



**SENGAMALA THAYAAR EDUCATIONAL TRUST
WOMEN'S COLLEGE
SUNDARAKKOTTAI, MANNARGUDI- 614 016.
TIRUVARUR (Dt.), TAMIL NADU, INDIA**



**Indian Academy of
Sciences, Bengaluru**



**Indian National Science
Academy New Delhi**



**The National Academy of Sciences
Allahabad - India**

**SCIENCE ACADEMIES' LECTURE WORKSHOP ON
"CURRENT SCENARIO IN LIFE SCIENCES"**

11.10.2017 & 12.10.2017

PROGRAMME REPORT

Science Academies' lecture workshop was organized by the Sengamala Thayaar Educational Trust Women's college with the total support of Indian Academy of Sciences, Bengaluru, Indian National Science Academy New Delhi and The National Academy of Sciences India, Allahabad. Dr. D.J. Bakyaraj, INSA Honorary Scientist and Chairman, Centre for Natural Biological Resources and Community Development, Bengaluru was the convenor and Dr.R.Saravanamuthu was the Local Coordinator. Dr.K.R. Shivanna, INSA Honorary scientist and honorary senior fellow, Centre for Natural Biological Resources and Community Development, Bengaluru, Dr. R.R.Rao, INSA Honorary scientist, Centre Institute of Medicinal and Aromatic Plants, Bengaluru and Dr.T.Marimuhu, Secretary, National Academy of Biological Sciences [NABS], Former Dean, School of Post Graduate Studies, TNAU, Coimbatore were the resource persons.



Brief inauguration function was held in between 10.00 to 10.30 A.M. On behalf of the Dean and correspondent, Dr.V.Dhivaharan the Principal, Dr.S.Amudha inaugurated the programme. Dr. N.Uma Maheswari, Head of the Department of Microbiology, Dr.R.Anuradha, Head of the Department of Biochemistry, Ms.G.K.Gomathi, Head of the Department of Nutrition & Dietetics were the organizing secretaries.

Dr.R.Saravanamuthu, Coordinator welcomed the gathering. Dr.D.J.Bagyaraj, Convenor delivered presidential address. He highlighted the various activities of INSA and encouraged the participants to carry out research in the field of life science for solving agro-economic problems. He also explained the details about the Science education programmes, Sponsorship of discussion meetings, the women in science panel and various fellowship and professorship offered by the Academies.



Totally 166 participants including 26 Faculty members and 108 Post Graduate students/ scholars of Biochemistry, Microbiology and Nutrition & Dietetics from our host institution and 32 Post Graduate students/ scholars from other institutions like M.R. Govt. Arts College, Mannargudi, A.V.V.M. Sri Pushpam College, Poondi, Annai College of Arts and Science, Kumbakonam, A.V.C. College, Mayiladuthurai and Rabiammal Ahamed Maideen College for women, Tiruvarur, Bharathidasan University Constituent College for Women, Orathanad were attended the workshop.

Lecture Workshop: Dr. D.J Bagyaraj

Dr. D.J Bagyaraj, his vast experience of teaching, research and knowledge are formidable. He was the first speaker in the workshop. He talked about the role of Mycorrhizal Fungi in agriculture and his skill of delivery was so good.

He initiated his first lecture session with four main types of Mycorrhizal Fungi and explained about the mechanism of improved plant growth due to mycorrhiza even in drought condition. He also explained about inoculum production and methods of soil application. He concluded this session by highlighting that Mycorrhizal Fungi are cost effective, environment friendly, that could improve soil health and boon to farmers in developing countries.



On the second day of the lecture session, he emphasized the role of microorganism in human welfare. He explained as to how the microbial inoculants are used for biocontrol of plant diseases and insects pests and he also discussed the production of organic acids, amino acids, enzymes, vitamins by the microbial fermentation. Both of these modules were very much interesting and informative. He was a superb talker and his passionate method of delivery was exceptional.

Dr.K.R. Shivanna:

His lecture was very inspiring, informative and his method of delivery was so easy to receive. As expected, it was really insightful and interested. He was connecting with audience well.

On the first day of the lecture the participants appreciated his well organized, structured and appropriate delivery. He showed effective and useful slides on biological approaches for the transfer of genes to overcome crossability barrier and also showed inspiring slides on *in vitro* fertilization using egg and sperm cells. Both lectures were brilliantly presented, extremely interesting and well received by the participants.

