1. Record Nr. UNINA9911078264503321

Titolo	Small business manpower problems. Report of the Select Committee on Small Business, United States Senate, on industrial manpower. June 18 (legislative day, May 17), 1951. -- Ordered to be printed
Pubbl/distr/stampa	Washington, DC : , : [publisher not identified], , 1951
Descrizione fisica	1 online resource (11 pages)
Collana	Senate report / 82nd Congress, 1st session. Senate ; ; no. 438 [United States congressional serial set] ; ; [serial set no. 11488]
Altri autori (Persone)	SparkmanJohn <1899-1985> (Democrat (AL))
Soggetti	Draft Industrial mobilization Occupational training Labor Militia Small business Strategic materials Korean War, 1950-1953 Legislative materials.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Batch processed record: Metadata reviewed, not verified. Some fields updated by batch processes.

2.

Record Nr.	UNINA9911133082303321
Autore	Finkelstein Gabriel Ward
Titolo	Emil du Bois-Reymond : neuroscience, self, and society in nineteenth-century Germany / / Gabriel Finkelstein
Pubbl/distr/stampa	Cambridge, Massachusetts : , : The MIT Press, , [2013]
ISBN	0-262-31485-1 0-262-31484-3
Edizione	[1st ed.]
Descrizione fisica	1 online resource (381 p.)
Collana	Transformations : studies in the history of science and technology
Disciplina	612.8092 B
Soggetti	Neurosciences - Philosophy - History - 19th century Physiology, Experimental - History - 19th century Physiologists - Germany
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Contents; Acknowledgments; Abbreviations; Introduction; I Beginnings; 1 Childhood; 2 Youth; 3 Apprenticeship; II Experiments; 4 Science; 5 Revolution; 6 Paris; III Life; 7 Love; 8 Marriage and Career; 9 Public and Private; IV Fame; 10 Politics and History; 11 Goethe and Darwin; 12 Limits; Notes; Index
Sommario/riassunto	A biography of an important but largely forgotten nineteenth-century scientist whose work helped lay the foundation of modern neuroscience.Emil du Bois-Reymond is the most important forgotten intellectual of the nineteenth century. In his own time (1818-1896) du Bois-Reymond grew famous in his native Germany and beyond for his groundbreaking research in neuroscience and his provocative addresses on politics and culture. This biography by Gabriel Finkelstein draws on personal papers, published writings, and contemporary responses to tell the story of a major scientific figure. Du Bois-Reymond's discovery of the electrical transmission of nerve signals, his innovations in laboratory instrumentation, and his reductionist methodology all helped lay the foundations of modern neuroscience.In addition to describing the pioneering experiments that earned du Bois-Reymond a seat in the Prussian Academy of Sciences and a

	professorship at the University of Berlin, Finkelstein recounts du Bois-Reymond's family origins, private life, public service, and lasting influence. Du Bois-Reymond's public lectures made him a celebrity. In talks that touched on science, philosophy, history, and literature, he introduced Darwin to German students (triggering two days of debate in the Prussian parliament); asked, on the eve of the Franco-Prussian War, whether France had forfeited its right to exist; and proclaimed the mystery of consciousness, heralding the age of doubt. The first modern biography of du Bois-Reymond in any language, this book recovers an important chapter in the history of science, the history of ideas, and the history of Germany.

3.	Record Nr.	UNINA9910965430303321
	Autore	Tu Jiyuan
	Titolo	Computational fluid dynamics : a practical approach / / Jiyuan Tu, Guan-Heng Yeoh, Chaoqun Liu
	Pubbl/distr/stampa	Elsevier Science & Technology, 2012
	ISBN	0-08-098277-8
	Edizione	[2nd ed.]
	Descrizione fisica	1 online resource (457 p.)
	Altri autori (Persone)	YeohGuan Heng LiuChaoqun
	Disciplina	532.050285 620.10640285
	Soggetti	Fluid dynamics Heat - Transmission Turbulence
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Description based upon print version of record.
	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	Front Cover -- Computational Fluid Dynamics: A Practical Approach -- Copyright -- Contents -- Preface to the First Edition -- Preface to the Second Edition -- Acknowledgments -- Chapter 1: Introduction -- 1.1. What is computational fluid dynamics? -- 1.2. Advantages of computational fluid dynamics -- 1.3. Application of computational fluid dynamics -- 1.3.1. As a Research Tool -- 1.3.2. As an Educational Tool

