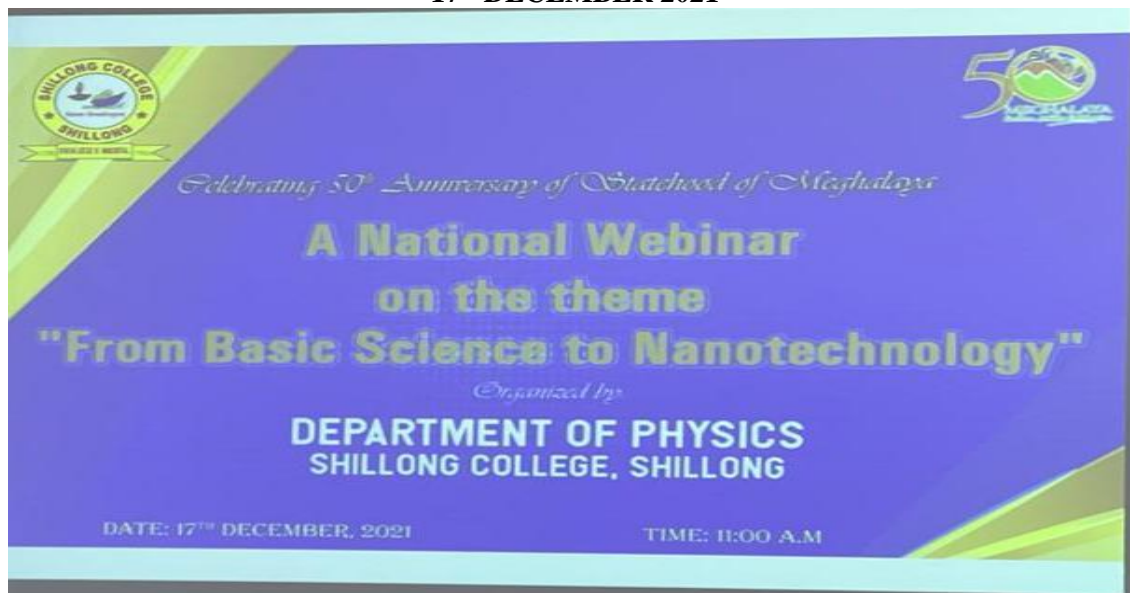


**REPORT ON ONE DAY WEBINAR  
“FROM BASIC SCIENCE TO NANOTECHNOLOGY”  
HELD ON  
17<sup>th</sup> DECEMBER 2021**



As a part of the celebration of the 50<sup>th</sup> year of Statehood of Meghalaya, the Department of Physics, Shillong College, Shillong organized a National Webinar on the theme **“From Basic Science to Nanotechnology”** on the 17<sup>th</sup> of December 2021. The resource persons on that day include, Professor Ayon Bhattacharjee, renowned academician and researcher from the National Institute of Technology, Shillong, Meghalaya and Dr. Alisten Mawrie, Assistant Professor, Department of Physics, Indian Institute of Technology, Indore, Madhya Pradesh.



The programme was held both in the blended mode, both offline and online, in the Principal's Conference Room of the College. The programme started at 11:20 A.M with the felicitation of the resource persons and the guest by the Principal of the College. This was followed immediately by a welcome address from Smt. E. N. Dkhar, Head of the Department, Physics. The HOD welcomed the dignitaries which included the two resource persons, Prof. Ayon Bhattacharjee and Dr. Alisten Mawrie, a special guest, Dr. R. Das (HOD Physics, St. Edmund's College Shillong), the Principal of the College, Dr. (Mrs.) E. Kharkongor and the Vice-Principal, Shri K.D. Roy. While welcoming the participants who attended the webinar in online as well as offline mode, Smt. E. N. Dkhar highlighted on the applications of Nanotechnology as well its scope. Warm welcome was also extended to Shri. G. R. Rumnong and Shri. P. N. Jyrwa, who helped in handling and supervising all the technical processes related to the smooth conduct of the webinar.

After the welcome speech by the HOD, Shri. S. Lato, Convener of the webinar highlighted about the aims and objectives of the webinar, and also briefed the different groups of participants, which included the Physics Honours students, the Research Scholars and the Faculty members of the Science Departments of the different colleges from the state and outside who registered for the webinar. It is worth a mention that more than 200 participants registered for the Webinar.

This was followed by a speech by the Principal of the college. In her short speech, the Principal of the College, Dr. (Mrs.) E. Kharkongor extended a warm welcome to the resource persons, the guests and all the participants, and also congratulated the Department of Physics for organizing the programme. She also expressed the need of collaboration between economists, industrialists and scientist for sustainable development. The Principal also stressed on the importance of such webinars/seminars and encouraged the conduct of many more such webinars/seminars as these, she felt, will greatly help and benefit the students and scholars through interaction with the renowned resource persons of their respective fields.

This was immediately followed by the technical sessions. There are two back-to-back technical sessions which were chaired by Dr. R. Das, HOD, Physics, St. Edmund's College, Shillong. The Chairperson introduced the first resource person, Prof. Ayon Bhattacharjee and briefed on the researches and the achievements of the resource person. Through his presentation and deliberation on the topic "*Nano-The Power of Small*" Prof. Ayon Bhattacharjee impressed upon the students the importance of this field and thus aroused the curiosity of the young minds to enhanced their thoughts towards research and innovations especially in the field of Nanotechnology. Prof. Ayon Bhattacharjee delivered his talk in such a simple presentation that the students were carried away throughout the session. The various applications of nanomaterials were discussed and how the physical, thermal, electrical and magnetic properties of ordinary substances were transformed when their respective nano-materials were made was beautifully explained through his presentation. The resource person also stressed that scope of nanotechnology is immense due to it wide range of applications. The Talk had immensely and

greatly impacted the participants, the students in particular. The first Session ended with an interaction session of the participants with the resource person.



The second session also started with the introduction of the resource person by the chairperson.

Dr. Alisten Mawrie, who is an expert in the field of Theoretical Condensed Matter Physics presented an insightful talk on “*Nanotechnology: Through the Lens of Optoelectronics and Quantum Computations*” in which he introduced to the participants the new field of Research on Quantum Computing and how quantum computation is made practicable due to the advanced research on Nanotechnology and the ability to manipulate the structure of semiconducting materials at a nano scale. Based on his researches on the nanomaterials viz. Silicene and other nanomaterials, Dr. Mawrie highlighted that Nanotechnology has a great potential to change the technological world in the near future. This session was followed by an interaction of the resource person with the students who put forth a range of questions on the topics presented.

The Programme concluded at 3:30 P.M with a vote of thanks given by the Organizing Secretary, Shri. L. Khongiang.