

## PONDICHERRY UNIVERSITY

### DEPARTMENT OF STATISTICS

Ramanujan School of Mathematical Sciences

All Students, Research Scholars and Faculty Members are cordially invited for Online Special Lecture Program

on

### A Survey on Stochastic Games

**Delivered By** 

# Prof. T. Parthasarathy

**Adjunct Professor,** 

(Game Theorist and Distinguished Indian Mathematician) Chennai Mathematical Institute, Chennai

#### Schedule and Venue of the Program:

Date	Time	Venue
February 17, 2021	02:30 pm –05:30 pm	Online mode: https://meet.google.com/qxo- fopy-rhx?hs=224 Department of Statistics, Pondicherry University

Dr. Navin Chandra (Co-ordinator)

Dr. Kiruthika (Convener and Head)

### A Survey on Stochastic Games

#### **Abstract:**

Theory of stochastic games was introduced by Lloyd Shapley in a historically significant Paper. (Published in Proceedings of the National Academy of Sciences, 1953). Around the Sametime Dean Gillette introduced stochastic game from a different perspective in his PhD thesis submitted To University of California, Berkeley (1953) later published in vol 3, Contributions to the Theory Of Games (1957). In this talk we will briefly review stochastic games from the algorithmic point of view.

In particular we will discuss one player controlled stochastic games towards the end of the talk. We will briefly discuss other theoretical results due to A.Maitra and W. Sudderth, Maitra and T.Parthasarathy, Mertens and Newman (on the existence of value in the undiscounted case). We will mention some open problems in the end.