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Autore	Singh Krishna Mohan
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Altri autori (Persone)	DuttaSushanta SubudhiSudhakar SinghNikhil Kumar
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Nota di contenuto	Part 1: Miscellaneous -- Chapter 1. Linear and nonlinear simulations of magnetorotational instability for the upcoming DRESDYN-MRI experiment -- Chapter 2. Estimation of inlet conditions of fluid flow in a thick pipe using inverse technique -- Chapter 3. Effect of Hierarchical Porous Media on Specific Capacity and Energy Density of Li-O2 Battery -- Chapter 4. Velocity measurement for low Hartmann magneto-convection on a vertical wall using UDV -- Chapter 5. Novel Tree-Branching Microchannel Heat Sink Under Variable and Constant Fluid Volume Approaches -- Chapter 6. Effect of flexible flap length on flow generation by an airfoil pitching in quiescent fluid -- Chapter 7. Aerodynamic Characterisation of a Winged Re Entry Vehicle at Select Mach Numbers and Angles of Attack through CFD Simulations -- Chapter 8. Large Eddy Simulations (LES) of Supercritical Nitrogen Jets -- Chapter 9. Design of Rolling Road for Wind Tunnel Simulation -- Chapter 10. Multi-Needle Ionic Wind Generator for Thermal

Management -- Chapter 11. Entrainment characteristics of a swirling liquid jet -- Chapter 12. Estimation of drag behind a tapered cylinder using Direct Drag Measurement -- Chapter 13. Effect of damping on bifurcation and synchronization behaviour of an aeroelastic system under dynamic stall -- Chapter 14. Development of a Coupled RANS-LES Solver for Numerical Simulation of Turbulent Wall Bounded Flows -- Chapter 15. Computational and Experimental study of particle dispersion in the turbulent wake of a simplified car model (Ahmed body). etc.

Sommario/riassunto

This book comprises select peer-reviewed proceedings of the 9th International and 49th National Conference on Fluid Mechanics and Fluid Power (FMFP 2022). This book brings together scientific ideas and engineering solutions put forth by researchers and practitioners from academia and industry in the important and ubiquitous field of fluid mechanics. The contents of this book focus on fundamental issues and perspective in fluid mechanics, measurement techniques in fluid mechanics, computational fluid and gas dynamics, instability, transition and turbulence, fluid-structure interaction, multiphase flows, microfluidics, bio-inspired fluid mechanics, aerodynamics, turbomachinery, propulsion and power and other miscellaneous topics in the broad domain of fluid mechanics. This book is a useful reference to researchers and professionals working in the broad field of mechanics.
