

"TDB-DST SUPPORTS CASEY AVIATION PVT. LTD. UNDER INDIA-UK COLLABORATIVE R&D PROGRAMME FOR ADVANCED HYBRID PROPULSION IN UNMANNED AVIATION"

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The Technology Development Board (TDB), Department of Science & Technology (DST), Government of India, has signed an agreement with Casey Aviation Private Limited, Gurugram for the project titled "Boost Electric Jump Take-Off (BE-JTO)." The Board has sanctioned a conditional grant under the India-UK Collaborative R&D Programme for Industrial Sustainability, in partnership with UK-based ARC Aerosystems Ltd.



The TDB-supported project focuses on the development of an advanced hybrid propulsion-based Jump Take-Off (JTO) system, aimed at enhancing the operational capabilities of unmanned and light aircraft platforms. The project envisages the establishment of a dedicated test bench facility for validating rotorcraft propulsion systems, which will serve as a critical infrastructure for testing and optimization of next-generation aerial mobility technologies.

The proposed solution integrates hybrid propulsion technologies to enable short or near-vertical take-off capabilities for platforms such as gyrocopters and unmanned aerial systems. By enabling reduced take-off distances and improved operational flexibility, the technology is expected to support a wide range of applications, including regional connectivity, disaster response, medical evacuation, unmanned logistics, and surveillance operations, particularly in remote and inaccessible regions.

The project also aims to create one of the **first such propulsion testing facilities in North India**, providing validated testing infrastructure for startups and developers working in unmanned and advanced aerial mobility systems. In addition to supporting in-house development, the facility is expected to enable broader ecosystem benefits by offering testing services and facilitating the commercialization of hybrid propulsion solutions.

Casey Aviation Private Limited, a newly established aerospace venture, is focused on designing and developing small aircraft and specialized aviation solutions. The company brings together expertise from industry, academia, and research institutions to address emerging needs in India's aviation and unmanned systems landscape.

Speaking on the occasion, **Shri Rajesh Kumar Pathak, Secretary, TDB**, stated that collaborative R&D initiatives under international programmes play a crucial role in advancing cutting-edge technologies in strategic sectors. He noted that innovations in hybrid propulsion and advanced take-off systems can significantly enhance India's capabilities in unmanned aviation and regional air mobility, while contributing to sustainable and efficient aviation solutions.

Promoters of Casey Aviation Private Limited expressed appreciation for the support and stated that the project will enable the company to validate its technology in real-world conditions and accelerate the development of scalable propulsion solutions for emerging aviation applications.

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