

# **Call for Papers**

## **IEEE Reliability Newsletter**

### **Special Issue ‘Software Reliability: Theory & Applications’**

A special issue of the IEEE Reliability Newsletter, Software Reliability: Theory & Applications, will be published in August 2017. Modern society increasingly depends on software for a variety of services and it is anticipated that software will continue to transform our lives in previously unimagined ways. Thus, the reliability of software and related attributes such as availability and security are essential for the smooth functioning of work and play on a day-to-day basis.

Software can benefit from a host of techniques from standards based on best practices to mathematical techniques to quantify reliability. The goal of such activities include the improvement of a product’s quality and reduction of the risks associated with software failures. However, the demand for software has dramatically outpaced our ability to produce flawless software. Therefore, methods to ensure software is reliable must be applied throughout the software development lifecycle.

The special issue on software reliability seeks original contributions on topics related to both theory and practice. Papers will be reviewed and selected based on novelty, technical correctness, and practical relevance. Topics of interest include but are not limited to:

#### **Topics:**

- Reliability, security, availability, and safety of software systems
- Software testing, verification and validation
- Standards for software reliability
- Software requirements
- Program debugging and comprehension
- Fault tolerance for software reliability improvement
- Modeling, prediction, simulation, and evaluation
- Metrics, measurements, and analysis
- Tools to apply techniques from software reliability
- Case studies that provide novel insight

#### **Submission guidelines:**

The typical length of a paper is 4-6 pages. More instructions are available at IEEE Reliability website at <http://rs.ieee.org/reliability/paper-submission.html>.

#### **Important dates:**

**Submission deadline:** April 15, 2017

**Notification:** May 15, 2017

**Camera Ready Copy:** July 1, 2017

#### **Special issue editor:**

Prof. Lance Fiondella, University of Massachusetts Dartmouth. (lfiondella@umassd.edu)