Special Sessions Call for Papers

The 26th International Conference on Technologies and Applications of Artificial Intelligence (TAAI)

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Session Title: *Awareness Computing based on Machine Learning Technologies (ACMLT)*

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.

Topics/Areas

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 2021 includes, but is not limited to the following topics:

1. Deep learning on image processing for awareness applications
2. Awareness computing for mind healthcare
3. Machine learning models for awareness computing
4. Awareness system and data analysis for Healthcare applications
5. Social data for awareness applications
6. Mining IoT data and web data clawer methods for awareness computing
7. Image data collection and analysis for awareness computing
8. The innovation of Apps for awareness applications
9. Robot services for awareness applications
10. The recommender system for awareness computing
11. Reasoning with incomplete or uncertain information for awareness
12. Intelligent computing and its applications on awareness
13. Deep learning for awareness reasoning
14. YOLO model for awareness applications
15. Machine learning for awareness computing and cloud computing
16. Subsampling and feature selection in multiple model machine learning
17. Hybrid methods in prediction and classification for intelligent awareness

Accepted papers will be submitted for inclusion into the IEEE Digital Library (IEL) and Scopus Database. Selected papers from the international track will be invited to submit an extended version for a special issue in the Journal of Information Science and Engineering (JSIE, indexed by SCIE), special issue "The Applications of Context Awareness Computing and Image Understanding" of applied sciences (indexed by SCIE) and   special issue of   "Recent Topics of Climate Vulnerability: Statistics, Machine Learning, and Data Science, from Theory to Application" of Atmosphere(SCIE) after the conference. Please note that papers must submit via the submission system website and meet the format of TAAI2021.