

# Tentative Outline

## Thematic Issue Proposal for Recent Patents on Computer Science

### Recent Trends in Artificial Intelligence Techniques for Fault Tolerance, Reliability and Availability in Mission-Critical Networks

#### ***Guest Editors:***

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#### **Aim and Scope:**

Resilient, scalable and extensible mission-critical networks are used to interconnect datacenters, enterprise, customer sites and mobile entities. Fault tolerance, reliability and availability are the important issues addressed by researchers to ensure the smooth delivery of services by mission critical networks in emergency and disaster scenarios. Examples of systems in which these characteristics are needed include mission-critical, computation-intensive, transactions (such as banking), and mobile/wireless computing systems/networks etc. In the recent past, data processing capabilities of artificial intelligence (AI) techniques have attracted researchers across the globe to address the challenges and opportunities to provide reliable service by mission critical networks in adverse conditions. As such, there is a strong demand to investigate and present artificial intelligence algorithms/techniques to provide solutions for fault tolerance, reliability and availability in mission critical networks.

The objective of this special issue is to concentrate on all aspects and future research directions related to this specific area. In this context, we invite researchers to contribute original research articles as well as highly review articles that will seek the continuing efforts to understand the artificial intelligence techniques that lead to future improvements for providing reliable services in mission critical networks.

**Keywords:** Artificial Intelligence, fault Tolerant, Resiliency, Mission-Critical Networks, Performance Metrics, Routing, Service Level Management, Survivability, Reliability, Availability.

#### **Subtopics**

We invite manuscripts on topics including, but not limited to:

- AI based Mission-Critical Network Planning
- AI based Network Technologies

- AI based Recovery Planning – Principle of Continuity, Disruptions Recovery, Fault-Tolerant and Resiliency
- Performance Metrics: Reliability, Capacity Delay MTTR, Packet Loss etc.
- AI based Network Discovery
- AI based Routing and Load Balancing
- AI based Network Management
- AI based Network Restoration
- AI in Service Level Management
- QoS Deployment and Management
- AI based Network Testing

### **Schedule**

- Manuscript Submission Deadline: 31<sup>st</sup> October 2018
- Peer Review Due: 15<sup>th</sup> December 2018
- Revision Due: 15<sup>th</sup> January 2019
- Announcement of Acceptance by Guest Editor: 10<sup>th</sup> February 2019
- Final Manuscript Due: 28<sup>th</sup> February, 2019

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