











A TWO-DAY
INTERNATIONAL CONFERENCE
ON

EMERGING TRENDS
IN INSECT SCIENCE
2022
(ICETIS-2022)

April 7th & 8th 2022

Entomology Research Institute (ERI)

Loyola College Chennai – 600 034 Tamil Nadu, India

Organized by

Entomology Academy of India (EAI) & Department of Zoology

University of Madras Chennai – 600 025 Tamil Nadu, India Sun Agro Biotech Research Centre (SABRC)

> Mugalivakkam Chennai – 600 125 Tamil Nadu, India

Loyola College, Chennai

Loyola College, a Catholic Minority Institution, was founded in Chennai by the Society of Jesus (Jesuits) in 1925, with the primary objective of educating young men and women to serve People and Nature in Justice, Truth and Love. Loyola College is affiliated to University of Madras. UGC has elevated Loyola college to the status of "College of Excellence". Loyola is ranked 3rd Top College in India by NIRF in 2021. Chennai is a metropolitan city and capital for Tamil Nadu state in India.

Entomology Research Institute (ERI)

Entomology Research Institute is among India's leading centre for excellence, and based in Loyola College, Chennai. ERI was started in 1963 by the noted Indian entomologist T.N. Ananthakrishnan, with a mission for advancing insect science research for better agricultural productivity and safer human environment. The R&D in ERI covers areas like Biodiversity, Biopesticides, Biocontrol, Genetic Engineering Molecular Biology and Ecology and Environment. Based on its outstanding research contributions, it is rated as 8th best private Institution in research output in India.

Entomology Academy of India (EAI)

Entomology Academy of India (EAI) was established with registered office at Zoological Survey of India (ZSI)-South Zone, based at Chennai. It is an autonomous, non-profit society committed to promotion of entomology research and education in India. EAI has over 200 life members and has sustained major periodical activities in promoting entomology research and awareness building among stakeholders. It is also publishing a scientific journal "Hexapoda" which carries both review and research articles in insect science.

Department of Zoology, University of Madras

The department of Zoology was approved by the University of Madras in the year 1925 and started in the year 1927. For the past 94 years, the department grew slowly and attained a prestigious name in teaching as well as research throughout the world. In appreciation of the quality of teaching and research output of the department, UGC and DST extended their support to upgrade the teaching and research facilities of this department. In recognition of the research contribution, MoEF & CC, GOI sponsored EMCB - ENVIS centre in this department involved in disseminating information through web-enabled mechanisms. The research activities in this department has attracted funding from DST, DBT, CSIR, UGC, DOD, MOEF, DAE etc. as well as International agencies (European Economic Commission, Brussels, Belgium; International Foundation for Science, Sweden).

Sun Agro Biotech Research Centre (SABRC)

Sun Agro Biotech Research Centre (SARBC) is a non-profit, autonomous R&D centre, recognized as Scientific and Industrial Research Organization (SIRO) by Government of India from 2003 onwards. It focuses on evolving improved and newer eco-friendly insect pest management technology options in agri-horticultural ecosystems. Besides completing several externally funded competitive R&D grant projects, it is involved in industry-academia linkage programmes for commercially viable technology development. It also hosts postgraduate student research projects, and it is involved in stakeholder information sharing activities like co-hosting of scientific workshops/conferences.

Theme of the Conference

Insects comprise about 9,26,400 known species and they constitute the largest group of organisms. Most insects are beneficial to humans and the environment. Without insects, the environment may not function well. About 80% of the flowering plants on earth are pollinated by insects. They are also responsible for much of the nutrient cycling, conditioning and aeration of the soil. Insects are excellent indicators of the health of ecosystem. The Food and Agricultural Organization (FAO) estimates that annually between 20 to 40% of global crop production are lost to pests.

Aim of the Conference

This International conference focuses on bringing global entomologists together including research scholars from leading academic institutes and research organizations to exchange and share their research experiences in the major theme areas of insect science.

