

IET Networks

Call for Papers



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Editor-in-Chief: Christoph Sommer, TU Dresden, Germany
Special Issue on:

Enabling Technologies for 6G and Future Networks

Faster communication requirements for future computing systems will revolutionise our lives with 6G, blockchain, softwarization and novel wireless technologies. We believe that future networks will be considered as ‘the internet of everything’ rather than ‘the internet of things (IoT)’. We also believe that cloud computing will revolutionise our knowledge of ultrahigh reliability, energy efficiency and low latency which currently saturate the capacity of traditional technologies in networking systems, mobile computing and sensor applications. Areas of industry namely biotechnology, the pharmaceutical industry, unmanned drones, the education sector, health care, business and engineering require higher data rates and less latency than currently provided by 5G networks. As a result, research and development needs to focus beyond 5G and explore 6G with high computing networks to better equip these industries.

Emerging technologies like artificial intelligence, blockchain technologies, network security and data analytics help to develop efficient future generation networks. Novel wireless sensor applications are significantly used in IoT networks, smart health applications, the education sector and in smart security applications. We believe that society must incorporate massive automation and artificial intelligence in networking to proceed. For instance, this is already partially achieved in blockchain-based smart contracts that are used in distributed networks for secure storage processing. However, efficient and high-speed data processing of up to 1Tbps requires further analysis of intelligent architectures and computing resources.

Cloud, edge and fog computing in 6G communication networks can handle large amounts of data with better efficiency than in 5G networks. Wireless communication for future applications such as advanced space communication and the internet of space things require better infrastructure. For instance, future novel networks with terahertz speed, microsecond latencies for changing future data transfer rates and storage are examples of some of the obstacles that must be overcome before they enter into real world market.

This Special Issue aims to explore next generation 6G networks, particularly the advancements in cloud, fog and edge computing and their recent applications. We aim to explore the latest research in next generation networking technologies and innovations in 6G architectures, blockchain models and many more. Please see the list of topics of interest below.

Topics of interest include, but are not limited to:

- Artificial Intelligence for better networking and services
- Intelligent traffic monitoring systems and technologies, ad hoc and opportunistic networks, vehicular networks
- Novel network virtualization technologies
- Swarm Intelligence for better network optimization
- Quantum Internet and Big Data Analytics
- Internet of Things (IoT) , Internet of Everything (IoX), Intelligent Internet of Intelligent Things (IIoIT)
- Wireless sensor networks and green networking for 6G communication
- Optical fibre long distance communication and sensor telemetry and monitoring
- Novel energy harvesting and optimization technologies
- Terahertz communications and sensing
- Mobile edge/fog, blockchain networking and computing
- Massive millimetre wave technology for future communication.

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***This will be a Virtual Collection: Accepted papers will be published without delay while the Collection remains open for submissions until the deadline.**

From January 2021, The IET began an Open Access publishing partnership with Wiley. As a result, all submissions that are accepted for this Special Issue will be published under the Gold Open Access Model and subject to the Article Processing Charge (APC) of 2,200 USD. For authors that submit in 2022, they can receive a 50% APC discount when using the code IET50 at submission. For further information on APCs, and support for APCs including Wiley’s institutional agreements and Research4Life initiative which offers waivers and automatic discounts for certain countries, please see our [FAQs](#). Please submit your paper via [ScholarOne](#), and for more information about the journal please visit our [website](#) and read our [Author Guide](#).

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