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Transfer of IMS-1 Satellite Bus Technology to Alpha Design Technologies Pvt. Ltd. (ADTL)

As yet another step in enhancing the private industry participation in the Indian Space sector, the IMS-1 Satellite Bus Technology of ISRO has been transferred to M/s Alpha Design Technologies Pvt. Ltd. (ADTL) through NewSpace India Limited (NSIL), the commercial arm of ISRO. This event was held at NSIL headquarters on 02nd August, 2023. The Technology Transfer Documents were formally handed over by Shri. D Radhakrishnan, Chairman and Managing Director of NSIL to Col. H. S. Shankar (Retd.) VSM, Chairman and Managing Director of ADTL. ADTL is one of the two private players identified to receive the transfer of IMS-1 technology through Interest Exploratory Note (IEN) published by NSIL. This transfer marks the beginning of satellite-bus technologies developed by ISRO being transferred to private Indian industries.

The IMS-1 satellite bus, developed by the U R Rao Satellite Centre (URSC)/ISRO, is a versatile and efficient small satellite platform designed to facilitate low-cost access to space. The bus serves as a dedicated vehicle for various payloads, enabling Earth imaging, ocean and atmospheric studies, microwave remote sensing, and space science missions while ensuring a quick turnaround time for satellite launches.

IMS-1, weighing about 100 kg can accommodate a 30 kg payload. Solar arrays generate 330 W power with a raw bus voltage of 30-42 V. It offers a 3-axis stabilization with four reaction wheels with a 1 N thruster that provides +/- 0.1 degree pointing accuracy. IMS-1 bus was utilised in previous ISRO missions like IMS-1, Youthsat and Microsat-2D.

By transferring the IMS-1 technology to the Indian private sector, NSIL/ISRO aims to bolster India's industrial growth in the space sector and foster technological self-reliance. This development opens up new avenues for private players to contribute to space research and exploration, in line with India's vision to expand its presence in the global space market.

NSIL is a wholly owned Government of India company, under the administrative control of the Department of Space (DOS). NSIL enables Indian industries to take up high-technology space-related activities and

promotes commercial exploitation of the products and services emanating from the Indian space programme. Technologies ready for transfer by NSIL and the application details are at: <https://www.nsilindia.co.in/technology-transfer>

Alpha Design Technologies Pvt. Ltd. (ADTL) is a leading aerospace and defense company based in India. With expertise in engineering, manufacturing, and system integration, ADTL has been a key player in various projects related to defense, space, and homeland security, contributing significantly to India's technological progress in these domains. <https://www.adtl.co.in/>

