

Monday, 2nd November, 2015 Time: 17:00hrs The Outreach Auditorium

भारतीय प्रौद्योगिकी संस्थान कानपुर Indian Institute of Technology Kanpur





## Professor M. Anandakrishnan

Professor M. Anandakrishnan was born on July 12, 1928 in Vaniyambadi, Tamil Nadu. He obtained his B.E in 1952 from College of Engineering, Guindy, Madras University and Ph.D in 1960 in Civil Engineering from the University of Minnesota. He joined IIT Kanpur as a faculty member in Civil Engineering Department in 1963 and remained till 1974. He was the first Science Counsellor at the Embassy of India Washington, D.C. from 1974 to 1978. Later, he served the United Nations (1978-1989) as the Chief of the New Technologies, and Deputy Director of the UN Centre for S&T for Development and also as the Secretary of the UN Advisory Committee on S&T for Development. On his retirement from the United Nations, Dr. Anandakrishnan served as the Vice-Chancellor of Anna University (1990-96). From 1996-2001, he was the Vice-Chairman of the Tamil Nadu State Council for Higher Education. From 2006 to 2015, he served three terms as Chairman, Board of Governors of IIT Kanpur.

At the National level, he held several important positions relating to the development of higher education especially technical education in India. He served as the Chairman of the All India Board of Undergraduate Studies in Engineering and Technology of the AICTE and also as the Chairman of the High Level Committee for Review of the Undergraduate Engineering Education in India. He was also the Chairman of the Standing Committee of AICTE on Regulation of Entry and Operation of Foreign Institutions in Technical education in India and the Chairman of the Southern Regional Committee of the AICTE.

He has published four books and more than one hundred papers on topics in Civil Engineering as well as on the issues of development policies related to Education, Science and Technology. He is a Fellow of the Institution of Engineers, India and the National Academy of Sciences, India. He is the recipient of several prestigious honors and awards including The Order of Scientific Merit from the President of Brazil (1996); Padma Shri from the President of India (2002); Distinguished Leadership Award from the President of the University of Minnesota (2003); Platinum Jubilee Award from Indian Ceramics Society (2004); ICCES Outstanding Achievement Award, Portugal (2004); UGC National Swami Pranavananda Saraswati Award (2004) and Honorary Fellow of Indian Society for Technical Education (2005).

Professor M. Anandakrishnan was instrumental in expansion of the department of Civil Engineering at IIT Kanpur as Head of department. He also contributed significantly to the institute administration at a critical juncture as acting Director. As Chairman of the Board, he diffused a number of difficult situations with a patient hearing to all the sides and arriving at a decision which was acceptable to everyone.

In recognition of his significant and varied contributions to the institute, IIT Kanpur takes pride and pleasure in conferring upon Professor M. Anandakrishnan, the Award of INSTITUTE FELLOW for the year 2014.



# Prof. Dipankar Chakravorty

Professor Dipankar Chakravorty was born on July 3, 1937 in Kolkata. He did B.Sc. in Physics (1956) from St. Xavier's College and M.Sc. (Tech.) in Radio Physics and Electronics from University of Calcutta in 1959. He was a gold medalist in both. Professor Chakravorty did his Ph.D. at the Pennsylvania State University, and after working for a year as post-doctoral fellow at Penn State, he returned to India in 1964 and joined IIT Kanpur. In 1987, Professor Chakraborty joined the Indian Association for the Cultivation of Science (IACS), Kolkata. He also served as Director of IACS during 1993-99. After his superannuation in 2002, he remains associated with IACS as INSA Honorary Scientist.

Professor Chakravorty's research in the area of glass fiber technology, memory switching glasses and oxide semiconducting glasses are recognized worldwide. His major contribution has been in the synthesis and characterization of a wide variety of nano-composites. He has published over 270 research papers in various peer reviewed international journals. He has guided 25 Ph.D. and 33 Technical Theses.

Professor Chakravorty has received several accolades and has been honored with several awards. He is Fellow of Indian National Science Academy, Indian Physical Society, Indian Material Society, Indian Academy of Science and the Academy of Sciences for the Developing World (TWAS). He is a recipient of Material Research Society of India Prize (1992 and 1995), and INSA Prize for Materials Science (2005).

