



Science Academies' Refresher Course on 'Modern Biotechnology Tools for Sustainable Agriculture'

at
Periyar University, Salem
13–26 February 2019

Sponsored by
Indian Academy of Sciences, Bengaluru
Indian National Science Academy, New Delhi
The National Academy of Sciences, India, Prayagraj

A Refresher Course on 'Modern biotechnology tools for sustainable agriculture' will be held at Department of Botany, Periyar University, Salem, Tamil Nadu for two weeks from **13 to 26 February 2019**. The contents of the course may be useful and the experiments may be included in Universities, autonomous Colleges, and advanced science institutions involved in education. Besides, it can be taken forward by R&D institutions. It may be noted that UGC regulations include Refresher Courses in API scores for career advancement. The purpose of this course is to cater to the needs of budding faculty members and motivate them towards research. The practical module of the course will be started with isolation, microscopic observation and other experimentation on Mycorrhizae. This will be followed by molecular biology, *Rhizobium* technology, bacterium-based fertilizer substitute, nano-food systems sensors in agriculture, *Agrobacterium* and plant genetic engineering, gene targeting and plant proteomics: Experimental approaches where participants will gain experience in various biotechnology tools for conservation, genetic resource and biodiversity. Gene transfer in bacteria by transformation, PCR and restriction digestion can also be handled. The hands-on experiments would be accompanied by special lectures by eminent scientists in these fields. On the first day of the course, for each participant a laboratory manual will be provided specifically prepared for the refresher course.

Applications are invited from teachers with experience in teaching postgraduate courses in Life Sciences. Applications from highly motivated Research Scholars will also be considered. Maximum of 45 applications will be considered. Teachers who wish to participate in the refresher course may apply through proper channel with the following details: name, date of birth, gender, e-mail, official and residential addresses, telephone numbers, academic qualifications, courses taught, affiliation, positions held and tenure. It is also essential to submit a brief statement (between 250 and 500 words) as to why they think the Course will help to improve their classroom teaching of Life Science. There will be no application fee/registration fee.

Applications should be submitted ONLINE by clicking the following link:

<https://web-japps.ias.ac.in:8443/Refreshcourse/BTS.jsp>

The UGC has notified (F-3/1-2009) that teachers in Universities and Colleges attending two-week Refresher Courses are entitled to be considered for promotion.

A print copy of the application must also be sent by speed post forwarded by the head of the institution. It should reach **Dr S. Lalitha**, Course Coordinator, Science Academies' Refresher Course, Assistant Professor, Department of Botany, School of Life Sciences, Periyar University, Salem 636 011, on or before **25 January 2019**. Outstation candidates will be provided local hospitality and round trip bus/train (three-tier A/C) fare by the shortest route.

Course Director: Dr D. J. Bagyaraj, INSA Honorary Scientist and Chairman, Centre for Natural Biological Resources and Community Development, Bengaluru.

Course Coordinator: Dr S. Lalitha, Assistant Professor, Department of Botany, School of Life Sciences, Periyar University, Salem 636 011; e-mail: lalithasundaram99@gmail.com; Mobile: 98429 85127.

Last date for receipt of applications: **25 January 2019**.

Selected participants will be informed on **5 February 2019**.