

Hon'ble Prime Minister's initiative- Azadi ka Amrit
Mahotsava Lecture Series

National Workshop on “Microbial Biotechnology in Agriculture and Industry”

April 26 - May 01, 2021

Sponsored by



DBT, GOVERNMENT OF INDIA
NEW DELHI

ORGANIZED BY



DBT-NORTH EAST CENTRE FOR AGRICULTURAL
BIOTECHNOLOGY (DBT-NECAB)
ASSAM AGRICULTURAL UNIVERSITY
JORHAT, ASSAM-785013

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ABOUT THE WORKSHOP

Microbial biotechnology has the potential to expedite our ventures in crop productivity & protection, disease diagnosis, food-nutritional safety & security, environmental risk assessment, bioprocessing of materials and fundamental understanding in agricultural sciences. The emergence of omics technologies has enabled the present-day researchers in adopting these technologies to redefine the agricultural ecosystems as well as industrial processes and has led to a paradigm shift in these sectors.

Integration of complementary technologies and resources under the aegis of 'omics approaches' towards producing essential knowledge such as metabolic typing and pathway-based functional analysis is getting increasingly evident from the published reports. This webinar series is an attempt to highlight the significant aspects of microbial biotechnology in agriculture and industry. The webinar also provides an opportunity for early-career researchers, faculties and student communities to explore interdisciplinary relations in diverse fields of microbial biotechnology such as biomaterials (metabolites, enzymes, proteins, exopolysaccharides, etc.), biofertilizers, bioremediation, biofuels, probiotics, high-performance metabolite screening etc. domains which have the potential in driving sustainable agricultural and industrial developments.

Invited Speakers

- **Dr. A. Sashany**, Director, National Institute for Plant Biotechnology, New Delhi
- **Dr. G. D. Sharma**, Hon'ble Vice Chancellor, University of Science and Technology, Meghalaya
- **Dr. M. V. Deshpande**, National Chemical Laboratory, Pune
- **Dr. Subrata K. Das**, Institute of Life Sciences, Bhubaneswar
- **Dr. Pradipta Saha**, Associate Professor, Department of Microbiology, University of Burdwan, WB
- **Dr. Senthil Kumar**, Principal Scientist, CSIR-Institute of Microbial Technology, Chandigarh
- **Dr. Pinaki Sar**, IIT Kharagpur, West Bengal

Registration Form

Name:

Date of Birth:

Department/Institution:.....

Designation:

Address for communication:.....

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Mobile:.....

Email:.....

Educational qualification:.....

Signature of the candidate

Signature of the competent authority

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***Alternatively, participants may also register online with the link provided:

<https://forms.gle/cnmzNwgJFuVsCRgN9>

ELIGIBILITY CRITERIA

PG/PhD students, Early career scientists and postdoctoral researchers are eligible.

CONTACT

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EVENTS

Lecture by Eminent Academicians & Industrialists

- ❖ Plant Biotechnology and Microbes
- ❖ Role of Microorganisms in Crop Improvement
- ❖ Emerging Microbial Biocontrol Strategies for Plant Pathogens
- ❖ A Systematic Approach for Discovering Novel Microbes and their Characterization
- ❖ Chemical Ecology of Multitrophic Microbial Interaction
- ❖ Biopesticides
- ❖ Industrial Microbiology
- ❖ Metabolomics and 'Chromatography techniques'
- ❖ Soil biological functions

Hands-on Sessions

- ❖ Isolation of bacteria and fungi from environmental sources
- ❖ Morphological characterization of microorganisms
- ❖ Isolation of genomic DNA; PCR setup
- ❖ Nucleotide sequence analysis
- ❖ High Performance Liquid Chromatography
- ❖ Thin Layer Chromatography
- ❖ SDS/Native PAGE, ELISA

IMPORTANT DATES

- ❖ Last dates of receiving application: **24.04.2021**
- ❖ Participants will be intimated by: **25.04.2021**

HOW TO APPLY

- ❖ Duly filled registration form may be sent via email. Alternatively, candidates may also fill the Google form:
- ❖ Participants will be selected by a Screening Committee constituted by DBT-NECAB

OBJECTIVES

- ❖ Facilitating industry-academia interaction with emphasis on industry-oriented microbial biotechnology and processing
- ❖ Orientation on basic microbiology and practical approaches
- ❖ Foundation on microbiology-related chromatography tools and techniques
- ❖ Recent developments in polyphasic microbial taxonomy and soil microbial ecology
- ❖ Providing a platform for exchange of thoughts between eminent scientists and early-career researchers
- ❖ Inspiring and encouraging the undergraduate student community to pursue a career in research

ABOUT THE CENTRE

The DBT-NECAB East Centre for Agricultural Biotechnology (DBT-NECAB) has been established with a vision to preposition Assam Agricultural University and the entire North-Eastern region with the mandate to undertake exploratory research in crop biotechnology. The centre has identified and taken up some futuristic research programmes like attempting gene based solutions to insect pests in grain legumes; soil acidity problem through microbial genomics; targeting drought tolerant genes in rice bio-resources of the region; enhancing organic agriculture through large scale production and generation of modern bio-inputs etc.

