INTERNATIONAL

RAI

INVITED SESSION SUMMARY

Title of Session:
RAI – Robust Artificial Intelligence

Name, Title and Affiliation of Chair:
Aya Saad, Research Scientist,
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Details of Session (including aim and scope):

Aim
Methods in AI for robotic control, mobile platforms, and cognitive cyber-physical systems are developing rapidly. They tackle the challenging task of modeling real-world systems and environments through data, using machine vision, reinforcement learning for control, probabilistic machine learning, among many others. Such data-driven approaches have led to many concerns regarding the robustness, stability, and overall safety of these systems.

While data-driven approaches based on learning algorithms have seen huge success in the last decade, when applied to cyber-physical systems such as manufacturing applications and healthcare robotics, the lack of safety guarantees causes trust issues. A central challenge is defining and implementing robustness for different applications and providing methods for analyzing and verifying models. The focus of this session is to investigate the diverse meaning of robust AI and gathers a wide array of approaches to the problem.
The proposed invited session provides a forum for bringing together researchers from academia and industry to explore and present their findings in Robust Artificial Intelligence with theories, systems, technologies, and approaches for testing and validating them on challenging real-world, safety-critical applications.

Topics

Research papers on all aspects of Robust AI. Topics include, but are not limited to:

- Knowledge-driven models
- Reasoning-based methods
- Robustness analysis
- Trustworthiness
- Machine learning biases
- Adversarial attacks and security
- Cognitive models and bio-inspired AI
- Hybrid-models
- Explainable AI

Review Procedure
The conference review committee has agreed upon the use of a double-blind process prior to accepting papers. Visit http://kes2023.kesinternational.org/prose.php to submit and track your paper using PROSE.

Papers are required in PDF format; however, each must be accompanied by the source text, either in Latex or MS Word.

Important Deadlines
• Paper submission deadline: **TBD**

• Notification of Acceptance: **TBD**

• Camera ready: **TBD**

Proceeding and Publishing Issues

Authors who submit and present their work will have their work published and indexed internationally by Elsevier's Procedia Computer Science (http://www.journals.elsevier.com/procedia-computer-science/).

Main Contributing Researchers / Research Centres (tentative, if known at this stage):

Website URL of Call for Papers (if any):
https://sites.google.com/view/robustai/home

Email & Contact Details:
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