GOVERNMENT OF WEST BENGAL Office of the Principal

Chaksrikrishnapur-Kulberia :: Kulberia :: Purba Medinipur 721649

🔯 matanginicollege@gmail.com/ principal@matanginicollege.ac.in 🔇 03228-262261/262262 🕮 www.matanginicollege.ac.ir

Report on One Day National Webinar on "Statistical Physics Models of Epidemic Spreading" Date: 16.10.2020

Mode: Online

One Day National Webinar on "Statistical Physics Models of Epidemic Spreading" was conducted by the department of Physics of Shahid Matangini Hazra Govt. General Degree College for Women on October 16,2020, in online mode.

Programme Overview:

The seminar began with the inauguration speech of the Principal, Dr. Bijoy Kirshna Roy, of the college. He talked about the importance of this kind of seminar for the awareness among the people in the pandemic situations. He also told the advantages of arranging webinar in the online mode in a pandemic situation.

Programme Presentation:

The main speaker of this webinar was Dr. Soumyajyoti Biswas, Assistant Professor, Department of Physics, SRM University, Andhrapradesh, India. Dr. Parna Roy, Assistant Professor, Department of Physics introduced the speaker and invited the speaker for his talk. Dr. Soumyajyoti Biswas presented his lecture on "Statistical Physics Models of Epidemic Spreading". Dr.. Biswas discussed the application of stochastic processes in epidemic modelling. He explained how random variables in contact rates and disease transmission can significantly impact the dynamics of an outbreak. The use of stochastic differential equations and Monte-Carlo simulations were discussed as essential tools to explain the inherent uncertainties is epidemic spread. Dr. Biswas ended his lecture by showing some beautiful studies on epidemic spread and asked the students to join to this kind of work.

Discussion:

A beautiful discussion session was held after the lecture of Dr. Biswas. In the discussion session students interacted with Dr. Biswas and he encouraged the students by his research work and by discussing the hard work that is needed to do this kind of research work. The teachers of the college from different departments are also took part in the discussion. At the end, a feedback form was sent for the audience and Mr. Mahadeb Pal, Head, Department of Physics, concluded the programme with a vote of thanks.

Conclusion:

The Webinar successfully highlighted the critical role of statistical physics in understanding and controlling epidemic The webinar showed the importance of interdisciplinary collaborations and integration of advance mathematical models with empirical data. This webinar provided a very nice platform to the students to understand about the modern research work. Department of Physics is thankful to the College Authority for giving permission to organize this webinar on online mode. Special thanks to Our Principal Sir for his continuous support.

> Shahid Matangini Hazra Government General Degree College for Women Chaksrikrishnapur, Kulberia, Mimtouri Tamluk, Purba Medinipur

Principal, Shahid Matangini Hazra Govt. General Degree College for Women, Chakshrikrishnapur, Kulberia, Purba Medinipur