

International winning team member is Thapar University Mechanical Engineering student



Team Multifun was the top contender in the Airbus "Fly Your Ideas" competition, which wrapped up on May 27 in Hamburg, Germany. Joining Thapar University alumnus & GT-AE graduate student Mohit Gupta (last person on the right) are his teammates Sathiskumar Anusuya Ponnusami, Shashank Agrawal, Dhamotharan Veerasamy, and Ajith Moses.

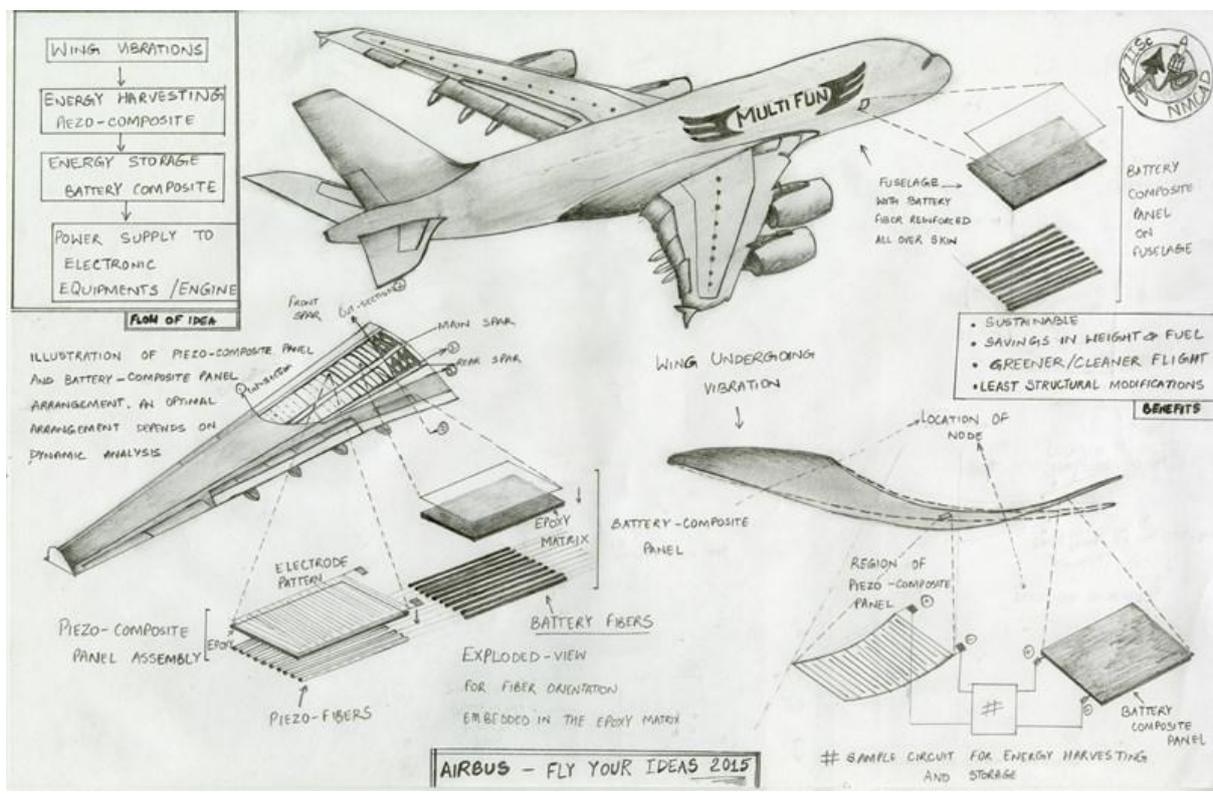
Thapar University MECH'2014 alumnus **Mohit Gupta** was part of a team named "MultiFun" who won in the final round of the Airbus "Fly Your Ideas" competition, held May 27 in Hamburg at Airbus SAS.

Gupta, 22, was one of five student engineers who collaborated on the winning project on a hybrid battery-piezoelectric composite structure that was developed as a standard for next-generation aircraft design. He is currently a Graduate Student at the Aerospace Engineering, Georgia Institute of Technology. He was the only student to represent a university from United States in the final round of the competition where 5 teams competed to win the title.

In addition to a trophy, the winning team received a cash award of 30,000 Euros. Mohit's teammates -- from the TU Delft Netherlands, City University, London UK, and Indian Institute of Science, Bangalore India -- made good use of their different time zones, often scheduling work to be completed around the clock. Bringing them all together was **Professor Dineshkumar Harursampath** who developed the basic concept for the winning team. Harursampath is an

esteemed professor at the Indian Institute of Science, Heading NMCAD Lab in the Aerospace Engineering Department, where Mohit worked as NSA-IASc-NASI Joint Academies' Research Fellow while he was enrolled in the B.E. Mechanical Engineering at Thapar University. He completed some of the experiments related to initial development of smart polymer composites in the Materials Research lab, Thapar University under the guidance of Dr. K. K. Raina.

Multifun designed aircraft wings that were covered with a finely engineered composite "skin" that harvests energy from natural vibrations generated by the movement of the plane. That energy is collected by piezoelectric fibers and stored in battery panels that are a part of the fuselage. The energy is used to power auxiliary in-flight systems, such as lighting and entertainment systems.



A sketch illustrating the idea in detail.

"This reduces the energy footprint of aircraft during flight and could even replace the entire power source for ground operations," Airbus said in a press release issued after the decision was announced.

A total of 518 multi-disciplinary teams representing 3,700 students from 104 countries submitted projects for the 2015 competition. Of that number, there were just five teams chosen for the final round, held in Hamburg, Germany.



Victory loves company. Team Multifun is seen here with the head of Airbus research and technology and the Second Mayor of Hamburg.