



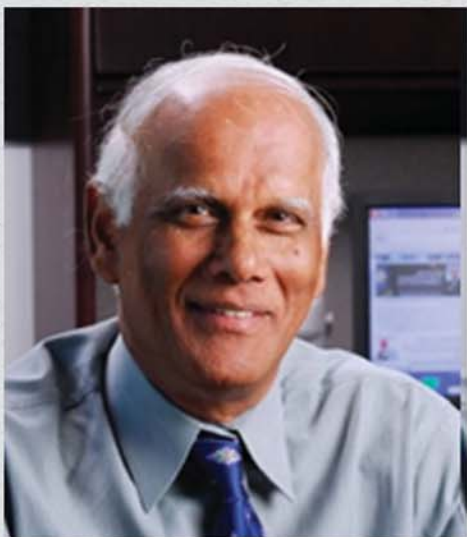
Indian Institute of Technology Kanpur

INSTITUTE LECTURE SERIES

November 15, 2022 (Tuesday) | 6 PM | L - 17

Speaker: Prof. Rao R. Tummala

Talk Title: Role of IITs in the Emergence of Electronics in India



About the Speaker

Prof. Rao Tummala is a Distinguished and Endowed Chair Professor, founder of the Packaging Research Center at Georgia Tech and a fellow of IEEE, IMAPS, and the American Ceramic Society. Earlier he worked at IBM for 25 years where he was an IBM fellow and Director of Advanced Packaging Lab. He pioneered industry's First Plasma Display and First LTCC with 100 chips. Prof. Tummala obtained his B.E. from IISc Bangalore and Ph.D. from University of Illinois.

He has created a model at Georgia Tech for a very large and successful global industry consortium that educated 10,000 engineers in more than 20 different packaging courses.

The center has graduated 900 Ph.D. & M.S. packaging engineers to supply to almost all electronic companies in the US. IEEE named him Father of Modern Packaging and created IEEE Rao Tummala Electronic Packaging Award, a technical field award. Prof. Tummala has more than 800 scientific papers, 7 Textbooks and has more than 100 US patents to his credit.

Abstract of the Talk

India proposes to emerge as a global leader in electronics manufacturing. The vision to achieve this goal can be to form Integrated Systems, combining devices and system components into packages for automotive, computing, communications, and consumer products applications. This integrated systems vision has the best potential to transform India from its current component level design-centric to a system-centric superpower serving both growing domestic and global markets as the global industry moves into post Moore's Law devices currently at <2nm providing <15% improvement from node-to-node vs 35% during the peak of Moore's Law.

India has some of the best academic institutions in the world and the faculties working at these institutions have already performed R&D in various selective systems technologies. Packaging related educational programs have also been underway at different IITs. These are all foundational world-class R&D and educational programs for building new industry-driven programs.

With India's well-educated workforce and expertise in STEM, unparalleled human resources, and unlimited growth potential for the electronic industry, companies are very much interested in investing in India in Integrated Systems Packaging, provided India has deep technology and manufacturing expertise and vast resources to develop and manufacture high-quality and cost-effective electronic products through heavy investment in R&D.

Prof. Tummala will present his vision through a five-step proposal to make India globally competitive in R&D.

All are cordially invited to attend

Office of Dean Research & Development