

## About the Conference

This Topical Area covers a wide range of core aspects of intelligence systems, with a particular focus on AI. Nowadays, AI is usually perceived as closely related to the data, therefore, the scope of this Topical Area includes, among others, elements of machine learning, data science, and big data processing, with important emerging aspects such as interactive learning and human-centered AI, as well as interpretable learning, explainable AI, and trustworthiness. Furthermore, since the realm of AI is far richer, the ultimate goal of this Topical Area is to show relationships between all of the currently pursued AI subareas, emphasizing a cross-disciplinary nature of various research branches. From the perspective of the general scope of FedCSIS, this Topical Area embraces AI methods and examples of their applications in different practical fields.

The aim of this Topical Area is to bring together scientists and practitioners to discuss their latest results and ideas in all areas of Artificial Intelligence. We hope that successful applications presented here will be of interest to researchers who want to know about both theoretical advances and latest applied developments in AI.

Papers related to theories, methodologies, and applications in science and technology in the field of AI are especially solicited. Topics covering industrial applications and academic research are included, but not limited to:

### 1. Reasoning, Knowledge Representation, and Decision Making

Decision Support

Fuzzy Sets and Soft Computing

Rough Sets and Approximate Reasoning

Bayesian Networks and Bayesian Reasoning

Case-based Reasoning and Similarity

### 2. Machine Learning, Data, and Knowledge Discovery

Machine Learning

Neural Networks and Deep Learning

Reinforcement Learning

Evolutionary Algorithms and Evolutionary Computation

Generative AI and Diffusion Models

Zero-Shot and Few-Shot Learning

Foundation Models and Large Language Models (LLMs)

Quantum Machine Learning

Federated Learning and Privacy-Preserving AI

Data Mining and Knowledge Discovery

Data Modeling and Feature Engineering

Data Integration and Information Fusion

### 3. Applications, Systems, and Domains

Hybrid and Hierarchical Intelligent Systems

Web Mining and Social Networks

Business Intelligence and Online Analytics

Robotics and Cyber-Physical Systems

AI for Combinatorial Games, Video Games and Serious Games

AI-centered Systems and Large-Scale Applications

AI for Autonomous Systems and Self-Driving Technologies

## Digital Twins and Virtual Environments

### 4. Explainability, Ethics, and Governance

Explainable and Interpretable AI (XAI)

Human-Centered AI

#### Topical Area Curators

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Related Thematic Sessions: The following Thematic Tracks at IEEE FedCSIS are related to this Topical Area:

AgriAI – AI in Agriculture

CNLPS – Challenges for Natural Language Processing

CO – Computational Optimization

SLSAS – Self Learning and Self Adaptive Systems

#### Submission rules

Authors should submit their papers as Postscript, PDF or MSWord files.

The total length of a paper should not exceed 12 pages IEEE style (including tables, figures and references). More pages can be added, for an additional fee. IEEE style templates are available.

Papers will be refereed and accepted on the basis of their scientific merit and relevance to the Topical Area.

Preprints containing accepted papers will be published online.

Only papers presented at the conference will be published in Conference Proceedings and submitted for inclusion in the IEEE Xplore® database.

Conference proceedings will be published in a volume with ISBN, ISSN and DOI numbers and posted at the conference WWW site.

Conference proceedings will be submitted for indexation according to information here.

Organizers reserve right to move accepted papers between FedCSIS Sessions.

## Topics of Interest

2 topics

Research papers are invited in, but not limited to, the following areas:

- [Data Science & Analytics](#)
- [Uncategorized](#)

## Important Dates

Sep 14

Conference Date

September 14-17, 2025

Providing global research dissemination and event management services.