

Mahmudul Hassan 20101368 Submission 1

Paper title: A Comprehensive Survey on Internet of Things (IoT) Towards 5G Wireless Systems

Paper link:

https://ieeexplore.ieee.org/document/8879484?fbclid=IwAR14BNdJmNoNGSJzq-R3YvL2J2KVzy1mGS1_aj2sDDVluCppVV-hCAKChds

1. Summary:

1.1 Motivation:

The article is interested in the fast growth of wireless tech, especially 5G. It wants to explore how combining 5G with the Internet of Things (IoT) can be a big deal for the future. The motivation comes from the problems with the current 4G network, which struggles with many devices, fast data, and good quality service.

1.2 Contribution:

The article shares a lot of information about how 5G and IoT can work together. It talks about the challenges and dreams of different tech industries in this area. It explains the different parts of 5G IoT systems and covers new technologies like 5G New Radio, MIMO antennas, and more. It also looks at how IoT can be used in different areas. Overall, it helps us understand the topic better.

1.3 Methodology:

To make sure our system was top-notch, we tested it on different gadgets. It was like sending our system for training to make sure it could handle anything. We also checked what other smart people did to get great ideas.

1.4 Conclusion:

In the end, the article says that combining IoT with 5G can really change how we use wireless tech. It points out that the current 4G network isn't enough for what we want. The article believes that 5G, with its different parts like 5G NR and MIMO, is a good solution. It wraps up by saying that 5G is a big player in the future of wireless tech, especially when combined with IoT.

2. Limitations:

2.1 Infrastructure Challenges: Upgrading existing technology to 5G is expensive and might take time. Implementing new technologies in busy areas can be tricky, making it hard to smoothly roll out 5G everywhere.

2.2 Security Worries: With so many devices connected in 5G, there's a higher risk of cyber threats. Keeping data safe and secure is a big challenge, and making sure there are strong measures in place is crucial.

3. Synthesis:

The article talks about how 5G can make wireless technology better, but it might be hard to put it everywhere because of costs and security worries.