

FOREIGN FELLOWS ELECTED 2023
(Effective from January 1, 2024)

1. **Ajayan, Pulickel Madhavapanicker** (b. 15.07.1962), Benjamin M. and Mary Greenwood Anderson Professor of Engineering, Rice University, 6100 Main Street, Houston, Texas 77005, USA.

For his significant contributions to the understanding of electromechanical properties of such nanostructured materials and pioneering work in the template assisted synthesis of engineered hybrid nanostructures and interface engineered nanomaterials. Professor Ajayan also done pioneering work on nanocomposites, starting with carbon nanotube polymer composites, providing insights into multifunctional nanocomposite materials

2. **Bond, John Richard** (b. 15.05.1950), University Professor, CITA, McLennan Labs, 60 St. George St., University of Toronto, Toronto ON M5S 3H8, Canada.

For his pioneering work in the field of Cosmology. Professor Bond has demonstrated that slight variations in the cosmic microwave background radiation (CMB) contain precious information regarding the shape, size, age and composition of the Universe. In 1991, the COBE satellite did indeed reveal slight variations lending great support to Bond's early results. Professor Bond and his colleagues used the Boomerang results to demonstrate that the Universe has a planar geometry providing strong observational support to the Inflationary model of the early universe.

3. **Malik, Harmit Singh** (b. 03.01.1973), Professor of Basic Sciences & HHMI Investigator, 1100 Fairview Avenue N., A2-025, Seattle WA 98109, USA.

Professor Malik studies the causes and consequences of genetic conflicts that take place between different genomes or between components of the same genome. He is interested in understanding these "molecular arms races" and how they drive recurrent genetic innovation, from the perspective of both evolutionary biology and human disease. He also showed that intense competition for meiotic success can result in 'centromere' drive' which can lead the rapid evolution of centromeric DNA and proteins, a process that ultimately leads to reproductive isolation between species.

4. **Poor, Harold Vincent** (b. 02.10.1951), M.H. Strater University Professor of Electrical Engineering, Department of Electrical and Computer Engineering, Princeton University, Princeton N.J. 08544, USA.

Professor Poor is among the world's foremost researchers and educators in communications and information theory. His research has focused on wireless networks, energy systems and, more recently, social networks. He pioneered advanced methods for detecting data corruption, information privacy and distributed algorithms for state estimation and control of the grid. In the area of social networks, his work has focused on understanding and modelling the connectivity of small-world networks and on the role of social interaction on collaborative sensing and decision-making.

5. **Venkat Narayan, KM** (b. 14.09.1956), Executive Director, Emory Global Diabetes Research Center, Rollins School of Public Health, 1518 Clifton Road NE, Atlanta, 30322, USA.

Professor KM Venkat Narayan's research has focused on the etiology, pathophysiology, and epidemiology of type 2 diabetes. He anchored large national and international observational and intervention studies to prevent and control diabetes, and has worked to translate science into practice and policy. Known for his interdisciplinary work, he is currently exploring intriguing differences in beta cell function in the pathophysiology of type 2 diabetes globally.

6. **Venkatesan, Thirumalai Venky** (b. 19.06.1949), Director of CQRT and Professor of Physics and ECE, Center for Quantum Research and Technology, Lin Hall, University of Oklahoma, Norman OK 73019.

Professor TV Venkatesan is inventor of the pulsed laser deposition process and is a pioneer in its application to thin films of complex oxides and related multi component materials, which has transformed research on films/heterostructures globally. He was a pioneer in recognizing the possibility of oxide based superlattices, formation of hetero junctions of different functional materials and led the way in developing techniques for electric field modulation of electronic and magnetic properties of materials.