IEEE

IEEE
INGR
International Network Generations Roadmap
2023 Edition

Testbed

IEEE Future NETWORKS

An IEEE Future Networks Technology Roadmap
futurenetworks.ieee.org/roadmap

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ABSTRACT

The Testbed Working Group (WG) is one component of the INGR project and will help collaborate with the existing 5G testbeds to make those available to the IEEE communities (industry & academia) to ease the deployment of 5G & accelerate the development of next generation network (e.g., 6G). This Testbed WG will collaborate with the vendor community and research community and thus will expand upon the existing testbeds towards federated development of testbeds for next generation networks. The working group has established stronger relationships with IEEE & ITU's standardization study group.

Some of the key deliverables from the Testbed WG will be the specification and/or standards for functional testing, rapid prototyping, proof of-concept and other forms of technology evaluation. The goal is to cover various 5G, 6G, and other future networking system characteristics at different layers and also supporting various specific applications such as the Internet of Things (IoT), tactile internet, and augmented reality. To deliver the vision of INGR, this WG will inventory types of testbeds available in various parts of the world and will serve as facilitator for setting up a federated testbed/s that will provide access to the IEEE community to get access and run experiments. In order to fuel the testbed evolution, the Testbed WG will continue to hold workshops and go over various 5G and beyond use case scenarios as well as define the avenue for 6G and beyond networks.

In addition to informing the community on the capabilities and usage modalities of existing testbeds, the workgroup also aims to solicit contributions and promote discussion on the future experimental platforms as well as to facilitate discussions on co-development and co-deployment of future experimental platforms for 5G and beyond.

Key words:

Testbed, standards, testbed federation, 5G and beyond, future networks, roadmap, wireless, private networks, networks, public networks, connectivity demand patterns, use case validation, and application-specific performance characteristic, benchmarks, network architectures, deployment, tactile internet, augmented reality, artificial intelligence, AI, INGR

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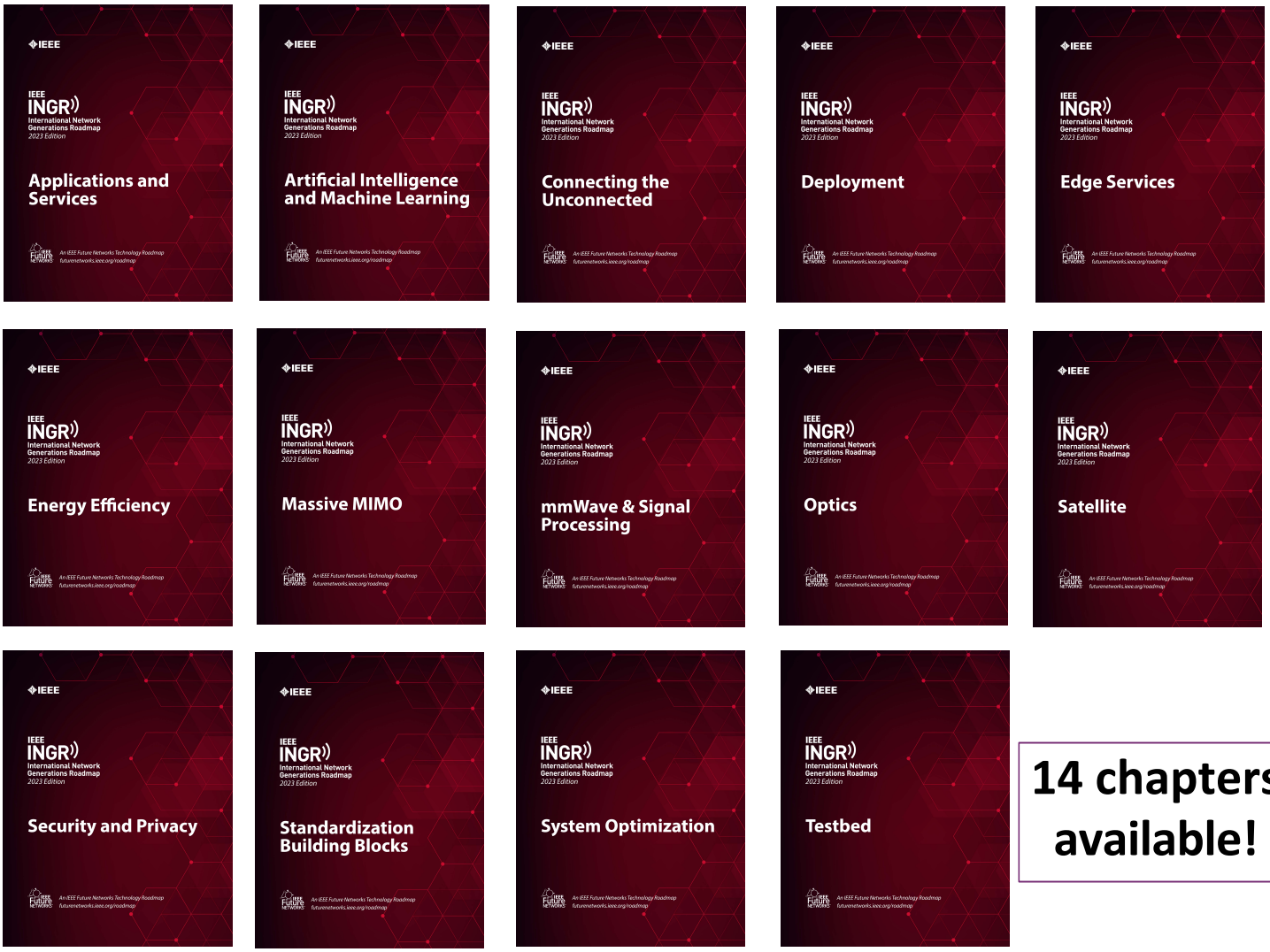

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