Contact:Media Team E: media@iitalumnicouncil.org T: +1650 9008833 M: +919654483816

www.iitalumnicouncil.gr Twitter: @iitcouncil



PRESS RELEASE

IIT Alumni Council Calls for Industry Collaboration to Manufacture Electric Aircraft and High Endurance Drones at Global Scale

- The GO Mobility initiative of the Council is focused on electrification of public transport – by road, water or in the air.
- The Aero part of the GO Platform is enabling development of four categories of autonomous, serial hybrid, electric airplanes 6-seater, 18 seater, 72-seater and high-altitude drones.
- Seeks consortium members from among its members for creation of complete ecosystem – components, sub-assemblies, complete systems and service operators.
- Council acts as knowledge partner and catalyst for creation of the complete ecosystem to accelerate development and deployment of appropriate technologies.



Mumbai, JULY 30th, 2025: The IIT Alumni Council seeks to engage with member organisations for creation of an ecosystem for global scale manufacturing of electric aircraft and high endurance drones under the GO Mobility initiative. The proposed consortium would comprise of existing manufacturers of advanced materials, components, sub-assemblies, complete systems etc as well as service providers for operation of airlines, drone services, terminal infrastructure, maintenance & repair services etc.

The GO AERO platform would initially comprise of four categories of autonomous, serial hybrid electric flying vehicles. These include three passenger carrying airplanes with capacity of six, eighteen and seventy-two passengers. The fourth category includes high payload and high endurance drones.

"These projects require significant capital investments— possibly exceeding ₹10,000 crores just for the 72-seater Regional Transport Aircraft," said Ravi Sharma, President and Chief Volunteer, IIT Alumni Council. "It is a chicken and egg situation. Till the airplane has a track record, it would be difficult to get customers and till there are customers, it would be difficult to fund the development. The only way out is an integrated approach which crosses the chasm by working backward from the domestic market need, especially in sectors like rural air transportation where existing global options don't exist."

Go Aero Platform

The technology platform proposed is an indigenous serial hybrid electric propulsion system from lonique which can be customised for various applications and use cases. The key use cases are emergency services like air ambulance and disaster management; remote area connectivity, surveillance/mapping and cargo operations. All aircrafts would be fully autonomous with sustainable multi- fuel onboard micro turbines for range extension. The planes are designed for ultra-high density fireproof MegaCell storage systems from Go Power to be integrated into the wings. They would require a maximum runway of 1000m. The planes will all feature advanced solid wall LCD windows with adjustable zoom features to enjoy the scenery outside and large transparent cockpits to ensure full visibility for the pilots.

Go A6 – six seater airplane capable of landing in an open field for rural use.

The six-seater version is being targeted at military reconnaissance, rural connectivity, air ambulance, mapping, disaster management and cargo applications. With a target delivered price of under Rs 8 crores – the aircraft would feature battery endurance of 60 minutes and range extension for an additional 180 minutes.

The plane would be delivered in two configurations – one for a short runway of 450m – and a second version capable of vertical take off and landing. The proposed twin-engine aircraft with 300 KW propulsion will have a length of 10m and a wingspan of 12m. The maximum take-off weight would be two tons with a useful load of 750 kgs. It has been designed for a cruise speed of 300 kpl, a range of upto 1500 kms and a maximum flying height of 10,000 feet. It will have a versatile fixed landing gear and has been designed for step free transfer of a patient on a stretcher from road ambulance to plane in under 120 seconds.

The high density MegaCell and related electronics are integrated into the wing. It would adhere to FAR Part 23 and is expected to be ready for test flights and regulatory approval filings by January 2026.

The plane will compete with planes like the Cessna 206, Piper Malibu and the Beechcraft G36 – none of which currently offer electric versions. The only commercially available electric aircraft is the two-seater Pipistrel Velis Electro.

Go A18 – 18 seater amphibian plane capable of operations in cold hilly areas.

