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Collana	Lecture Notes on Data Engineering and Communications Technologies, , 2367-4520 ; ; 110
Disciplina	004
Soggetti	Engineering mathematics Engineering - Data processing Computational intelligence Environmental sciences - Social aspects Mathematical and Computational Engineering Applications Computational Intelligence Environmental Social Sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Towards an Agent-Based Model for Simulating Daily Mobility in Rabat Region -- Scenes Segmentation in Self-Driving Car Perception System Based U-Net and FCN Models -- Autonomous Parallel Parking using Raspberry-PI -- A Review on the Application of the Internet of Things in the Diagnosis of Autism Spectrum Disorder -- COST REDUCTION in Smart Grid Considering Greenhouse Gas Emissions Using Genetic Algorithm -- Modeling of Cavitation Intransient Flow in Pipe-Water Hammer -- The Contribution of GIS for the Modeling of Water Erosion, using Two Spatial Approaches: The Wischmeier Model and SWAT in the High Oum Er-Rbia Watershed (Middle Atlas Region) -- A Review of a Visible Light Communication System for 5G -- Sleep Stages Detection based BCI: A Novel Single-Channel EEG Classification based on Optimized Bandpass Filter -- 3D Numerical Study of Sound Wave

Behavior in the Presence of Obstacles using the D3Q15-Lattice Boltzmann Model -- Deep Learning for Building Extraction from High Resolution Remote Sensing Images -- Automatic Searching of Deep Neural Networks for Medical Imaging Diagnostic -- PCA SVM and Xgboost Algorithms for Covid-19 Recognition in Chest x-ray Images.

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## Sommario/riassunto

This book gathers the proceedings of the International Conference on Advanced Technologies for Humanity (ICATH'2021), held on November 26-27, 2021, in INSEA, Rabat, Morocco. ICATH'2021 was jointly co-organized by the National Institute of Statistics and Applied Economics (INSEA) in collaboration with the Moroccan School of Engineering Sciences (EMSI), the Hassan II Institute of Agronomy and Veterinary Medicine (IAV-Hassan II), the National Institute of Posts and Telecommunications (INPT), the National School of Mineral Industry (ENSMR), the Faculty of Sciences of Rabat (UM5-FSR), the National School of Applied Sciences of Kenitra (ENSAK) and the Future University in Egypt (FUE). ICATH'2021 was devoted to practical models and industrial applications related to advanced technologies for Humanity. It was considered as a meeting point for researchers and practitioners to enable the implementation of advanced information technologies into various industries. This book is helpful for PhD students as well as researchers. The 48 full papers were carefully reviewed and selected from 105 submissions. The papers presented in the volume are organized in topical sections on synergies between (i) smart and sustainable cities, (ii) communication systems, signal and image processing for humanity, (iii) cybersecurity, database and language processing for human applications, (iv) renewable and sustainable energies, (v) civil engineering and structures for sustainable constructions, (vi) materials and smart buildings and (vii) Industry 4.0 for smart factories. All contributions were subject to a double-blind review. The review process was highly competitive. We had to review 105 submissions from 12 countries. A team of over 100 program committee members and reviewers did this terrific job. Our special thanks go to all of them.

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