

Preface

Designs and developments are the aspirations of tomorrow's technologies for aero and auto industries to be alive in the competitive world, where cost-effective solutions, improvements in greenhouse environment, longevity/life cycle, eco-friendly materials and manufacturing, certification and government legislation demands are becoming stringent. Whether aerospace or automotive, the pulse and echo are similar in meeting the expected performances in air or on road, respectively. Both the industries have come to symbolize the essence of a modern industrial society. Perhaps more than any other single icon, it is associated with a desire for independence and freedom of movement; an expression of economic status. For the next decades they are marching towards new concept designs, analysis and manufacturing technologies, where more swing is for improved performance through specific and/or multifunctional linguistic design aspect to downsize the system, improve the weight-to-strength ratio, fuel efficiency, make better the operational capability at room and elevated temperatures, reduce wear and tear, NVH aspects while balancing the challenges of beyond Euro IV emission norms, greenhouse effects, and recyclable materials.

The conference covered the areas such as additive manufacturing, aerodynamics, CAD and rapid prototyping, CFD, design engineering, environment, finite element method, fuels and energy source, integration of analysis and expected results, life cycle engineering, manufacturing, materials, MDO techniques, modeling of materials, optimization technologies, propulsion systems, quality, reliability and durability, sensors and health monitoring, simulations, 3D scanning and re-engineering, and 3D printing.

The conference aimed at addressing these issues of tomorrow where academia—industry—R&D partnerships and collaborative programs can be shared and implemented.

The organizers of the 2nd International Conference on Innovative Design, Analysis and Development Practices in Aerospace and Automotive Engineering (IDAD 2016) wish to provide a platform for deliberations on design engineering, numerical methods, analysis/optimization techniques, life cycle engineering, system

engineering, configuration managements, advanced materials, novel manufacturing/prototyping, vibration and health monitoring, propulsion system and quality and reliability in the aerospace and automotive field. The response to the conference was overwhelming on both national and international fronts.

Chennai, India

Ram P. Bajpai
U. Chandrasekhar

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Bajpai, R.P.; Chandrasekhar, U. (Eds.)

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