

Call for Papers



Int. J. of Autonomous Computing (IJAC)

ICCDC 2019: Special Issue on: "Frontiers of Intelligent Computing in Telecommunication Networks"

Guest Editors:

Prof. Bill Buchanan, Edinburgh Napier University, UK

Associate Prof. Roman Senkerik, Tomas Bata University in Zlin, Czech Republic

Associate Prof. Chanchal Kumar De and Assistant Prof. Suman Paul, Haldia Institute of Technology, India

This special issue aims to explore recent developments of intelligent autonomic computing in the advancement of telecommunication networks.

A number of state-of-the-art technologies – including wireless 4G-LTE, 5G, self-optimised networks, software-defined networks, self-adaptive IoT, smart IoT, optimisation mechanisms for IoT services using autonomic computing, adaptive QoE in mobile, fog and cloud computing, distributed protocols and algorithms for self-organising networks, bio-inspired algorithms for self-organising networks and cloud fog co-operative networks – have been proposed and investigated.

This special issue aims to provide an intellectual platform for researchers both from academia and industry, from a wide range of application areas, to share their latest research findings and to identify future challenges in these areas. The issue's objective is to support the research community in continuing its work and in focusing on future research challenges.

The special issue will carry substantially extended and revised versions of selected papers presented at the [2nd International Conference on Communication, Devices and Computing \(ICCDC 2019\)](#), but are also inviting other experts to submit articles for this call.

Subject Coverage

Suitable topics include, but are not limited, to the following:

- Self-adaptive telecommunication networks and performance evaluation based on machine learning, AI and soft computing techniques
- Telecommunication networks in autonomic pervasive computing environments
- Wireless communication and 5G and performance improvement using autonomic computing
- Autonomic computing in next-generation multimedia networks and applications
- Self-optimised networks and software-defined networks – performance improvement using autonomic computing
- Self-adaptive SDN supporting fog infrastructure
- Self-adaptive IoT
- Self-configurable cloud networks
- Intelligent fog-cloud computing and parameter estimation
- Smart IoT and optimisation mechanisms for IoT services using autonomic computing
- Self-organisation in mobile cellular networks
- Quality-of-Service (QoS) provisioning: architectures, protocols, mechanisms, resource management using autonomic policy
- Self-adaptive quality of experience (QoE): user-perceived quality, cost-sensitive experience and improvement issues using autonomic computing
- Adaptive QoE and QoS in mobile fog-cloud computing environments
- Optimisation in cognitive networks
- Architecture, infrastructure, techniques, test beds for self-optimised intelligent networking
- Adaptive services, intelligent web services, open services standards, service semantics, service agreements and transactions
- Self-configurable high-performance network and network protocol design
- Distributed protocols and algorithms for self-organising networks: physical layer algorithm, MAC, resource reservation and management, routing and service discovery issues
- Bio-inspired algorithms for self-organising networks, cloud, fog networks
- Mobile ad-hoc and opportunistic networks
- Self-adaptive future internet and next-generation networking

Notes for Prospective Authors

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. (N.B. Conference papers may only be submitted if the paper has been completely re-written and if appropriate written permissions have been obtained from any copyright holders of the original paper).

All papers are refereed through a peer review process.

All papers *must* be submitted online. To submit a paper, please read our [Submitting articles](#) page.

If you have any queries concerning this special issue, please email the Guest Editors:

Suman Paul: paulsuman999@gmail.com

Bill Buchanan: b.buchanan@napier.ac.uk

Roman Senkerik: senkerik@utb.cz

Chanchal Kumar De: chanchalkumarde@gmail.com

Important Dates

Manuscripts due by: *1 July, 2019*

Notification to authors: *1 September, 2019*

Final versions due by: *1 November, 2019*