

## **Mahmudul Hassan 20101368 Submission 2**

**Paper title:** Smart Home Security Analysis System Based on The Internet of Things

**Paper link:** <https://ieeexplore.ieee.org/document/9389849>

### **1. Summary:**

#### **1.1 Motivation:**

We got excited about making our homes super safe because sometimes bad things happen to our gadgets. So, we decided to create a system to keep our smart homes secure and happy.

#### **1.2 Contribution:**

Our system did wonders! It protected our gadgets from bad things and made our smart homes super safe. We also figured out clever ways to fix any problems in our gadgets' brains, making them work even better than before.

#### **1.3 Methodology:**

The article looks at a bunch of information and studies already done on 5G and IoT. It checks the problems with current networks like 4G and why we need something better like 5G. It goes through the different layers of 5G IoT and looks at how certain technologies fit into the picture. It also studies the security issues and ways to control them. The article uses all this info to build a clear picture of how 5G and IoT can work together.

#### **1.4 Conclusion:**

Our system was successful. It's like having a guardian for our smart homes. It keeps everything safe, fixes problems, and makes our gadgets work like magic. But here's the exciting part – the superhero adventure continues. There's more to discover and improve in the future!

## **2. Limitations:**

**2.1 Limitation 1:** Our security system, while powerful, might not be compatible with every smart gadget. Some gadgets use different "languages," and our system needs to catch up to understand them all.

**2.2 Limitation 2:** For our system to work effectively, users need to be aware and pay attention to security alerts. If users miss important messages, it could put their smart homes at risk.

**3. Synthesis:** Motivated by the need for increased smart home security, our system was designed to protect gadgets from potential threats. While effective, it faces challenges in device compatibility and relies on user awareness for optimal performance.