

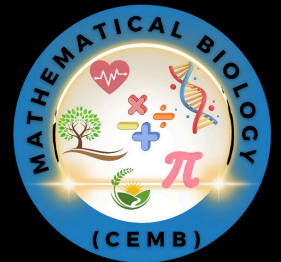


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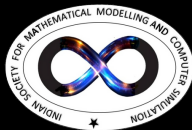
SPEAKER

PROF. JOYDIP DHAR

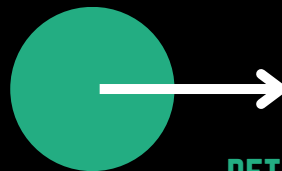
TOPIC

**Crop-Pest-Natural Enemy
Dynamics: Strategies for
Organic Farming**

IN COLLABORATION WITH



**INDIAN SOCIETY FOR MATHEMATICAL
MODELING AND
COMPUTER SIMULATION (ISMMACS)**



DETAILS

1 March 2025

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TOPIC

Crop-Pest-Natural Enemy Dynamics: Strategies for Organic Farming

ABSTRACT

It is a well-known fact that a pest is a harmful insect, and its outbreaks often cause serious ecological and economic problems. Evidence indicates that annually pests cause a 25% loss in rice, 5-10% in wheat, 30% in pulses, 35% in oilseeds, 20% in sugarcane, and 50% in cotton. Nowadays, many pest control methods are currently available, such as biological, cultural, physical, and chemical methods. In the natural world, there are many insect species whose individual members have a life history that takes them through two stages, immature and mature. Moreover, the rates of survival, development, and reproduction almost always depend on age, size, or development stage. Furthermore, the common practice proves that long-term adoption of chemical control may give rise to disastrous results, for example, environmental contamination, toxicosis of humans and animals, and so on etc. Thus pesticide pollution is also recognized as a major health hazard to human beings and to natural enemies. On the other hand, it is well known that the biological control method is harmless to humans, animals, and the environment. Biological control is generally used to control a particular pest using a chosen living organism; this chosen organism might be a predator, parasite, or disease that attacks the harmful insect pest. The last few years have seen a sudden increase in interest in the study of biological pest control using prey-predator interaction.

SPEAKER

PROF. JOYDIP DHAR, PROFESSOR, ABV-IITM GWALIOR, INDIA

BIO

Prof. Joydip Dhar is presently working as Professor (Mathematics) in the area of Engineering Sciences (Mathematics Section) at ABV-Indian Institute of Information Technology and Management, Gwalior. Prof. Dhar completed his Ph.D. from IIT, Kanpur, in 1997 and has been associated with the teaching profession and research for the past 28 years. He has also published about 185 papers in his areas of interest and proficiency in internationally reputed journals. He has guided 24 Ph.D. and several M. Tech and MBA theses, and currently, five students are pursuing Ph.D. under his guidance. Prof. Dhar delivered more than 50 invited lectures/talks at different Universities and Institutions in India and abroad (U.K., Sweden, China, Sri Lanka). He Co-authored two books published by International Lambert Academic Publishing House and CRC Press and conducted several conferences and short-term courses. He is a life member of many professional societies ISTE, IMS, ISMMACS and the annual member of American Mathematical Society (AMS). Participated in the prestigious ACM-ICPC world finals as a mentor at Stockholm, Sweden 2009. Visited ICPC world finals at Bajing, China in 2018, Moscow, Russia in 2021 as Regional Contest Director. He has visited Essex University, UK; Liverpool Hope Univ., UK; KTH Univ., Stockholm and Payradonia Univ., Sri Lanka for academic collaboration time to time. Currently he is regional contest director of ACM-ICPC from the last 5 years. He was the recipient of Dewang Mehta National Education Awards, Shiksha Rattan Puraskar and many others. He attended a very prestigious seven-day in-residence Program for Inspired Teachers at Rashtrapati Bhavan, which is one of the highest recognitions for any central government institution teacher.

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