Dr. S. EZIL VENDAN



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RESEARCH AREAS

- Insect-Plant Interactions
- Insect Behaviour & Biocontrol
- Insect Biochemistry & Physiology
- Insecticide Hazards & Food Safety

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

2021 – till date	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 EXPEREINCE

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

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, TN.
2019	Gold Medal & Young Scientist Award	Motilal Nehru National Institute of Technology, Allahabad, UP.
2018	Jagar Nath Raina Memorial All India Best Publication Award	Sadhna, Dr. Y. S. Parmar University of Horticulture and Forestry, Solan, HP.
2018	Best Poster Award	8 th International Food Convention from Association of Food Scientists and Technologists, CSIR-CFTRI, Mysore. KA.
2015	International Travel Fellowship	Centre for International Co-operation in Science (CICS), Chennai, TN.
2012	Reward of Honour	Institute for Educational Research & Innovative Action (IERIA), Bhopal, MP.
2006	JRF Fellowship	UGC, Ministry of HRD, Govt. of India, New Delhi.
2003	GATE Qualified	IIT, Ministry of HRD, Govt. of India, New Delhi.
2003	CSIR Qualified	CSIR-UGC, Ministry of HRD, Govt. of India, New Delhi.

INVITED & GUEST LECTURES

- Scope and oppurtunities 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 strage of food grains, *Nationl 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 Managment and Food Technology, Defence Food Research Laboraory (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 managment of household pests, *Refresher Course for Cooks of JNVs of Karnataka, Kerala and Andhra Region*, Jawahar Navodaya Vidalaya, Mysore, 16th Januray 2023.
- Fumigation and infestation control for safe storage of spices, Hyrid 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 Magament, 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 potectants: 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 Managment, 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 Technologistis*, 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 pestiicdes 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 Sustaiability 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 managment, 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, Internationl 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, Depatment of Zoology and Biotechnology, The Madura College, Madurai, 03rd Aug. 2011.
- **Phytochemicals in insect pest managment,** 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)

2023 - 2025	Co- Investigator	Millet – sustaining heath through research and innovation by analysis of nutrients and nutraceuticals to achieve global awareness	CSIR	Millet Mission Mode	HCP52	₹34.68 Lakh
2023 2024	Team Member	Development of export protocol for fresh okra, <i>Abelmoschus</i> esculentus	CFTRI	In-House	MLP307	-
2022 	Principal Investigator	Disinfestation and management of phosphine resistance insect pests: design and development of multi-fume grain storage system	CSIR	CSIR- FIRST Scheme	CSIR 300	₹41.78 Lakh
2021 	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 (Salvia hispanica)	CFTRI	In-House	MLP296	-

2021 2022	Team Member	Ozone system development for iron removal from water and aflatoxin, bacterial mitigation in food grains	ORAI PL	R & D Applicati ons	CLP21	-
2020 	Principal Investigator	Scaling up the bio-fumigation technology for protection of stored food commodities from insect pests	CSIR	ATLAS Mission Mode	HCP31	₹70.02 Lakh
2020 - 2024	Team Member	Development of a novel effective bioformulation against stored grain and vegetable pest	CSIR	Flori- culture Mission Mode	НСР37	-
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	-
2018 	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 pulse beetle and rice weevil?	DBT	Foldscope Scheme	GAP527	₹8.00 Lakh
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

- 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 - 1027; i10-index - 19; h-index - 14]

