ICTS | INTERNATIONAL CENTRE for THEORETICAL SCIENCES

TATA INSTITUTE OF FUNDAMENTAL RESEARCH

JAWAHARLAL NEHRU PLANETARIUM

VISVESVARAYA INDUSTRIAL AND TECHNOLOGICAL MUSEUM

KAAPI WITH KURIOSITY

Kaapi with Kuriosity is a monthly public lecture series organised by the **International Centre for Theoretical Sciences** (ICTS-TIFR), in collaboration with the **Jawaharlal Nehru Planetarium** and the **Visvesvaraya Industrial and Technological Museum, Bengaluru.**

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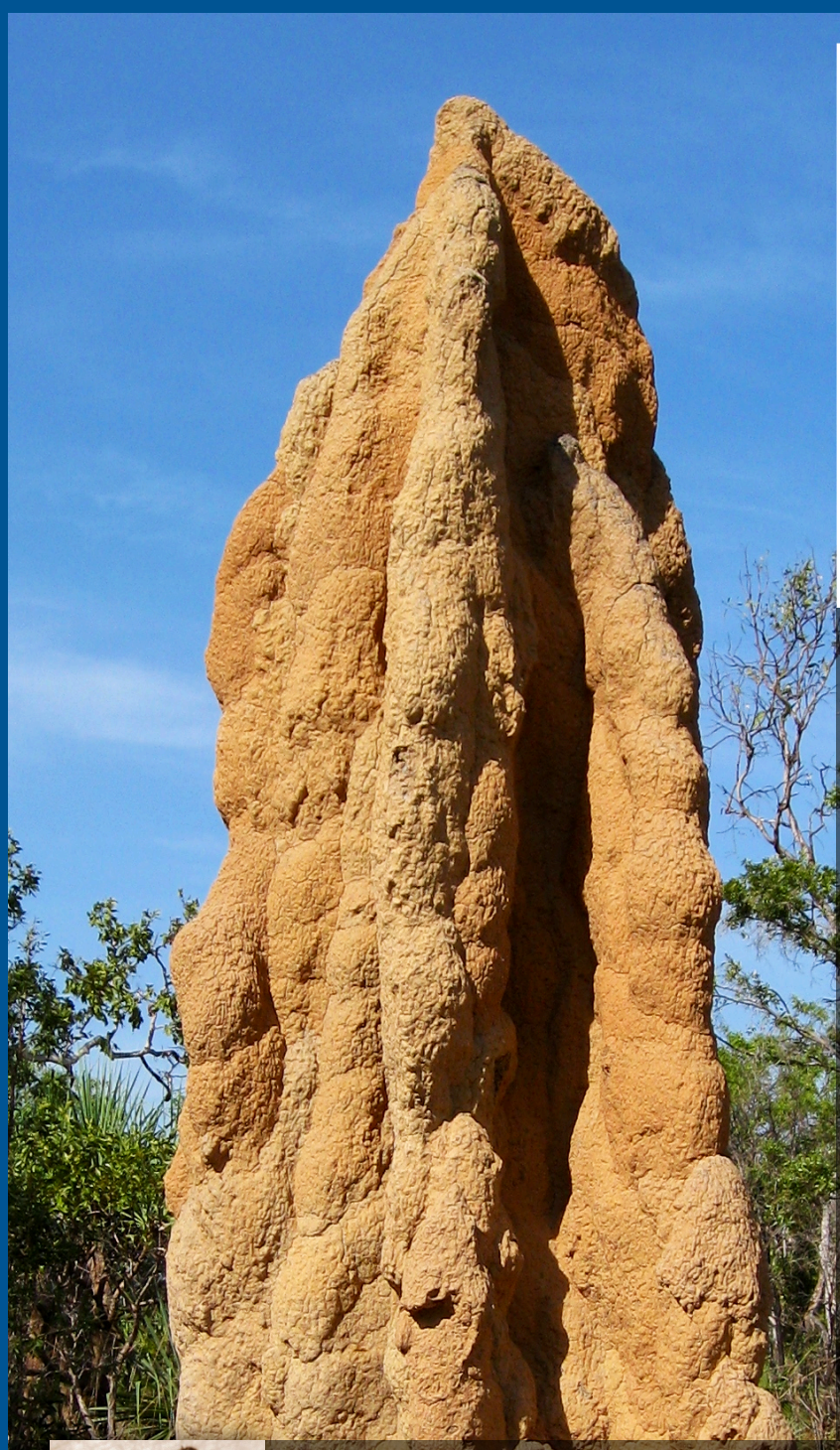

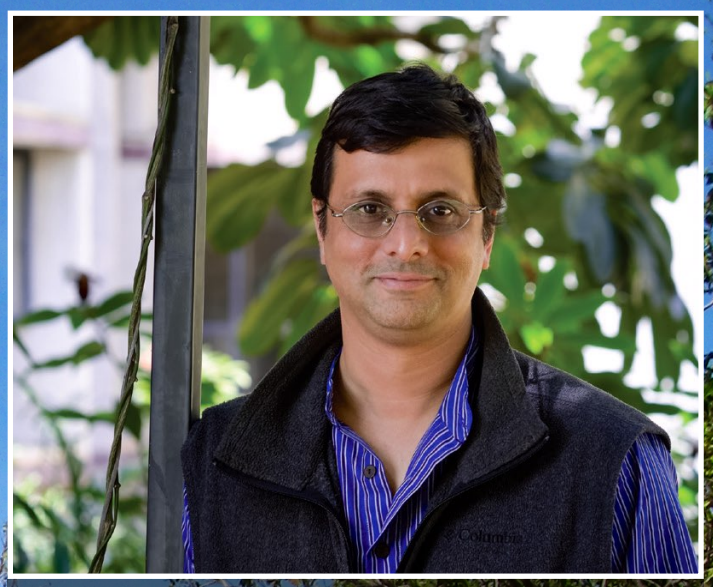

Sanjay Sane

obtained a B.Sc. in Physics, Chemistry and Mathematics from St. Stephens College, University of Delhi and a Master's in Physics from University of Poona, with a specialisation in Astrophysics and Nonlinear Dynamics. His childhood fascination for insects drew him to study the aerodynamics of insect flight as a Ph.D. student at the University of California, Berkeley. He served as a Post-Doctoral Research Fellow at University of Washington, Seattle, before joining the National Centre for Biological Sciences (NCBS), Bengaluru where he is currently an Associate Professor.

Insects as Architects

How insects engineer their ecosystems

Engineering is not a uniquely human trait. Even a cursory look at our backyard can reveal a staggering variety of structures engineered by insects and other animals. These structures emerge from the coordinated activity of many individuals, or sometimes even a solitary individual. Like human-built structures, they require tremendous coordination, constant maintenance, rapid responses to environmental changes etc. My talk will use termite mounds as an example of animal engineering. Specifically, I will describe our recent attempts at understanding how these fascinating insects are able to build enormous structures through coordinated activity. How do they recognise and repair damage to these structures? What sensory cues guide them in these tasks? And finally, what lessons can we learn from these marvellous structures about energy-efficient, waste-free civil engineering? These are some of the questions I will address in my talk.

WHEN & WHERE

11 AM, SUNDAY 11TH DEC 2016

JAWAHARLAL NEHRU PLANETARIUM,
SRI T CHOUDAIAH ROAD,
HIGH GROUNDS,
BENGALURU 560001

ENTRY FREE

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