**Internet of Things (IOT) technology, applications, and difficulties – a survey**

Sunitha.S, Department of CSE, Knowledge Institute of Technology, Salem, 2k20cse155@kiot.ac.in

Tanishka.K , Department of CSE, Knowledge Institute of Technology, Salem, 2k20cse160@kiot.ac.in

Swarnalakshmi.V, Department of CSE, Knowledge Institute of Technology, Salem, 2k20cse158@kiot.ac.in

**Abstract: -** This paper's major goal is to address the Internet of Things in a broader sense, with a focus on protocols, technology, and applications, as well as related challenges. The integration of many technologies is the most important aspect of the Internet of Things idea. RFID, smart sensors, communication technologies, and Internet protocols are all helping to power the Internet of Things. The primary idea is that smart sensors will deal directly with delivering a class of applications without the need for external or human involvement. The IoT's first phase might be considered the recent advancements in Internet, smart phone, and machine-to-machine M2M technology. We will explore IoT architecture as well as technical aspects of IoT in this paper. Then, using comparisons of other survey studies, present an overview of IoT technology, protocols, and applications, as well as related challenges. Our major goal is to give researchers and application developers a foundation for understanding how different protocols work, as well as an overview of some significant IoT concerns and the relationship between IoT and other emerging technologies like big data analytics and cloud computing.