- Madhurya, L., 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*. (Accepted) (IF 5.80)
- 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*. (Accepted) (IF 7.00)
- Gawali, P. P., Toragall, V., Madhurya, L., 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 8.20)
- Sahu, U., Theertha, D. P., Nazeer, M., Madhurya, L. and S. E. Vendan. 2023. Physicochemical stress alters cuticular semiochemical secretions in the red flour beetle, *Tribolium castaneum* adults. *Journal of Pest Science*. (https://doi.org/10.1007/s10340-023-01692-8) (IF - 5.974)
- 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. (DOI : 10.5958/0974-4576.2023.00083.X) (IF 0.248)
- Lokesh, M., Panneerselvam, A., Gawali, P. P., Aswathi, K. S., Sahu, U. and S. E. Vendan. 2023. Profiling of semiochemicals of three stored product beetles by headspace solid-phase microextraction coupled with gas chromatography-mass spectrometry. *Natural Product Research*. (DOI: 10.1080/14786419.2023.2200945) (IF 2.465)
- Ibrahim, S. S., Sahu, U., Karthik, P. and S. E. Vendan. 2023. Eugenol nanoemulsion as biofumigant: enhanced insecticidal activity against the rice weevil, *Sitophilus oryzae* adults. *Journal of Food Science and Technology*. (https://doi.org/10.1007/s13197-023-05690-7) (IF - 3.508)
- Madhurya, L., Sahu, U., Devi, S. S., Babu, C. S. V. and S. E. Vendan. 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)
- 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 6.68)
- Sahu, U., Ibrahim, S. S. and S. E. Vendan. 2020. 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** – **6.68**)

- 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) (IF 3.582)
- 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)
- 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.
- 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. (doi: 10.22205/sijbs/2016/v2/i2/100315)
- 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. (doi:10.1016/j.biochi.2015.02.003) (IF 4.273)
- 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)
- 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.
- Packiam, S. M., Anbalagan, V., Ignacimuthu, S. and S. E. Vendan. 2012. Formulation of a novel phytopesticide *PONNEEM* and its potentiality to control generalist herbivorous Lepidopteran insect pests, *Spodoptera litura* (Fabricius) and *Helicoverpa armigera* (Hubner) (Lipidoptera: Noctuidae). *Asian Pacific Journal of Tropical Disease*. S2: 720-723. (doi: 10.1016/S2222-1808(12)60251-5)
- Nath, A., Singh, J. K., Vendan, S. E., Priyanka, Anamika. and S. Sinha. 2012. High risk of oral cancer in North India. *Current Science*. 102 (4): 556. (IF 0.816)
- Nath, A., Singh, J. K., Vendan, S. E., Priyanka. and S. Sinha. 2012. Elevated level of prostate specific antigen among prostate cancer patients and high prevalence in Gangetic

zone of Bihar, India. *Asian Pacific Journal of Cancer Prevention*. 13 (1): 451-453. (DOI: 10.7314/APJCP.2012.13.1.221) (**IF** – **1.892**)

