Special Issue

Software Reliability Research: From Model to Test

Message from the Guest Editor

Software reliability engineering (SRE) is an area of engineering that aims to design and implement an IT infrastructure that is reliable in operation, i.e., resilient to faults. Since the IT ecosystem may consist of different software, hardware, networks, and humans in different roles, SRE defines various complex research and development tasks. The process starts with domain analysis and modeling, and it ends with testing and measurement in the production environment. Modern systems might allow different kinds of mobility of their subsystems or components, respectively. This option opens the research question of the effectiveness of these model subsystems' energy consumption or the question of effective energy consumption distribution across the whole ecosystem, respectively. In addition to this, research should be partially focused on using various artificial intelligence techniques to support these processes as well.

Through this SI, we will reveal suitable reliability modeling, analysis, and testing techniques that adopt novel approaches from various areas of computer science and engineering. We would like to foster an open discussion on using predictive methods in SRE.

Guest Editor

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Deadline for manuscript submissions

closed (15 March 2025)

Electronics

an Open Access Journal by MDPI

Impact Factor 2.6
CiteScore 6.1

mdpi.com/si/214444

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Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

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