**Report on “ERUDITE 2018”**

Visit of of Prof. Vicente Munoz Sanjose,

Department of Physics

Cochin University of Science and Technology

Cochin - 682 022, Kerala, India

ERUDITE programme was sponsored by Kerala State Higher Educational Council (KSHEC) under the vision of popularising scientific culture and improving scientific skills of researchers. The programme basically meant for the interactions between students, research scholars and faculties in order to explore the possibilities and opportunities to develop collaboration with international research institutes. Department of Physics (CUSAT) has conducted a programme, “ERUDITE 2018” with the visit of visitor Prof. Vicente Munoz Sanjose, from the University of Valencia, Spain. He is an eminent person known for his high impact international papers published in various peer reviewed journals. He is having more than 200 articles and has been recently cited frequently in material science research field due to his expertise in crystal growth. He is a fine experimentalist in studies regarding crystal growth using MOCVD techniques. This programme is conducted at Department of Physics (CUSAT) on 12th to 14th March 2018. Most of the participants were post graduate students, M. Phil. students and research scholars of the department. Apart from that this programme is coupled with “Research training school in physics-2018” conducted by the department of physics, CUSAT for meritorious M.Sc. students studying at various colleges in Kerala. The ERUDITE programme and Research training school in physics-2018 was officially inaugurated by Pro Vice Chancellor, Prof P.G. Sankaran of Cochin University of Science and Technology on 12/03/2018. Prof. M. Junaid Bushiri (HOD of physics, CUSAT) delivered welcome speech. Official inaugural section was ended with vote of thanks of Dr. Sasidevan. On the first day, ERUDITE visitor Prof. Vicente Munoz Sanjose delivered talk on ‘Crystal growth fundamentals’ , which was primarily focussed on post graduate students of physics. This was followed by another talk on ‘Crystal growth of nanostructures on substrate’ at Polymer Science and Rubber Technology (PSRT) department of the CUSAT in the afternoon section of the day.

On second day, Prof. Vicente Munoz Sanjose talk was based on ‘Crystal growth of bulk materials, layers (films and nano structures on the substrate)’. His high level topic was mainly focussed on researcher scholars of our department. Prof. Vicente explained different techniques to deposit thin films on different substrates and he mentioned what are the important things and factors to be considered for preparing highly stoichiometric uniform thin films using spray pyrolysis and CVD techniques.

Third day of “ERUDITE 2018” was on 14th March 2018, Prof. Vicente gave talk on his research field MOCVD technique. He explained the synthesis procedure, morphological variations, and possible applications of different nano material through MOCVD technique. Active interactions with the participant, research scholars and faculties was one of the important peculiarities of the programme. Prof. Vicente interacted with the participants after each section. More significantly, the research scholars of department of physics had got a great opportunity to successfully utilise the research expertise and experience of Prof. Vicente Munoz Sanjose through the interactions. He has also demonstrated the experimental techniques related to synthesis of nano functional materials. Especially on spray pyrolysis technique and hydrothermal synthesis technique. He suggested some relevant points to develop good thin films by spray pyrolysis method. He also demonstrated and explained the physics behind the formation of nanostructures with different morphology by hydrothermal synthesis.

Prof. Vicente visited Department of Physics, University of Kerala from 15/03/2018 to 16/03/2018. On 15/03/2018, ERUDITE programme 2018 at Department of Physics, University of Kerala was officially inaugurated at Department of Physics, University of Kerala by Prof. Vincente Munoz Sanjose. Prof. V. Unnikrishnan Nayar Former HOD, Department of Opto electronics, Dr. G Subodh, HOD, Department of Physics, University of Kerala Prof. M. Junaid bushiri, Dr. Sibi K S felicitated the function. There were around 70 participants with diverse backgrounds in science had attended the talk. Research scholars from nearby colleges were actively interacted with ERUDITE visitor. Research scholars, students and teachers interacted with the invited speaker for clarified doubts and found out various possibilities of research in the field of materials science. The program consisted of three lectures in two days. The focus was to interact with the students as much as possible so that they could have a person to person talk about the narrow aspects in research techniques.