



IEEE/IFIP Network Operations and Management Symposium Networking

20-24 April 2020 // Budapest, Hungary



CALL FOR PAPERS

The 17th IEEE/IFIP Network Operations and Management Symposium (NOMS 2020) will be held 20-24 April 2020 at Budapest, Hungary. Held in even-numbered years since 1988, NOMS 2020 will follow the 32 years tradition of NOMS and IM as the primary IEEE Communications Society's forum for technical exchange on management of information and communication technology focusing on research, development, integration, standards, service provisioning, and user communities. The theme of NOMS 2020 will be Management in the Age of Softwarization and Artificial Intelligence presenting recent, emerging approaches and technical solutions for dealing with management of Fixed Networks, Mobile Networks, Clouds, and Vertical Systems (e.g., smart cities and smart transportations, etc.) in order to enable convergence of the networked services. NOMS 2020 will offer various types of sessions: keynotes, technical, experience, demo, tutorial, poster, panel, and dissertation. Topics of interest include, but are not limited to, the following:

Management of Smart Vertical Systems in the Industry 4.0 Era

- Smart Cities, Smart Grid, Smart Homes Cyber-Physical Systems
- Internet of Things (IoT)
- 5G
- Social Networks
- Techniques supported with Augmented Reality, Virtual Reality, Mixed Reality
- Applications and case studies

Artificial Intelligence Techniques for Network and Service Management

- Management with AI
- Artificial Neural Networks
- Markov Chains and Management
- Machine Learning, Deep Learning and Management
- Data Mining
- Management with Big Data
- Mobile Agents

Management of SDN and NFV

- Network virtualization
- Control plane programmability
- Data plane programmability
- Management & Orchestration (MANO)
- Service Function Chaining
- Protocols, languages and frameworks
- Open source networking
- Cloud native networking
- Case studies and practical deployments

Management Functional Areas

- Billing, Accounting
- FCAPS: Fault, Configuration, Accounting, Performance and Security Management
- Energy-efficiency/green management
- Service Assurance
- Service Fulfillment
- Service Level Management

Network Management and Operational Experience

- Ad-hoc networks
- Automotive and Vehicular Networks
- Broadband access networks Cognitive Radio networks Data Centers
- e-Maintenance
- Future Internet
- Heterogeneous networks
- Home networks
- M2M networks
- OSS/BSS development
- Overlay networks
- Personal area networks
- Sensor networks
- Wireless and mobile networks

Service Management

- Business management
- Clouds
- Data center management
- Data service management
- Hosting
- Infrastructure as a Service, Management as a Service, Platform as a Service, Software as a Service
- IT service management
- Managed service provisioning
- Multimedia service management
- OTT service management
- Virtualized infrastructure management

Security Management

- Intrusion detection, intrusion prevention, intrusion response
- Network security
- Security for peer-to-peer and overlay networks
- Security for smart X and large systems and critical infrastructures
- Privacy and anonymity
- Vulnerability management
- Early warning

Methodologies for Network Operations and Management

- Control theory
- Data collection and aggregation
- Design and simulation
- Economic/finance theories
- Experimental approaches
- Optimization theory
- Probability and stochastic processes, queuing theory
- Risk management
- Software engineering methodologies Visualization
- Management approaches for Quantum Networking

Management Approaches

- Autonomic and self-management
- Best practices
- Centralized management
- Distributed management
- Integrated management
- Management architectures
- Organizational aspects
- Policy-based management
- Process oriented management
- IT service management (ITSM)
- Process engineering and frameworks (ITIL, CobIT, RiskIT, ValIT)

IMPORTANT DATES

Paper Submission Deadline: 30 August 2019
Notification of Acceptance: 8 November 2019
Camera-Ready Submission: 12 January 2020

GENERAL CO-CHAIRS

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For more information, please visit <http://noms2020.ieee-noms.org>