

Workshop and training
program conducted

PLANT TISSUE CULTURE TECHNIQUES

3 DAYS WORKSHOP AND TRAINING ON

PLANT TISSUE CULTURE

8th to 10th November 2022

Date: 08th to 10th Nov. 2022
pm

Time: 9:00 – 5:00

Workshop Organizer: The Department of Botany, School of Applied Sciences in association with the Centre for Genetics and Genomics Research center

No. of Students and/or Faculty Participated: 20

Co-ordinator Details:

Dr. Rukmini Mishra

Associate Prof. & Head

Department of Botany, SoAS, CUTM



Dr. Rukmini Mishra currently serves as Associate Professor and Head, at the Dept. of Botany, Centurion University of Technology and Management, India. She also serves as the group leader of the Centre for Genetics and Genomics. Currently she is running a DST-SERB, Govt. of India funded project towards utilization of gene editing technologies towards disease resistance in vegetable crops. She has a PhD in Agricultural Biotechnology from National Rice Research Institute (NRRI-ICAR), India. She is the recipient of the prestigious Young Scientist Award from the Dept. of Science & Technology, DST Govt. of India and the prestigious Talented Young Scientist Fellowship under the TYSP programme of the Ministry of Science and Technology, Govt. of China. She teaches graduate and postgraduate courses on Plant

Biotechnology and Plant Genomics. She has published more than 35 research articles in journals of national and international repute.

A DETAILED REPORT OF THE WORKSHOP

The Department of Botany, School of Applied Sciences in association with the Centre for Genetics and Genomics research center organized a 3 days hands-on training program on “Plant Tissue Culture techniques” from 8th-10th April 2022. The workshop was conducted to give hands-on experience to students and faculty members on several techniques and tools involved in plant tissue culture. Dr. Rukmini Mishra, HoD, Botany Department, and coordinator of the Genomics research centre was the coordinator of this training program. She was supported by Dr Jatindranath Mohanty and all the research scholars of Dept. of Botany. A total number of 18 students participated in the hands-on training program.

Day 1:

The training session was commenced at 9.30am by Project Associates with the introduction of the organising committee to the participants. Dr. Rukmini Mishra, Head of the Dept. of Botany, and the coordinator of this training program addressed the participants. She then highlighted the importance of learning this technique and wished all participants a good and successful training workshop. Volunteers were readily available to the participants to help them with any doubts. Dr. Rukmini Mishra took an introductory theory session covering the topics like, Plant micronutrients and macronutrients, Sterilization techniques, Explant types and its culture, and Different types of culture media. Following the theory session, the participants then prepared the stock solutions required for media and also prepared the MS media.





Day 2:

On the second day of the workshop, Dr. Rukmini Mishra delivered a lecture on Genetic engineering and transgenic plant development. She then explained about protoplast isolation followed by basic calculations of different stock and enzyme solution preparation needed for the experiment. The participants then performed the isolation of protoplast and then analysed viable protoplasts by microscopic techniques. Anther culture in N6 media for *in vitro* haploid plant regeneration was demonstrated by Dr. Rukmini Mishra.





Day 3:

On the last day of Workshop, Ms. Sonu Priya Sahu and Ms Archita Patra, research scholars, explained the participants about differential hormone media preparation, Explant sterilization process, and aseptic inoculation technique. Participants under the supervision of volunteers did anther culture and explant inoculation. A doubt clearing session was also included at the end.



Valedictory session:

The program coordinator welcomed the Chief guest and Guests of Honour Dr Yashaswi Nayak, Dean, School of Applied Sciences, Dr. Jagannath Padhi, Director CUTM, BBSR, and Babu Shankar, MD, GTech to the dais. Dr Yashaswi Nayak gave the welcome address and asked the participants to share their experiences of the training program. All the participants shared their experiences. Dr. Jagannath Padhi addressed the young research aspirants and inspired them to implement the things learnt in the workshop in their future work. Prof. Babu Shankar addressed the gathering emphasizing on the importance of the training programs and future plans of conducting webinars and workshops in the school. Vote of thanks was given by the program coordinator. She summarized the activities of the training program and also thanked each and everyone involved in the program. The felicitation programme was concluded with photo session

Overall, the hands-on training program was a huge success. The participants were very happy and also showed their interest to join future training programs on Gene editing and Gene sequencing





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HANDS-ON TRAINING ON:

PLANT TISSUE CULTURE TECHNIQUES

Organized by
DEPT. OF BOTANY

In collaboration with
CENTRE FOR GENETICS AND GENOMICS

**Registration fees:
2500/-***

**(Includes chemical and consumable expenses, kit bag, study materials & Certificate)*

Topics to be covered:

- Introduction to plant tissue culture, types and applications
- Basic calculations and stock preparation
- Media preparation, sterilization procedures
- Callus culture / Seed culture / Nodal culture / Anther culture & Micropropagation
- Protoplast isolation

REGISTER NOW:
<https://workshop.cutm.ac.in/>



For queries contact:
Dr. Rukmini Mishra,
Associate professor and Head,
Department of Botany, SoAS, CUTM
E-mail: rukmini.mishra@cutm.ac.in
Contact: 7077320293

Venue:

**CENTURION UNIVERSITY OF TECHNOLOGY & MANAGEMENT,
Bhubaneswar campus**