Elsevier High-Confidence Computing Journal

CFP for the Inaugural Issue

Driven by the recent developments of digital transformations and high-fault-tolerant systems, High-Confidence Computing (HCC) was coined as a new computing paradigm that crosses and fusions the key properties of securing computing, precise computing, and intelligent computing to support the next-generation information systems such as smart-city, smart-society, and autonomous driving. HCC technologies rely on interdisciplinary methodologies to realize secure and trusted software/hardware, precise and process-traceable algorithms, and self-evolving designs that can adapt to new environments and support new applications. Information systems possessing HCC properties can provide collaborative services that are otherwise impossible as security, traceability, accountability, reliability, robustness, extensibility, adaptivity, and self-evolution are all desired and equally-important properties of modern complex systems.

The Elsevier HCC Journal is dedicated to publishing rigorously peer-reviewed, high-quality original articles covering fundamental research outcomes that fusion the three domains of secure computing, precise computing, and intelligent computing, as well as complex system designs that jointly consider the properties of secure and trusted hardware/software, precise and process-traceable algorithms, and self-evolving systems that can adapt to new environments and support new applications. The journal intends to provide a unique interdisciplinary platform for researchers and practitioners who are interested in the basic research of high-confidence computing and the complex system developments considering high-confidence properties to demonstrate their novel and creative designs. Other than the original research papers on all aspects of high-confidence computing from theory and applications, the journal also publishes review articles with inspiring open research discussions that can motivate new ideas of realizing high-confidence computing.

The Inaugural Issue of the Elsevier HCC Journal will be published in the first Quarter of 2021. Relevant topics include, but are not limited to:

- Expandable and accountable computing architectures
- SDN-enabled and blockchain-enhanced computing architectures
- NFV for dynamic function expansion and adaptation
- Access control to secure open computing environments
- TEE-enabled trusted data collection and hardware control
- Cryptographic high-confidence primitives and applications
- High-confidence system security and privacy
- Active defence technologies
- Malicious, damaged and white-noise data cleaning and extraction
- Spatial-temporal big data fusion for intelligent decision making
- Migration learning and digital-twin technologies
- Cascading failure detection and recovery
- Cascading vulnerability detection and positioning
- Modelling, analysis, and measurement of high-confidence
- Testbed and empirical studies

Important Dates:

Submission Deadline: August 1, 2020
First Round Review Due: October 1, 2020
Revision Due: November 1, 2020
Acceptance Notification: November 30, 2020
Final Manuscript Due: December 31, 2020
Publication Date: March 1, 2021

Submission Guidelines:

Authors should prepare their manuscript according to the guide at https://www.journals.elsevier.com/information-sciences/policies/preparing-documents-with-latex1. All the papers will be peer-reviewed following a regular reviewing procedures. Please submit your manuscript to HCC.Elsevier@gmail.com

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