SADASC'2022

4th International Conference on Smart Applications and Data Analysis for Smart Cyber-Physical Systems (SADASC'22)

Co-organized by AOCSI and Hassan II University of Casablanca

22-24 September 2022 - Marrakech - Morocco

Springer

Call for papers

The Fourth International Conference on Smart Applications and Data Analysis for Smart Cyber-Physical Systems (SADASC'20) will be held during September 22-24, 2022 in Marrakh, Morocco. SADASC'20 will bring together researchers and industry professionals contributing towards different phases of designing, exploiting and maintaining Smart Cyber Physical Systems and their Applications. These phases include requirements engineering, data acquisition/cleaning, storage, deployment, exploitation, and visualization. Designing these systems also has to consider issues such as ethics, security and privacy. SADASC'2022 follows the success of the Agadir (2016), Casablanca (2018) and Marrakech (2020)

Topics and scope of the conference

Designing and modeling Smart Applications and Cyber-Physical Systems
Development lifecycle management - Eco-systems Cyber-Physical Systems - Simulation of Applications and Cyber-Physical Systems - Requirement Engineering for applications and cyber-physical systems - Multi-paradigm modeling and methodologies in cyber physical systems - Software Engineering for cyber-physical systems - Stakeholders, barriers and requirements for cyber-physical systems - Human in the loop in cyber-physical systems - Control and Optimization for cyber-physical systems - Dependability in cyber-physical systems (real-time, reliability, availability, safety, security)

Network technologies & IOT
New platforms and hardware designs for networked sensor systems - Systems software, including operating systems and network stacks - Low power operation, energy harvesting, and energy management - New communication paradigms for ubiquitous connectivity - Mobile and pervasive systems, including personal wearable devices, drones and robots - Sensing, actuation, and control - Heterogeneous collaborative sensing - Fault-tolerance, reliability, and verification - 5G wireless - Routing, scheduling, resource allocation, spectrum sharing - Network optimization and learning - Sensor-oriented data modeling - Network protocols, coverage, connectivity, and longevity - Simulation tools and environments - In-network processing and aggregation - Foundations of sensor networks - Vehicular Communication Design

Publication and indexing

All Accepted Papers will be Published in CCIS, Springer.
http://www.springer.com/series/7899
Extended versions of selected papers will be published in the indexed journal:
- IEEE/CAA journal of automatica sinica (Q1)
- Journal of Systems Architecture Elsevier (IF: 1.159; Q3)
- International Journal of Reasoning-based Intelligent Systems (IJRIS): Scopus indexed journal. (Q3)
- Progress in Artificial Intelligence

Exploitation and Exploration
Programming Models/Environments for ClusterCloud Computing - Parallel Databases/NoSQL solutions/in-memory databases - Open Sources for data management - Data Analysis/Visualization - Non-functional Requirement Satisfaction (ethics, pricing, legal, cultural, and economic principles and regulations) - Green Computing - Recommendation Systems - Security, privacy and trust - Blockchains - Prediction Modeling - Machine Learning/Deep Learning - Exploratory Data Analysis - Economical Models for Smart applications/systems

Data management
Data acquisition, storage and infrastructures-Data conversion and data supervision-Heterogeneity of Devices for Data Collection-Big Data-Parallel Databases/NoSQL solutions/in-memory databases and graphs databases-Data Integration, cleaning, transforming and fusing-Data compression and summarization-Data quality, veracity and uncertainty-Data Lakes and data warehouses-Data Heterogeneity Management-Ontologies-Data Collection Workflows-Meta-data-Value Capturing-Norms and Standards-Cloud/Cluster/Distributed computing for data management-Main Memory Databases-Indexing-Data partitioning/Allocation/Load Balancing-Value Capturing Norms and Standards-Data Compression/Summarization Cloud/Cluster Computing-Main Memory Databases-Indexing-Co-processing of data (CPU, GPU, FPGA, etc.)-Polystore Deployment-Data partitioning/Allocation/Load

Green Communications, Computing and Technologies
Green and sustainable computing-Energy-efficient computing and supercomputing-Intelligent signal processing for green communications-Green cloud computing and IoT-Energy harvesting and energy efficiency in communications-Green vehicles, homes, buildings and industries-Green data storage-Privacy, safety, and security in green-aware systems

Case studies
Predictive maintenance-Industry 4.0 (system intercconection, information transparency, technical assistance)-Cognitive computing in real-applications: education, healthcare, etc-Smart farming-Agricultural intelligence-Market intelligence

Important Dates

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Final Paper Submission Deadline	**03 MAI 2022**
Acceptance notification	**25 JUNE 2022**
Camera-ready papers	**12 JULY 2022**
Early bird registration	**25 JUNE 2022**

Submissions

Authors are invited to send their original and previously unpublished papers (8 pages maximum) in English following the template: word or latex. All papers will be peer reviewed and acceptance will be based on quality, relevance and originality. Authors have to strictly adhere to the Springer CCIS Authors' Instructions or templates.
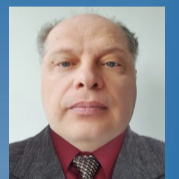
Best paper award

Awards will be delivered to best papers based on their quality.

Speakers

Athman Bouguettaya

Fadi Dornaika

TOBIAS

Michael Sheng

Tutorials & Workshops

Denis Hamad

Mustapha Nourelfath

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