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Editorial

Special Issue on Aerodynamics and Propulsion

The ICEAE 209 conference was organized by the Department of Aerospace Engineering to commemorate the centenary year of the Indian Institute of Science, Bangalore. The conference was somewhat unique in that, in line with the research activities of the department, it had sessions on aerodynamics, control and guidance, propulsion and structure. The conference provided a good platform for researchers from various national academic institutions and R&D organizations to exchange views on on-going research activities. It is indeed very appreciative that the editor of the “International Journal of Aerospace Innovations” has agreed to bring out a special issue containing selected papers in the area of aerodynamics/fluid dynamics/propulsion presented in the conference. In this special issue, only a small number of papers (from a large number of contributions) could be accommodated. The CFD simulations of the flight altitude of scramjet combustor (Gnanasekar et al.) and the transient flame spread over thin solid fuel in zero and non-zero gravity (Kumar and Kumar) have their own importance in the area of fluid flow research. So is the simulation of a high lift trapezoidal wing (Khare et al.). The paper reporting a multi-dimensional relaxed up-wind scheme (Arun), though for two-dimensional flows, is useful in dealing with non-linear hyperbolic problems in CFD. The paper on model aerodynamic structure from flight test data (Kamali et al.), based on statistical measures, is of definite interest to the flight mechanics community. The seemingly overriding role of CFD though cannot be ignored and experimental studies like the annular mixing layer in high sub-sonic flows (Murugan and Sharma) are a welcome contribution.

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