

## ICTS Seminar

- Title** : Diversity, Stability, and Reproducibility in Stochastically Assembled Microbial Ecosystems
- Speaker** : Akshit Goyal, National Centre for Biological Sciences, Bangalore
- Date** : Thursday, May 3, 2018
- Time** : 11:00 AM
- Venue** : Amal Raychaudhuri Meeting Room, ICTS Campus, Bangalore
- Abstract** : Microbial ecosystems are remarkably diverse, stable, and usually consist of a mixture of core and peripheral species. I will discuss a newly proposed conceptual model which exhibits all these emergent properties in quantitative agreement with real ecosystem data, specifically species abundance and prevalence distributions. Resource competition and metabolic commensalism drive the stochastic ecosystem assembly in this model. I will demonstrate that model allows the following: even when supplied with just one resource, ecosystems can exhibit high diversity, increasing stability, and partial reproducibility between samples.