

Activity Report

Name of Event: Seminar titled “On Phase Transitions, Scaling and Universality”, held on 14th September 2019

Topic: “*On Phase Transitions, Scaling and Universality*”.

Speaker: Mr. Aritra Ghosh,
School of Basic Sciences,
IIT Bhubaneswar, India.

Date: 14-09-2019

Time: 12:15 PM

Organised by: Department of Physics,
Surendranath College, Kolkata, India.

Number of Participants: 52

Summary:

The Department of Physics, Surendranath College held a seminar titled "*On Phase Transitions, Scaling and Universality*" on 14th September (Saturday), 2019 from 12:15 PM at the Physics Gallery (PG). In this seminar faculties and students of the Department of Physics were participated. The seminar started with the introduction of the speaker by Dr. Asok Kumar Das, HOD, Department of Physics. The speaker Mr. Aritra Ghosh, School of Basic Sciences, IIT Bhubaneswar, discussed the essential features of phase transitions such as the existence of universal scaling laws. The speaker started the talk with general descriptions of thermodynamic phase transitions in the classical regime. Using the Ising model he explained the notions of scaling, correlation functions as well as that of the order parameter. Finally the speaker discussed the inversion symmetry of the system with respect to the order parameter. He also answered all the questions raised by the participants in the question answer session. The speaker was formally given the vote of thanks by Dr. Asok Kumar Das for his valuable and informative lecture.