Professor Chakravorty was one of the founder members of the Department of Metallurgical Engineering at IIT Kanpur. Later, along with Professor E.C. Subbarao, Professor Chakravorty played a crucial role in the inception and consolidation of the interdisciplinary Materials Science Program at IIT Kanpur. Subsequently, he played a major role in the shaping of Advanced Centre for Materials Science (ACMS) and served as its Head in the formative years (1976-82). Professor Chakravorty is admired for his erudition and simplicity. He has mentored faculty, staff members and students of IITK.

In recognition of his significant and varied contributions to the institute, IIT Kanpur takes pride and pleasure in conferring upon Professor Dipankar Chakravorty, the Award of INSTITUTE FELLOW for the year 2014.



Professor Amitabha Ghosh was born on December 3, 1941 at Barhra, a village of Birbhum district, West Bengal. Professor Ghosh received his B. E. and M. E degrees in Mechanical Engineering from Bengal Engineering College, Shibpur with an outstanding academic record and his Doctoral degree from Calcutta University in 1969. He served Indian Institute of Technology Kanpur as a faculty member during 1971 to 2006. He was the Director of Indian Institute of Technology Kharagpur during 1997-2002. At present, he is an INSA-Senior Scientist Platinum Jubilee Fellow and Honorary Distinguished Professor of Indian Institute of Engineering Science and Technology, Shibpur.

The research and academic interests of Prof. Ghosh are centered around Basic Mechanics, Kinematics and Dynamics, Advanced Manufacturing and Robotics. He made many notable contributions, such as, discovery of a new tribological effect when magnetic fields are imposed on ferromagnetic bodies, the means of enhancing vibration damping and was the first to realize the phenomenon of chaos in mechanical systems. He proposed a new theory of inertial induction, leading to a number of profound cosmological and astrophysical consequences. Prof. Ghosh has published over 125 research papers and written five books. His books are considered classics and are followed extensively in India and abroad. He has guided a number of Masters' students and produced 18 PhDs.

Professor Ghosh has been the recipient of many awards and honours including Alexander von-Humboldt Foundation Fellowship, Prof Jai Krishna award from the Indian National Academy of Engineering, Honorary Doctor of Science from Bengal Engineering and Science University, Shibpur, National Design and Research Award as well as Engineering Personality Award by the Institution of Engineers (India) and the Lifetime Achievement Award at the International Manufacturing Design & Technology Research Conference. He is a Fellow of all the four Indian academies of science and engineering.

Professor Ghosh played a key role in nurturing the Department of Mechanical Engineering and establishing the Centre for Robotics at IIT Kanpur as its Founder Head. He was also an outstanding teacher, and received the first Distinguished Teacher Award from IIT Kanpur. Because of his tireless efforts, facilities of micro- and nanomanufacturing has been developed in IIT Kanpur.

In recognition of his significant and varied contributions to the institute, IIT Kanpur takes pride and pleasure in conferring upon Professor Amitabha Ghosh, the Award of INSTITUTE FELLOW for the year 2014.



### Professor M. A. Pai

Professor M. A. Pai was born in Mangalore on October 5, 1931. After receiving his B.E. in Electrical Engineering at Madras University in 1953, he worked in distribution planning at Bombay Electric Supply Company till 1957. He obtained his M.S. and Ph.D. degrees from the University of California, Berkley in 1958 and 1961 respectively. After teaching for a year each at the University of California Berkley and UCLA, he joined IIT Kanpur in 1963. He was a faculty member in Electrical Engineering Department, IIT Kanpur from 1963 to 1981. He was a Visiting Professor at the University of Illinois at Urbana-Champaign from 1981-1983. From 1983-2003 he served as a Professor at University of Illinois at Urbana-Champaign. He is currently Professor Emeritus in the Department of Electrical and Computer Engineering at University of Illinois at Urbana-Champaign.

