

Sree Narayana College, Sivagiri, Varkala

Department of Botany

DBT Star College Scheme

Workshop on 'Application of Gas Chromatograph- Mass Spectrometer (GC-MS) in Aromatic plant research

KSCSTE-Jawaharlal Nehru Tropical Botanic Garden and Research Institute (KSCSTE - JNTBGRI) was found in 1979 with the objective of establishing a Conservatory Botanic Garden of tropical plant resources in general and of the country and the Kerala state in particular. It also undertakes research programmes for the sustainable utilization of the resources. KSCSTE - JNTBGRI is the only organization in India, which maintains a 300 acre conservatory garden for the wild tropical plant genetic resources of the country, besides a multidisciplinary R & D system dealing with conservation, management and sustainable utilization of tropical plant resources. During the past 30 years, it has flourished into one of the premier R & D organization in Asia, devoted to conservation and sustainable utilization of tropical plant diversity. The institute is recognized as a 'National Centre of Excellence in ex situ conservation and sustainable utilization of tropical plants diversity' by the Minister of Environment and Forests, Government of India and the Centre of Science and Technology of Non-Aligned and other Developing Countries (NAM S&T Centre). Phytochemistry and Phytopharmacology division JNTBGRI enjoys the membership of Botanic Gardens Conservation International (BGCI). The institute is a recognized centre of research for post graduate and doctoral research of several universities, within the country.

R&D Divisions

- Biotechnology and Bioinformatics
- Conservation Biology
- Ethnomedicine and Ethnopharmacology
- Garden Management, Education, Information and Training
- Microbiology
- Phytochemistry and Phytopharmacology

- Plant Genetic Resources
- Plant systematics and Evolutionary science

Department of Botany, under Star scheme support, arranged a one day workshop on 'GC-MS for III BSc Botany students in the phytochemical & phytopharmacology division at JNTBGRI, palode on 26th March 2021. Those students who are interested in research activities are taken to the lab of JNTBGRI. A total of 19 students were benefitted. Since the lab can accommodate 10 students at a stretch, they were grouped into two batches in 2 different days. This workshop helped them to understand the type of work going on in this lab. The workshop included Extraction of plant material(Lemon grass)using Soxhlet distillation, Separation of plant compounds (TLC& column chromatography and Characterization techniques. They got an opportunity to visit the -GC-MS lab and know about one of the latest techniques in Phytochemistry.

This workshop was a motivation for at least some of the students to engage in research in future in their area of interest



Students in phytochemistry lab



Explanation with the help of ppt



GC-MS