- Nath, A., Singh, J. K., Vendan, S. E. and Priyanka. 2011. Female reproductive cancers incidence in Bihar, India with the risk of xenoestrogenic arsenic in serum and in drinking water sources. In: Proceedings of the Second AACR International Conference on Frontiers in Basic Cancer Research; 2011 Sep 14-18; San Francisco, CA. Philadelphia (PA): AACR; *Cancer Research*. 2011; 71(18 Suppl): 29. (doi: 10.1158/1538-7445.FBCR11-B29)
- Vendan, S. E. 2011. Endosulfan ban in India: for good or not?. *Current Science*. 101 (11): 1398. (IF 0.816)
- Lingathurai, S., Vendan, S. E., Paulraj, M. G. and S. Ignacimuthu. 2011. Antifeedant and larvicidal activities of *Acalypha fruticosa* Forssk. (Euphorbiaceae) against *Plutella xylostella* L. (Lepidoptera: Yponomeutidae) larvae. *Journal of King Saud University (Science)*. 23: 11-16. (DOI: 10.1016/j.jksus.2010.05.012) (IF 3.972)
- Vendan, S. E. and A. A. P. Anand. 2010. Is Masters of Philosophy worth pursuing?. *Current Science*. 99 (8): 994. (IF 0.816)
- Valanarasu, M., Kannan, P., Vendan, S. E., Ganesan, G., Ignacimuthu, S. and P. Agastian. 2010. Antifungal and antifeedant activities of extracellular product of *Streptomyces* spp. ERI-04 isolated from Western Ghats of Tamil Nadu. *Journal of Medical Mycology*. 20 (4): 290-297. (Doi: 10.1016/j.mycmed.2010.09.001) (IF 3.426)
- Anand, A. A. P., Vennison, S. J., Sankar, S. G., Prabhu, I. G., Vasan, P. T., Raghuraman, T., Geoffrey, C. J. and S. E. Vendan. 2010. Isolation and characterization of bacteria from the gut of *Bombyx mori* that degrade cellulose, xylan, pectin and starch and their impact on digestion. *Journal of Insect Science*. 10 (107): 1-20. (doi: 10.1673/031.010.10701) (IF 2.024)
- Vendan, S. E., Lingadurai, S., Paulraj, M. G. and S. Ignacimuthu. 2010. Bioefficacy of neem oil formulation with *Hydnocarpus alpina* Wt. leaf extract against *Spodoptera litura* Fab. *International Journal of Current Research*. 3: 78-82.
- Vendan, S. E., Lingadurai, S., Paulraj, M. G. and S. Ignacimuthu. 2010. Incidence of *Spodoptera litura* Fab. (Lepidoptera: Noctuidae) on *Argemone mexicana* Linn. (Papaveraceae). *Insect Environment*. 16 (1): 20-21.
- Anand, A. A. P, Vendan, S. E. and B. Kaleeswaran. 2010. Your memory depends on your sleep. *Asian Journal of Science and Technology*. 1: 32-35.
- Baskar, K., Kingsley, S., Vendan, S. E., Paulraj, M. G., Duraipandiyan, V. and S. Ignacimuthu. 2009. Antifeedant, larvicidal and pupicidal activities of *Atlantia monophylla* (L) Correa against *Helicoverpa armigera* Hubner. (Lepidoptera: Noctudidae). *Chemosphere*. 75: 355-359. (doi:10.1016/j.chemosphere.2008.12.034) (IF 8.125)

- Lingathurai, S., Vellathurai, P., **Vendan, S. E.** and A. A. P. Anand. 2009. A comparative study on the microbiological and chemical composition of cow milk from different locations in Madurai, Tamil Nadu. *Indian Journal of Science and Technology*. 2 (2): 1-4. (doi: 10.17485/ijst/2009/v2i2/29394)
- Ignacimuthu, S. and S. E. Vendan. 2008. Botanical pesticides in insect pest management. *Uttar Pradesh Journal of Zoology*. 4 (1): 141-154.
- Pavunraj, M., Vendan, S. E. and S. Ignacimuthu. 2006. Digestion of cellulose and starch by symbiotic bacteria in the gut of the giant tiger prawn *Peaneous monodon* (F.). *Journal of Advanced Zoology*. 27 (2): 56-60. (IF 0.029)

BOOK CHAPTERS & PROCEEDINGS

- 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)
- 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)
- 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)
- Vendan, S. E., Baskar, K., Paulraj, M. G. and S. Ignacimuthu. 2009. Antifeedant and larvicidal effects of *Hydnocarpus alpina* Wt. (Flacourtiacea) 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)
- 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)

- 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)
- 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)
- 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)
- 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)
- Baskar, K., Kingsley, S., Vendan, S. E. and S. Ignacimuthu. 2008. Feeding detterency 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)
- 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

• 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.

PRODUCTS / TECHNOLOGIES DEVELOPED

- 2021 Herbal bulk sanitizer product*
- 2021 Herbal fogging disinfectants for mist sanitizer system[#]
- 2021 Herbal spray sanitizer[#]
- 2021 Herbal hand sanitizer (Gel form)#

