IEEE/IFIP WONS 2022

17th Wireless On-demand Network systems and Services Conference



Wireless on-demand network systems and services have become pivotal in shaping our future networked world. Starting as a niche application over Wi-Fi, they can now be found in mainstream technologies like Bluetooth LE, LTE Direct and Wireless LANs, and have become the cornerstone of upcoming networking paradigms including mesh and sensor networks, cloud networks, vehicular networks, disruption tolerant and opportunistic networks, and in-body networks.

The challenges of this exciting research field are numerous. Examples include how to make smart use of these novel technologies when multiple technologies or a mix of permanent services and on-demand networking opportunities are available to a network node, how to provide robust services in highly dynamic environments, how to efficiently employ and operate heavily resource-constrained devices, and how to develop robust and lightweight algorithms for self-organization and adaptation.

IEEE/IFIP WONS, now numbering seventeen editions, has established itself as a high quality forum to address these and related challenges. WONS'22 is able to continue to provide a global platform for rich interactions between experts in their fields, discussing innovative contributions in a stimulating environment.

This announcement solicits original contributions of high-quality research providing novel insights on all aspects of wireless on-demand networks and systems; from protocol and network design, modeling, performance evaluation, profitability models, energy efficiency, QoS models and mechanisms, practical implementations, service level aspects, application use-cases, to the integration of multiple wireless network technologies. Topics of interest comprise, but are not limited to:

- * 5G and 6G networks
- * Cognitive radio networks
- * Cross-layer design
- * Data analytics and ML/AI driven network systems
- * Green wireless networks
- * Heterogeneous wireless networks
- * Implementations and testbeds
- * Internet of Things
- * Intra-body and biomedical on-demand systems
- * Localization and mobility management
- * Middleware aspects
- * Mobile computing and services

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- * Network and service management
- * Novel architectures and protocols
- * Novel applications and services
- * Open source hardware, software and data
- * Performance evaluation through simulations, emulations and real-world experiments
- * Pervasive and ubiquitous computing
- * Quantum computing and networking
- * Security, privacy, and trust
- * Social and economic aspects
- * Theoretical and data driven modeling and optimization
- * Vehicular networks

