

THIRUTHANGAL NADAR COLLEGE

(Belongs to the Chennaivazh Thiruthangal Hindu Nadar Uravinmurai Dharma Fund) A Self Financing Co-Educational College of Arts & Science Affiliated to the University of Madras Re-accredited 'B++' Grade by NAAC & An ISO 9001:2015 Certified Institution Selavayal, Chennai, Tamil Nadu, India

# DEPARTMENT OF PLANT BIOLOGY AND PLANT BIOTECHNOLOGY

# **NEWS LETTER - 2022-2023**

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## Vision:

To sustain the well-being of nature and mankind through the techniques of plant science.

# **Mission:**

To apply conventional knowledge of Plant taxonomy, Physiology, Pathology and Ecology in the field of Biotechnology to create opportunities for multi-disciplinary education, training and research for the students

#### SKILL DEVELOPMENT PROGRAMME ON PLANTATION OF VEGETABLE CROPS

Our students actively participated in the "Skill Development Programme on Plantation of Vegetable Crops" held on 19.10.2022 between 11.00 am – 12.45 pm at Herbal Garden, TNC. The seeds of different crops like tomato, musk melon, pumpkin, radish, carrot, fenugreek, brinjal, broad beans, lady's finger, bitter gourd, snake gourd, ivy gourd, ridge gourd, turnip, millets, coriander, cow peas and rhizomes of ginger, bulb of garlic, lettuces of Tropical amaranth, Red spinach, *Spinacia oleracea* and *Solanum nigrum* were planted in seed trays and pots.

The students of III B.Sc. PBPB taught about the mixing of soil along with the vermicompost and cocopeat and also the plantation techniques during the programme to their peer groups of I & II B.Sc., PBPB. Our students got hands-on experience and learnt potting techniques, also the methods of vegetative and seed propagation. The activity sheets have been given to the students to observe and record the growth of crops regularly. Feedback on the skill development programme was collected from the students.



#### **INDUSTRIAL VISITS**

#### Council of Scientific & Industrial Research (CSIR) Complex

Our final year students visited the CSIR – Madras complex, Taramani on 26.09.2022 at 8.30am by college van. The students were able to witness various activities carried out by the satellite laboratories accommodated in the complex like National Environmental Engineering and Research Institute (NEERI), Central Electrochemical Research Institute (CECRI), National Metallurgical Laboratory (NML), Central Scientific Instruments Organization (CSIO) and Central Electronics Engineering Institute (CEEI) in the form of working models. Students observed the demo of Fuel cell, crackers making, production of electric current from vegetables etc. and they returned back to college by 3.00pm. The feedback forms were collected from the students.



#### **Glosil Scientific Company**

The Basic Science Departments (Physics, Chemistry and Plant Biology and Plant Biotechnology) organized an Industrial visit to Glosil Scientific LLP, Egmore, Chennai on 16.12.2022. The students of 2<sup>nd</sup> and 3<sup>rd</sup> year have actively participated in this visit and learnt the working principles and live demonstrations of the latest scientific instruments like Ultra Centrifuge, Sonicator, UV Spectrometer, Microscopes, etc.



#### **Oferr Nallayan Spirulina Research Centre**

We organized an Industrial Visit to Oferr Nallayan Spirulina Research Centre, Natham, Chennai on 29.03.2023 and our students (1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> years) actively participated in this visit and learnt the growth parameters and applications of Spirulina cultivation. Moreover, our students visited the integrated farm house i.e. cattle farm, azolla farm and fresh water fish farm. Students observed the demonstration of Spirulina cultivation, harvesting and production. Students have got awareness and motivated to become entrepreneur in the cultivation of Spirulina and to establish integrated farm houses in future in order to reuse the biowaste. The department faculty accompanied the students in the industrial visit and feedback report of the industrial visit was collected from the students.



#### Hands-on Training Programme on Construction and Working of Biogas Plant

Our students actively participated in the "Hands-on Training Programme on Construction and working of Biogas plant" held on 29.12.2022 between 11.00 am - 12.45 pm at near canteen, TNC. Our alumnus, Mr. D. Daniel Davidson currently doing PG at MCC, Chennai was the Chief Guest. Our department faculty, Dr. M. Poongani, Assistant Professor welcomed and introduced the chief guest. He explained and process of biogas production and its importance. Moreover, he gave hands-on training to the students regarding the construction the biogas plant, preparation of slurry and utilization of produced biogas for cooking purpose.

The biogas plant was constructed with new pipes, gas tubes etc and connected to the stove present in the canteen. Our students voluntarily collected cow dung from nearby animal husbandry and made into slurry using tap water. The slurry was poured in the biogas plant and closed tightly. The produced biogas was stored in the collection tube. Once the tube is filled, the knob is opened and the biogas is utilized in the canteen kitchen. Our students got hands-on experience and understood the importance of biogas production. Feedback on hands-on training programme was collected from the students. Finally, our Principal honored our alumnus with shawl and plant sapling.



#### **Bio-Entrepreneur Skill Workshop on Mushroom Cultivation Technology**

Our department in association with Entrepreneurship Development Cell, Incubation Cell and Alumni Association organized "Bio-Entrepreneur Skill workshop on Mushroom cultivation technology" on 17.02.2023. Dr. S. Palanivel, Assistant Professor, Department of Botany, The New College, Chennai was a Resource Person and delivered informative lecture on Mushroom cultivation technology. Moreover, he motivated the students to become entrepreneur and also demonstrated the preparations of mushroom bags, inoculation and packing. Around 80 students and few of our alumni were also benefited and got hands-on experience and learnt mushroom cultivation techniques. Feedback on the skill development programme was collected from the students.



#### **National Science Day Celebration**

Science Club of our college celebrated 37<sup>th</sup> "National Science Day" and conducted competition "**Art from E-waste or Polymer waste**" on 27.02.2023. The judges for the competition were Mr. K. Somasundaram, HOD, BCA (Section –A) and Mrs. A. Yogameena, Associate Professor, Department of Software Application. Totally, 10 students from Physics, Chemistry, Plant Biology and Plant Biotechnology and B.Com A/F) were participated. The event was initiated with an introductory speech along with rules and regulations of the competition by the judges. The students displayed their innovative art from E-Waste and Polymer waste and explained about the usefulness of the art towards the eco- friendly society. Finally, the winners were announced by the judges.

Moreover, the PowerPoint Presentation by the students on "Disaster Management or Climate Change" was held on 28.02.2023. Mr. C. Gunaseelan, Assistant Professor, Department of Computer Science and Mrs. Sandhiya Sabu, Assistant Professor, Department of Software Application had kindly consented to be the judges for the competition wherein 8 students from various departments participated. The students actively delivered lectures with sheer clarity & creativity, giving a tough time for the judges to decide their merit. Finally, the winners were announced by the judges and prices were given.



### **Island Grounds Exhibition**

Our students made model in the theme of "Environmental Conservation" and exhibited in 47<sup>th</sup> Island Grounds Exhibition, Chennai on 12.03.2023.



The faculty members of Department of Plant Biology and Plant Biotechnology are grateful to **Thiru. M.G.E. SELAPALAM**, Secretary & Correspondent, **Dr. V. Devi**, Principal and **Dr. K.C. Lalithambika** & **Dr. S. Asaithambi**, Vice Principals for their constant support and encouragement.

Thank you