

# SRI SATHYA SAI INSTITUTE OF HIGHER LEARNING

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**AN INITIATIVE BY** 



SPEAKER PROF. PEEYUSH CHANDRA

TOPIC Modeling Infectious Diseases with Mathematics -Why and How!

IN COLLOBORATION WITH



INDIAN SOCIETY FOR MATHEMATICAL MODELING AND COMPUTER SIMULATION (ISMMACS)



3 p.m. to 4 p.m. IST

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# Modeling Infectious Diseases with Mathematics -Why and How!

### ABSTRACT

It is well known that Infectious disease have an impact on human population. Some diseases have impacted the development of societies and communities. So there has been always been an interest to study and understand dynamics of an infection – its spread and control in a population. In recent years, Mathematics has been playing important part in various fields in our life. One such area is Epidemiology - the study of infectious diseases. In this talk focus is on why we need mathematics in Epidemiology and how to use it as model for infectious diseases.

### SPEAKER

## PROF. PEEYUSH CHANDRA, RETD. PROFESSOR, IIT KANPUR, India

### BIO

Prof. Peeyush Chandra, an accomplished academic and researcher, completed his B.Sc. from Meerut College, Meerut University in 1969, followed by an M.Sc. in Mathematics from IIT Kanpur in 1971. He earned his Ph.D. in Biomechanics from IIT Kanpur in 1976. Shortly after, he joined the Mehta Research Institute in Allahabad (now HRI) as one of the first Post-Doctoral Fellows and later became an Assistant Professor in 1980. In 1982, he moved to IIT Kanpur as an Assistant Professor, where he served until his retirement in 2015 as a Professor (HAG). He also held leadership positions, including the head of the Department of Mathematics and Statistics from 2005 to 2008, and the Sanjay Mittal Chair Professorship from 2011 to 2014.

Prof. Peeyush Chandra has made significant contributions to Biomathematics, with research interests in biofluid mechanics, mathematical ecology, and mathematical epidemiology. He has published around 90 research papers in these fields and supervised 12 research scholars, many of whom have established successful careers. His work has earned him a prominent place in the academic community, and he has served on various committees of DST, SERB, and CSIR. Additionally, he is the Editor-in-Chief of the Journal of the Indian Mathematical Society and has been on the editorial boards of several respected journals.

His excellence in research and contributions to the field have been widely recognized. Prof. Peeyush Chandra is a Fellow of the National Academy of Sciences, India, and has held prominent leadership roles such as President of the Indian Mathematical Society and the Indian Society for Mathematical Modeling and Computer Simulation. He has received multiple awards, including the Distinguished Service Award and Life-Long Achievement Award from the Vijnana Parishad of India.

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