

The Department of Electrical and Computer Engineering presents:

**A DISTINGUISHED SEMINAR**



**PROFESSOR B.S. MANJUNATH**

# UNSTRUCTURED (BIG) IMAGE DATA CHALLENGES

## ABSTRACT

Multimodal, unstructured data is ubiquitous: from consumer devices such as smart phones to scientific imaging, we encounter this data constantly, everywhere. This data is voluminous, accounting for a significant part of the digital data (one could speculate this to be >90%) generated around the world, daily. This data is complex and unstructured. In many applications, this data varies over time, and these time scales differ depending on the application. However, much of this multi-scale, multi-modal, unstructured and dynamic data remains under-exploited and un-interrogated. This talk explores the challenges associated with such data analytics and some interesting case studies in life sciences and medicine will be presented, with a focus on imaging data. We conclude with an overview of the BisQue software platform that is being developed at UCSB towards addressing the challenges associated with managing such data and creating reproducible workflows to analyze imaging data.

## BIOGRAPHY

B. S. Manjunath received the Ph.D. degree in electrical engineering from the University of Southern California, Los Angeles, CA, USA, in 1991. He received the B.E in Electronics Engineering from the Bangalore University and the M.E in Systems Science and Automation from the Indian Institute of Science, Bangalore. He is currently a Distinguished Professor of Electrical and Computer Engineering at the University of California, Santa Barbara. His current research interests include image processing, machine learning, computer vision, and media forensics.

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**WCH 205/206**  
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