On the second day he spoke on Pollination and its importance, Major biotic pollinators, Pollination problems of some crops of developed countries, Effective use of managed pollinators to sustain pollination services, Global pollinator crisis in the recent decades and some international



initiatives. He also demonstrated as to how the selected pollens could be used in the production of nutraceuticals and also about the integrated use of native and managed pollinators in the Indian context. This was greatly appreciated.

Dr.R.R. Rao:

The presentation style of Dr. R.R.Rao was very impressive and useful. His experience and expertise in delivering the content and the extempore lecture were very much appreciated. His manner was open, low key and thoughtful. He spoke at an incredibly rapid rate for the entire hour. He got us all laughing with strong humor. His ideas were always special and unique. He showed plenty of slides and explained, which were stimulating and outstanding.

On the first day lecture session, he emphasized on the Biodiversity, Conservation and Bioprospection. He explained the importance of biodiversity of various plants and their medicinal values that are present in and around Himalayas, Western Ghats, Eastern Ghats, Gangetic plain, Indian coasts and desserts. His way of presentation was very much concerned with importing the plant biodiversity in India among the participants.



On the second day lecture session, the entire lecture was very enlightening and triumphant because it ignited spark and hope of contributing towards the fields of floristic diversity of medicinal plants in India among every participant. He showed various bright and outstanding slides about diversity that could be used as anti- diabetic, anti-tumour, anti-HIV, anti-cancer plant species and medicinal, and aromatic plant diversity in the Deccan region, diversity of medicinal tree flora of Western Ghats, bioprospection of tropical tree flora. He was well prepared with a detailed slide show. The slides were very interesting. His lecture was truly inspiring.

Dr.T.Marimuthu:

The students liked the way of explanation and deliberation made by Dr.T.Marimuthu. His lecture was easy to understand and very useful. The content was relevant and useful. The

participants really impressed with his passion and knowledge. He delivered wonderful and enriching lectures.

He talked about Noni and health security on the first day of his lecture session. He showed many slides about variability in leaf shapes and colours, growth pattern, gene types and fruit shapes. He also explained the various pharmacological properties of Noni as well as Ten Commandments for healthy life.

On the second day, he presented his lecture about the perspectives of biological control of plant pathogens. His lecture was more enthusiastic, motivating and interesting. After attended this session, participants got more ideas about the control of plant pathogens, used biocontrol agents.



Discussion

Participants were actively interacted with the eminent resource persons and got clarified their doubts at the end of the resource person's talk. Many worth full suggestions and current information in the field of life sciences were given by the resource persons to the participants to improve their knowledge. Participants arose with so many questions, which were related to Mycorrhizae and other Biofertilizers, Biocontrol agents, Gene transfer mechanism, Pollen grains, Herbal drug development and natural bio resources.

Fellowship related details and suggestions were shared by guest speakers to the students. Opportunities of life science graduates in new research areas were given by the guest speakers to encourage student's participation in research and development. It was helpful to the participants to continue and select their future carrier in right way. In a nutshell awareness was created among the students about the importance and worthy of life science in the promotion of healthy life, and also the awareness in these areas to pursue their higher studies.



Feed back

An evaluation of the workshop was made at the end of the programme through feedback from participants. Participants from the host institution and other colleges provided their feedback. Overall analysis of the feedback revealed that the workshop was well organized in a systematic way. The participants explicitly revealed that many such programme for various subjects would be helpful and useful, as most of the students hail from rural and economically weaker section of the society.

The feedback from the Resource persons were very much encouraging and they expressed satisfaction and happiness over the active participation of students and teachers in the discussion session.

All participants felt good experience and learned more information and thank to the management and organizing committee for providing such a valuable opportunity to receive those current information and new research ideas. At end of the section all participants assured that they would definitely apply those research ideas and implement the valuable suggestions directly to field trials. All the participants were enthusiastically shared their experience that they scored and learned from the workshop.



Hospitality

All the participants and Resource persons expressed satisfaction regarding good hospitality and enjoyed food and refreshments. They shared their wonderful experience during their two day stay with green and pleasant campus, and voluntary services and discipline of the students were very well appreciated.



Valedictory function

The valedictory function was held in between 5.30 and 6.00 p.m. Valedictory address was delivered by the principal and participants were issued with attendance certificates. At the end, Dr. R. Anuradha, Head of the Department of Biochemistry proposed vote of thanks.

