



Call for Papers

IEEE Aerospace and Electronic Systems Magazine

Special Issue on

Ethics, Values, Laws, and Standards for Responsible AI

June 2023

Dear Colleagues,

Artificially intelligent automation is permeating Aerospace and Electronic Systems. Functions that were previously performed by the 'Natural Intelligence' of conscious users and their deliberate decisions of will are increasingly fulfilled by cognitive machines and executed in a partially or highly automated manner. In many cases, these AI-based systems operate more reliably, safely, and resiliently.

But how do human users remain mentally, morally, and psychologically equal to the power, which artificial intelligent machines give them? How can humans be supported to retain the ultimate authority in mission execution? And how can aerospace and electronic systems engineers shape the technosphere that surrounds us in such a way that it serves people and their goals, and not vice versa?

The IEEE Aerospace and Electronic Systems (AESS) will publish a **Special Issue** of its magazine focusing on these questions from interdisciplinary perspectives. We cordially invite you and your colleagues, recognised experts in the field of Artificial Intelligence and its applications, to submit contributions from mathematical, engineering, philosophical, legal, societal, and political domains and perspectives.

There is a pressing need to uncover ethically relevant problems early in the technical design phase and as systematically as possible. This requires that we identify the core values, value qualities, and value dispositions that make it possible to approve artificially intelligent systems for safe use. We therefore also encourage papers on standardization and certification of AI, as well as on Explainable AI (XAI).

With more than 2000 delegates from over 80 nations, the Summit on Responsible AI in the Military Domain (REAIM) 2023 was the largest global event dealing with topics of this special issue. In **Spring 2025**, REAIM will take place in South Korea. The Special Issue will be published for **REAIM 2025**.

If you plan to submit a paper, please reply with a **working title and a very short abstract** by **October 1, 2023** to w.koch@ieee.org. The deadline for submission of your paper is **April 1, 2024**. Please submit it to w.koch@ieee.org according to the IEEE instructions here: <https://ieee-aess.org/publications/systems-magazine/special-issue-guidelines>. Short papers are encouraged. The peer-review process will take three months. Authors will be notified by **July 1, 2024**. Based on the feedback of the reviewers, authors are to submit their final version by **October 1, 2024**.

Special Guest Editors

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