

# 5G Wireless Systems: The Future

**Mr. Suyesh Tamba<sup>1</sup>, Mrs. Akshata Chavan<sup>2</sup>, Mrs. Poonam Devlekar<sup>3</sup>**

Student<sup>1</sup>, M.Sc.IT., I.C.S. College, Khed,  
Assistant Professor, Department of I.T.<sup>2,3</sup>  
I.C.S. College, Khed, Ratnagiri

**Abstract:** *With the 5G technology so close to its launch we will discuss is this technology really the future of the tech industry. It is supposed to be launched in the market by the end of 2020 and people are still unaware of what this actually is and how will it affect their lives and the industry of almost every sector. What is 5G? 5G is a new wireless network architecture that is expected to replace an existing wireless network architecture. This new architecture is expected to have lower power consumption, lower maintenance costs and offer high quality services. In this paper, we will look at what 5G is and how it will impact various aspects of life once released. We will also look at how 5G will impact the life of the average person and how it will change the world for better or worse. Is the world ready to accept such a dramatic shift in the way things work? Is 5G a dependable replacement? All of these questions and more are addressed in this paper based on in-depth reviews, surveys, and interviews with prominent speakers from various industries.*

**Keywords:** Wireless network architecture, 5G technology

## REFERENCES

- [1]. Kanwal Kapil et al. Energy management in LTE networks. IEEE Access. 2017; 5:4264-4284.
- [2]. Patel Saurabh, Malhar Chauhan, Kinjal Kapadiya. 5G: Future mobile technology-vision 2020. International Journal of Computer Applications. 2012; 54:17.
- [3]. Fettweis Gerhard, Siavash Alamouti. 5G: Personal mobile internet beyond what cellular did to telephony. IEEE Communications Magazine. 2014; 52(2):140-145.
- [4]. Comer Douglas E. The Internet book: everything you need to know about computer networking and how the Internet works. Chapman and Hall/CRC, 2018.
- [5]. Marcus Michael J. 5G and IMT for 2020 and beyond [Spectrum Policy and Regulatory Issues]. IEEE Wireless Communications. 2015; 22(4):2-3.
- [6]. Wu Qingqing, Weidong Mei, Rui Zhang. Safeguarding wireless network with UAVs: A physical layer security perspective. arXiv preprint arXiv:1902.02472, 2019.
- [7]. Grønli, Tor-Morten, Andreas Bjørn-Hansen, Tim Majchrzak A. Software Development for Mobile Computing, the Internet of Things and Wearable Devices: Inspecting the Past to Understand the Future. Proceedings of the 52nd Hawaii International Conference on System Sciences, 2019.
- [8]. Huo, Yiming, Xiaodai Dong, Wei Xu. 5G cellular user equipment: From theory to practical hardware design. IEEE Access. 2017; 5:13992-14010.
- [9]. Gomez-Barquero David et al. Point-to-multipoint communication enablers for the fifth generation of wireless systems. IEEE Communications Standards Magazine. 2018; 2(1):53-59.
- [10]. Wei Lili et al. Key elements to enable millimeter wave communications for 5G wireless systems. IEEE Wireless Communications. 2014; 21(6):136-143.
- [11]. Minopoulos Georgios et al. A Survey on Haptic Data Over 5G Networks. International Journal of Future Generation Communication and Networking. 2019; 12(2):37-54.
- [12]. Sajan Varghese M. Improving Access to Medical Care for Patients in Need of Augmentative and Alternative Communication Using Systems Engineering and Optimization Models, 2018.
- [13]. Wu Shaoen, Honggang Wang, Chan-Hyun Youn. Visible light communications for 5G wireless networking systems: from fixed to mobile communications. Ieee Network. 2014; 28(6):41-45.

- [14]. Rost Peter et al. Cloud technologies for flexible 5G radio access networks. IEEE Communications Magazine. 2014; 52(5):68-76.
- [15]. Mateo Pablo Jimenez, Claudio Fiandrino, Joerg Widmer. Analysis of TCP Performance in 5G mmwave Mobile Networks. ICC 2019-2019 IEEE International Conference on Communications (ICC). IEEE, 2019.
- [16]. Ebrahimzadeh Amin, Martin Maier. Distributed cooperative computation offloading in multi-access edge computing fiber–wireless networks. Optics Communications. 2019; 452:130-139.
- [17]. Cramer Benjamin W. Not Over My Backyard: The Regulatory Conflict between 5G Rollout and Environmental and Historic Preservation. Available at SSRN 3427211, 2019.
- [18]. Cramer Benjamin W. Not Over My Backyard: The Environmental and Historic Preservation. Available at SSRN 3427211, 2019.