



# National Institute of Technology

(Under Ministry of Human Resource Development, Govt. of India)

Tiruchirappalli 620015, Tamilnadu, India.

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## DEPARTMENT OF PHYSICS

### GUEST LECTURE

**Topic: Random walks on complex networks :**

**What can we do with them?**

*Speaker: Dr. M.S. Santhanam*

*Associate Professor (Physics)*

*Indian Institute of Science Education and Research (IISER), Pune.*

*Date & Time: 19.02.2019, 3.30 pm (Snacks & Tea at 3.15 pm)*

*Venue: A13 Hall, Admn. Block*

#### **Abstract**

The idea of random walk in physics is more than 100 years old. It is a fundamental model for our understanding of diffusion phenomena in physical systems. In the last decade many new applications of random walks have emerged especially in the context of complex networks. In the first part of this talk, we will present a brief survey of new applications of random walks on networks. Further on, we will present some of the results we had obtained on three different problems, from traffic model to extreme events, all of which involve random walk on discrete and complex lattice as the main ingredient.

Sd/-

Date: 14.02.2019

Head of Department