ICTS Biophysics Seminar

Title : Towards a digital-twin of a living cell

Speaker : Vijay Rajagopal (University of Melbourne, Australia)

Date : Thursday, 09 January 2025

Time : 4:00 PM (IST)

Abstract : The living cell is the fundamental unit of life. Understanding its inner workings is crucial to understanding disease mechanisms and to develop treatments and biotechnologies to improve patient outcomes. But living cell physiology is governed by an intricate and spatially distributed network of chemical and mechanical interactions that are hard to unravel. In this talk, I will provide an overview of our research programme to create a unified physics-based modelling framework of living cell physiology. I will describe how we integrate stochastic/deterministic, particle/continuum-based models to uncover new details about how calcium signalling affects heart growth and how e-cadherins aggregate to form cell-cell adhesions.

Venue : Feynman Lecture Hall
Zoom link:https://icts-res-in.zoom.us/j/99313951139?pwd=YzspEnPvbaGAXmLWuDQmbQdXmWMPHL.1
Meeting ID: 993 1395 1139
Passcode: 850008