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G-Networks for Security, Low Energy Consumption and Quality of Service of the Internet of Things

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Message from the Guest Editor

Key probability models based on G-Networks and Diffusion Approximations allow the understanding, analysis and optimisation of the complex computer and communication systems that support the Internet of Things (IoT). Thus, this Special Issue will address the foundations of G-Networks for the analysis and control of computer and communication systems, and the applications of such models for Learning via the Random Neural Network including Deep Learning (for instance in security issues, intrusion and attack detection, as well as system management and control), for the design of energy aware systems including Energy Packet Networks, and for the dynamic control of systems. Many of these applications will be centred around the IoT, the modeling of wireless networks that use energy harvesting, the design of secure IOT gateways and IoT systems that are robust in situations where energy for operating the system is scarce.

Keywords

- G-Networks and Random Neural Networks
- Diffusion Models
- Secure IoT Systems
- Energy and QoS Optimisation of the IoT and the Cloud
- Performance Analysis with G-Networks
- Cognitive Packet Networks to support the IoT



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Special Issue



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