Objectives

- To cover insect taxonomy and biodiversity, trophic level interactions and insect population dynamics, natural and applied/biocontrol, insect behavioural and chemical ecology interface, crop and habitat associations, agrotech practices like push-pull approaches, besides beneficial and commercial insects.
- To provide an interdisciplinary forum for researchers, academics, industries and other relevant stakeholders to present and discuss more recent entomological innovations, trends, and challenges encountered and potential future R&D thrusts towards filling in critical knowledge gaps in insect science.

Focus Areas

- Insect taxonomy and ecosystem biodiversity
- Beneficial insects in ecosystem services
- Productive (commercial) insects
- Mass-reared insects in applied biological control
- Crop associations and habitat management
- Classical/alternative biological control for invasive insects
- Botanical sources as biopesticides
- Microbial biopesticides for insect control
- Semio-chemicals and chemical ecology
- Alternative bio-intensive control options
- Climate change linked insect management
- Successful models in IPM of insects

Language

The official language of the conference is English.

Resource Persons

Resource Persons will include Top Invited Entomologists from Universities, Colleges and Research Institutions at the International and National levels.

Duration and Venue

The two-day International Conference will be held in Lawrence Sundaram Auditorium, Loyola College, Chennai, India on April 7th and 8th, 2022 (Thursday and Friday).

Participants and Accommodation

A total of around 300 participants will be selected to attend this International Conference. Participants are requested to arrange their boarding and lodging by themselves. In case of special request, the organizing committee may guide the participants for their accommodation.

Registration Fee

Offline

| Indian delegates-industry | INR 4000 |
|-----------------------------------|----------|
| Indian scientists/academics | INR 1500 |
| Indian students/research scholars | INR 800 |
| Accompanying persons (Indian) | INR 1000 |

Online

| National Participants | INR 500 |
|-----------------------|---------|
| Foreign delegates | USD 150 |
| Foreign students | USD 50 |

The registration fee includes entrance to the conference, conference kits, refreshments, lunch for two days and E-certificate for participants in person (offline mode).

Mode of Payment

- All payments should accompany duly filled in registration form with all details. Payment can be made by a Demand Draft (DD) drawn in favour of The Director, Entomology Research Institute payable at Chennai, India. Alternatively, online bank transfer can be done through NEFT/Google pay/Phone pe and Paytm.
- Online payment receipt/Transaction details/Payment screenshot with date along with the registration form may be sent by post or as scanned copy by email to the Organizing Secretary. Accepted abstracts without registration fee may be rejected.

Account Details

Beneficiary: The Director, Entomology Research Institute

Name of the Bank : Indian Overseas Bank

Bank Branch : Loyola College Branch, Chennai - 600 034

 Account No.
 : 171201000011284

 IFS Code
 : IOBA0001712



Abstracts for Oral and Poster Presentations

We invite abstracts. And it must include title, authors, affiliation, limited to 250–300 words, and mention key words along with corresponding author email.

Full-Length Papers

- To include abstract, materials and methods, results and discussion, conclusions and references
- Size-limited to 10 typed pages in double space, including illustrations-Tables/Graphs
- Avoid photos since it is not convenient for printing
- Font (Times New Roman) and size 12 maximum
- References citation according to Indian Journal of Entomology style

E.g. Khandelwal P, Choudhury D, Ajanta B, Reddy M K, Gupta G P, Banerjee N. 2004. Insecticidal pilin subunit from the insect pathogen *Xenorhabdus nematophila*. Journal of Bacteriology 186(19): 6465-6476.

Poster Presentation

We also invite abstracts for poster presentation. The posters will be displayed on board 120 (height) x 90 (width) cm. During the poster session, a committee appointed by the organizers will judge all posters.

Oral Presentation

Each presenter will be given 7 minutes for oral presentation and 3 minutes for discussion. The presenter is expected to bring his/her presentation on a USB memory stick in recommended format (PPT) and upload in the session room computer prior 15 minutes of his/her session starts.

