

### **IIAEM flies high powered by collaborative project with Russia**

Traditionally, aerospace scientific and academic innovation in India is an area dominated by IITs, IISc and a handful of other Government laboratories. Undertaking of comprehensive aerospace Research and Development by private aerospace institutions in India is an idea yet to take off fully. With the avowed goal of filling this gap, “International Institute for Aerospace Engineering and Management” (IIAEM) was established four years ago, as a collaborative venture between Society of Indian Aerospace Technologies & Industries (SIATI) and Jain University (Bangalore), with overwhelming support from ISRO, HAL, AAI, NAL, etc.

The idea of IIAEM was mooted by India’s renowned space scientist Dr. K. Kasturirangan, presently member of the Planning Commission, Government of India and Dr. C. G. Krishnadas Nair, Chancellor, Jain University, former Chairman and Managing Director of Hindustan Aeronautics Ltd. (Bangalore), aerospace technologist and industry leader of eminence. Under Dr. Nair’s active guidance, IIAEM entered into a partnership with International Institute for Advanced Aerospace Technologies (IIAAT), St.Petersburg, Russia. IIAAT and IIAEM jointly initiated research & development collaboration for development of a software package and computation code for flight simulation of civilian trainer aircrafts. Over a short span of time, the building blocks of technology and know-how for such software package were developed jointly for civilian aerospace applications. As a result, a ready-to-use static flight simulator for Cessna-172 aircraft and its simulation software were productized. Indigenization of the expertise now allows undertaking static flight simulation of practically any civilian trainer aircraft once its aerodynamic models are developed from open source database. The software package developed allows “Next-Generation Pilot Aircraft Interface Research”, “Hardware Interfacing and Hardware-In-Loop Incorporation”, “Operational Analysis and Applied Research”, “Behavior Capable 3-D Visualization (6-Degree of Freedom Data)” and “High Simulation Fidelity”.



As per Dr. Alexander Nebylov, Honored Scientist of Russian Federation and Director, IIAAT – “We deeply appreciate the valuable guidance provided by Dr. R. Chenraj Jain President, Jain University Trust, Dr. Krishnadas Nair and Dr. N. Sundararajan, Vice-Chancellor, Jain University. I would also like to extend my gratitude to Dr. N.G. R. Iyengar (Director, IIAEM) for his technical contribution and young Indian aerospace engineer Mr. Sukrit Sharan, who is also a descendant from the family of India’s Late Prime Minister Hon. Lal Bahadur Shastri, for his active project coordination efforts. Any organization, new or old, big or small, it is more about the people associated with it and our scientific collaboration with IIAEM to put in short – Marriage of Beautiful Minds.”

It is a classic example of how aerospace innovation and productization can be supported at the level of academic institutes and universities supporting the concept of synergy in a developing ecosystem. Such efforts should motivate other aerospace institutes in India to undertake research, development and innovation while also striving to convert R&D results into efficient products.