

# A Real-Time Predictive Modelling for Mitigation of Contagious Diseases- A Mathematical Approach

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This project was fabricated on the foundation of Computation Biology with the real time predictive modelling for mitigating contagious diseases with a mathematical approach. The aim of this project was to develop a control system that could compute and foresee an infectious disease in three stages: foremost, quasi and hindmost prediction, accurately quantify the severity of an infectious disease. The idea of accentuating this project emanated from the headlines of a daily news paper quoting "Zika prevailing all around and India is on guard (the week)". Surveys in local hospital proved that the world is going through a serious threat of infectious diseases which had no effective real-time control system. On the contrary, Mathematicians use the SIR model for dealing with this problem but which proved to have various cons. This predictive system was built to perform on every aspect of a contagious disease which the existing models couldn't. The processing of this system included a database of numerous diseases characterize on the basis of mathematical factors which was obtained by the past two year's report of 'INDIAN DISEASE SURVEILLANCE PROGRAM'. This also included a dynamic application called STEGOSAURUS that can compute the surveillance of an infectious diseases using the database and the real time data. It has unique features like 'CYBER QUARANTINE' and 'GOVERNMENT CORNER'. This system was a requisite in Order to pull out humanity from the clutches of infectious diseases.

## Awards Won:

Samvid Education Foundation: Geno Third award