industry: Processing, Preservation & Packaging | 2022 Mar. |
| Member | Organizing Committee – Azadi Ka Amrit Mahotsav Webinar IAFPGS | 2022 Jan. |
| Member | Evaluation Committee – Probation Period of CFTRI School Teachers and Staffs | 2021 |
| Member | CSIR JIGYASA Scientist-Student Contact Program | 2021 Nov. |
| Chairman | Financial Committee - International Conference ET-FPIC 2021, 24th & 25th Feb. 2021. | 2021 Feb. |
| Member | Scientist Selection Committee | 2020 Sep. |
| Member | Organizing Committee – ICP Virtual Colloquium | 2020 Dec. |
| Rapporteur | VAIBHAV Summit: Horizontal – Food Safety & Nutritional Security, Sub-Horizontal - Storage & Handling Strategy | 2020 Oct. |
| Member | Swachada Pakhwada | 2018 May |

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|-----------------|--|-------------|
| Member | Exhibition - Adamyta Chetana Seva Utsav | 2017 Dec. |
| Member | Project Work Evaluation Committee - PG Nutri. Bio. | 2017 Jun. |
| Member | Physical Verification Committee | 2017 – 2024 |
| Convener | Departmental Seminar Programme | 2015 – 2016 |

MEMBERSHIP IN ACADEMIC SOCIETIES

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|--------------------|--|------------------|
| Member | Indian Grain Storage Working Group (IGSWG) | 2024 – till date |
| Life Member | Entomological Society of India (ESI) | 2023 – till date |
| Life Member | National Environmental Science Academy (NESA) | 2022 – till date |
| Life Member | Association of Food Scientists & Technologists (AFSTI) | 2021 – till date |
| Life Member | Applied Zoologists Research Association (AZRA) | 2021 – till date |
| Life Member | National Academy of Biological Sciences (NABS) | 2017 – till date |
| Life Member | The Indian Science Congress Association (ISCA) | 2012 – till date |

ACKNOWLEDGEMENTS



☆ Thank You ☆