

Special Issue on Software Dependability

Call for Papers

As networked computing systems pervade every aspect of the modern information society, we are increasingly faced with serious threats to dependability due to problems caused by accidental events such as human mistakes, physical malfunctions and unpredictable interactions among subsystems, and by intentional human behavior being either malicious or non-malicious. With significant increases in system complexity and rapid changes in system technologies and environments, what we need is to take a cross-layer full-system-design approach to achieving dependability of the information society that consists of multiple layers including information systems at a lower level, infrastructures at a middle level and service activities at a higher level. In this talk, we identify currently existing research gaps in the dependable computing community, discuss major challenges, and give views of future directions in research on dependability of an evolving "system of systems" toward trusted information society.

In this special issue, we intend to invite front-line researchers and authors to submit original research and review articles on exploring **Software Dependability**.

Topics of interest for submissions include (but are not limited to):

- Software and hardware reliability, testing, verification, and validation
- Dependability measurement, modeling, and evaluation
- Security quantification
- Self-healing, self-protecting, and fault-tolerant systems
- Software aging and rejuvenation
- Safety-critical systems and software
- Architecture and system design for dependability
- Fault-tolerant algorithms and protocols
- Tools for design and evaluation of dependable systems
- Reliability in Internet and web systems and applications
- Internet Information security
- Dependability issues in computer networks and communications
- Dependability issues in distributed and parallel systems
- Dependability issues in real-time systems, database, and transaction processing systems
- Dependability issues in autonomic computing
- Dependability issues in embedded systems

Authors should read over the journal's [Author's Guidelines](#) carefully before submission, Prospective authors should submit an electronic copy of their complete manuscript through the journal [Paper Submission System](#).

Please kindly notice that the "**Special Issue**" under your manuscript title is supposed to be specified and the research field "**Special Issue — Software Dependability**" should be chosen during your submission.

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