CALL FOR PAPERS

2022 First International Conference on Informatics (ICI-2022) 14th – 16th Apr, 2022
Jaypee Institute of Information Technology, NOIDA, India

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The 2022 First International Conference on Informatics (ICI) aims to provide a leading international forum for researchers, scientists, and industry professionals who are working on next generation informatics. ICI-2022 is organized under the leadership and joint vision of the Department of CSE & IT, JIIT, Noida (outskirt of Delhi, India) & Prof. Sartaj Sahni, University of Florida, USA.

The conference will give a platform to showcase methodological and technological advancements in the emerging areas of Big Data, AI & Machine learning, Blockchain and Cloud Technology, IOT and smart systems etc. Due to on-going pandemic situation, ICI-2022 will be conducted in hybrid mode. *The authors of accepted papers will have a choice to present their papers on-line or in physical mode.* Online presentations will have reduced registration fees.

Scope:

Informatics aspects have been organized around five different thematic tracks:

- Track-1: Artificial Intelligence & Machine Learning
- Track-2: IoT and Smart systems
- Track-3: Cloud & Distributed Computing
- Track-4: Big Data & Data Analytics
- Track-5: Block Chain Technology

Topics of interest under each track are mentioned in the next page.

Important Dates:

Full Paper Submission: **15th Nov 2021**
Author notification: **15th Jan 2022**
Final Camera Ready Submission: **15th Feb 2022**

Paper Submission:

ICI-2022 is soliciting the submission of papers with significant research contributions to the field of informatics research. ICI uses easychair system for submission of papers and review process. Prospective authors should submit their papers online using the link https://easychair.org/conferences/?conf=ici2022 . Unregistered authors should first create an account on easy chair to log in.

Papers should strictly adhere to the IEEE Conference formatting requirements using the templates available at https://www.ieee.org/conferences/publishing/templates.html (Use the A4 (DOC, 30 KB) format updated Jan 2019). It should not exceed 6 pages including references. Word Template File is also available on the conference website for author's convenience.

Papers must present original contributions and can neither be previously published nor under review by another conference or journal. Papers containing plagiarized material will be subject to the IEEE plagiarism policy and possible penalties, and will be rejected without review. IEEE policy on plagiarism can be found at https://www.ieee.org/publications/rights/plagiarism/plagiarism.html .

Presentation and Registration Requirements:

ICI-2022 has a requirement that at least one of the authors of any accepted paper must register for the conference at the full rate and be available to present the paper at the conference. However, the current circumstances are unusual and unpredictable and we take everyone's health very seriously.

We would prefer if one of the authors attends to present the paper physically. However, requests by authors to present papers remotely, without physical attendance will be accommodated. Any paper that is not presented by an author of the paper, either physically in-person or remotely, will be withdrawn from the proceedings and thus from IEEE Xplore.

Conference location: Jaypee Institute of Information Technology, A-10, Sector-62, NOIDA (Outskirts of New Delhi), India
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Track-1: Artificial Intelligence & Machine Learning

Bioinformatics and biomedical informatics	Trust aware collaborative learning	Fuzzy Learning
Healthcare and clinical decision support	Active Machine Learning	Kernel Based Learning
Collaborative filtering	Manifold Learning	Hybrid models
Computer vision	Multi-contextual behaviours of users	Genetic optimization
Human activity recognition	Learning using Ensemble and boosting strategies	Fuzzy approaches to parameter estimation
Information retrieval	Algebra, calculus, matrix and tensor methods in context of machine learning	Bayesian estimation approaches
Cybersecurity		Boosting approaches to Transfer learning
Natural language processing	Reinforcement Learning	Heterogeneous information networks
Web search	Optimization methods	Recurrent Neural Networks
Evaluation of Learning Systems	Parallel and distributed learning	Influence Maximization
Computational learning theory	Inference dependencies on multi-layered networks	Co-evolution of time sequences
Experimental evaluation	Recurrent Neural Networks and its applications	Social group evolution – dynamic modelling
Knowledge refinement and feedback control	Tensor Learning	Adaptive and dynamic shrinking
Scalability analysis	Higher-order tensors	Pattern summarization
Statistical learning theory	Self-organizing networks	Graph embeddings
Computational metrics	Multi-scale learning	Graph mining methods
Clustering, Classification and regression methods	Unsupervised feature learning	Structure preserving embedding
Supervised, semi-supervised and unsupervised learning	Automated response	Anomaly detection in streaming heterogeneous datasets
	Conversational Recommender systems	
Cold-start recommendation systems	Collaborative deep learning	Signal analysis

