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IIT-I part of 11 ISRO projects: Dr Sivan

Need Support From Academia, Industry: Ex ISRO Chief

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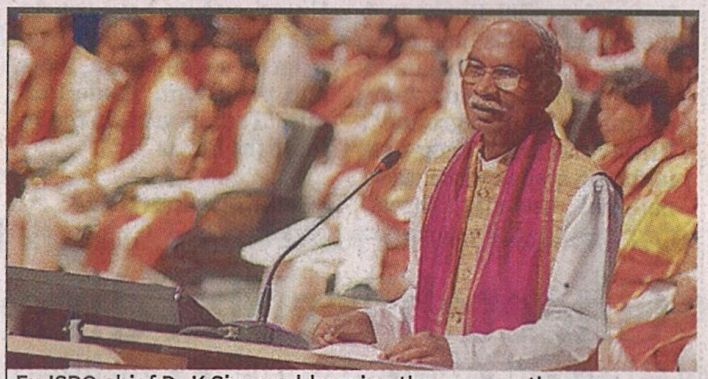
Indore: The Indian Space Research Organisation (ISRO) requires support from academic institutions and industry partners to undertake all research projects, stated former ISRO Chief Dr K Sivan during a chat with TOI on Saturday. Dr Sivan attended the convocation of the Indian Institute of Technology (IIT Indore).

Dr Sivan highlighted a shift in research objectives compared to the past, noting that current programmes were technologically intensive and challenging, making it difficult for ISRO to manage them independently.

"If compared to the past, there is a shift in looking at the research objectives. We now have very big programmes that are technologically intensive and challenging, and these cannot be run by ISRO alone. So, we need support from industries and academia like IIT Indore. With this support, we can achieve the targets set in space research and development," he said. Dr Sivan currently chairs the board of governors at IIT Indore.

He disclosed that ISRO employed approximately 16,000 individuals, with 8,000 dedicated to research activities. Dr Sivan stated that IIT Indore had made exponential growth in research, and their work would be used in future missions. IIT Indore was part of 11 projects sanctioned by ISRO. "One of the key projects IIT Indore is working on is the microgravity project, which is a very important project for which data is not available. The project will provide major inputs for ISRO's future missions. We are sowing the seeds for future technological requirements and future missions," Dr Sivan added.



Ex-ISRO chief Dr K Sivan addressing the convocation ceremony at Indian Institute of Technology Indore on Saturday

DOUBLE ENGINE DEVELOPMENTS

- Research on integrating ground and satellite radar data from the EOS 06 satellite mission for oceanic observations, in partnership with the Space Applications Centre and ISRO
- Creation of satellite-based forest monitoring solutions, incorporating multi-temporal spaceborne radar frequency observations for tracking forest carbon emissions
- Development of IP core and frontend systems for camera interface applications
- Application of graphene coatings on CFRP sandwich antenna reflectors for high-frequency usage
- Research on physiological impacts of microgravity conditions
- Creation of a three-dimensional physics-based ionospheric modelling system for Indian territories
- Implementation of artificial intelligence and deep learning algorithms for immediate rain prediction
- Design of a communication message analysis system for the Gaganyaan mission

Conducting high cycle fatigue assessments on metallic materials

- ANALYSIS OF EXTENSIVE GEOSPATIAL DATA FOCUSING ON CLIMATE CHANGE IMPACTS, PARTICULARLY EXAMINING LAND USE AND COVER CHANGES IN WESTERN RAJASTHAN