The eighteen-seater version is being targeted at military reconnaissance, tourism, disaster management and cargo applications. With a target delivered price of under Rs 18 crores – the aircraft would feature battery endurance of 30 minutes and range extension for an additional 210 minutes.

The proposed twin-engine aircraft with 1000 KW propulsion will have a length of 16m and a wingspan of 24m. The maximum take-off weight would be five tons with a useful load of two tons. It has been designed for a cruise speed of 300 kpl, a range of upto 1500 kms and a maximum flying height of 10,000 feet. It will have options for landing and take-off from the ground runway or water. The high density MegaCell and related electronics are integrated into the wing. It would adhere to FAR Part 23 and is expected to be ready for test flights and regulatory approval filings by January 2027.

The plane will compete with planes like DHC 6, Twin Otter from De Havilland, Canada which is very popular in locations like Maldives.

<u>Go A72 – 72 seater pressurised Regional Transport Aircraft.</u>

The 72-seater version is being targeted at military reconnaissance, passenger and cargo applications. With a target delivered price of under Rs 250 crores – the aircraft would feature battery endurance of 10 minutes and range extension for an additional 710 minutes.

The proposed twin-engine aircraft with 100 KN thrust will have a length of 32m and a wingspan of 48m. The maximum take-off weight would be fifty tons with a useful load of ten tons.

It has been designed for a cruise speed of 800 kpl, a range of upto 4000 kms and a maximum flying height of 10,000 feet. The high density MegaCell and related electronics are integrated into the wing. It would adhere to FAR Part 23 and is expected to be ready for test flights and regulatory approval filings by January 2028.

The plane will compete with planes like the Embraer E175 used by the Indian Army.

Go D20K – High endurance high altitude pseudo satellite.

The fully autonomous drone is being targeted at highway and road safety, reconnaissance, communications, hyperspectral imaging and military applications. With a target delivered price of under Rs 25 crores – the aircraft would feature battery endurance of at least 1000 days.

The drone will be capable of carrying a multi mission, exchangeable /serviceable /upgradeable payload of upto 25 kgs. It would rely on solar propulsion in the day and battery backup in non solar hours. It has been designed to reach target height in 24 hours and take off in 250m at 25 kph.

Multiple drones will communicate with a geo stationary satellite which in turn will communicate with the ground station making it very difficult to jam or interfere with. The principal applications of the system include forestry monitoring, urban construction monitoring, crowd management, highway safety, public transport routing, ice glacier melting, forest fires, disaster management etc.

The most important functionality is monitoring and control of drones, air taxis and drone communications. The drone is expected to be available for test flights in January 2028

"Technology takes time and perseverance. Our objective now is to get ready for global roll out with advance planning. This requires a careful analysis of the PERT chart to identify and work on the critical path activities. To make it to the finish line quickly, all activities have to go on in parallel. The challenge is cost reduction, electrification and safety enhancement. The key technology challenge was availability of suitable battery technologies which has now been solved by the GO Power Technology platform. The project will require cutting edge technology, patient risk capital and viability gap funding. That is why social impact funding from a technology savvy investor group is critical to the plan. This is not an area where government grants alone will deliver global winners. Else it would have happened decades ago." added Satish Mehta, Convenor of the IIT Alumni Social Fund.

Interested industry partners may write to applications@iitalumnicouncil.org on or before August 15, 2025. Potential industry partners will have to first enrol as patron members of the IIT Alumni Council before being given access to the data room and other project related materials. This call is NOT open to the public and is only for individual or corporate members of the IIT Alumni Council.

About IIT Alumni Council

IIT Alumni Council is the largest global body of alumni across all the twenty-three IITs. The Council aggregates the technological and philanthropic resources of over 50,000 alumni spread across one hundred city chapters. The IIT Alumni Council aspires to catalyse India's technological renaissance. The Council supported initiatives are funded through the IIT Alumni Social Fund. Council members are aligned with the various mission organisations (social fund, alumni outreach and longevity missions) and mission facilitators (startup incubator, project management & advisory forum and research institute)

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