



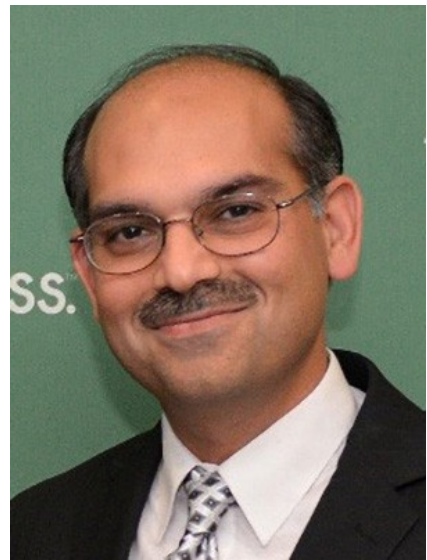
# Bose Institute Colloquium

## Actin dynamics involving the Actin depolymerizing factor 3 and plant defense against insects that feed from the phloem

by

**Dr. Jyoti Shah**

**University of North Texas,  
Denton, TX, USA**



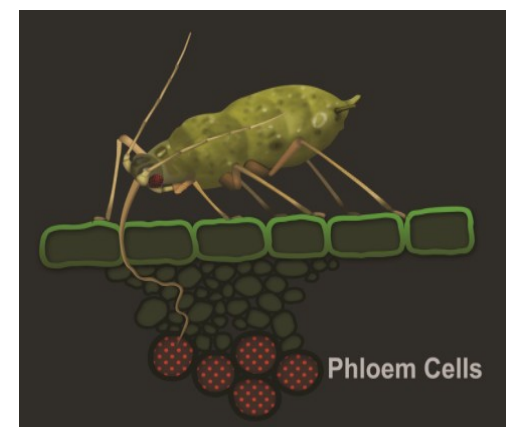
**Jan 18, 2019, Friday, 2.30 pm**

**Seminar Room**

**Annex Building, Bose Institute,**

**P 1 / 12 CIT Scheme VIIM, Kolkata 700054**

Abstract: Aphids constitute a large group of insects that have adapted to feeding from the sieve elements of plants. Nearly 250 aphid species are considered pests of a wide variety of plants. Damage to plants is the outcome of a combination of factors, including loss of phloem sap and reduction in flow of nutrients to primary growth zones resulting from alterations in source-sink patterns in aphid-infested plants. In addition, aphids vector several economically important viruses. The long-term goal of my research is to understand the interaction between plants and aphids, in particular the processes that allow plants to limit infestation. The compatible interaction between *Arabidopsis thaliana* and the green peach aphid (GPA; *Myzus persicae* Sülzer) has provided a model system to uncover the molecular events and physiological processes that contribute to plant defense. I will discuss our recent discoveries on the involvement of actin cytoskeleton dynamics involving the Actin depolymerizing factor 3 in controlling aphid infestation.



Contact: [debu@jcbose.ac.in](mailto:debu@jcbose.ac.in)