

# Science at the Sabha 2019

Sunday, 24 Feb 2019 4:00 - 7:30 pm TTK Auditorium, The Music Academy

TALKS ON SCIENCE FOR THE GENERAL PUBLIC

## TRAFFIC RULES IN NEURONS



**Sandhya  
Koushika**

**Tata Institute of  
Fundamental  
Research, Mumbai**

Neurons are long cells within which many different types of cargo move. Remarkably, traffic movement on man-made roads, the movement of ants, and cargo transport in neurons all appear to share important features. I'll explore the significance of this finding.

## UNTWISTING TWISTED MATTER



**Vijay Shenoy**

**Indian Institute of  
Science, Bengaluru**

Behind the many wonderful devices such as your cell phone are the materials that make them up. These materials owe many of their properties to the different ways in which their electrons organize themselves. I will explore what electrons can do collectively, leading up to the recent discovery of materials with "an electronic twist".

## THINKING ECOLOGICALLY ABOUT OUR URBAN FUTURE

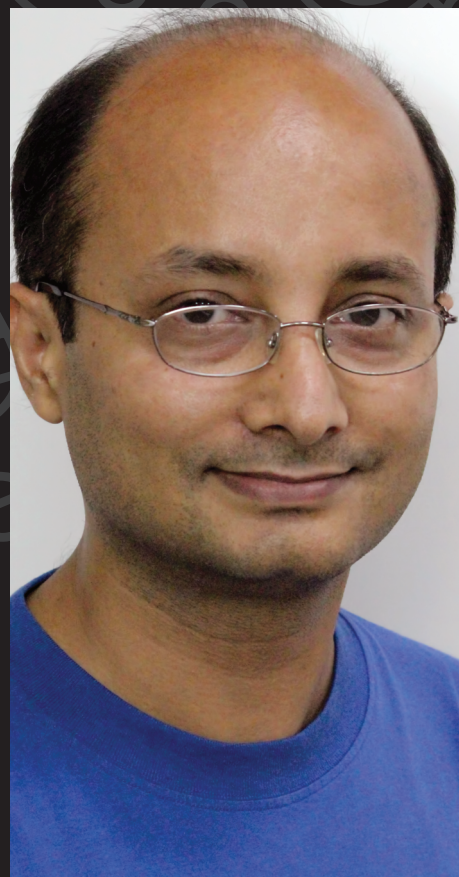


**Harini  
Nagendra**

**Azim Premji  
University, Bengaluru**

India's cities are on a breakneck path to growth. Cities are engines of prosperity and promise, but also concentrations of pollution, stress, and disease. Episodes of flood, drought, heat waves, and smog tell us why we must begin to think ecologically about our urban future in cities like Chennai.

## THE WHOLE IS MORE THAN THE SUM OF ITS PARTS



**Sitabhra Sinha**

**The Institute of  
Mathematical  
Sciences, Chennai**

What is common to the power-grid, stock markets, lynch mobs, and the human brain? They are all complex systems made up of many parts. Knowing how each part of a complex system works is not enough to tell us how the whole will behave. We will explore the "emergence" of such unexpected behaviour which is a feature of all complex systems.



No special knowledge of science is necessary to appreciate the talks. Participation is by online registration only, which is free and open to all. For more information and to register, visit [www.imsc.res.in/triveni](http://www.imsc.res.in/triveni)