Key Dates

Early bird registration
Abstract submission
Last date of Registration Form submission
Notification of acceptance
Manuscript submission

- On or before 7th January, 2022 (20% discount)
- 7th February, 2022
- 15th February, 2022
- 17th February, 2022 (Oral/Poster presentation)
- 7th March, 2022

Awards

The best oral/poster presentation papers will be awarded with certificates for each session of the conference.

Official Letter of Invitation

An official letter of invitation will be made available to selected authors/participants upon request. However, the invitation letter may not commit any financial support.

Who Can Participate?

Participants include Professors, Scientists, Researchers and Co-ordinators from Universities, Colleges, Research Institutes and R & D laboratories.

For international participants

Due to the COVID-19 pandemic situation, all the International registered persons for ICETIS-2022 are allowed to participate only through ONLINE mode in the international conference.

For national participants

Only 300 national registered persons for ICETIS-2022 are selected to participate in person (OFFLINE mode). All other registered persons will be allowed to participate only through ONLINE mode.

Registration fee for online participants includes E-certificate and soft copy of the conference abstract.

Patrons

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Chennai. Tamil Nadu. India

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Mr M. Prabhakar

International Invited Speakers



Dr R. Srinivasan *Entomologist AVRDC, Taiwan*



Dr R. MuniappanDirector

IPM Innovation Lab
Virginia, USA



Dr John MumfordFaculty of Natural Sciences
Centre for Environmental Policy
London, UK

National Invited Speakers



Dr M. Nagesh *Director ICAR-NBAIR Bengaluru, Karnataka, India*



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ICAR-NBAIR
Bengaluru, Karnataka, India



Dr Abraham VergheseFormer Director
ICAR-NBAIR
Bengaluru, Karnataka, India



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ICAR-Sugar Breeding Institute
Coimbatore, Tamil Nadu, India



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Bengaluru, Karnataka, India



Dr S. Prabhakaran Scientist-E Zoological Survey of India Chennai, Tamil Nadu, India



Rev. Dr S. Maria Packiam SJ

Director

ERI, Loyola College

Chennai, Tamil Nadu, India



Dr S. Janarthanan
Professor & Head
Department of Zoology
University of Madras
Chennai, Tamil Nadu, India



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Sponsorship

Platinum sponsorship INR 50,000 Golden sponsorship INR 35,000 Silver sponsorship INR 20,000

Advertisement charges in Souvenir-Abstract

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Half page inner pages (colour)
INR 15,000
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PROGRAMME SCHEDULE

A Two-day International Conference on

"EMERGING TRENDS IN INSECT SCIENCE-2022" (ICETIS-2022)

April 7th & 8th, 2022

Lawrence Sundaram Auditorium, Loyola College, Chennai-600 034, Tamil Nadu, India

| DAY-1 (07.04 | 4.2022) Thursday | Торіс |
|-------------------------------------|---|---|
| Inaugural Session (9 AM - 10:30 AM) | | |
| Session 1 10.30 AM 11.00 AM | Invited talk - I Dr R. Srinivasan Lead Entomologist World Vegetable Center Taiwan | Revisiting the Concepts and Practices of Integrated Pest Management |
| Coffee break (11.00 AM - 11.15 AM) | | |
| Session 2 11.15 AM 11.45 AM | Invited talk - II Dr R. Muniappan Director, IPM Innovation Lab Virginia Polytechnic Institute and State University (VT), VA, USA | Role of Biological Control in Integrated Pest Management in Developing Countries |
| 11.45 AM 12.45 PM | Oral Presentation - I 11.45 AM - 11.55 AM 11.55 AM - 12.05 PM 12.05 PM - 12.15 PM 12.15 PM - 12.25 PM 12.25 PM - 12.35 PM 12.35 PM - 12.45 PM | Oral Presentations (Selected papers only) |
| 12.45 PM 01.00 PM | Invited talk - III Dr S. Janarthanan Professor & Head Department of Zoology University of Madras, India | Prospects of DNA barcoding in the Taxonomy of Insects |
| Lunch Break (01.00 PM - 02.00 PM) | | |

