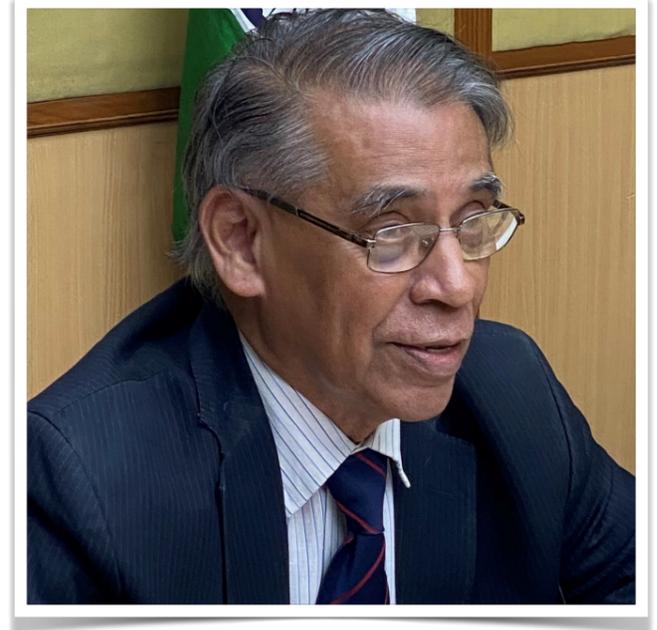




## FOUNDER'S DAY LECTURE

### Dr. T. Ramasami

Former Secretary, Department of Science and Technology, Government of India & Distinguished Professor of Eminence, Technology Enabling Centre, Anna University, Guindy, Chennai



Wednesday, 10 August 2022, 10:45 AM  
IIA Auditorium

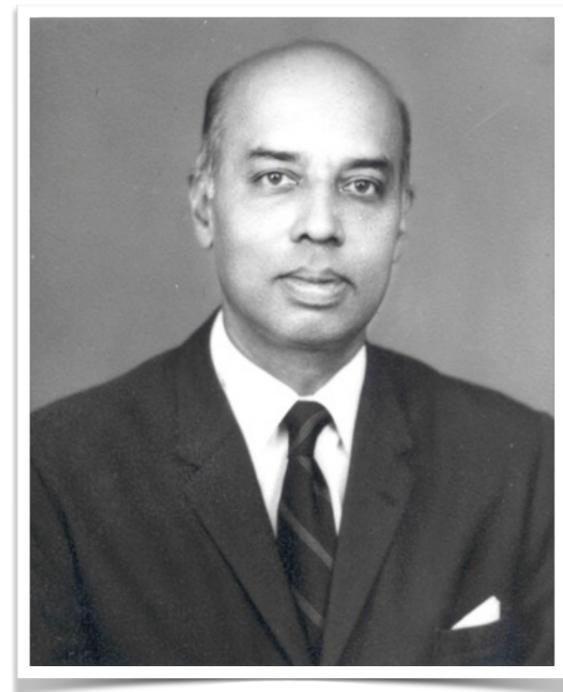
### **Collaborative excellence in basic science: Lessons from Vainu Bappu**

Since beginning of the new millennium, India has made policy changes and started to invest in many global R&D facilities for enabling scientists in basic research. Investments needed for mega science experimental research areas like high energy physics, astronomy etc. are beyond capacities of any one or a group of nation states. A new consortium model required for creating large and mega R&D infrastructure is emerging. Such models call for new research cultures which rely on shared passions and dissolution of personal identities into the causes of science. Competitive excellence is the current prevailing norm in research. Vainu Bappu showcased the benefits of global citizenry and collaborative models even in passion driven basic research in astronomy. An attempt will be made to highlight the cultural changes required for collaborative excellence models for gaining returns from investments made by India in some emerging facilities including TMT drawing lessons from the work of Vainu Bappu.

Dr. Thirumalachari Ramasami served the Government of India as the Secretary, Department of Science and Technology during May 2006- 2014, He is currently distinguished professor of eminence at the Anna University, Chennai He served as the Secretary to the Government of India in the Ministry of Science and Technology during 2006-14 He is renowned for his leadership contributions in leather research and strengthening of Science, Technology and innovation landscape in the country. Some programmes initiated by DST like INSPIRE, PURSE, CURIE and many others have proved as game changers. He was instrumental in the formulation of Science, Technology and Innovation Policy 2013 by the Government of India. He is a renowned chemist with traceable impact in the domain of leather technology. His contributions to the sustainable development of leather industry in India and shaping of Indian science, technology and innovation landscape are noteworthy. He brings current strengths in policy research and strengthening governance systems in public funded bodies.

