

# A Detailed Study of An Internet of Things (IoT): Review, Recent Research Directions and Complete Journey Towards Sustainable and Smart Future

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**Abstract:** *This paper presents the detailed analysis of Internet of Things (IoT). This detailed study on the Internet of Things (IoT) offers an extensive review of its evolution and impact across various domains. It explores the transformative effects of IoT on industry and daily life, while critically addressing security vulnerabilities and risks such as data breaches and privacy concerns. The study highlights the benefits of IoT in enhancing efficiency and enabling smart applications, alongside the challenges of interoperability, scalability, and standardization. By examining recent research directions, including advancements in AI, edge computing, and sustainable practices, the paper envisions a comprehensive journey towards a smart and sustainable future, underscoring IoT's potential to drive significant progress and innovation in creating intelligent and environmentally responsible systems.*

**Keywords:** Benefits, Challenges, Effect, Internet of Things (IoT), Risk, Networks, Security, Smart Future.