Professor Pai has made very significant contributions to the area of power systems. He is a recipient of a number of awards and honors. He was conferred the Shanti Swarup Bhatnagar Award for Engineering Research in 1974. He is a Fellow of Indian National Science Academy, Indian National Academy of Engineering, and Life Fellow of IEEE.

Professor M. A. Pai played a key role in promoting engineering education in India and abroad. He was truly an institution builder. He was involved with setting up the undergraduate and graduate research programs at IIT Kanpur in Power System and Control. In 1971 Prof. Pai helped develop internal expertise in computer applications to power system planning at the UP State Electricity Board and subsequently started a computer cell for UP Electricity Board at IIT Kanpur. He also served as Head of Electrical Engineering Department and the Dean of Research and Development at IIT Kanpur. Even after leaving India, he was a mentor to many young researchers and faculty members in India. He along with his wife, Mrs. Nandini Pai, started a web site "Indus Science and Technology" in 2000 and handed it over to the "Center of Advanced Study of India" at the University of Pennsylvania in 2008.

In recognition of his significant and varied contributions to the institute, IIT Kanpur takes pride and pleasure in conferring upon Professor M. A. Pai, the Award of INSTITUTE FELLOW for the year 2014.



Professor Vijay Kumar Stokes was born on the August, 26, 1939. He did his B.Sc. Engg. (HONS) Mech. degree (1961) from Banaras Hindu University, and M.S.E. (1962) and Ph.D. (1963) in Mechanical Engineering from Princeton University. He joined IIT Kanpur as a faculty member in Mechanical Engineering department in 1964. In 1978, he joined GE Corporate Research and Development, where he worked on a variety of problems including the analysis of a novel washing machine, and the analysis of a process for making amorphous metal ribbons. He retired from GE in 2002.

Prof. Stokes has authored 89 journal publications and 68 papers in conference proceedings, and holds 28 US Patents. He published eight papers between 1968 and 1972 in the Journal of Fluid Mechanics, Physics of Fluids, Journal of Heat Transfer, Acta Mechanica, International Journal of Heat and Mass Transfer and ASME journal of Applied Mechanics, at a time when engineering research was a rare commodity in India. He has written one book, edited four books, guest-edited eight special issues of Polymer Engineering and Science and three issues of Polymer Composites. He is, or has been, on the Editorial Boards of Polymer Engineering and Science, Journal of Thermoplastic Composite Materials, ASME Journal of Engineering Materials and Technology, Composites Engineering, and Mechanics of Time-Dependent Materials.

Prof. Stokes is a Fellow of the Institution of Engineers (India) 1978, a Fellow of the American Society of Mechanical Engineers 1982, and a Fellow of the Society of Plastics Engineers 1995. He has received two major awards from GE Corporate Research and Development: the 1990 Dushman Award for a team effort on developing a comprehensive mechanical technology for plastic parts, and the 1997 Coolidge Award for sustained, high-quality individual technical contributions.

Prof. Stokes played an active role in initiating the M.Tech. program at IITK during 1964-65, a semester before graduation of the first undergraduate class. He also played a key role in student governance reform by making a student as gymkhana president instead of a faculty member and creation of dean of students affairs position. He was the Head of the Mechanical Engineering Department during 1974-1977, and the Convener of the Nuclear Engineering and Technology Programme during 1977-1978. Professor Stokes always had a keen eye for design: he designed the current institute logo as well as the degree certificates for the institute.

# Awardees of Institute Fellow

#### 2005



Prof. E C Subbarao



Mr. F C Kohli

2006



Prof. K R Sarma

2007

Prof. A Vasudeva



Prof. G D Agrawal

2008

Prof. G K Lal

#### 2009



Prof. P T Narasimhan

2010



Prof. S K Gupta



Prof. A K Mittal

#### 2011

None

#### 2012

None

#### 2013



Prof. Sanjay G Dhande



Prof. N Sathyamurthy



Prof. TVS Ramamohan Rao

2014



Prof. M Anandakrishnan



Prof. M A Pai



Prof. Vijay Kumar Stokes



Prof. Amitabha Ghosh



Prof. Dipankar Chakravorty