| Session 3 02.00 PM 02.30 PM | Invited talk - IV Dr M. Nagesh Director ICAR-NABIR Bengaluru | Private-Public Partnership in IPM for Crop Health Management - Challenges and Prospects |
|--|--|---|
| 02.30 PM 03.00 PM | Invited talk - IV Dr S. Subaharan, Principal Scientist ICAR-NBAIR Bengaluru | Improved Pheromone Formulations for Pest Management |
| 03.00 PM 03.15 PM | Invited talk - V Dr S. Sithanantham Director Sun Agro Biotech Research Center Chennai, Tamil Nadu India | Emerging collaborative R&D models in eco-friendly pest management technologies |
| 03.15 PM 04.15 PM | Oral Presentation - II 03.15 PM - 03.25 PM 03.25 PM - 03.35 PM 03.35 PM - 03.45 PM 03.45 PM - 03.55 PM 03.55 PM - 04.05 PM 04.05 PM - 04.15 PM | Oral Presentations (Selected papers only) |
| 04.15 PM 04.30 PM | Poster Presentation | Selected posters only |
| Tea break (04.30 PM - 04.45 PM) | | |
| 04.45 PM 05.30 PM AGM Meeting of Entomology Academy of India (AGM-EAI) | | |









Standard COVID-19 Protocol to be followed











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| DAY-2 (08.0 | 4.2022) Friday | Торіс | |
|-----------------------------------|--|---|--|
| Session 4 09.00 AM 09.30 AM | Invited talk - VI Dr N. Geetha Principal Scientist ICAR-Sugarcane Breeding Institute Coimbatore | Trichogramma chilonis: Effective Use against INB in Sugarcane | |
| 09.30 AM 10.00 AM | Invited talk - VII Dr R. Asokan Principal Scientist ICAR-IIHR Bengaluru | Genome Editing and Gene Drive in Insect Pest Management | |
| 10.00 AM 10.30 AM | Invited talk - VIII Dr Abraham Verghese Former Director ICAR-NBAIR Bengaluru | Biopesticide industrialization: The Future game plan for insect pest management | |
| 10.30 AM 10.45 AM | Invited talk - IX Rev. Dr S. Maria Packiam SJ Director Entomology Research Institute Loyola College, Chennai, India | Phytochemicals and Insect Pest Management | |
| | Coffee Break (10.45 AM-11.00 AM) | | |
| Session 5 11.00 AM 12.30 PM | Oral Presentation - III 11.00 AM - 11.10 AM 11.10 AM - 11.20 AM 11.20 AM - 11.30 AM 11.30 AM - 11.40 AM 11.40 AM - 11.50 AM 11.50 AM - 12.00 PM 12.00 PM - 12.10 PM 12.10 PM - 12.20 PM 12.20 PM - 12.30 PM | Oral Presentations (Selected papers only) | |

| 12.30 PM 01.00 PM | Invited talk - X Dr S. Prabakaran Scientist-E Zoological Survey of India (ZSI) Chennai, India | Diversity of Insects in India |
|-----------------------------------|--|--|
| | Lunch Break (01.00 PM | -02.00 PM) |
| Session 6 02.00 PM 02.30 PM | Invited talk - XI Dr John Mumford Faculty of Natural Sciences, Centre for Environmental Policy UK | Pest Risk and Quarantine |
| 02.30 PM 03.30 PM | Oral Presentation - IV 02.30 PM - 02.40 PM 02.40 PM - 02.50 PM 02.50 PM - 03.00 PM 03.00 PM - 03.10 PM 03.10 PM - 03.20 PM 03.20 PM - 03.30 PM | Oral Presentations (Selected papers only) |
| Session 7 03.30 PM 04.00 PM | Valedictory Session | |
| 04.00 PM 04.30 PM | Tea followed by Departure | |
| 04.30 PM 05.00 PM | Plenary Session with the Core Team | |

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