

1. Record Nr.	UNINA9910299244203321
Autore	Heinecke Alexander
Titolo	Supercomputing for Molecular Dynamics Simulations : Handling Multi-Trillion Particles in Nanofluidics // by Alexander Heinecke, Wolfgang Eckhardt, Martin Horsch, Hans-Joachim Bungartz
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
ISBN	3-319-17148-8
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (83 p.)
Collana	SpringerBriefs in Computer Science, , 2191-5768
Disciplina	004
Soggetti	Computer system failures Computer simulation Fluid mechanics Computers, Special purpose System Performance and Evaluation Simulation and Modeling Engineering Fluid Dynamics Special Purpose and Application-Based Systems
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 at the end of each chapters.
Nota di contenuto	Introduction -- Molecular Dynamics Simulation -- Parallelization of MD Algorithms and Load Balancing -- Efficient Implementation of the Force Calculation in MD Simulations -- Experiments -- Conclusion.
Sommario/riassunto	This work presents modern implementations of relevant molecular dynamics algorithms using ls1 mardyn, a simulation program for engineering applications. The text focuses strictly on HPC-related aspects, covering implementation on HPC architectures, taking Intel Xeon and Intel Xeon Phi clusters as representatives of current platforms. The work describes distributed and shared-memory parallelization on these platforms, including load balancing, with a particular focus on the efficient implementation of the compute kernels. The text also discusses the software-architecture of the resulting code.

2. Record Nr.	UNINA9911046015403321
Autore	Yang Xin-She
Titolo	Proceedings of Tenth International Congress on Information and Communication Technology : ICICT 2025, London, Volume 1 / / edited by Xin-She Yang, R. Simon Sherratt, Nilanjan Dey, Amit Joshi
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2026
ISBN	981-9697-09-3
Edizione	[1st ed. 2026.]
Descrizione fisica	1 online resource (318 pages)
Collana	Lecture Notes in Networks and Systems, , 2367-3389 ; ; 1440
Altri autori (Persone)	SherrattR. Simon DeyNilanjan JoshiAmit
Disciplina	621.382
Soggetti	Telecommunication Technology - Sociological aspects Information technology Internet of things Computational intelligence Artificial intelligence Communications Engineering, Networks Information and Communication Technologies (ICT) Internet of Things Computational Intelligence Artificial Intelligence
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1 :Optimizing V2X Communications for 6G: A Summary of Techniques and AI Methods.-Chapter 2 :Web-AR Based Support System for Food Tourism -- Chapter 3 :BrainDetective: An Advanced Deep Learning Application for Early Detection, Segmentation and Classification of Brain Tumours Using MRI Images -- Chapter 4 :SKY CONTROL: A novel concept for a vendor-agnostic multi-cloud framework to optimize cost control and risk management for small and medium-sized enterprises -- Chapter 5 :Computing political power: The case of the Spanish parliament -- Chapter 6 :Unraveling Social

Network Factors in Predicting Depression with a Machine Learning Approach.-Chapter 7 :Enhancing Reliability in Heavy Duty Autonomous Mobile Machines through Fault Tolerant Edge Computing.-Chapter 8 : Business Information System Consultant Competences.-Chapter 9 : Feasibility of the Cyber-Physical Nurse.-Chapter 10 :Semantic Landscape of Legal Lexicons: Unpacking Medical Decision Making Controversies.-Chapter 11 :Understanding ENSO Teleconnections' Influence on Drought in Southern Africa: A Machine Learning Approach.-Chapter 12 :Evaluation study of an adaptive appointment booking system.-Chapter 13 :Continuous Learning System for Detecting Anomalies in Daily Routines Using an Autoencoder.-Chapter 14 : Sentiment Analysis on the young people's perception about the mobile Internet costs in Senegal.-Chapter 15 :A Finite-State Morphological Analyzer for Ge'ez Verbs.-Chapter 16 :Development of a Virtual Reality Training Program: Integrating FDS Simulation and Performance Optimization with Unreal Engine on Heterogeneous Hardware.-Chapter 17 :Smart IoT Water Curtain System for Protecting Wildland Urban Interface (WUI) Village from Forest Fires.

Sommario/riassunto

This open access book gathers selected high-quality research papers presented at the Tenth International Congress on Information and Communication Technology (ICICT 2025), held in London, on February 18–21, 2025. It discusses emerging topics pertaining to information and communication technology (ICT) for managerial applications, e-governance, e-agriculture, e-education and computing technologies, the Internet of Things (IoT), and e-mining. Written by respected experts and researchers working on ICT, the book offers an asset for young researchers involved in advanced studies. The work is presented in ten volumes.
