# THE FOURTH JYOTIPRASAD MEDHI MEMORIAL ANNUAL LECTURE



# 6:30 PM, 21 SEPTEMBER, 2020 Online: Through Microsoft Teams

## SPEAKER Professor Kavita Ramanan Division of Applied Mathematics, Brown University, USA

Organized by Department of Mathematics IIT Guwahati, Guwahati - 781 039 **Dr. Jyotiprasad Medhi** (1925–2017) was undoubtedly the finest Mathematician and Statistician the north east region of the country has ever produced. We are glad to institute an annual lecture in the fond memory of the worldwide acclaimed scholar and writer.

### About the speaker:

The fourth Jvotiprasad Medhi Memorial Annual Lecture will be delivered by Prof. Kavita Ramanan, currently one of the leading applied probabilists in world academia. Prof. Ramanan is the Roland George Dwight Richardson University Professor and Associate Chair at the Division of Applied Mathematics, Brown University. She was previously a Professor at the Department of Mathematical Sciences at Carnegie Mellon University from 2003--2009, and a Member of Technical Staff at Bell Labs from 1998-2002. Her field of research is probability theory, stochastic processes and their applications. Her research contributions have been recognized by a Guggenheim Fellowship in 2020, a Medallion from the Institute of Mathematical Statistics in 2015, and the Erlang Prize from the INFORMS Applied Probability Society in 2006. She has served on the Editorial Boards of numerous journals including Annals of Probability. Annals of Applied Probability, Mathematics of Operations Research, SIAM Journal of Applied Math, Applied Math and Optimization, Stochastic Analysis and Applications, and Queueing Systems.

#### Title of the talk: Analysis of Large-Scale Stochastic Networks

### Abstract:

Large-scale stochastic networks arise as models in a variety of fields, ranging from computer science and operations research to epidemiology and biology. In many cases, these networks are too large and complex to be amenable to exact analysis. Instead, one looks for more tractable approximations whose accuracy can be quantified. In this talk, I will describe several classes of models, their related approximations and the insights they provide into the corresponding applications.

The Department of Mathematics, IIT Guwahati, cordially invites you to the fourth *Jyotiprasad Medhi Memorial Annual Lecture*.

Subhamay Saha Coordinator M. Guru Prem Prasad Head, Dept. of Mathematics