2021 Herbal hand sanitizer (Liquid form)[#]

*PI, [#]Team Member

RESEARCH PAPER PRESENTATIONS

- 2022 International Conference on Natural Science and Green Technologies for Sustainable Development, Goa University, Goa, India (*Oral Presentation*)
- 2019 National Conference on Advances in Microscopy and Foldscope, Motilal Nehru National Institute of Technology (MNNIT), Allahabad, India (*Oral Presentation*)
- 2017 6th National Conference on Natural Science, Holy Cross College, Trichy, India. (*Oral Presentation*)
- 2016 Institute Seminar Programme, CSIR-Central Food Technological Research Institute, Mysore, India. (*Oral Presentation*)
- 2016 International Conference on Climate Change and its Implications on Crop Production and Food Security, BHU, Varanasi, India. (*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, India. (*Poster Presentation*)
- 2012 National Conference on Climate Change, Biodiversity and Conservation, St. Andrew College, Gorakhpur, Uttar Pradesh, India. (*Oral Presentation*)
- 2012 National Seminar on Frontiers in Environmental Pollutants, Health and Applied Genetics, Mahavir Cancer Sansthan, Bihar, India. (*Oral Presentation*)
- 2011 AACR International Conference on New Horizons in Cancer Research: Biology to Prevention to Therapy Conference, Delhi, India. (*Poster Presentation*)
- 2011 4th Bihar Science Conference 2011, L.S. College, Muzaffarpur, Bihar, India. (*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, India. (*Oral Presentation*)
- 2009 National Symposium on Non-chemical Insect Pest Management, Entomology Research Institute, Loyola College, Chennai, India. (*Oral Presentation*)
- 2009 Seminar on Recent Trends in Biological Sciences, Post-Graduate and Research Pachaiyappa's College, Chennai, India. (*Oral Presentation*)
- 2008 National Symposium on Ecofriendly Insect Pest Management, Entomology Research Institute, Loyola College, Chennai, India. (*Oral Presentation*)
- 2007 National Symposium on Recent Trends in Insect Pest Management, Entomology Research Institute, Loyola College, Chennai, India. (*Oral Presentation*)
- 2006 National Seminar on Wildlife Biodiversity Conservation, School of Life Sciences, Pondicherry University, Pondicherry, India. (*Oral Presentation*)
- 2006 National Conference on Biodiversity, Dept. of Advanced Zoology and Biotechnology, Loyola College, Chennai, India. (*Oral Presentation*)

2003 Science Day and Aqua–Terr Annual Symposium, School of Biological Sciences, Madurai Kamaraj University, Madurai, India. (*Poster Presentation*)

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

Mr. N. Benarji	PG Research Scholar	Dissertation Program	2023 – till date		
Mr. S. Arvind	PG Research Scholar	Dissertation Program	2023 – till date		
Ms. L. Madhurya ^{\$}	Ph.D. Research Scholar (SRF-UGC)	Mysore Univ. Program	2020 - till date		
Ms. K. S. Aswathi [@]	Ph.D. Research Scholar (SRF-UGC)	AcSIR Ph.D. Program	2020 - till date		
Dr. M. R. Smruthi	Post Doc Research Associate (CSIR)	ATLAS Mission	2024 - 2024		
Dr. R. Murugesan	Post Doc Project Associate (CSIR)	FIRST Scheme	2023 - 2024		
Dr. R. Hospet	Post Doc Research Associate (CSIR)	ATLAS Mission	2022 - 2023		
Ms. U. Sahu*	Ph.D. Research Scholar (SRF-CSIR)	AcSIR Ph.D. Program	2018 - 2023		
Dr. S. S. Ibrahim [#]	Post Doctoral Fellow (TWAS-CSIR)	International PDF Program	2020 - 2021		
*Received Young Researcher Award – NESA 2023 [@] Received Best Poster Presentation Award – ICFBN 2023 ^{\$} Received Best Oral Presentation Award – WARM-FoST 2023 ^{\$} Received Best Oral Presentation Award – MERS 2023					

^{\$}Received Best Oral Presentation Award – MFPS 2023

^{\$}Received Best Oral Presentation Award – AMRMIC 2022

*Received Innovative Design Thinking Award – KAHE 2021

*Received Best Poster Presentation Award – ET FPIC 2021

[#]Received Best Oral Presentation Award – ICETB 2020

*Received Best Poster Presentation Award - NAC 2019

PROJECT FELLOWS / TRAINEE – RESEARCH GUIDANCE (Ongoing/Completed)