in Basic Thermal-Fluid Science -- 1.3.3. As a Design Tool -- 1.3.4. Aerospace -- 1.3.5. Automotive Engineering -- 1.3.6. Biomedical Science and Engineering -- 1.3.7. Chemical and Mineral Processing -- 1.3.8. Civil and Environmental Engineering -- 1.3.9. Metallurgy -- 1.3.10. Nuclear Safety -- 1.3.11. Power Generation -- 1.3.12. Sports -- 1.4. The future of computational fluid dynamics -- 1.5. Summary -- Review questions -- Chapter 2: CFD Solution Procedure-A Beginning -- 2.1. Introduction -- 2.1.1. Shareware CFD -- 2.1.2. Commercial CFD -- 2.2. Problem setup-pre-process -- 2.2.1. Creation of Geometry-Step 1 -- 2.2.2. Mesh Generation-Step 2 -- 2.2.3. Selection of Physics and Fluid Properties-Step 3 -- 2.2.4. Specification of Boundary Conditions-Step 4 -- 2.3. Numerical solution-CFD solver -- 2.3.1. Initialization and Solution Control-Step 5 -- 2.3.2. Monitoring Convergence-Step 6 -- 2.4. Result Report and Visualization-Post-process -- 2.4.1. X-Y Plots -- 2.4.2. Vector Plots -- 2.4.3. Contour Plots -- 2.4.4. Other Plots -- 2.4.5. Data Report and Output -- 2.4.6. Animation -- 2.5. Summary -- Review questions -- Chapter 3: Governing Equations for CFD-Fundamentals -- 3.1. Introduction -- 3.2. The continuity equation -- 3.2.1. Mass Conservation -- 3.2.2. Physical Interpretation -- 3.2.3. Comments -- 3.3. The momentum equation -- 3.3.1. Force Balance -- 3.3.2. Physical Interpretation -- 3.3.3. Comments -- 3.4. The energy equation.
3.4.1. Energy Conservation -- 3.4.2. Physical Interpretation -- 3.4.3. Comments -- 3.5. The additional equations for turbulent flow -- 3.5.1. What Is Turbulence? -- 3.5.2. k- Two-Equation Turbulence Model -- 3.5.3. Comments -- 3.6. Generic form of the governing equations for CFD -- 3.7. Physical boundary conditions of the governing equations -- 3.8. Summary -- Review questions -- Chapter 4: CFD Techniques-The Basics -- 4.1. Introduction -- 4.2. Discretization of governing equations -- 4.2.1. Finite-Difference Method -- 4.2.2. Finite-Volume Method -- 4.2.3. Finite-Element Method -- 4.2.4. Spectral Method -- 4.3. Converting governing equations to algebraic equation system -- 4.3.1. Finite-Difference Method -- 4.3.2. Finite-Volume Method -- 4.3.3. Comparison of the Finite-Difference and Finite-Volume Discretizations -- 4.4. Numerical solutions to algebraic equations -- 4.4.1. Direct Methods -- 4.4.2. Iterative Methods -- 4.5. Pressure-velocity coupling-``simple´´ scheme -- 4.6. Multi-grid method -- 4.7. Summary -- Review questions -- Chapter 5: CFD Solution Analysis-Essentials -- 5.1. Introduction -- 5.2. Consistency -- 5.3. Stability -- 5.4. Convergence -- 5.4.1. What Is Convergence? -- 5.4.2. Residuals and Convergence Tolerance -- 5.4.3. Convergence Difficulty and Using Under-Relaxation -- 5.4.4. Accelerating Convergence -- 5.5. Accuracy -- 5.5.1. Source of Solution Errors -- 5.5.1.1. Discretization Error -- 5.5.1.2. Round-Off Error -- 5.5.1.3. Iteration or Convergence Error -- 5.5.1.4. Physical Modeling Error -- 5.5.1.5. Human Error -- 5.5.2. Controlling the Solution Errors -- 5.5.3. Verification and Validation -- 5.6. Efficiency -- 5.7. Case studies -- 5.7.1. Test Case A: Channel Flow -- 5.7.2. Test Case B: Flow over a 90o Bend -- 5.8. Summary -- Review questions -- Chapter 6: Practical Guidelines for CFD Simulation and Analysis.
6.1. Introduction -- 6.2. Guidelines on grid generation -- 6.2.1. Structured Mesh -- 6.2.2. Body-Fitted Mesh -- 6.2.3. Unstructured Mesh -- 6.2.4. Comments on Mesh Topology -- 6.2.5. Guidelines for Grid Quality and Grid Design -- 6.2.6. Local Refinement and Solution Adaptation -- 6.3. Guidelines for boundary conditions -- 6.3.1. Overview of Setting Boundary Conditions -- 6.3.2. Guidelines for Inlet Boundary Conditions -- 6.3.3. Guidelines for Outlet Boundary Conditions -- 6.3.4. Guidelines for Wall Boundary Conditions -- 6.3.5.

