



# About The Symposium

Agriculture is the sole process to sustain human life. In the world of agriculture, as the plants, and the microbes live in and out of the plants, understanding their inter and intra play is equally important. No surprise that, these two - the plants and microbes are the factors for sustaining our life. Proteins are the major players of biological activities in any organism including the plants and microbes. Modern day agriculture is benefited by the use of many omics platforms thorough which the crop improvement in terms of increased productivity, improving the quality of the produce, managing the biotic and abiotic stresses and new elite varieties to suit the climate change is made possible. Among the omics tools, proteomics had been applied to provide insights into the molecular mechanism on growth, development, plant responses to various environmental stresses and its adaptation mechanisms. With the advent of new proteomics tools, the application of this technology in plant is expected to expand more. Plants are constantly interacting with microorganisms throughout their crop growth cycle from seed and also from the soil they are planted on. These microbes have many roles in modulating the nutrient uptake, defence, growth, fitness and yield of the plants. The proteomics of plant associated microbes provides understanding on the pathways and proteins in microbes for plant growth and yield. With the proteome mining approach, the study on microbial metabolism in agriculture is gradually increasing. The climate resilience with the sustainable yield is dependent on the interplay of plant- microbe interaction. The host genotype dictates the nature of microbes to be associated with and the microbes decides the plant fitness. In light of the above, this symposium is aimed to bring the discussion on crop proteomics, microbial proteomics and the interplay of plant-microbe proteomics towards crop improvement.

## About CUTN

The Central University of Tamil Nadu (CUTN) was established in the year 2009 in Thiruvarur, Tamil Nadu by an Act of a Parliament. Spread over 516 acres across the banks of picturesque river Vettaru in a lush green Cauvery delta the university boasts 13 schools with 28 departments offering 64 academic programmes, including 29 research, 22 specialized, 6 integrated, and 2 undergraduate programmes, along with several PG diploma and certificate courses. CUTN is dedicated to fostering innovation, interdisciplinary studies, and a holistic learning experience. This symposium is jointly organised by department of horticulture and department of microbiology under the vibrant School of Life Sciences. Department of Horticulture is unique as it is the only department offering horticulture courses in a central university in the entire landscape of south of Vindhya and microbiology is the DST-FIST funded department. Both the departments offer M.Sc. & Ph.D. programmes and has dedicated teaching and research laboratories with state of art instrumentation facilities.

## About Thiruvarur

CUTN is located around 9 Kms from Thiruvarur town. Thiruvarur is the place where culture, heritage, history and modernity confluence. It is one of the capitals of early Cholas and birth place of one the trinities of Carnatic music Sadguru Tyagaraja Swami. The temple car of the town is the biggest in Asia. In and around Thiruvarur many tourist attractions are there which includes grand living Chola temples, French settlement in Karaikal, Danish settlement at Tranquebar, Portuguese built church at Velankanni, Nagore dargha and scenic beaches with ever attractive back waters.

## About IARI-RBGRC

Rice Breeding and Genetics Research Centre (RBGRC) is a one of the research centres of Division of Genetics, Indian Council of Agricultural Research (ICAR)-Indian Agricultural Research Institute (IARI) and it is located at Aduthurai, Tamil Nadu. Situated in Cauvery delta region, blessed with the environment for year-round rice cultivation, this centre was identified as a shuttle breeding centre by Father of Green revolution in India Late. Prof. M.S. Swaminathan in the year 1968 to accelerate the rice breeding programs of ICAR. Since then this centre has played a significant role in the early success of the Green Revolution in India and contributed immensely in the development of Pusa rice varieties of ICAR. As a success story of Division of Genetics IARI this tiny centre continues in robustly impacting India's rice economy through modern crop improvement strategies.



