

## Guest Editorial: Special Issue on “Comparison of 5G and Emerging 6G Technology and Its Application to Develop New Generation of Wireless Sensor Networks”

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As the commercial implementations of 5G networks have been initiated in different regions of the world, the focus of the researchers is bending towards the next generation of wireless communication. This research study intends to investigate the requisites of the fast establishment of the theoretical and practical measures for sixth generation (6G) wireless communication. To this end, this paper first outlined the existing research works that have considered different aspects of 6G, and then based on this existing works, the future vision is established. Then, the 6G vision is based on four types of connectivity and is summarized as “Wherever you think, everything follows your heart.” To fill the gap between the market requirements after one decade and the limited capabilities of 5G, different specifications of 6G that make it an appropriate replacement are discussed. Furthermore, different candidate technologies that can potentially realize the 6G communication are studied, followed by discussion on different challenges in the realization and possible research directions to cope with these challenges. By exploring the vision of future, its specification, and key candidate technologies, this paper attempts to summarize the general 6G framework. In addition, with mentioned challenges in realization of 6G, the aim of this paper is to guide the researcher and attract their interest to consider them.

The following research articles are selected in the special issue on “Comparison of 5G and Emerging 6G Technology and Its Application to Develop New Generation of Wireless Sensor Networks”:

“Challenges Facing E-government Implementation and Adoption in the Era of 5G, 6G”, Mosleh Zeebaree, Musbah Aqel, Mary Agoyi.

“Color and Texture Feature Recognition of Traditional Pen and Ink Painting Based on Visual Sensor”, Shuo Zhang.

“Design of Urban Sculpture Artwork Pattern on Account of Smart Sensor Network from the Artistic Perspective”, Yang Yu.

“Indoor Localization Method of Mobile Educational Robot Based on Visual Sensor”, Weiping Zhu, Xiaoling Cheng.

### Guest Editors



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Osamah Ibrahim Khalaf is associate professor in Al-Nahrain University. He has hold 15 years of university-level teaching experience in computer science and network technology and has a strong CV about research activities in computer science and information technology projects. He has had many published articles indexed in (ISI/Thomson Reuters) and has also participated and presented at numerous international conferences. He has a patent and has received several medals and awards due to his innovative work and research activities. He has good skills in software engineering including experience with: .Net, SQL development, database management, mobile applications design, mobile techniques, Java development, android development, IOS mobile development, Cloud system and computations, website design. His brilliant personal Strengths are in hghly self-motivated team player who can work independently with minimum supervision, strong leadership skills, and outgoing personality. In 2004, he got his B.Sc. in software engineering field from Al\_Rafidain University College in Iraq. Then in 2007, he got his M. Sc. in computer engineering field from Belarussian National Technical University. After that, he got his PhD in 2017 in the field of computer networks from faculty of computer systems & software engineering -University Malaysia, Pahang. He has overseas Work experiences in University in Binary University in Malaysia and University Malaysia Pahang.AI-Nahrain University, Al-Nahrain Nanorenewable Energy Research Centre (NNERC) , Baghdad, Iraq.



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