

## Seminar

## Fast, small - yet still in control: how flying insects balance speed with accuracy

## Sanjay P. Sane

## National Centre for Biological Sciences, Bangalore

For flying insects, the evolution of smaller body size demanded a corresponding increase in wing beat frequency. In parallel, this also drives the enhancement of sampling rates of the sensory system, rapid sensorimotor integration by the central nervous system and fast actuation by the flight muscles. Because small errors in the wing movement from intended course can make large deviations in the ultimate flight course, insects must also ensure that their wing motion is accurate.

How do insects balance speed with accuracy. I will focus on this question in my presentation. Specifically, I will show examples of how this can be achieved by the nervous system, as well as by the musculosketal mechanics of the thorax.

Thursday, July 3<sup>rd</sup> 2014

11:30 AM (Tea/Coffee at 11:15 AM)

Seminar Hall, TCIS