

## International conference NEW2AN 2018



The conference goal is in the identification, investigation and integration of new algorithms, approaches, architectures, methods and mechanisms to enable proper and efficient operation of a next-generation IP-based wireless network. Therefore, wireless networks and their interaction with wired networks shall be widely examined and addressed throughout the conference. The proceedings will be published in LNCS, Springer (confirmed) and indexed by relevant databases.

The NEW2AN 2018 will be held in St. Petersburg, Russia - the meeting point of East and West. Through its stunning architecture and wonderful art galleries and museums, among a number of other attractions, the wealth of history of East and West can be seen and felt in this beautiful city.

NEW2AN is supported by the Government of St. Petersburg and regarded as very important part of scientific life of Russia.

### **Important Dates**

Full paper submission: June 1, 2018

Notification of acceptance: June 06, 2018

Camera ready version: June 20, 2018

### **Topics of interest**

Topics of interest include but are not limited to:

## **Fundamentals and PHY**

- Channel capacity estimation and equalization
- Channel measurement and modeling
- Cognitive and green radio
- Cooperative communications
- Interference mitigation
- Multi-antenna signal processing
- Physical layer design
- Power efficient communications
- Advanced modulation schemes
- Antennas and beamforming
- Single and multi-user MIMO
- Source and channel coding
- Vehicular communications

## **MAC design and Cross-Layering**

- Adaptive and cognitive MACs
- Cross-layer designs involving MAC
- Implementation of testbeds and prototypes
- Information-theoretical approaches to MAC designs
- Radio resource management, allocation, and scheduling
- Reconfigurable MACs
- Routing and QoS scheduling
- Scheduling algorithms for various systems
- Security issues in MAC designs

## **Fixed, Mobile and Wireless Networks**

- Beyond 5G
- Next-Generation access networking
- Ad hoc networks
- Body area networks
- Cognitive radio networks
- Congestion, load and admission control
- Future wireless Internet
- Internet of things
- Mobile computing
- Multi-hop and relay networks
- Future Internet and Next-Generation Networking Architectures

Satellite communications  
Smart cities and smart grids  
Vehicular networks  
Wireless sensor networks  
Network virtualization, virtual private networks (VPN), and services  
Network management methodologies and control plane design for Future Internet  
Next generation network provisioning, monitoring, and management of IP services: traffic engineering, and mobility support

## **Services and Applications**

Emerging Internet applications  
Authentication, authorization and accounting  
Context and location-awareness in pervasive systems  
Cyber-physical systems and applications  
Emerging wireless and mobile applications  
P2P services for multimedia  
Secure network and service access  
Self-adaptation on the service layer  
Service discovery and portability  
Service oriented architectures and cloud computing  
User interfaces, user-machine interactions  
Project management in communications industry

## **Nano Communications**

Nano-Electromagnetic communications  
Graphene-based nano-antennas  
Terahertz Band communication  
Nanomaterials for applications in communications  
Molecular communications  
Protocols and architectures for nano communications  
Information theoretical approaches to nanoscale communications  
Internet of Nano Things (IoNT)  
Privacy, Security and Trust in nanonetworks  
Future emerging applications of nano/molecular communications

## **Paper submission**

The authors are encouraged to submit full papers describing original, previously unpublished, complete research, not currently under review by another conference or journal, addressing state-of-the-art research and development in all areas of computer networking and data communications. All papers will be reviewed and accepted papers will appear in the conference

proceedings, published by Springer-Verlag in the LNCS series. Papers must be submitted electronically in the conference site. The maximum size of papers should be 5000 words including tables and figures. Please adhere to the formatting standard for a 12-page manuscript of Springer-Verlag LNCS. The cover page must contain an abstract of about 150 words, 3-5 keywords, name and affiliation of author(s) as well as the corresponding author's e-mail and postal address. Selected best papers will appear in a journal special issue.

For further and up-to-date information please visit official web page of the Conference <http://www.new2an.org>