Guidelines for Symmetry and Periodic Boundary Conditions -- 6.4. Guidelines for turbulence modeling -- 6.4.1. Overview of Turbulence-Modeling Approaches -- 6.4.2. Strategy for Selecting Turbulence Models -- 6.4.3. Near-Wall Treatments -- 6.4.4. Setting Boundary Conditions -- 6.4.5. Test Case: Assessment of Two-Equation Turbulence Modeling for Hydrofoil Flows -- 6.5. Summary -- Review questions -- Chapter 7: Some Applications of CFD with Examples -- 7.1. Introduction -- 7.2. To assist in the design process-as a design tool -- 7.2.1. Indoor Air-Flow Distribution -- 7.3. To enhance understanding-as a research tool -- 7.3.1. Gas-Particle Flow in a 90o Bend -- 7.4. Other important applications -- 7.4.1. Heat Transfer Coupled with Fluid Flow -- 7.4.1.1. Heat Exchanger -- 7.4.1.2. Conjugate and Radiation Heat Transfer11The materials in this section were provided by David Wassink and Mark Ho, wor -- 7.4.2. A Buoyant Free-Standing Fire -- 7.4.3. Flow over Vehicle Platoon -- 7.4.4. Air/Particle Flow in the Human Nasal Cavity -- 7.4.5. High-Speed Flows -- 7.4.5.1. Supersonic Flow over a Flat Plate -- 7.4.5.2. Subsonic and Supersonic Flows over a Wing -- 7.5. Summary -- Review questions -- Chapter 8: Some Advanced Topics in CFD -- 8.1. Introduction -- 8.2. Advances in numerical methods and techniques -- 8.2.1. Incompressible Flows.
8.2.2. Compressible Flows -- 8.2.2.1. High-Resolution Schemes -- 8.2.2.2. Adaptive Meshing -- 8.2.3. Moving Grids -- 8.2.4. Multi-Grid Methods -- 8.2.5. Parallel Computing -- 8.2.6. Immersed Boundary Methods -- 8.3. Advances in computational models -- 8.3.1. Direct Numerical Simulation -- 8.3.2. Large Eddy Simulation (LES) -- 8.3.3. RANS-LES Coupling for Turbulent Flows -- 8.3.4. Multi-Phase Flows -- 8.3.5. Combustion -- 8.3.6. Fluid-Structure Interaction -- 8.3.7. Physiological Fluid Dynamics -- 8.4. Other numerical approaches for CFD -- 8.4.1. Lattice Boltzmann Method -- 8.4.2. Monte-Carlo Method -- 8.4.3. Particle Methods -- 8.4.4. Discrete Element Method -- 8.5. Summary -- Review questions -- Appendix A: Full Derivation of Conservation Equations -- Appendix B: Upwind Schemes -- Appendix C: Explicit and Implicit Methods -- Appendix D: Learning Program -- Learning Program for a One-Semester CFD Course -- Appendix E: CFD Assignments and Guideline for CFD Project -- Assignment 1 -- Background and Aim -- Problem Description -- Instructions -- Assignment 2 -- Background and Aim -- Problem Description -- Single-Car Configuration -- Instructions -- Drafting Configuration -- Instructions -- Assignment 3 -- Background and Aim -- Problem Description -- Instructions -- Project Guideline -- Aim -- Objectives -- Example-CFD Project proposal prepared by the student -- Introduction -- Scope -- Objectives -- Other Topics for CFD Projects -- CFD Project A: CFD Simulation of Turbulent Flow over a Backward-Facing Step -- Background -- Objectives -- Problem Description -- Required Discussions -- CFD Project B: CFD Simulation of Pickup Trucks with Open/Closed Beds -- Background -- Objectives -- Problem Description -- Required Discussions -- Addendum -- CFD Project C: Investigation of Cooling Electronic Components within a Computer -- Background -- Objectives.
Problem Description -- Required Discussions -- References -- Index.

Sommario/riassunto

An introduction to CFD fundamentals and using commercial CFD software to solve engineering problems, designed for the wide variety of engineering students new to CFD, and for practicing engineers learning CFD for the first time. Combining an appropriate level of mathematical background, worked examples, computer screen shots, and step by step processes, this book walks the reader through modeling and computing, as well as interpreting CFD results. The first

book in the field aimed at CFD users rather than developers. New to this edition: A more c