



# IEEE/IFIP Network Operations and Management Symposium (NOMS 2018)

23-27 April 2018 // Taipei, Taiwan



## CALL FOR PAPERS

The 16th IEEE/IFIP Network Operations and Management Symposium (NOMS 2018) will be held 23-27 April 2018 in Taipei, Taiwan. Held in even-numbered years since 1988, NOMS 2018 will follow the 30 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 NOMS2018 will be *Towards Cognitive Management in a Cyber World*, 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 2018 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:

### Smart Vertical Systems in the 4<sup>th</sup> Industrial Revolution Era

Smart Cities, Smart Grid, Smart Homes  
Cyber-Physical Systems  
Internet of Things (IoT)  
5G  
Social Networks  
Applications and case studies

### Software-Defined Networking (SDN), Network Function Virtualization (NFV)

Network virtualization  
Control plane programmability  
Data plane programmability  
Management & Orchestration (MANO)  
Service Function Chaining  
Protocols, languages and frameworks  
Open source networking (ONOS, CORD, ODL, ONAP, OSM, OVS, DPDK, etc.)  
Cloud native networking  
Case studies and practical deployments

### Technologies Enabling Smart Management

Management with Big Data  
Management with AI, Deep Learning  
Data, information, and semantic modeling  
Message and software buses  
Middleware, Mobile agents, Protocols  
Software engineering for clouds  
Software product lines  
Virtualization  
Web services

### 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

### Network Management & Operational Experience

Ad-hoc networks  
Automotive and Vehicular Networks  
Big Data in and for management  
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 & 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

### Management Functional Areas

Billing, Accounting  
Configuration and Deployment  
Diagnostics, Tracing, Troubleshooting  
Fault management  
Energy-efficiency/green management  
Service Assurance  
Service Fulfillment  
Service Level Management  
Security Management

### Methodologies for Network Operations and Management

Control theory  
Data collection and aggregation  
Data mining, Machine learning  
Design and simulation  
Economic/finance theories  
Experimental approaches  
Optimization theory  
Probability and stochastic processes, queuing theory  
Risk management  
Software engineering methodologies  
Visualization

### 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: **Sep. 22, 2017 (extended)**  
Notification of Acceptance: Dec. 4, 2017  
Camera Ready: Jan. 12, 2018

### General Co-Chairs:

James Won-Ki Hong, POSTECH, Korea  
Yu-Chee Tseng, National Chiao Tung Univ., Taiwan

### TPC Co-Chairs:

Young-Tak Kim, Yeungnam University, Korea  
Clarissa Marquezan, Huawei Technologies, Germany  
Chih-Wei Yi, National Chiao Tung Univ., Taiwan

For more information, please visit <http://noms2018.ieee-noms.org>