

IEEE Design&Test

Call for Papers for a Special Issue on Special Issue on Ethics in Computing

Aim and Scope

Computing systems are tightly integrated today into our professional, social, and private lives. These systems span the gamut of wearables and smart home Internet of Things (IoT) edge devices, to automotive cyber-physical systems (CPS), and massive cloud computing data center facilities. An important consequence of this growing ubiquity of computing is that it can have significant ethical implications of which computing professionals should take account. In most real-world scenarios, it is not immediately obvious how particular technical choices could be viewed from an ethical perspective. A growing number of professional computer engineers and scientists are becoming interested in the social and ethical consequences of their technical choices at work to ensure that computing can realize its potential benefits while preserving the core moral principles of human rights, justice, responsibility, privacy, and autonomy. A clear understanding of ethics is therefore a key component of the professional status that professional bodies such as the IEEE and ACM aspire to. Such an understanding is vital for members of these professional societies who encounter ethical dilemmas during research, design, development, and implementation of computing technologies. However, there is a lack of common understanding today of the key components of the ethics of computing as perceived and put in practice by the communities of computing scholars and practitioners. This special issue aims to raise awareness of emerging ethical issues with current and emerging computing technologies and their widespread use.

Topics of Interest

This special issue is dedicated to ethics in computing. It aims to cover diverse aspects of theory, practice, experiences, and open challenges related to ethical design, test, and use of computing platforms. The scope spans the entire silicon ecosystem from technology, foundry, design, EDA, test, verification and debug to in-field deployment, and integration into IoT, CPS, edge, and cloud computing platforms. The specific topics of interest include but are not limited to:

- Ethical design of computing chips
- Ethical design of cyber-physical systems, e.g., automotive, UAVs
- Ethical Internet of Things (IoT) design
- Ethics of AI and machine learning computing systems
- Ethical and sustainable semiconductor processes
- Ethical computing lifecycle management
- Ethical design with emerging technologies, e.g., Quantum computing
- Ethics in computing education

Submission Guidelines

Prospective authors should follow the submission guidelines for IEEE Design & Test. All manuscripts must be submitted electronically to IEEE Manuscript Central at <https://mc.manuscriptcentral.com/dandt>. Indicate that you are submitting your article to the “*Special Issue on Ethics in Computing*”. Manuscripts must not exceed 5,000 words, including figures (with each average-size figure counting as 200 words) and a maximum of 12 references (30 for surveys). This amounts to about 4,000 words of text and a maximum of five small to medium figures. Accepted articles will be edited for clarity, structure, conciseness, grammar, passive to active voice, logical organization, readability, and adherence to style. Please see IEEE Design & Test Author Information at: <https://iee-ceda.org/publication/ieee-design-test-dt/author-info>.

Schedule

- Open for submissions : November 1, 2022
- Submission deadline : February 1, 2023
- Notification First Round : April 15, 2023
- Revision submission : April 30, 2023
- Final decisions : June 15, 2023
- Tentative publication : Fall 2023

Guest Editors

- **Sudeep Pasricha**, Colorado State University, USA
- **Marilyn Wolf**, University of Nebraska, Lincoln, USA

For questions and further information, please contact the lead guest editor at: sudeep@colostate.edu