IEEE Internet of Things Journal Special Issue on: Software Engineering Research and Practices for the Internet of Things

IoT systems are composed of software systems that enable solutions for device connectivity, device management, data management, application development, and advanced analytics for/from connected IoT systems. Software engineering is vital for IoT to design systems that are secure, interoperable, modifiable, and scalable. However, there is no consensus of crucial questions like what are the best practices for developing projects for IoT, how to select the best architecture, which communications protocols are the most suitable, and what are the best practices in terms of security. Topics of interest include (but not limited to):

- Software engineering (SE) practices in IoT projects
- Software security and reliability in IoT products
- Architecture and design models and techniques in IoT projects
- Software quality management in IoT projects
- Usability aspects in IoT projects
- Software development tools, platforms, and environments for IoT Teaching
- SE practices in industrial IoT (IIoT) SE practices in domain-specific IoT projects, e.g., smart city, retail, logistics, healthcare, transportation, utilities

- SE methods and techniques for IoT projects
- Risk and valuation techniques for software development in IoT projects
- Big data and analytics in IoT projects
- Context-awareness.
- Model-based SE for IoT projects
- SE practices for IoT projects
- Software orchestration for IoT
- IoT Communication protocols
- Robotics
- Green and eco-friendly software for IoT
- Context-aware software for IoT
- Local, edge, and cloud based IoT services

Important deadlines

Submission deadline: October 15th, 2019 Acceptance Notification: March 15th, 2020

First review Due: January 1st, 2020 Final Manuscript Due: April 1st, 2019

Revision Due: February 15th, 2020 Final Manuscript Due: April 1st, 2019

Publication Date: 2020

Submission

Authors need to follow the manuscript format and allowable number of pages described at: http://ieee-iotj.org/guidelines-for-authors/. To submit a manuscript for consideration for the special issue, please visit the journal submission website at:

https://mc.manuscriptcentral.com/iot
. During the submission, select the special issue and also state the title of the special issue: "SI: Software Engineering Research and Practices for the Internet of Things" in the cover letter. Articles will be published online immediately after acceptance.

Guest Editors

- Yann-Gaël Guéhéneuc (Concordia University, Canada)
 vann-gael.queheneuc@concordia.ca
- Shah Rukh Humayoun (Tufts University, USA) humayoun@cs.tufts.edu
- Rodrigo Morales (Concordia University, Canada) rodrigomorales2@acm.org
- Rubén Saborido (University of Málaga, Spain) <u>rsain@uma.es</u>
- More information: https://moar82.github.io/ieee-ioti-si-serp4iot