Track-2: IoT and Smart Systems

Smart Cities design using IoT	IoT and Cloud	IoT and Artificial Intelligence
Smart Home Automation Systems	IoT and Sustainable Developments	IoT and Deep Learning
Smart Healthcare Systems	IoT and Robotics	IoT and Cloud
Smart Agricultural Systems	IoT System Models and Performance Analysis	IoT and Big Data
Smart Manufacturing Systems	IoT Analytics	IoT and Block Chain Technologies
Smart Transportation Systems	Internet of Everything (IoE)	IoT and Connectivity
Smart Weather Prediction Systems	Security, Privacy and Trust issues in IoT	IoT and QoS
Smart Traffic Management Systems	IoT and Edge Computing	IoT and Drone Design
Smart Energy aware systems in IoT	IoT and Fog Computing	IoT and Sensors
Smart Systems using AI	IoT supports for Covid-19	IoT and Sensor Networks
Industrial IoTs	IoT and Machine Learning	IoT in Oil & Gas Sectors

Track-3: Cloud & Distributed Computing

Cloud Computing and Data Centers	System Integration, Virtual Compute Clusters Consolidation	Distributed graph algorithms
Cloud computing system and network design		Distributed machine learning and data science
Cloud storage design and networking	SDN, NFV, & Data Centre Network	Experimental evaluation of distributed algorithms and systems
Cloud system and storage security	Cloud Service Adaptation & Automation	
Cloud as a Service(IaaS, PaaS, and SaaS, Function as a Service, Network as a Service, Storage as a Service, Everything as a Service)	Cloud Federation & Service Composition	Formal methods for distributed computing: verification, synthesis and testing
	Cloud Security and Privacy	Game-theoretic and knowledge-based approaches to distributed computing
	The Open Cloud: Cloud Computing and Open Source	
Cloud Infrastructure	Trusted Cloud Environments	Massively-parallel, high-performance, cloud and grid computing
Cloud Computing System & Architectures	Distributed Big Data Systems and Analytics	
Edge Computing System & Architectures	Distributed Operating Systems and Middleware	Mobile agents, autonomous distributed systems, swarm robotics
Hybrid-clouds & Multi-clouds Integration	Distributed Algorithms and Theory	
Large Scale Cloud Applications	Distributed Fault Tolerance and Dependability	Multiprocessor and multi-core architectures and algorithms
Terminal-Edge-Cloud Applications	Distributed Green Computing and Energy Management	
5G/6G Enhanced Edge/Cloud Applications		Computation in IoT Systems
Social & Mobile Cloud Applications	Security, Privacy, Trust in Distributed Systems	Communications in IoT Systems
Innovative Cloud Applications	Distributed and Federated Machine Learning	IoT platforms
Cloud Management and Operations	Distributed Embedded Systems	Architectures for IoT
Distributed & Parallel Query Processing	Distributed Database Systems Distributed Quantum Computing	Applications and tools for IoT
Resource, Energy & Data Management		Security Solutions for IoT
Cloud Metering & Monitoring	Scalable Distributed Systems	
Virtualization in the Context of Cloud Computing Platforms	Biological and nature-inspired distributed algorithms	

Track-4: Big Data & Data Analytics

Data Acquisition	Feature Engineering	Streaming Data Analysis
Storage and Retrieval for Big Data	Data and Information Quality	Healthcare Applications
Data representation and processing	Data Granularity	Human and Social Behaviour Analysis
Data Mining	Metadata Management	Business, Finance and Decision Making
Data Fusion Models	Knowledge Discovery	Knowledge based Systems
Multi-level and Multi-view Modelling	Visualization	Real Time Data Intensive Systems
Spatial and Temporal Models	Large Scale Optimization	Feature Engineering
Multimodal Data Types (text, sensor data, graphs, images, video, streams, etc.)	Data Virtualization	Data and Information Quality
	Security, Privacy and Trust	Data Granularity
Acquisition, Storage and Retrieval for Big Data	Big Data applications	Data Security
Data representation and processing	Natural Language Processing	Social Media Security & Privacy

Track-5: Block Chain Technology

Blockchain for IoT	Non blockchain-based Distributed Ledgers	Cryptocurrencies
Blockchain based social media	Blockchain for wireless IoT/sensor networks	Blockchain for wireless IoT/sensor networks
Distributed supply chains	Security and privacy of blockchain-based IoT	Security and privacy of blockchain-based IoT
Blockchain based access control	New network architecture design for blockchain based IoT	New network architecture design for blockchain based IoT
Distributed notaries		
Blockchain in health care	Blockchain-enabled IoT ecosystem and its applications, e.g., finance, healthcare, energy, supply chain, entertainment, etc	Blockchain-enabled IoT ecosystem and its applications, e.g., finance, healthcare, energy, supply chain, entertainment, etc
Blockchain for telecommunications		
Blockchain novel applications		