Chapter 10
Impact of UAV Communication in the Healthcare Sector on IoT Framework

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ABSTRACT

Unmanned aerial vehicles (UAV) are appropriate as viable instruments in communication systems. The concept of the unmanned aerial vehicle fits with the internet of things (IoT), which frequently deploys an outsized number of sensors across a large area. To deliver wireless communications, UAVs have been employed as an airborne communication platform. To show the idea's viability, the authors present a UAV-based architecture for communicating with BANs in a dependable and power-efficient manner. The design that has been suggested employs the wakeup-radio-based communication paradigm between a UAV and plenty BANs.

The authors examine the proposed protocol's performance in terms of throughput and latency by designating different priority to hubs and gateways. The authors also highlight outstanding research topics and obstacles for building effective procedures for UAV-based data collecting in smart healthcare systems.

INTRODUCTION

A medical drone is a form of unmanned aerial vehicle (UAV) that healthcare practitioners use to transfer medicinal goods and communicate with patients from a distance. In most situations, healthcare providers employ drones for ferrying goods from health professionals and offices to patients, lab partners, and garbage removal centre.

Drones are becoming increasingly trustworthy and less pricey making them a promising developing technology for both catastrophe and non-emergency medical professionals. As a result, it's not shocking that the medical drone sector is exploding. According to one estimate, the overall medical drone market will be worth $643 million by 2027.

The more common popular word "drone" evolved because the loud and cadenced sound of vintage clothing military unmanned target aircraft reminded that of a male bee. The Navy developed a radio-controlled drone that carried a torpedo in 1942. Nowadays the drone is poised to become a significant disruptor in shipping. UAVs have been around for almost a century, dating back to World War I **(Chen, Yeh, Chamberland, huff, 2019)**. While UAVs were originally designed for use in combat, they are today employed for a wide range of purposes. A few weeks ago, the US military employed a drone commanded from the US to target an Iranian official in Baghdad.

Drones are becoming increasingly popular in healthcare for transporting medicines and other medical supplies to rural as well as disadvantaged areas. Zipline, the premier designer and manager of drones for shipment located in the United States, recently secured multiple collaborations around Africa to transport vaccinations, blood products, and other healthcare supplies to rustic and isolated places.

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