



The 3rd IEEE International Conference on Fog and Edge Computing (ICFEC 2019)

May 14th-17th, 2019, Larnaca, Cyprus

In conjunction with IEEE/ACM CCGrid 2019 (19th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing)

URL: <http://www.cloudbus.org/fog/icfec2019/>

The organizing committee is delighted to invite you to Larnaca, Cyprus for the 3rd IEEE International Conference on Fog and Edge Computing. The Conference will be held as part of/in conjunction with [IEEE/ACM CCGrid 2019](#), which is sponsored by the [IEEE Computer Society](#) and Association for Computing Machinery ([ACM](#)).

Call for papers

The Internet of Things (IoT) paradigm is incorporating “things” from the physical world into the Internet environment to enhance the monitoring and intelligent control of physical, digital and social systems. Such things include smart infrastructures like power grids with sensing and actuation capabilities, mobile platforms like smart phones and vehicles, and consumer electronics and appliances such as refrigerators and healthcare devices. In cloud-centric IoT applications, the observational streams from these things at the edge of the network are extracted, accumulated and processed centrally at public/private clouds, and the responses are communicated back to the things, leading to significant latencies and bandwidth costs.

To satisfy the ever-increasing demand for computing resources from emerging applications such as IoT, academics and industry experts are now advocating to supplement large cloud data centers with micro data centres. These micro data centres, also called Fogs, are located at the edge of the network, closer to a user (in the spatial and/or network topology) than cloud data centres. Further, edge devices such as smart phones and gateways themselves have non-trivial compute capacity and are even closer to the user. As a result, it is possible to utilize such edge and fog resources to off-load computation that would traditionally have been carried out at the cloud.

Referred to as “Fog/Edge computing”, this paradigm is expected to improve the agility of cloud service deployments, make use of opportunistic and cheap computing, and leverage the network latency and bandwidth diversities between these resources. On the one hand, the development of fog and edge computing infrastructure requires examining operating systems, virtualization and containers, and middleware techniques for fabric management. On the other

hand, the use of fog and edge computing paradigm requires extensions to current programming models and development of new abstractions that will allow developers to design novel applications that can benefit from such massively distributed systems. This also opens up other challenges in: security, privacy and trust of the edge and fog resources; resource management for mobile, transient and constrained resources; distributed data, state and context management; and emerging domains like autonomous vehicles and deep learning over such platforms.

The conference seeks to attract contributions covering both theory and practice over system software and domain-specific applications in these areas. Some representative topics of interest include (but are not limited to):

- Programming Models for Internet of Things (IoT) & Fog/Edge environments
- IoT gateways and hubs: architecture, performance, deployment
- Performance models for integration IoT & Cloud systems
- Data centers and infrastructures for Fog/Edge Computing
- Middleware for IoT, Fog/Edge infrastructures
- Scheduling for IoT, Fog/Edge resources
- Storage and metadata management for Fog/Edge Computing
- Monitoring/metering of IoT, Fog/Edge infrastructures
- Real-time, locality-sensitive and mission-critical applications
- Legal and management/governance issues
- Security, privacy and trust
- Modelling and simulation environments

Organisation

General Chairs:

- Rajkumar Buyya, University of Melbourne, Australia
- Omer Rana, Cardiff University, UK
- Massimo Villari, University of Messina, Italy

Program Chairs:

- Haiying Shen, University of Virginia, USA
- Yogesh Simmhan, Indian Institute of Science, India

Publication Chairs:

- Maria Fazio, University of Messina, Italy
- Jia Rao, The University of Texas at Arlington, USA

Publicity Chairs

- Burak Kantarci, University of Ottawa, Canada
- Carlos Westphall, University of Santa Catarina, Brazil
- Zhuozhao LI, University of Chicago, Chicago, IL

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- Adrien Lebre (Inria, France)
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- Haiying Shen, University of Virginia, USA
- Massimo Villari, University of Messina, Italy

Web Chair

- Redowan Mahmud, University of Melbourne, Australia

Important Dates for Submission:

Early Submission **[Closed]**

Papers due: ~~November 30, 2018~~ (Extended to December 21, 2018) **[Closed]**

Author notifications of Acceptance: February 1, 2019

Camera Ready Paper: March 28, 2019

Regular Submission **[Open]**

Papers due: January 31, 2019

Author notifications of Acceptance: Mar 15, 2019

Camera Ready Paper: March 28, 2019

Registration aligned with CCGRID Deadlines: <http://www.ccgrid2019.org>

Paper submission guidelines

Authors are invited to submit papers electronically in PDF format. Submitted manuscripts should be structured as technical papers and may not exceed **10 letter-size** (8.5 x 11) pages including all figures, tables and references using the **IEEE format** for conference proceedings. See IEEE's publishing website for LaTeX and MS Word templates:

http://www.ieee.org/conferences_events/conferences/publishing/templates.html

Submissions not conforming to these guidelines may be returned without review. The official language of the conference is English. All manuscripts will be reviewed and judged on technical strength, originality, significance, quality of presentation, and interest and relevance to the conference attendees.

The proceedings will be published through the IEEE Computer Society Conference Publishing Services. Submitted papers must represent original unpublished research that is currently not under review for any other conference or journal. Papers not following these guidelines will be rejected without review and further action may be taken, including (but not limited to) notifications sent to the heads of the institutions of the authors and sponsors of the conference. Submissions received after the due date, exceeding the page limit, or not appropriately structured may not be considered.

The online portal for paper submission is at:

<https://www.easychair.org/conferences/?conf=icfec2019>

Publication

Proceedings will be published through the IEEE Computer Society Conference Publishing Services. Paper submitted could be accepted as REGULAR paper (10 pages) or SHORT papers (6 pages), depending on the reviewer recommendations.

Special Issues

Authors of highly rated papers from ICFEC 2019 will be invited to submit an extended version to a special issue that we expect to appear with the Journal of Software: Practice and Experience (SPE) published by Wiley Press.