ACMLT 2022

Special Session on Awareness Computing Based on Machine Learning Technologies

at the 14th Asian Conference on Intelligent Information and Database Systems (ACIIDS 2022)
Almaty, Kazakhstan, June 6-9, 2022
Conference website: http://www.aciids.pwr.edu.pl/

Special Session Organizers

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Objectives and topics

Awareness Computing is the ability of a system or system component to gather information about its environment at any given time and adapt behaviors accordingly. Awareness computing uses software and hardware to collect and analyze data to guide responses automatically. Awareness computing is a state for a subject to perceive the moment when relevant information arrives. It is not only essential for the survival of any living species but also a fundamental ability leading to higher-level intelligence. The objective of awareness computing, therefore, is to utilize computing technologies to build a system that is aware. More specifically, the goal of awareness computing is to incorporate the latest sensing capabilities of diverse signals with smart computing systems to stay in constant observing and awareness states, such as power-aware, location-aware, and context-aware, under a unified computational framework. Image understanding algorithms often enhance system awareness. Many deep learning algorithms are applied to image objects recognition. If we can integrate image recognition and awareness computing, many innovation applications will be fulfilling. This special issue focuses on related applications based on awareness computing systems and innovative machine learning technologies. The objective is to bring leading scientists and researchers together and create an interdisciplinary platform on computational theories, methodologies, and techniques. The scope of the special session ACMLT 2022 includes, but is not limited to the following topics:

- Deep learning on image processing for awareness applications
- Awareness computing for mind healthcare
- Machine learning models for awareness computing
- Awareness system and data analysis for Healthcare applications
- Social data for awareness applications
- Mining IoT data and web data clawer methods for awareness computing
- Image data collection and analysis for awareness computing
- The innovation of Apps for awareness applications
- Robot services for awareness applications
- The recommender system for awareness computing
- Reasoning with incomplete or uncertain information for awareness

- Intelligent computing and its applications on awareness
- Deep learning for awareness reasoning
- YOLO model for awareness applications
- Machine learning for awareness computing and cloud computing
- Subsampling and feature selection in multiple model machine learning
- Hybrid methods in prediction and classification for intelligent awareness
- Multi-objective ensemble learning for awareness
- Ensemble methods in agent and multi-agent systems for awareness
- Implementations of ensemble learning algorithms
- Assessment and statistical analysis of ensemble models for awareness
- Applications of ensemble methods in awareness

Important dates

Submission of papers: **January 15, 2022 (EXTENDED - HARD)**
Notification of acceptance: **March 1, 2022**
Camera-ready papers: **March 15, 2022**
Registration & payment: **March 15, 2022**
Conference dates: **June 6-9, 2022**

Program Committee (to be invited)

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All contributions should be original and not published elsewhere or intended to be published during the review period. Authors are invited to submit their papers electronically in pdf format, through EasyChair. All the special sessions are centralized as tracks in the same conference management system as the regular papers. Therefore, to submit a paper please activate the following link and select the track: ***ACMLT 2022: Special Session on Awareness Computing Based on Machine Learning Technologies.***

https://easychair.org/conferences/?conf=aciids2022

Authors are invited to submit original previously unpublished research papers written in English, of up to 13 pages, strictly following the LNCS/LNAI format guidelines. Authors can download the Latex (recommended) or Word templates available at Springer's web site. Submissions not following the format guidelines will be rejected without review. To ensure high quality, all papers will be thoroughly reviewed by the ACMLT 2022 Program Committee. All accepted papers must be presented by one of the authors who must register for the conference and pay the fee. The conference proceedings will be published by Springer in the prestigious series LNCS/LNAI (indexed by ISI CPCI-S, included in ISI Web of Science, EI, ACM Digital Library, dblp, Google Scholar, Scopus, etc.).