Mrs. D. P. Theertha*	Mrs. L. George	Dr. K. Sowndhararajan
(JRF, GAP-527)	(SRF, GAP-533)	(Trainee, SRTP-2020)
Dr. A.L.V. Swamy	Mr. V.T.T. Selvan	Ms. S. Noore
(Trainee, SRTP-2020)	(Trainee, SRTP-2020)	(PA, MLP-222)
Ms. A. S. Mathews ^{\$}	Ms. S. Tripathy	Mr. A. Anand
(PG Research)	(GAP-615)	(PA, HCP-37)
Ms. S. Tanushree	Ms. M. Devi [#]	Mr. M. Nazeer ^a
(PA, HCP-37)	(PG Research)	(PA, HCP31)
Ms. V. Shree Yazhini	Mr. N.M.N. Macarius ^b	Mr. K. Viji
(PA, MLP300)	(PA MLP300)	(SA, HCP31)
Ms. Sreelakshmi	Ms. P. P. Gawali	Mr. A. R. Shivakumar [@]
(GAP-615)	(CSIR-SRF)	(PG Research)
Mr. P. A. P. Rejoy (MLP300)	Ms. R. Chithra (PA, HCP31)	

[@]Received Best Poster Presentation Award (OWOL 2023) ^{\$}Received BIRAC SITARE - Appreciation Grant Award (2020) *Received Best Poster Award (IFCoN-2018) [#]Received RUSA-2.0 Grant Award for dissertation project ^aQualified GATE fellowship award ^bQualified INSPIRE fellowship award

DISSERTATION PROJECT GUIDANCE - Completed

- Shivakumar, A. R. 2023. Contamination risk of carcinogenic benzoquinones in flour beetle infested grain flours. M.Sc., 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. 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. 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. 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. 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. 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. Botany, Bharathidasan University, Trichy, TN*.
- Mathews, A. S. 2020. Investigation of structure-activity relationship of selected phytochemicals against *Callosobruchus maculatus* Fab. *B.Tech. Biotechnology, Vellore Institute of Technology, Vellore, TN.*
- Harshini, A. V. S. G. 2020. Investigation of quinone secretion variations in flour beetle at different stress exposures. *M.Sc. 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. Biotechnology, Rajalakshmi Engineering College, Chennai, TN.*
- Srimathi, J. 2019. Generation of plant volatiles and evaluation of toxicity against stored product insect pests. *B.Tech. Biotechnology, Rajalakshmi Engineering College, Chennai, TN.*
- Swathi, R. 2019. Fumigation effect of selected phytochemicals and cuticular surface chemical profile analysis in stored product insect pests. *B.Tech. Biotechnology, Jeppiaar Engineering College, Chennai, TN.*
- Das, A. 2018. Determination of topical sedimentation and uptake of phytochemicals through cuticular surface in fumigated stored product insect pests. *M.Sc. 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. 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. 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. Food Technology, Gautam Budha University, Lucknow, Uttar Pradesh.

REVIEWER IN JOURNALS

- Journal of Invertebrate Pathology, *Elsevier* (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)
- PloS ONE Journal (2021 2023)

- Current Science (2021 2023)
- International Journal of Food Science, *Hindawi* (2021 & 2023)
- Journal of Environmental Biology (2023)
- Psyche: A Journal of Entomology, *Hindawi* (2020, 2022 2024)
- Indian Food Industry Magazine (2022)
- Journal of Food Processing and Preservation, *Hindawi* (2022)
- Journal of Food Process Engineering, Wiley-Blackwell (2022)
- Journal of Environmental Biology (2022)
- International Journal of Agricultural Science and Food Technology (2022)
- Pest Management Science, *Elsevier* (2021)
- Journal of Environmental Biotechnology (2021)
- Journal of Asia-Pacific Entomology, *Elsevier* (2020)
- Proceedings of the Zoological Society, Springer (2020)
- International Journal of Tropical Insect Science, Springer (2019 2021)
- Food Hydrocolloids, *Elsevier* (2019)
- Journal of Herbal Medicine, *Elsevier* (2019)
- Ethnobotany Research & Applications, *Georgia* (2019)
- Environmental Sustainability, Springer (2018)
- 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 Thoodhuvargal	Kalki magazine	08 th June 2008
Yearkai Poochikolli Ponneem	Naveena Velanmai magazine	Sep 2008

