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Titolo	Airport engineering [[electronic resource]] : planning, design, and development of 21st century airports / / Norman J. Ashford, Saleh Mumayiz, Paul H. Wright
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Altri autori (Persone)	MumayizSaleh A WrightPaul H
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Nota di contenuto	Airport Engineering; Contents; Preface; 1 The Structure and Organization of Air Transport; 1.1 The Need for National and International Organizations; 1.2 The International Civil Aviation Organization; 1.3 Nongovernmental Organizations; 1.4 U.S. Governmental Organizations; 1.5 Aviation Planning and Regulation at State Level; 1.6 Patterns of Airport Ownership; 1.7 Revenues and Expenditures at U.S. Airports; 1.8 Sources of Capital Financing for U.S. Airports; 1.9 Federal Financing; 1.10 The U.S. National Plan of Integrated Airport Systems: A Classification of Airports; References 2 Forecasting Air Transport Demand2.1 Introduction; 2.2 Components of Air Transport Demand; 2.3 Conventional Airport Forecast Methods; 2.4 Integrated Demand Forecast Framework; 2.5 Multiairport Region Forecast Framework; 2.6 Air Trip Distribution Models; 2.7 Modal Choice Models; 2.8 Generation-Distribution Models; 2.9 Air Freight Demand Forecasts; 2.10 General Aviation Forecasts; 2.11 Route Choice Models;

References; 3 Characteristics of Aircraft As They Affect Airports; 3.1 Relationships between Aircraft and Airports; 3.2 The Influence of Aircraft Design on Runway Length
3.3 Other Airport Layout Factors3.4 Factors Affecting Airport Capacity; 3.5 Noise; 3.6 Future Trends in Aircraft Design; References; 4 Airport System Planning; 4.1 Aviation System Planning; 4.2 Levels of Planning; 4.3 Planning Airport Systems under Different States of Industry; 4.4 Effect of Airline Hubs and Deregulation on U.S. Airport System; 4.5 Air Transport Planning in the United States; 4.6 Airport System Planning in Europe; 4.7 Airport System Plan Analysis; 4.8 Data Structure for Airport System Planning; References; 5 Airport Master Planning
5.1 Airport Master Plan: Definition and Objectives5.2 Hierarchy of Planning; 5.3 Elements of Airport Master Plan: FAA; 5.4 ICAO Guidelines for Structure of Master Plan; 5.5 Airport Layout Design; 5.6 Data Requirements for Master Planning; 5.7 Structure of Master Plan Report; 5.8 Airport Site Selection; References; 6 CNS/ATM; 6.1 Evolution of the System; 6.2 U.S. National Airspace System (NAS); 6.3 CNS/ATM of the NAS; 6.4 Next-Generation Systems; References; 7 Airport Capacity; 7.1 Introduction; 7.2 Capacity, Level of Service, and Demand Peaking; 7.3 Airside Capacity
7.4 Factors Affecting Airside Capacity and Delay7.5 Determination of Runway Capacity and Delay; 7.6 Annual Service Volume; 7.7 Preliminary Capacity Analyses; 7.8 Calculating Aircraft Delay; 7.9 Taxiway Capacity; 7.10 Gate Capacity; 7.11 Assessing System Capacity-Delay for Airport Development; 7.12 Airport Landside Capacity; References; 8 Airside Configuration and Geometric Design of the Airside; 8.1 Introduction; 8.2 Principles of Airport Layout; 8.3 Airfield Configuration; 8.4 Runway Orientation; 8.5 Obstructions to Airspace: FAA and ICAO Standards; 8.6 Runway Length
8.7 Clearways and Stopways

Sommario/riassunto

First published in 1979, Airport Engineering by Ashford and Wright, has become a classic textbook in the education of airport engineers and transportation planners. Over the past twenty years, construction of new airports in the US has waned as construction abroad boomed. This new edition of Airport Engineering will respond to this shift in the growth of airports globally, with a focus on the role of the International Civil Aviation Organization (ICAO), while still providing the best practices and tested fundamentals that have made the book successful for over 30 years.

2. Record Nr. UNINA9910588596303321

Titolo	Forcefields for Atomistic-Scale Simulations: Materials and Applications / / edited by Akarsh Verma, Sanjay Mavinkere Rangappa, Shigenobu Ogata, Suchart Siengchin
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2022
ISBN	981-19-3092-9
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (395 pages)
Collana	Lecture Notes in Applied and Computational Mechanics, , 1860-0816 ; ; 99
Disciplina	531.6
Soggetti	Materials science - Data processing Molecular dynamics Nanotechnology Atomic structure Molecular structure Microclusters Atomistic Models Molecular Dynamics Atomic and Molecular Structure and Properties Atomic and Molecular Clusters
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1. Introduction to Forcefields -- 2. Forcefields for characterization of metals/metal alloys -- 3. Forcefields for characterization of nuclear materials -- 4. Forcefields and Atomistic insights to study high entropy alloys -- 5. Coarse-grained forcefields for anisotropically interacting particles -- 6. Forcefields for 2D nanomaterials (Graphene and h-BN) and the universal solvent “water” -- 7. Reactive forcefield (ReaxFF) for the combustion application -- 8. Reactive forcefield (ReaxFF) for the 2D nanomaterials synthesis -- 9. Forcefields and Modelling of Polymer Coatings and nanocomposites -- 10. Accelerated reactive forcefields for studying nanomaterials and polymers.
Sommario/riassunto	This book describes the forcefields/interatomic potentials that are used in the atomistic-scale and molecular dynamics simulations. It covers

mechanisms, salient features, formulations, important aspects and case studies of various forcefields utilized for characterizing various materials (such as nuclear materials and nanomaterials) and applications. This book gives many help to students and researchers who are studying the forcefield potentials and introduces various applications of atomistic-scale simulations to professors who are researching molecular dynamics.