

CSIR-NIIST Golden Jubilee Conclave on

Emerging Trends in **** BIOMANUFACTURING AND** HEALTHCARE-2025 **







Organized by

Biosciences and Bioengineering Division

CSIR-National Institute for Interdisciplinary Science and Technology (NIIST) Pappanamcode, Thiruvananthapuram, Kerala

About the Institute

CSIR-National Institute for Interdisciplinary Science and Technology (NIIST) is a premier constituent laboratory of the Council of Scientific and Industrial Research (CSIR), India. The institute is dedicated to cutting-edge multidisciplinary research and development divisions, including biosciences & bioengineering, agro-processing & technology, chemical sciences & technology, material sciences & technology, environment technology, centre for sustainable energy technologies, and artificial intelligence & machine learning unit. All these divisions operate synergistically, fostering an interdisciplinary approach to innovation. With state-of-the-art research facilities, CSIR-NIIST offers a comprehensive range of tools and resources critical for achieving research excellence. Our programs seamlessly blend fundamental research, technology development, and commercialization, ensuring practical outcomes that contribute to societal advancement. The laboratory boasts strong collaborative initiatives with leading national and international agencies, enhancing the impact and scope of our work. Through these partnerships, we are driving transformative innovations and solutions to address global challenges.

About the Biosciences and Bioengineering Division

The division specializes in two major thematic areas: Biomass and Biorefinery, and Healthcare Research. In the area of Biomass and Biorefinery, the division aligned with the Govt. of India BioE3 policy that leads research on biomass conversion to fuels and platform chemicals, utilizing microbial, plant, and algal resources for sustainable product and process development. With expertise in biotechnologies for transforming bioresources into products across sectors such as biofuels, biopolymers, chemicals, nutraceuticals, and bio-actives, the division aligns its efforts with national goals in the bio-economy, sustainable development, and climate action, supporting and enhancing national missions through both existing and developing capabilities. The division is also leading in focused healthcare research that includes innovation in modern diagnostic nanotechnology and precision therapies. Key areas of focus include early cancer detection using SERS, targeted drug delivery, combating antimicrobial resistance (AMR), and gut microbiome research.

About the Conference

The Biosciences and Bioengineering Division of CSIR-NIIST is organizing a two-day Golden Jubilee National Conclave on "Emerging Trends in Biomanufacturing and Healthcare Research" to highlight its lead role in this field. The conference will feature distinguished lectures, demonstrations, and laboratory visits showcasing cutting-edge advancements. The bio-economy is emerging as a transformative force for sustainable development by integrating biotechnology, healthcare, and circular economy. Worldwide, nations are progressively shifting towards a bio-based economy, aiming to make most, if not all, processes sustainable and eco-friendly. A key aspect of the bio-economy is the use of renewable, sustainable bio-resources as feedstock for manufacturing across various sectors, reducing dependence on non-renewable resources.

Thematic areas

Abstracts for Oral/Poster presentations are invited in the following areas, but not limited to:

Natural Resources, Biomass and Biorefinery

- Bioactive Compounds from Bacteria, Fungi, Plants and Algae
- Sustainable Bioprocesses for Biopolymers, Nutraceuticals, and Bioactives
- Advances in Biomass Conversion to Biofuels and Platform Chemicals

Healthcare Research

- Emerging Techniques for Early Detection of Diseases and Precision Therapies
- Combating Antimicrobial Resistance (AMR)
- Interdisciplinary/Transdisciplinary Area in the Broad Area of Biological Sciences

Organizing Team

Chief Patron:

Dr. C. Anandharamakrishnan Director, CSIR-NIIST Organising Secretary:

Dr Kaustabh Kumar Maiti Hod, BBD, CSIR-NIIST

Convener:

Dr. Muthu Arumugam Principal Scientist, BBD, CSIR-NIIST Members:

- Dr. Madhavan Nampoothiri K.
- Dr. Rajeev Kumar Sukumaran
- Dr. Binod P.
- Dr. Rameshkumar N.
- Dr. Pinaki Dey
- Dr. Rakesh Yasarla
- Dr. Venkatesh T.
- Dr. Harsha Bajaj
- Dr. Balakumaran P. A.
- Dr. Priya S.
- Mr. Jedy Jose

Registration Details

UG and PG Students : Rs. 500.00

- PhD Scholars : Rs. 1000.00
 - Faculties : Rs. 2000.00
 - Industry : Rs. 3000.00

ACCOUNT DETAILS

The Director, CSIR-NIIST (Regional Research Laboratory) Account No: 67047723825 IFSC Code: SBIN0070030 Bank : State Bank of India, Pappanamcode Industrial Estate

For more information

Abstracts Submission are Open for Oral/Poster Presentation From 1st June 2025 Onwards. For Registration and Other Related Details, Kindly Contact: <u>biohealth.niist@gmail.com</u>

Kind attention

Accommodation is limited inside the campus, thus all the Delegates/Participants are requested to find suitable accommodation on their own. The possible nearby Government accommodation : BSNL RTTC, Kaimanam, Thiruvananthapuram, Kerala 695040. Contact: <u>rttctvm@gmail.com</u>



Register @





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