



2nd Colloquium on Communication Networks Optimization

Co-located with 12th IEEE/IET International Symposium on
COMMUNICATION SYSTEMS, NETWORKS & DIGITAL SIGNAL PROCESSING
(CSNDSP'20)

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This colloquium focuses on state-of-the-art research contributions that address methods and techniques used to analyze, dimensioning, designing and optimization of modern wired and wireless communication networks. From the perspective of teletraffic and traffic engineering, no matter what developing changes towards modern wired and wireless communication networks may bring, the essential objectives remain the same: (i) to determine and evaluate the relationship between the quality of service (QoS) parameters, traffic intensity, and required/available resources (especially significant when QoS guarantee is required); and (ii) to develop new and efficient methods for managing resources in nodes of communication networks. On the other hand, by the term optimization we mainly concentrate on routing and network topology modelling as well as related optimization techniques. In addition, given that wireless is a key feature of next generation wireless networks, we also welcome research efforts aimed at developing new transmission/receiving methods for improving wireless performance.

According to the above, the topics of primary interest include:

- Analytical and simulation models of communication networks
- Call admission and congestion control
- Dimensioning of communication network resources
- Energy efficiency of communication networks
- Modelling of internet-like topology on the autonomous systems
- MAC efficiency enhancements
- Modulation and coding
- Multiple-input multiple-output OFDM Systems
- Multi-user detection
- Networks and services planning and dimensioning
- Optimization techniques for communication network resources
- Optical backhauling of access networks
- Optimization on communication protocols
- Overlay and CDN routing schemes
- Performance evaluation of communication networks and systems
- Receiver algorithms
- Resource management tools for communication networks
- Space time coding and decoding
- Topology modelling of IoT, Cloud, VANET, WMN and WSN networks
- Traffic prediction models in modern communications networks
- Traffic grooming
- Virtualization techniques for communication networks

Submission Dates (According to the general schedule of the CSNDSP 2020)

- Full paper due: 16/02/2020
- Notification of acceptance: 31/03/2020
- Camera ready paper: 31/05/2020

Paper format and submission procedure are available at <https://csndsp2020.av.it.pt>

For further information about this colloquium, please contact: **Prof. Mariusz Głabowski and Dr Piotr Remlein**
For general information about the CSNDSP20, please contact: csndsp2020-general@av.it.pt