

# ACCELERATE VIGYAN KARYASHALA



ACCELERATE  
Vigyan

sponsored by

SCIENCE AND ENGINEERING RESEARCH BOARD

NEW DELHI

WORKSHOP ON



**INTEGRATIVE SYSTEMATICS OF LICHENS - IDENTIFICATION TO BIOPROSPECTING**

**15<sup>TH</sup> TO 21<sup>ST</sup> MARCH 2021**

venue

**CSIR-NATIONAL BOTANICAL RESEARCH INSTITUTE**

**LUCKNOW**



**CALL FOR APPLICATIONS**

LICHENS are considered as a 'micro-ecosystem' due to their close interaction with several microbial communities and they make an interesting group of organism for studying evolution, taxonomy, ecology and physiology. The lichens are useful in ecosystem as food, medicine, bioindicators and also rich source of unique metabolites. The lichen research in India has gained much popularity in the recent years and mostly focused towards taxonomic, biomonitoring and bioprospecting studies. India has rich diversity of lichens concentrated especially in Western Ghats and Himalaya. However, owing to vast geographical area of the country a large number of biodiversity rich sites need to be explored. The taxonomic studies required to be linked and supplemented with modern tools and techniques. Biologically active molecules need to be isolated for developing lifesaving drugs. Following the modern concept in lichenology the workshop aims to provide a holistic approach to lichen taxonomy and bioprospecting along with elaboration on other scope in lichen research.

CSIR-NATIONAL BOTANICAL RESEARCH INSTITUTE (CSIR-NBRI), Lucknow is a premier plant research Institute of the country. The institute is known for its path-breaking research in diverse areas of plant science including genetic improvement, genome-wide studies of cotton, transgenic plants, conservation of threatened plants, arsenic remediation, small RNAs, systematics of several lower and higher groups of plants, horticulture, phytoremediation, microbiology and pharmacognosy. CSIR-NBRI is a pioneer organization for lichen research in India. The institute has largest collection of lichens in its herbarium; excellent library with unique literature; and state of the art infrastructure for lichen study.

ACCELERATE VIGYAN is a scheme launched by Science and Engineering Research Board to provide a single platform for research internships, capacity building programs and workshops across the country. Under this scheme 'Karyashala' is an effort to improve research productivity of promising PG and PhD students from universities and colleges through high-end workshops on specific themes. This program aims to provide opportunities to acquire specialized research skills.

## **THEMES FOR THE WORKSHOP**

- Identification and Nomenclature
- DNA extraction from lichens
- Bioinformatic tools and techniques for phylogenetic analysis
- Lichens in air pollution and climate change studies
- GIS techniques and ecological niche modelling
- Extraction and characterization of lichen secondary metabolites
- Biological activities and pharmaceutical potentials of lichens
- Project writing, publication ethics and funding sources

**POST WORKSHOP SUPPORT:** It is important that the trainees need to be guided constantly even after the workshop. The lichenology laboratory of CSIR-NBRI is committed to provide technical assistance to the trainees after workshop. As a national facility, the herbarium and library of the institute will be open to these trainees whenever they require.

**WHO CAN APPLY?** Post Graduate students preferably in final year or final semester in Botany, Bioinformatics, Biosciences, Biotechnology, Environmental Science, Life Sciences, Microbiology, Mycology, Plant Science or Natural Products Chemistry. The PhD students preferably perusing first year of their course or intend to peruse research in any aspect of lichenology are also eligible. Total number of the participants will be 25 only, selected on merit basis.

**HOW TO APPLY?** The candidate should apply through prescribed application form duly filled in all respect. The application form should be accompanied by justification why they want to attend the workshop and a letter from their Supervisor / Head of the Department / Head of the Institute indicating their association with the institute and “No Objection Certificate (NOC)” for allowing their student to undergo training in the workshop, if selected. All documents should be legibly scanned, merged and emailed as a single PDF file, and the original hardcopies must be produced at the time of registration, if selected. **The last date for submission of application is on or before 31-12-2020. Application form can be downloaded from NBRI website [CLICK HERE](#).**

**REGISTRATION FEE:** Registration fee should be submitted only if selected for participation in the workshop and within 7 days of announcement of results. **The registration fee is Rs. 4,000/-** (rupees four thousand only) should be deposited in the NBRI's account through any online mode. The bank details will be provided later. The registration fees include workshop materials, food, and accommodation at institute's guest house. The participants will be reimbursed their travel fare as per actual or maximum up to 2 tier AC train or equivalent.

### RESOURCE PERSONS

**Dr. D.K. Upreti**

Emeritus Scientist, CSIR-NBRI, Lucknow

**Dr. G.P. Sinha**

Ex-Scientist E, BSI, Allahabad

**Dr. L.B. Chaudhary**

Sr. Principal Scientist, CSIR-NBRI, Lucknow

**Dr. G.N. Hariharan**

Director-Biotechnology, MSSRF, Chennai

**Dr. T.A.M. Jagadeesh Ram**

Scientist D, BSI, Andman & Nicobar Islands

**Dr. B.N. Singh**

Principal Scientist, CSIR-NBRI, Lucknow

**Dr. Meher Asif**

Principal Scientist, CSIR-NBRI, Lucknow

**Dr. K.P. Singh**

NASI Senior Scientist, BSI, Allahabad

**Dr. T.S. Rana**

Chief Scientist, CSIR-NBRI, Lucknow

**Dr. K.N. Nair**

Sr. Principal Scientist, CSIR-NBRI, Lucknow

**Dr. B.C. Behera**

Scientist E, ARI, Pune

**Dr. C.P. Singh**

Scientist/Engineer-SF, SAC(ISRO), Ahmedabad

**Dr. Arvind Madhyastha**

Associate Professor, ATREE, Bengaluru

**Dr. Suresh Babu Katragadda**

Principal Scientist, CSIR-IICT, Hyderabad

### SUPPORTING RESOURCE PERSONS

**Dr. Gaurav K. Mishra**

Scientist, CSIR-NBRI

**Dr. Siljo Joseph**

DST-INSPIRE Faculty, CSIR-NBRI

**Dr. Komal K. Ingle**

Technical Assistant, CSIR-NBRI

**Dr. Rajesh Bajpai**

CSIR - Pool Scientist, CSIR-NBRI

**Dr. Abid Yerima**

Research Associate (DBT), CSIR-NBRI

### Organizing Committee

#### Patrons

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Director, CSIR-NBRI, Lucknow

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#### Convener

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#### Co-organizing Secretary

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