

# BEL

## Visiting Chair Professorship



**Instituted by Bharat Electronics Limited  
in the year 2009 to commemorate the  
Centenary the Indian Institute of Science**

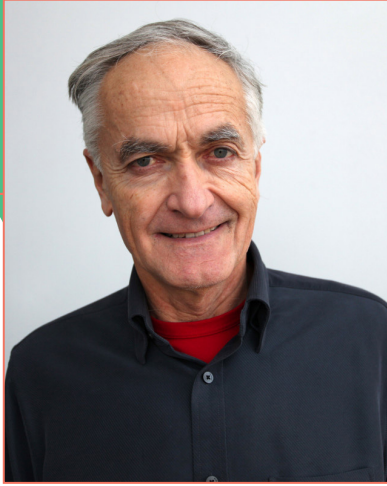
### **Objective**

Collaborations leading to capacity building in new technologies for microwave & mmwave radar systems, signal processing and communications in IISc

### **Core Research Areas**

Computational Electromagnetics, microwave and mmwave systems radar signal processing, image reconstruction, MIMO radars, weather radar, communication systems

**Offered to distinguished researchers to visit IISc for several weeks to engage in research interactions with IISc faculty members and graduate students. During their visit, the chair professor delivers several lectures. IISc thanks BEL for this generous endowment to promote research and innovation in power engineering.**



## **Prof Dusan Zrnic**

Senior Scientist & Leader, Doppler Radar  
and Remote Sensing

Research at National Severe Storms Lab  
(NSSL), USA;

Adjunct Professor, University of Oklahoma.

### **Expertise**

Doppler Radar Studies, Remote Sensing, Electromagnetics

### **Distinctions**

Author of acclaimed book on Doppler Radar and Weather Observations

Fellow of IEEE

Fellow of AMS

IEEE 1988 Harry Diamond Memorial Award

1993 IEEE Donald G. Fink Prize Award

WMO 1996 Vaisala Award

### **Visit**

Prof. Zrnic visited IISc for two weeks during January 2014. During the visit, he delivered several expository and advanced lectures on Doppler radar and remote sensing. IISc faculty members, research students, and BEL engineers got immensely benefited from these seminars. He was actively engaged in interactive discussions with several faculty members and Ph.D. students working in radar systems and electromagnetics.



## Dr Goutam Chattopadhyay

Senior Research Scientist at NASA –  
Jet Propulsion Laboratory, Caltech

### Expertise

Terahertz technology and its applications;  
Electromagnetics

### Distinctions

More than 250 highly cited publications  
15 US patents  
30 NASA Technical Achievement and New Technology Invention Awards  
Fellow of IEEE, Fellow of IETE, IEEE Distinguished Lecturer

### Visits

Prof. Chattopadhyay has visited IISc four times so far: Nov-Dec 2016, July 2017, July 2018, and July 2019. During each of these visits, he has delivered special lectures attended by grad students of IISc and R&D engineers from BEL on the topics of Mm wave radar systems, Mm wave passives, and modeling and simulation of electromagnetic systems. He gave an Institute Lecture on *Space Instruments and Technology at Terahertz Frequencies* on November 30, 2016. During his visits, he has regularly visited BEL for technical discussions and also the ISRO Satellite Centre. He has been actively engaged in technical discussions with IISc faculty members, graduate students, and BEL researchers.



## Dr D V Giri

Founder and President, Pro-Tech, Alamo, CA, USA.

Adjunct Professor in the Dept. of ECE, Univ. New Mexico

B.E. (1967), M.E. (1969) from IISc, M.S. (1973), and Ph.D. (1975) from Harvard University

### Expertise

Nuclear Electromagnetic Pulse, High-Power Microwaves, Lightning, and Ultra Wideband systems

### Distinctions

Taught at UC Berkeley.

Life Fellow of IEEE

SUMMA Foundation Fellow

2006 John Kraus Antenna Award

Hind Ratan Award

NRI of the year (2017) Award

### Visit

Dr. Giri visited IISc during Jan.-Feb. 2018. During the visit, he delivered special lectures attended by faculty members and grad students of IISc and R&D engineers from BEL on the topics of microwave engineering and ultra wideband systems. He gave an Institute Lecture on *Electromagnetic Threats: Past, Present and Future* on January 19, 2018. During his visit, he visited BEL for technical discussions. He was actively engaged in technical discussions with IISc faculty members, graduate students, and BEL researchers. Whenever he visits India, he makes it a point to visit IISc and ECE and interact with the researchers here. He has provided a generous contribution to develop an ECE Plaza space for informal interactions on the ECE lawns.



## Prof V. Chandrasekar

University Distinguished Professor,  
Electrical and Computer Engineering,  
Colorado State University

### Expertise

Radar Systems and Networking; Radar Meteorology;  
RF Communication Systems; Signal Processing  
Pioneering contributions in the area of Polarimetric  
Radar Observations of the Atmosphere

### Distinctions

PI or Co-PI on several US national level programs and  
the Deputy director of the NSF Engineering Research  
Center, CASA (Center for Collaborative Adaptive  
Sensing of the Atmosphere).

Fellow of IEEE

Fellow of the American Meteorological Society

Fellow of CIRA

NASA Technical innovation Award

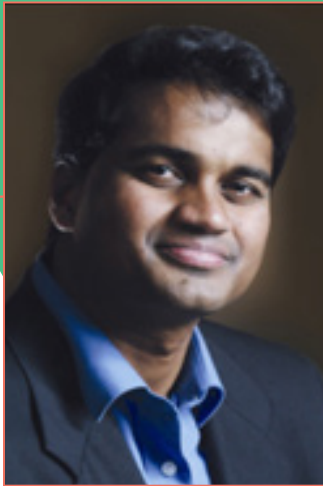
Abell Outstanding Researcher Awards

Halliburton Foundation Young Faculty Research  
Excellence Award, 1993,

Vaisala Distinguished fellow.

### Visits

Prof. Chandrasekar has visited IISc three times so far: August 2018, March 2019, and August 2019. During each of these visits, he has delivered special lectures attended by grad students of IISc (in particular Departments of ECE and CAOS) and R&D engineers from BEL on advanced aspects of weather radars. He gave an Institute Lecture on *From raindrops to Floods: Advances, Challenges and Opportunities in rainfall Measurement using Dual-polarization Radar* on August 16, 2018. During his visits, he has regularly visited BEL for technical discussions and also the ISRO Satellite Tracking Centre (ISTRAC). He has been actively engaged in technical discussions with IISc faculty members, graduate students, and BEL researchers. He is now an adjunct faculty member in the Division of EECS, IISc.



## **Prof T. Kirubarajan**

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Professor and Distinguished Engineering Professor  
Electrical and Computer Engineering Department, McMaster  
University, Hamilton, Canada  
NSERC/General Dynamics Mission Systems-Canada Industrial  
Research Chair in Target Tracking and Information Fusion

### **Expertise**

Multisensor-multitarget tracking, estimation theory, information fusion, sensor resource management, radar/sonar/image/signal processing, fault diagnosis/detection.

### **Distinctions**

Associate Editor, IEEE Transactions on Aerospace and Electronic Systems

Associate Editor, IEEE Transactions on Systems, Man and Cybernetics

Ontario Premier's Research Excellence Award, 2002.

Barry Carlton Award for the Best Paper Published in the IEEE Transactions on Aerospace and Electronic Systems

### **Visit**

Prof. Kirubarajan is all set to visit IISc during 2020. He has been a regular visitor to BEL during the past few years and has been interacting with BEL engineers on various R&D problems in his areas of expertise.

