

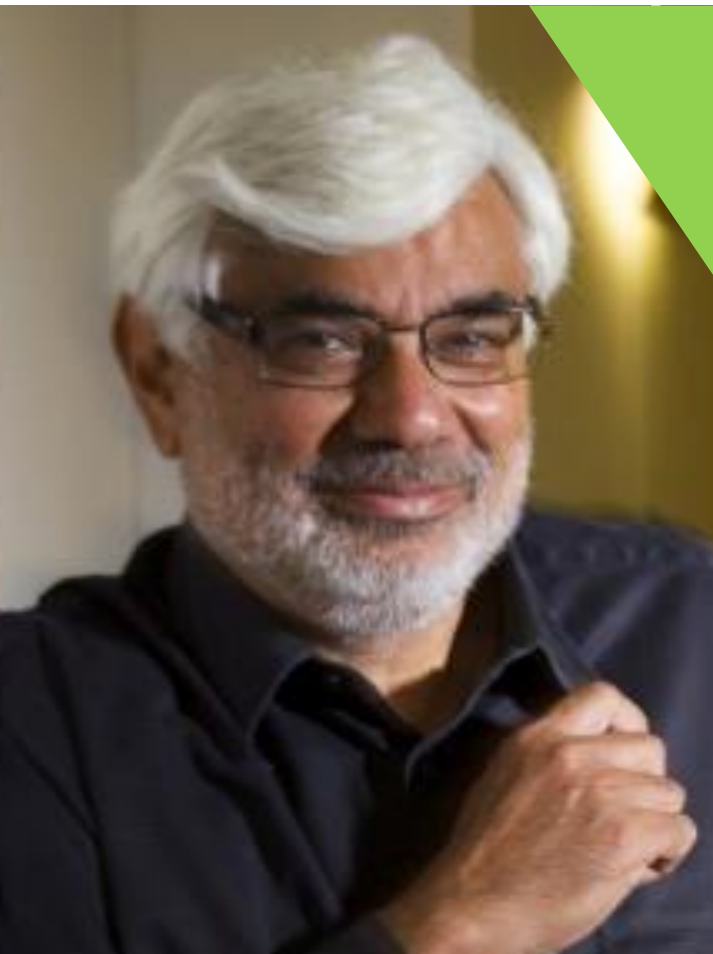
Institute Lecture



Prof. Shankar Subramaniam

University of California San Diego

Is Big Data the *sine qua non* of Human Future? Challenges at the interface of Data and Life Sciences



Wednesday, October 30, 2019
@ 6.15 pm | Venue: L17, LHC

About the talk

We are living in the age of big data. From the three billion base pairs that code each human genome to the gigabytes of data from a wearable sensor to the exabyte of data generated each day on the environment we live in, we are engulfed by data. Arguably one of the largest challenges that face modern civilization is how do we convert this data into knowledge, in a context-specific manner, that would benefit us. This presentation will highlight the challenges at the interface of data and life sciences including the following illustrated through examples: data structure, data and dimension reduction, feature construction, data to networks, data interoperability and integration, time series data and deep learning from data. In each case challenges in need of solutions will be highlighted.

About the speaker

Shankar Subramaniam is a Distinguished Professor of Bioengineering, Computer Science & Engineering, Cellular & Molecular Medicine and Nanoengineering and holds the inaugural Joan and Irwin Jacobs Endowed Chair in Bioengineering and Systems Biology at the University of California San Diego. He received his doctorate degree in Chemistry from IIT Kanpur working on new methods for solving the Schrodinger equation. His current research spans several areas of life and data sciences with emphasis on systems biology and medicine. He has been elected as a Fellow of the American Association for the Advancement of Science and the American Institute for Medical and Biological Engineering and as a Genome Technology All Star. He is recipient of several awards including a Faculty Research Excellence Award, a Smithsonian Foundation Innovation Award and most recently the IIT Kanpur Distinguished Alumni Award. He has published over 300 research papers and leads several of multidisciplinary projects. He is an advisor to several Government Science Agencies, Foundations and Companies and was recently appointed as a distinguished Visiting Professor at IIT Kanpur.

All are invited to attend

Dean of Research and Development