

Ekc2008 Proceedings Of The Eu-korea Conference On Science And Technology

[DOWNLOAD HERE](#)

1;Title Page;2 2;Preface;6 3;Contents;7 4;Computational Fluid Dynamics (CFD);13 5;A Numerical Study on Rotating Stall Inception in an Axial Compressor;14 5.1;Introduction;14 5.2;Test Configuration;15 5.3;Numerical Methods;16 5.4;Computational Results;18 5.5;Conclusion;26 5.6;References;27 6;A Numerical Study on Flow and Heat Transfer Analysis of Various Heat Exchangers;29 6.1;Introduction;29 6.2;Louver Fin Radiator in a Vehicle;30 6.3;Shell and Tube Heat Exchanger;346.4;Plate Heat Exchanger;35 6.4.1;Herringbone-Type Plate Heat Exchanger;35 6.4.2;Dimple-Type Plate Heat Exchanger;38 6.5;Concluding Remarks;40 6.6;References;41 7;Application of a Level-Set Method in Gas-Liquid Interfacial Flows;42 7.1;Introduction;42 7.2;Numerical Analysis;43 7.2.1;Governing Equations;43 7.2.2;Level Set Method;43 7.2.3;Contact Angle Condition;44 7.3;Gas-Liquid Interfacial Flows;44 7.3.1;Free Surface Motion;45 7.3.2;Drop Motion on an Inclined Wall;46 7.3.3;Binary Drop Collision;47 7.3.4;Drop Impact on the Liquid Film;49 7.3.5;Bubble Entrapment;50 7.4;Concluding Remarks;51 7.5;References;51 8;Modelling the Aerodynamics of Coaxial Helicopters from an Isolated Rotor to a Complete Aircraft;53 8.1;Introduction;53 8.2;Computational Model;54 8.3;Aerodynamics of a Hinged Coaxial Rotor;55 8.3.1;Aerodynamic Performance of an Isolated Coaxial Rotor;55 8.3.2;A Rational Approach for Comparing Coaxial and Single Rotors;56 8.3.3;Comparison of Performance in Steady and Manoeuvring Flight;58 8.4;Aerodynamics of a Stiffened Hingeless Coaxial Rotor;60 8.5;Thrust-Compounded Coaxial Helicopter;61 8.5.1;Helicopter Model;61 8.5.2;Interactional Aerodynamics and Aeroacoustics;62 8.5.3;Understanding the Interactions;64 8.6;Conclusion;65 8.7;References;66 9;State-of-the-Art CFD Simulation for Ship Design;68 9.1;Introduction;68 9.2;Stern and Bow Flare Slamming, Extreme Motions and Loads+;68 9.3;Whipping Effects;70 9.4;Sloshing;70 9.5;Dynamic Stability of Ships;71 9.6;Ship Appendages, Cavitation Problems;72 9.7;Room Ventilation;73 9.8;Aerodynamics of Ship Superstructures and Smoke Propagation;74 9.9;Fire Simulation;74 9.10;Conclusion;75 9.11;References;75 10;Investigation of the Effect of Surface Roughness on the Pulsating Flow in Combustion Chambers with LES;76 10.1;Introduction;76 10.2;Modeling of

Roughness;77 10.2.1;The Discrete Element Method;77 10.3;Simulated Configuration;78
10.3.1;Numerical Method;79 10.4;Results and Discussion;80 10.4.1;Flow Features in the Resonator
Neck;80 10.4.2;Comparison of the Calculation with Experimental Data;81 10.5;Conclusion;82
10.6;References;82 11;Numerical Study on Blood Flow Characteristics of the Stenosed Blood Vessel with
Periodic Acceleration and Rotating Effect;84 11.1;Introduction;84 11.2;Theoretical Model and Boundary
Condition;85 11.2.1;Governing Equations;85 11.2.2;Boundary Condition;86 11.2.3;Modeling of a Blood
Vessel;87 11.3;Results and Discussion;87 11.4;Conclusion;89 11.5;References;90 12;Analysis and Test
on the Flow Characteristics and Noise of Axial Flow Fans;91 12.1;Introduction;91 12.2;Analysis
Conditions;92 12.2.1;Numerical Condition for Noise Analysis;92 12.2.2;Numerical Analysis Condition of
Performance;93 12.3;Numerical Analysis Result;95 12.3.1;Fan Surface Pressure Distribution;95
12.3.2;Turbulent Energy and Noise Analysis;96 12.3.3;Velocity Distribution and Performance;97
12.4;Conclusion;98 12.5;References;99 13;Implicit Algorithm for the Method of Fluid Particle Dynamics in
Fluid-Solid Interaction;100 13.1;Introduction;100 13.2;Governing Equations and Numerical Methods;101
13.2.1;Governing Equations;101 13.2.2;Numerical Methods of FPD;102 13.3;Numerical Results and
Discussions;104 13.3.1;A Sphere Falling in Axi-symmetric Space;104 13.3.2;A Horizontal Circular
Cylinder Falling in 2-D Space;107 13.4;Conclusions;108 13.5;References;109 14;Mechatronics and
Mechanical Engineering;110 15;EKC 2008: Summary of German Inte EAN/ISBN : 9783540851905
Publisher(s): Springer, Berlin Format: ePUB/PDF Author(s): Yoo, Seung-Deog

[DOWNLOAD HERE](#)

Similar manuals: