1.
Record Nr.	UNISA996668464903316
Autore	Paszynski Maciej
Titolo	Computational Science – ICCS 2025 Workshops : 25th International Conference, Singapore, Singapore, July 7–9, 2025, Proceedings, Part VI / / edited by Maciej Paszynski, Amanda S. Barnard, Yongjie Jessica Zhang
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2025
ISBN	3-031-97573-1
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (508 pages)
Collana	Lecture Notes in Computer Science, , 1611-3349 ; ; 15912
Altri autori (Persone)	BarnardA. S (Amanda S.) ZhangYongjie Jessica
Disciplina	004.0151
Soggetti	Computer science Artificial intelligence Computer engineering Computer networks Software engineering Computer science - Mathematics Theory of Computation Artificial Intelligence Computer Engineering and Networks Software Engineering Mathematics of Computing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Smart Systems: Bringing Together Computer Vision, Sensor Networks and Artificial Intelligence -- Formal Security Analysis of the Authentication Protocol in Smart Cities using AVISPA -- Automatic Help Summoning through Speech Analysis on Mobile Devices -- Leveraging Graph Digital Twin for Fault Detection and Improved Power Grid Stability in Smart Cities -- PEMS-API: Malware Classification Using Parameter-Enhanced Multi-dimensional API Sequence Features -- The Effectiveness of Visual Attention Patterns in the Process of Spatial Exploration in a 3D Video Game Environment -- A New Way to Generate

Urban Environments for Video Games Using the Architectural Impression Curve Method -- Enhancing Learning in Augmented Reality (AR): A Deep Learning Framework for Predicting Memory Retention in AR Environments -- Solving Problems with Uncertainty -- Unified and Diverse Coalition Formation in Dispersed Data Classification – A Conflict Analysis Approach with Weighted Decision Trees -- From Uncertainty to Semantics in Self-reported Data: An Empirical Analysis -- Uncertainties in Modeling Psychological Symptom Networks: The Case of Suicide -- Making Astrometric Solver Tractable through In-Situ Visual Analytics -- Scheduling in Workflow-as-a-Service Model with Pre-Parameterized DAG using Inaccurate Estimates -- Global Sensitivity Analysis for a Mathematical Model of the General Escape Theory of Suicide -- Multidimensional Granular Approach to Solving Fuzzy Complex System of Linear Equations -- An Algorithm for Calculating the Multidimensional Solution of the Fuzzy Sylvester Matrix Equation -- Modelling Extreme Uncertainty: Queues with Pareto Inter-Arrival Times and Pareto Service Times -- Teaching Computational Science -- Best Practices in Teaching Digitization and Process Automation - A Case Study of Warsaw University of Technology -- Contrast Computation for Improved Visibility and User Experience in Educational Interfaces -- The Role of the Sustainability Competences for IT Systems Engineers -- Smart Product-Service System for Intelligent Welding System -- The Use of Artificial Intelligence and Virtual Computer Laboratories to Develop Computer Science Education -- Exploring AI Applications in Business: Case Studies on Key Competencies for Professionals -- The Use of the Chat GPT to Solve Mathematical Programming Tasks: A Didactic Experiment with the Participation of Warsaw University of Life Sciences Students -- Service-Oriented Architecture: Learning with Generative AI and AWS.

Sommario/riassunto	The 6-volume set constitutes the workshop proceedings of the 25th International Conference on Computational Science, ICCS 2025, which took place in Singapore, Singapore, during July 7–9, 2025. The 137 full papers and 32 short papers presented in these proceedings were carefully reviewed and selected from 322 submissions. The papers are organized in the following topical sections: Volume I: Advances in high-performance computational earth sciences: numerical methods, frameworks & applications; artificial intelligence approaches for network analysis; artificial intelligence and high-performance computing for advanced simulations; and biomedical and bioinformatics challenges for computer science. Volume II: Computational health; computational modeling and artificial intelligence for social systems; and computational optimization, modelling and simulation. Volume III: Computational science and AI for addressing complex and dynamic societal challenges equitably; computer graphics, image processing and artificial intelligence; computing and data science for materials discovery and design; and large language models and intelligent decision-making within the digital economy. Volume IV: Machine learning and data assimilation for dynamical systems; and multi-criteria decision-making: methods, applications, and innovations. Volume V: (Credible) Multiscale modelling and simulation; numerical algorithms and computer arithmetic for computational science; quantum computing; retrieval-augmented generation; and simulations of flow and transport: modeling, algorithms and computation. Volume VI: Smart systems: bringing together computer vision, sensor networks and artificial intelligence; solving problems with uncertainty; and teaching computational science.