

Details of the Speaker

V. Chandrasekar, Distinguished Professor and Associate Dean-Colorado State University, USA

Prof. V. Chandrasekhar (Prof. Chandra) is a renowned Radar Meteorologist, Distinguished Professor and Associate Dean of International Research of Colorado State University (CSU), USA. He has obtained B. Tech. from Indian Institute of Technology, Kharagpur, 1981 and Ph.D. from Colorado State University, 1986. Prof. Chandrasekhar is a Fellow of American Meteorological Society (AMS), Institute of Electrical and Electronics Engineering (IEEE) and has authored over 200 Journal articles and five books (including two textbooks). He has authored the most popular book on Polarimetric Weather Radar published by Cambridge University Press.



Details of the Talk

Date: 19/08/2015

Title: The Urban Remote Sensing Network for Disaster Mitigation

Abstract: This seminar will describe a multidisciplinary program involving radar and RF systems, electronics, computer science, hydrology, meteorology atmospheric science and sociology to address disaster mitigation. Currently, the Next Generation (NEXRAD) radar system provides observations updated every five-six minutes across the United States. This network consists of about 160 S-band (2.7 to 3.0 GHz) radars. At the maximum radar range of 230 km, the 0.5 degree radar beam is about 5.4 km above ground level (AGL) Because of the effect of earth curvature. Consequently, much of the lower atmosphere (1-3 km AGL) cannot be observed by the current day systems. To overcome the fundamental coverage limitations of today's surveillance radars, and improve the spatial and temporal resolution issues, the National Science Foundation Engineering Center (NSF-ERC) for Collaborative Adaptive Sensing of the Atmosphere (CASA) was founded to revolutionize sensing in the lower atmosphere by deploying a dense network of shorter-range, low-power X-band dual-polarization radars. The distributed CASA radars are operating collaboratively to adapt the changing atmospheric conditions. Accomplishments and breakthroughs after five years of operation have demonstrated the success of CASA program.

