

True-Data Testbed for 5G/B5G Intelligent Network

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Abstract: Future mobile communications will shift from supporting the internet of everything (IoE) to facilitating interpersonal communications beyond fifth-generation (B5G) and sixth-generation (6G) mobile communications. Intelligent communications with full integration of big data and artificial intelligence (AI) will play a key role in improving network efficiency and providing high-quality service. The AI-powered mobile communications require vast volumes of data to be collected from a real network environment for systematic testing and verification because it is a rapidly growing paradigm. As a result, we create the first true-data testbed for 5G/B5G intelligent networks (TTIN), which includes on-site experimental 5G/B5G networks, data collection and storage, and an AI engine and network optimization. True network data collecting, storage, standardisation, and analysis are possible in the TTIN, allowing for data-driven networks and system-level online verification of important B5G/6G technologies.

Keywords: True-Data Testbed; Wireless Communication Networks; Artificial Intelligence (AI); Big Data; Internet of Everything (IoE).

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