CALL FOR ARTICLES

Software Engineering for the Internet of Things

PUBLICATION: January/February 2017
SUBMISSION DEADLINE: 1 June 2016

The Internet of Things (IoT) implies a wide set of intertwined and interconnected devices and things to provide value to stakeholders. In this sense, software engineering plays a key role. This theme issue will emphasize software’s role in the IoT and the specific challenges to overcome for success.

We seek articles reporting case studies, experience reports, practices, approaches, techniques, and guidelines. In particular, we seek articles on these topics:

- the IoT’s major software engineering challenges: high reactivity, scalability, heterogeneity, configurability, resource-constrained systems, and robustness;
- software methods and development techniques for the IoT (including agile methods, other new development approaches, and specific tradeoffs);
- software architectures dealing with complex interactions, interoperability gaps, and data mining for reasoning about the environment and software interactions;
- tools, platforms, and environments for developing software for the IoT;
- continuous-engineering solutions for the IoT;
- the IoT’s social and organizational aspects;
- quality in the IoT: verification-and-validation challenges for IoT software;
- teaching the IoT: building a core software engineering curriculum for IoT developers;
- social impacts of the IoT related to software engineering;
- experience reports on software development challenges for the IoT and takeaways;
- software engineering challenges for mission-critical IoT systems; and
- applications to vertical sectors such as energy, vehicles, and healthcare.

GUEST EDITORS:

- Xabier Larrucea Uriarte, Tecnalia, xabier.larrucea@tecnalia.com
- Annie Combelles, inspearit, annie.combelles@inspearit.com
- John Favaro, Intecs, john.favaro@intecs.it
- Kunal Taneja, Google, taneja.kunal@gmail.com

For author guidelines and submission details, contact the publications administrator at software@computer.org or go to www.computer.org/software/author.htm. A detailed call is at www.computer.org/web/computingnow/swcfp1.