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Editorial

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Editorial

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Aerospace is the branch of engineering behind the design, construction and science of aircraft and spacecraft. It is broken into two major and overlapping branches: aeronautical engineering and astronautically engineering. The former deals with craft that stay within Earth's atmosphere, and the latter deals with craft that operate outside of Earth's atmosphere. Aerospace engineering, particularly the astronautics branch, is often informally called "rocket science".

The aeronautical engineer is responsible for using cost-effective methods to develop ways of improving fuel efficiency and flight safety. Additionally, aeronautical engineers focus on lowering the environmental impact of air travel by creating aircraft that are more environmentally friendly. In Indian scenario, the development of aeronautical related advance technologies is still to grow with the Government of India initiative for the defence product under the **Atmanirbhar Bharat** and hope in few years now, these advanced technologies will be booming.

This special issue “Reviews on Modern Technologies for Aircraft and Aero-Engines” is published which covers the latest technologies and advancement in aerospace domain covering aerodynamics, propulsion, and materials. In this issue, the authors have focused on the review articles related improvement in aerodynamics of aircraft, problems faced in gas turbine engines, methods to overcome and stability related problems in missiles. Most of the papers are based on Project Based Learning which is one of the research-oriented teaching-learning processes recently introduced in National Education Policy 2020 by the Government of India. The issue covered the following fields of engineering but not limited to:

Subject Coverage

1. Ground vehicle aerodynamics
2. Gas turbine engines
3. Compressor stall control
4. Boundary layer separation
5. Heat transfer
6. Hybrid propulsion
7. Composite materials
8. Missile stability

9. Compressible flows
10. Computational fluid dynamics
11. Flow visualization
12. Rotor Wing Aerodynamics

I am sure this issue of journal GRET will cater to the need of the students in engineering and technology and get immense benefit out of the research publication. I on behalf of the Chief Editor welcome the author to contribute more and more articles in the future issues of the GRET. I convey my sincere gratitude to Prof. Srikanta Patnaik for giving me this opportunity and Mrs. Soma Mitra, Technical Editor for providing full support to publish this special issue.

(Dr. Maruthupandiyar K)