2023 OkIP International Conference on Automated and Intelligent Systems (CAIS)

Monday, 2 October 2023 - Thursday, 5 October 2023

Tiako Center, Oklahoma City, OK, USA & Online

Scientific Tracks

AI, Machine Learning (ML), and Applications

General ML | Active/Supervised Learning
Clustering/Unsupervised Learning
Online Learning | Learning to rank
Reinforcement Learning | Deep Learning (DL)
Semi/Self Supervised Learning
Time Series Analysis | Prediction/Forecasting
DL Architectures/Generative-Models
Deep Reinforcement Learning
Computational Learning Theory
Bandit/Game/Statistical-Learning Theory
Optimization Methods and Techniques
Convex/Non-Convex Optimization
Matrix/Tensor Methods
Stochastic/Online Optimizations
Non-Smooth/Composite Optimization
Probabilistic Inference | Graphical Models
Bayesian/Monte-Carlo Methods
Trustworthy Machine Learning
ML Accountability/Causality
ML Fairness/Privacy/Robustness
Healthcare/DNA/Transportation
Digital-Economy | Ecommerce Security
Sustainability | Energy | Green Technology
Language | Image
Recommendation Systems

Agent-based, Automated, and Distributed Supports

Multi-Agent Systems | Software Agents
Dialogue System | Conversational Agent
Decentralized/Distributed Intelligence
Context-Aware Computing
Group Decision Support Systems
Intelligent Structures/Networks
Design/Automation Approaches
Sensor Networks Architectures
Complex Manufacturing Processes
Analytical Models | Path Planning
Multistage Assembly Line
Automated Inspection
Natural Language Processing

Natural Language Processing (NLP)

Conversational Agents | Dialogue System
Large Language Models | Grammatical Tagging
Natural Language Generation/Toolkit
Linguistic Morphology | Morphological Analysis

Morphemesx Characteristics
Language Models and Smoothing
Document/Topic Classification/Notation
Sequence Labeling |Speech Tagging
Named Entity Recognition
Lexical Semantics | Word Embeddings
Phrase Structure | Dependency Syntax
Sentence Semantics | Speech Recognition
Question Answering | Machine Translation
Document Summarization | Sentiment analysis
Co-Reference Resolution
Word sense disambiguation
NLP Tools/Approaches | Statistical NLP
AI/Machine/Deep Learning Techniques for NPL
Convolutional/Recurrent Neural Networks

Intelligent Systems and Applications

Medical Nanorobotics |
Sensory/Embedded Systems
Embedded Systems | Digital Manufacturing
Optimization/Evolutionary Algorithms
Bioinformatics/Biotechnology Applications
Computer-Vision Applications
Sensor-Networks Applications
Intelligent Design | Fuzzy Systems
Soft/Ubiquitous Computing
Pervasive/Wearable Computing
Intelligence Manufacturing | Microsatellite
Cyber-physical Systems | Kinematics

Knowledge-based and Control Supports

Expert/Complex Systems
Decision-Support Systems
Intelligent Control/Supervision Systems
Knowledge Engineering
Neural Networks | Structural Optimization
Intelligent Teleoperation
Intelligent Shopfloor
Collision Avoidance | Fault Diagnosis
Object Detection and Tracking | Path Planning
Position/Quality/Motion Control
Predictive Control
Preventive Maintenance | Defect Detection

Robotics and Vehicles

Unmanned Vehicles/Robots
Autonomous Vehicles/Robots

Human-Robot Interfaces
Human-Robot Interactions
Intelligent Telerobotics | Service Robots
Robotic Manipulators/Arms
Robotic Applications
Self-Driving Vehicles | Cloud-based Driving
Vehicular ad hoc Networks |Traffic Detection