

BEL

Visiting Chair Professorship



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

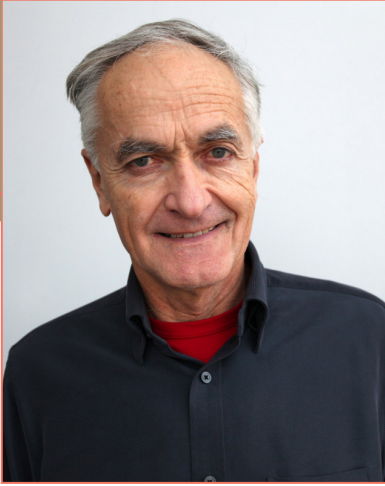
Objective

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

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.



Dr Kumar Vijay Mishra

Senior Fellow,
United States DEVCOM Army Research Laboratory,
Adelphi, Maryland, United States

Expertise

Radar systems, signal processing, remote sensing, electromagnetics, optics,
wireless communications, autonomous systems, learning theory

Distinctions

Fellow, International Union of Radio Science (URSI), 2026
IEEE AESS Harry Rowe Mimno Award, 2026
SAE International Award for Excellence in Innovation, 2025
Special Mention, Wiley-IEEE Press Professional Book Award, 2025
IEEE Signal Processing Society Pierre-Simon Laplace Early Career Technical Achievement Award, 2024
Special Mention for the IEEE AESS M. Barry Carlton Award, 2023
IET Premium Best Paper Prize, 2021
Outstanding Editor, IEEE Transactions on Aerospace and Electronic Systems, 2021, 2023, 2024, 2025
American Geophysical Union Editors' Citation for Excellence, 2019
Royal Meteorological Society Quarterly Journal Editor's Prize, 2017
U. S. National Academies ARL Harry Diamond Distinguished Fellowship, 2018–2021
Viterbi Postdoctoral Fellowship, 2015, 2016
Lady Davis Postdoctoral Fellowship, 2017
Chair, Commission C, International Union of Radio Science, 2023–present

Chair, IEEE AESS Technical Working Group on Integrated Sensing and Communications, 2025–present
Vice-Chair, IEEE Synthetic Aperture Standards Committee, 2021–2026
Past Chair, IEEE SPS Technical Working Group on Synthetic Apertures, 2023–2024
Distinguished Lecturer, IEEE Aerospace and Electronic Systems Society (2023–2026),
IEEE Geoscience and Remote Sensing Society (2024–2026),
IEEE Vehicular Technology Society(2023–2027),
IEEE Communications Society (2023–2024), IEEE Future Networks Initiative (2022)
Traveling Lecturer, Optica (2025–2027)

Visit

Dr Kumar Vijay Mishra is currently on a visit to IISc for the year 2026. In March 2026, he gave an institute lecture on 'New Frontiers in Signal Processing for Integrated Sensing and Communications' as well as a BEL Chair talk on 'Radar in the Modern EW Battlefield: Inverse Cognition and Masking'. In July 2026, he gave an invited talk on 'Twisted Signals for ISAC via OAM Vortex Beams' at the international conference on Signal Processing and Communications (SPCOM), the premier biennial conference of IISc. He also taught a module on 'Radar detection of low-altitude, slow-speed, small (LSS) targets' at the Short Course on Signal Processing for Navigation and Surveillance organised in July 2026 by the Department of Aerospace Engineering, IISc. During his visit, he regularly interacted with engineers at BEL Product Development & Innovation centre (PDIC) and provided expert inputs on several radar projects. He also initiated multiple collaborations and authored publications with the faculty and students at the ECE, EE, and ESE departments of IISc. He also interacted with and gave talks at other radar and defence labs such as LRDE, CHES, and DIAT during his ongoing visit. In recognition of his contributions, Bharat Electronics Limited has requested an extension of his visiting position for another year until 2027.