**IARI- Rice Breeding and Genetics Research Centre**  
Aduthurai, Tamil Nadu



**National symposium on**

**PROTEOMICS FOR LIFE : THE INTRA AND INTERPLAY OF PROTEINS IN PLANTS AND MICROBES**



**School of Life Sciences**  
**Central University of Tamil Nadu**  
Thiruvarur, Tamil Nadu



*Organised by*

**Sponsored by**

**Proteomics Society, India**

**March 18, 2025**

**Central University of Tamil Nadu**  
**Thiruvarur**



## Patrons

**Dr. Himanshu Pathak**  
Secretary (DARE) and  
Director General, ICAR  
New Delhi

**Prof. M. Krishnan**  
Vice Chancellor  
Central University of Tamil Nadu  
Thiruvavur

## Co-Patron

**Dr. Ch. Srinivasa Rao**, Director, ICAR-IARI, New Delhi

## National Advisory Committee

Prof. R. Thirumurugan, Registrar, CUTN, Thiruvavur  
Dr. Ashok Kumar Singh, Former Director, ICAR-IARI, New Delhi  
Dr. C. Viswanathan, Joint Director (Research), ICAR-IARI, New Delhi  
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Prof. C. P. Suresh, Head, Department of Horticulture, NEHU, Tura Campus, Meghalaya  
Dr. Rajesh Banu, Head, Department of Biotechnology, CUTN, Thiruvavur  
Dr. Sujata Upadhyay, Head, Department of Horticulture, Sikkim University, Gangtok

## Chairperson

**Prof. S. Manivannan**, Dean, School of Life Sciences, CUTN, Thiruvavur

## Co-Chairperson

**Dr. S. Gopala Krishnan**, Head, Division of Genetics, ICAR-IARI, New Delhi

## Organising Committee

Dr. K. Subrahmaniyan, Director, TRRI, Aduthurai  
Prof. Rajaguru, Dean, School of Integrative Biology, CUTN, Thiruvavur  
Prof. P. Ramanan, Head, Department of Microbiology, CUTN, Thiruvavur  
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Dr. A. Ramesh Kumar, Head, Department of Horticulture, CUTN, Thiruvavur  
Dr. Ramarao Golime, Head, Department of Epidemiology and Public Health, CUTN, Thiruvavur

## Organising Secretary

**Dr. P. Umadevi**, Senior Scientist, IARI-RBGRC, Aduthurai  
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## Convenors

**Dr. Moumita Malakar**, Asst. Prof., CUTN, Thiruvavur  
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**Dr. Amit Kumar Bajhaiya**, Asst. Prof., CUTN, Thiruvavur  
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## Theme 1: Plant proteomics

- > Plant proteomics; novel strategies, application and challenges
- > Proteomic approach for crop improvement and food security
- > Proteome mining for plant metabolites, unlocking bioactive compound

## Theme 2: Plant associated microbial proteomics

- > Plant associated microbial proteomics for sustainable agriculture
- > Proteomics for unravelling functions of microbial proteins in plants
- > Proteome mining for microbial metabolism for climate resilience and sustainable yield

## Theme 3: The interplay of plant microbe proteomics

- > Proteomic exploitation to unravel configuration and function of microbial proteins underlying in plants growth and observed phenotypes
- > Protein interactome and peptide design
- > Application of AI in proteomics and machine learning

**REGISTRATION  
LAST DATE  
March 03, 2025**

## Registration Fee details:

### Physical participation

Students: INR 1000

Faculty/Public/Research  
Scholar : INR 2000

### Online participation

Students/Faculty/Public/Research  
Scholar: INR 1000

(All the fee should be included  
additional 18% GST)

Details regarding payment of registration fee and guest house booking are available on link below.

[https://drive.google.com/file/d/11zHJkJLo511KGvsslvRLOrsDH5NkCpDZ/view?usp=drive\\_link](https://drive.google.com/file/d/11zHJkJLo511KGvsslvRLOrsDH5NkCpDZ/view?usp=drive_link)

## Dead lines:

Last date for registration and abstract submission : 03/03/2025

Full-length paper submission : 15/03/2025

Abstract should be submitted in the format given below:

<https://docs.google.com/document/d/1PMJIN5qc0qkCYos6vEnvHHRyRzYKPNzGJNgoSwwqKHc/edit?usp=drivesdk>

Registration link : <https://forms.gle/NwCB7DejRGzCMs1w8>

Communication details anything related to Symposium: [Proteomics2025@gmail.com](mailto:Proteomics2025@gmail.com)

## How to reach Thiruvavur?

Participants can board a train from Chennai Egmore to Thiruvavur Junction or take connecting trains from Tiruchirappalli, Thanjavur and Mayiladuthurai Junctions. Alternatively, participants can also avail air transport, from Tiruchirappalli (Trichy) International Airport (100 km away) and Chennai International Airport (299km). From the above-mentioned Airports one can take buses or trains to Thiruvavur

## Other details:

- > Registration fee includes symposium kit and working lunch during the symposium.
- > Registration fee is non-refundable in any circumstances.
- > Registration fee does not include accommodation charges and accommodation will be arranged in university guest house subject to availability.