# FOUNDER'S DAY 10TH AUG

Dr Manali Kallat Vainu Bappu (1927 – 1982)



In 1971, the Government of India accorded autonomous research institute status to the Kodaikanal Observatory leading to the birth of the Indian Institute of Astrophysics. Dr M. K. Vainu Bappu, Director of the Observatory at that time, was the moving force behind the creation of the Institute. IIA's aim has been to promote, guide and conduct research in all branches of astrophysics; to establish and maintain astronomical observatories in the country; to co-operate and collaborate with other national and international organizations in the field of astrophysics and related areas; to train personnel and motivate them to take up research in astrophysics; and to disseminate knowledge and information concerning astrophysics as widely as possible. For almost fifty years, IIA has pursued these aims with considerable success. Today the activities of IIA involve astronomical studies covering almost all regions of the electromagnetic spectrum: from gamma-rays to low frequency radio waves. Vainu Bappu was responsible for the revival of optical astronomy in independent India. After a brilliant academic career at Nizam College, Hyderabad, followed by a doctoral degree at Harvard University,

Vainu Bappu worked at the Mount Wilson and Palomar Observatories in California as a Carnegie Fellow. He returned to India in 1954 and came to Kodaikanal in 1960 after a five-year stint as the Chief Astronomer of the Uttar Pradesh State Observatory, Nainital. He had achieved international recognition with the publication in 1957, of the seminal paper, co-authored with Olin C Wilson of Caltech, on the relationship between the Ca II K emission-line width and the luminosity in late-type stars, known today as the Wilson-Bappu Effect. Bappu initiated efforts towards establishing a modern optical observatory for night-time astronomy in peninsular India. The field station in Kavalur was established in 1968 and through Bappu's efforts it flourished into a full-fledged optical astronomy observatory within a decade. The main instrument in Kavalur, an indigenously built 2.34-m optical telescope, was planned by him, though he did not live to see the completion of his dream project as he succumbed to a heart condition in August 1982. After it was completed, the telescope and the observatory in Kavalur were named after Professor Bappu by the late Shri Rajiv Gandhi, then Prime Minister of India.

Bappu had a great love of nature and built the campuses in Kavalur and Bengaluru with meticulous care, planting trees including some rare ones, laying rose gardens, and ensuring that the scientists worked in an environment where the bounties of nature are manifest in their myriad colours.

Vainu Bappu inspired a whole generation of optical astronomers in the country and this tradition continues with the Institute training young and bright students to pursue a fruitful career in astronomy and astrophysics. A whole generation of astrophysicists was trained at the Institute and are pursuing their careers successfully in India and abroad. This generation is expected to carry forward Bappu's legacy by taking fresh initiatives in building larger telescopes and innovative instruments to keep India at the forefront of astronomical research.

The Founder's Day is an occasion when we all come together and pause for a while to take stock of our progress, to reassure ourselves that we are following the path charted out by the founder and make a fresh pledge to dedicate ourselves to the tasks ahead.

# FOUNDER'S DAY LECTURES

- 2007**      **Professor P. Balaram**  
*Measuring and Assessing Science*
- 2008**      **Professor C. N. R. Rao**  
*Doing Science in India : Personal Reflections*
- 2009**      **Professor Govind Swarup**  
*Experimental Astronomy in India : Some Lessons*
- 2010**      **Professor G. Padmanaban**  
*Growth of Biotechnology in India*
- 2011**      **Professor M. G. K. Menon**  
*The Founder of IIA - Vainu Bappu: Many Memories and the Lessons we can learn from him*
- 2012**      **Dr Anil Kakodkar**  
*Management of Mega Science Programmes*
- 2013**      **Professor G. Srinivasan**  
*Down Memory Lane: Vainu Bappu's Dreams Revisited*
- 2014**      **Professor B. V. Sreekantan**  
*Symbiotic Developments in Physics and Astronomy in the 20<sup>th</sup> Century: Where are they leading us in our search for "Reality"?*
- 2015**      **Professor S. M. Chitre**  
*Dr Vainu Bappu's Legacy to Solar Astronomy in India*
- 2016**      **Professor Rajaram Nityananda**  
*The Astronomy Mathematics connection*
- 2019**      **Professor Vinod K. Gaur**  
*Plate Tectonics and the Making of Himalaya - An ongoing Process*
- 2020**      **Professor Krishnaswamy VijayRaghavan**  
*The development of the ability to move*
- 2021**      **Dr. Archana Sharma**  
*Mega Science: the engine of the 21st Century*