

AIRE'24: 11th International Workshop on Artificial Intelligence and Requirements Engineering

Workshop held in conjunction with



32nd IEEE International
Requirements
Engineering
Conference
24-28 June 2024
Reykjavik, Iceland

AIRE'24: Call for Papers

Motivation and Goals

Requirements engineering (RE) poses a multitude of challenges which all impact the subsequent software development processes. The ever-increasing complexity and scale of software systems exacerbates these challenges and necessitates automatic support. Techniques from the vast landscape of artificial intelligence (AI) have shown significant success in providing this automatic support.

In the past, AI techniques like natural language processing (NLP), information retrieval (IR), and machine learning (ML) have been demonstrated to meet many of the aforementioned challenges in RE. The advent of large language models (LLMs) constitutes another opportunity for leveraging AI techniques to aid the RE phase. The International Workshop on Artificial Intelligence and Requirements Engineering (AIRE) aims to foster research applying AI techniques to RE problems, but also applying RE techniques to the development of AI-based systems. To this end, AIRE invites researchers and practitioners alike to present, review, and discuss the state of the art synergy between AI and RE.

Key Topics

We solicit submissions across the entire spectrum of the application of AI techniques to RE. Topics of interest include but are not limited to:

- RE quality models and their automation
- Natural language processing and comprehension
- Natural language semantics, understanding and generation
- Machine learning techniques including supervised, unsupervised, and machine-human interactions
- Artificial neural networks, deep learning
- Detection of uncertainties and ambiguities
- Logic-based reasoning techniques
- Knowledge acquisition and representation
- Agent-based solutions
- Problem solving and decision making support mechanisms
- Optimization techniques
- Automated approaches for prioritization
- RE for machine learning-based systems
- RE to support explainable AI
- RE for AI-based safety-critical systems
- RE for energy-efficient and sustainable AI

Submissions

AIRE seeks submissions containing original research in the following formats:

- **Research papers** (short paper: max. 4 pages, long paper: 7-10 pages) describing ongoing research within the entire spectrum of AI and RE
- **Position papers** (max. 4 pages) fostering discussions on hot, relevant topics
- **Demo papers** (max. 2 pages plus 2 pages for screenshots) describing novel tools for AI and RE (including a demonstration plan)
- **Lightning talks** (max. 1 page) about a related, maybe controversial topic

Each submission will be peer-reviewed by three reviewers. More details are available online at <https://aire-ws.github.io/aire24/>.

Important Dates

Abstracts: March 20th, 2024
Full paper: March 27th, 2024
Notification: April 29th, 2024
Camera-ready: May 6th, 2024
Workshop: June 25th, 2024

Co-Organizers

Chetan Arora, Monash University, Australia
Fatma Bařak Aydemir, Boğaziçi University, Turkey
Julian Frattini, Blekinge Institute of Technology, Sweden

Program Committee Members

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Nicolas Sannier, University of Luxembourg, Luxembourg
Michael Unterkalmsteiner, BTH, Sweden
Andreas Vogelsang, University of Cologne, Germany