PROFESSIONAL CONTRIBUTIONS

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.
Member	Board of Studies (BoS), Food Technology, Karpagam Academy of Higher Education, Deemed to be University, Coimbatore, TN	2022 – till date
Paper Setter / Examiner	Kerala Agricultural University, Kerala	2021 Oct.
Chief Guest	2 nd International Conference MBEM-2021, Vivekanandha College of Arts and Sciences for Women, Tiruchengode.	2021 Mar.
Member	Bureau of Indian Standards (BIS) - Pesticide Residue Analysis Sectional Committee – FAD 27	2021 – till date
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.

Examiner	Ph.D. Thesis Evaluation, Bharathidasan University (12 Ph.D. thesis evaluated)	2019 - 2022
Examiner	Ph.D. Thesis Evaluation, Manonmaniam Sundaranar University (1 Ph.D. thesis evaluated)	2017 Oct.
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

Coordinator	Committee - Venue & Hall Arrangement, National	2023 Oct.
	Quiz Contest on Food Security Mission	
Paper Setter	Committee - Question Paper Setting for Regional Level	2023 July
	Contest on Food Security Mission	
Member	Organizing Committee - Panel Discussion on	
	Supplementary Foods for Women & Child	2023 July
	Development -OWOL event	
Member	Organizing Committee - CSIR-CFTRI Licensee Meet	2023 July
	Academia-Industry Interactions - OWOL event	
Member	Committee - Question Paper Setting for M.Sc. Food	2023 Mar.
	Technology	
Resource Person	Orientation Programme for the Ph.D. Research Scholars	2023 Jan. & Aug.
Co-Coordinator	M.Sc. Food Tech. (FSS)	2022 – till date
Member	Organizing Committee - Monitoring Committee meet	2022 Dec.
	of ATLAS Mission	
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:	2022 Mar.
	Processing, Preservation & Packaging	2022 Wai.
Member	Organizing Committee – Azadi Ka Amrit Mahotsav	2022 Jan.
	Webinar IAFPGS	
Internal Auditor	ISO Standard: Environmental Management System &	2021 – till date
	Quality Management System	
Member	Project Review Committee – Biomolecules &	2021 – till date
	Biotechnology	
Member	Library Committee	2021 – till date
Member	Evaluation Committee – Probation Period of CFTRI	2021 – till date
	School Teachers and Staffs	
Co-Coordinator	M.Sc. Food Tech. (TIC-C)	2021 – till date
Member	CSIR JIGYASA Scientist-Student Contact Program	2021 Nov.
Chairman	Financial Committee - International Conference ET-	2021 Feb.
Chairman	FPIC 2021, 24th & 25th Feb. 2021.	
Member	Scientist Selection Committee	2020 Sep.
Member	Organizing Committee – ICP Virtual Colloquium	2020 Dec.
	VAIBHAV Summit: Horizontal – Food Safety &	
Rapporteur	Nutritional Security, Sub-Horizontal - Storage &	2020 Oct.
	Handling Strategy	
Secretary	Pesticide Science Study Group	2020 – till date
Member	Project Fellow Selection Committee	2019 – till date
Member	Doctoral Advisory Committee	2019 – till date
Member	Swachada Pakhwada	2018 May
Member	Exhibition - Adamya Chetana Seva Utsav	2017 Dec.
Member	Project Work Evaluation Committee - PG Nutri. Bio.	2017 Jun.
Member	QMS & EMS Documentation Committee	2017 – till date
Member	Physical Verification Committee	2017 – till date
Convener	Departmental Seminar Programme	2015 - 2016

MEMBERSHIP IN ACADEMIC SOCIETIES

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



rightarrow Thank You rightarrow