

## **Brief Report**

### **NATIONAL SEMINAR ON THE ROLE OF MICROALGAE IN WASTE-WATER TREATMENT**

Siksha 'O' Anusandhan University, Bhubaneswar organized a one-day National Seminar on "The Role of Microalgae in Waste-Water Treatment (RMWT-2017)" on 21<sup>st</sup> February 2017. About one hundred researcher in the area attended the seminar. Prof. Lala Behari Sukla of the university convened the RMWT-2017 seminar by welcoming the eminent scientist, scholars, guests, and students. He also thanked the SERB, DST, New Delhi for financial support.

Shri V. Balasubramanyam, Director (Production), NALCO, Bhubaneswar was the Chief Guest in inauguration programme. He inaugurated the seminar by lighting the candle. He described the issue of environment related to the industrial production as he said while industry need for growth, the need to take care of environment was of great importance. Stating that every industry had its own typical problem, fluorine is an important chemical required for aluminium manufacturing; however, it is a challenge to them for treatment of fluoride post operation of alumina plant. If the algal technology could be adopted for aluminium industry, we would welcome it, but with a need of full proof solution.

Shri. V. Balasubramanyam released the Book of Abstract of the seminar. The abstract book contains 56 abstracts(10 invited talks). Guest of Honour and Chief Speaker Dr. Sivasubramanian Velusamy, Director, Phycospectrum Environmental Research Center (PERC), Chennai delivered special lecture. 100 participants and many faculty members participated in this seminar. Dr.

Sivasubramanian said algal technology blended extremely well with existing conventional technology resulting in reduction of chemical and operational costs while ensuring overall improvement of treatment efficiency. The phycoremediation technology was implemented in three phases: laboratory feasibility studies, pilot plant studies and implementation in large scale commercial plants. The main advantage of this technology is that it is eco-friendly and cost effective. It is well suited to neutralize pH of most of the acidic industrial effluents without using any chemical. PERC had implemented small and large scale treatment plants based on algal technology in variety of industries in India and abroad. About 100 delegates from different academic Institutions, National laboratories and industries participated in the seminar. Prof. Damodar Acharya, Chairman of the Advisory Board, Siksha 'O' Anusandhan University, Bhubaneswar was the Chair person of the seminar. Finally the inauguration ceremony was concluded with vote of thanks by co-convener Prof. Sanghamitra Nayak of Siksha 'O' Anusandhan University, Bhubaneswar. The following experts in the field presented their research findings during the invited talk technical session.

- Dr. Sivasubramanian Velusamy of PERC, Chennai “Phycoremediation Technology”.
- Prof. Ramkrishnan Sen of IIT, Kharagpur “Technological and Economic Challenges in Photobioreactor Design for Microalgal Cultivation Vis-À-Vis Biofuel Production”.
- Dr. Shashi Kumar of ICGEB, New Delhi “Bioremediation of Municipal Wastewater and Biodiesel Production by Cultivation of *Parachlorella Kessleri-I*”.

- Dr. Punyasloke Bhadury of IISER, Kolkata “Exploring the Diversity of Marine Planktonic Cyanobacterial Assemblages in a Mangrove Ecosystem-Integration of Uncultured and Cultured Approaches”.
- Dr. Nilotpala Pradhan of CSIR-IMMT, Bhubaneswar “Carbon Fixation Ability of Microalgae *Scenedesmus 25*”.

In the concluding session prizes and memento were presented to the delegates and scholars. The experts in the field attended the seminar suggested large-scale trial of the application of microalgae. The attendee expressed such seminars should be conducted more frequently. All the attendee were thankful to Prof. L.B. Sukla, the Convener, RMWT-2017 for the outstanding effort to organize this seminar. Springer-Nature awarded two oral and poster prizes to the participants of the seminar. The awards were as follow:

- Poster (First):- Pratyush Kumar Das, SOA University Microalgal technology for biosorption of hexavalent chromium in contaminated water bodies: Opportunities and Challenges.
- Poster (second): Aditya Kishore Dash, SOA University, Cyanobacteria in Reducing Pollution Load from Waste Water and Laboratory Bio-Assay of Heavy Metals on Ecotoxicity Study – A Review.
- Oral (First):- Padmini Dutta, North Orissa University, Analysis of Growth and Biochemical Contents of Microalgae Grown with Waste Water Effluent of Emami Paper Mill, Balasore,
- Oral (Second):- Mahendra Gaur, SOA University, Shift in Structural and Functional Diversity of Algal Community: An Eco- Physiological Reason.