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# 5G Networks and Internet of Things (IoT)

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## Abstract

**Background:** 5G is the 5<sup>th</sup> Generation technology cellular network which was introduced in 2016 and is expected to give 20 Gbps speed. IoT stands for Internet of Things and is a word of mouth today for everyone accessing technology and the term “IoT” was given by Kevin Ashton in 1999. IoT simply means a network of interrelated and inter-connected objects capable of data transfer without any human interference [1].

**Objective:** Goal and significance of the study “5G and IoT” comes out to be very obvious that is to “Allow IoT devices to communicate and share data faster than ever before”. 5G with IoT brings revolution to the technical and Industrial world and on the same time improving quality of life [2].

**Methodology:** A new method is indeed required to handle 5G and IoT network (Human out-of-the-loop concept). The objective of 5G and IoT methodology is making smart cities, companies innovated, advanced health facilities, reduce human efforts wherever possible, etc. factors and advanced technology like AI and Robotics plays a major role here.

**Result and Discussion:** 5G technology in IoT is a game changer for the technical and industrial world and is aiding betterment of life, reducing human efforts [3]. The problem is, it isn't as easy to implement as it looks to be. It is of course exciting but there are some obstructions in the way like Cost, security, poor mobile network infrastructure, lack of policy in dynamic sharing of spectrum, untrained people (non- technical), etc.

We are so excited for the speed and less timely processes that we don't give a thought to the hazard and disadvantages of the technology [4]. Everything comes with a good and a bad side. 5G and IoT also has some disadvantages like most of the parts of the world are not having that developed environment.

**Future Work:** By 2030, the Internet of Things will have connected more than 50 billion individuals (CISCO IBSG prediction). While 5G is being scaled out at rapid speed, the resulting change in communications will reign in a quicker, smarter future for the entire planet. The world with 5G will look drastically different in the next 20 years or so. Smart grids and smart environmental control will enable large-scale automation of cars and utility services such as waste management and energy production, reducing greenhouse gas emissions and pollution.

## References

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