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Call for Contributions
3rd International Workshop on Artificial Intelligence Safety Engineering
(WAISE2020), associated to SAFECOMP

Lisbon, Portugal, September 15, 2020 (Online due to COVID-19)

Paper submission deadline: 24 May 2020

<https://www.waise.org>

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The Workshop on Artificial Intelligence Safety Engineering (WAISE) explores new ideas on safety engineering for AI-based systems, ethically aligned design, regulation and standards for AI-based systems. In particular, WAISE will provide a forum for thematic presentations and in-depth discussions about safe AI architectures, ML safety, safe human-machine interaction, bounded morality and safety considerations in automated decision-making systems, in a way that makes AI-based systems more trustworthy, accountable and ethically aligned.

WAISE aims at bringing together experts, researchers, and practitioners, from diverse communities, such as AI, safety engineering, ethics, standardization and certification, robotics, cyber-physical systems, safety-critical systems, and application domain communities such as automotive, healthcare, manufacturing, agriculture, aerospace, critical infrastructures, and retail.

The workshop proceedings will be provided as a complimentary book to the SAFECOMP Proceedings in Springer Lecture Notes in Computer Science (LNCS) series, same as in previous years.

TOPICS

Contributions are sought in (but are not limited to) the following topics:

- * Regulating AI-based systems: safety standards and certification
- * Safety in AI-based system architectures: safety by design
- * Runtime AI safety monitoring and adaptation
- * Safe machine learning and meta-learning
- * Safety constraints and rules in decision-making systems
- * AI-based system predictability
- * Testing, verification and validation of safety properties
- * Avoiding negative side effects
- * Algorithmic bias and AI discrimination
- * Model-based engineering approaches to AI safety
- * Ethically aligned design of AI-based systems
- * Machine-readable representations of ethical principles and rules
- * Uncertainty in AI
- * Accountability, responsibility and liability of AI-based systems
- * AI safety risk assessment and reduction
- * Confidence, self-esteem and the distributional shift problem
- * Reward hacking and training corruption
- * Self-explanation, self-criticism and the transparency problem
- * Safety in the exploration vs exploitation dilemma
- * Simulation for safe exploration and training
- * Human-machine interaction safety
- * AI applied to safety engineering

- * AI safety education and awareness
- * Shared autonomy and human-autonomy teaming
- * Experiences in AI-based safety-critical systems, including industrial processes, health, automotive systems, robotics, critical infrastructures, among others

SUBMISSION GUIDELINES

You are invited to submit full scientific contributions (max. 12 pages), short position papers (max. 6 pages) or proposals of technical talk/sessions (short abstracts, max. 2 pages). Please keep your paper format according to Springer LNCS formatting guidelines (single-column format). The Springer LNCS author kit can be downloaded from:

<https://www.springer.com/gp/computer-science/lncs/conference-proceedings-guidelines>

Manuscripts must be submitted as PDF files via EasyChair online submission system: <https://easychair.org/conferences/?conf=wise2020>

All papers will be peer-reviewed by the Program Committee (minimum of 3 reviewers per paper). The workshop follows a single-blind reviewing process.

ORGANIZING COMMITTEE

- * Orlando Avila-García, ATOS, Spain
- * Mauricio Castillo-Effen, Lockheed Martin, USA
- * Chih-Hong Cheng, DENSO, Germany
- * Zakaria Chihani, CEA LIST, France
- * Simos Gerasimou, University of York, UK

VENUE

WAISE is a satellite event of SAFECOMP. Due to the COVID-19 pandemic, both the conference and WAISE will be held virtually (with greatly reduced fees). The accepted papers will nonetheless be published along with the SafeComp proceedings, as usual. The precise procedure for broadcasting the virtual workshop is still under discussion (live presentations, pre-recorded videos, etc). Please visit the WAISE website for up-to-date information.

IMPORTANT DATES

- * Full paper submission: **24 May 2020**
- * Notification of acceptance: **10 June 2020**
- * Camera-ready submission: **15 June 2020**

CONTACT

All questions about submissions should be emailed to "wise2020 (at) easychair (dot) org"