Telemedicine System Applicability Using Drones in Pandemic Emergency Medical Situations

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Abstract

Drones have evolved significantly in recent years, acquiring greater autonomy and carrier Capacity. Therefore, drones can play a substantial role in civil medicine, especially in emergency situations or for the detection and monitoring of disease spread, such as during the COVID-19 pandemic. The aim of this paper is to present the real possibilities of using drones in field rescue operations, as well as in nonsegregated airspace, in order to obtain solutions for monitoring activities and aerial work in support of the public health system in crisis situations. The particularity of our conceptual system is the use of a "swarm" of fast drones for aerial reconnaissance that operate in conjunction, thus optimizing both the search and identification time while also increasing the information area and the operability of the system. We also included a drone with an RF relay, which was connected to a hub drone. If needed, a carrier drone with medical supplies or portable devices can be integrated, which can also offer two-way audio and video communication capabilities. In conclusion, the use of drones for medical purposes brings many advantages, such as quick help, shortened travel time to the patient, support with basic but life-saving equipment, and the opportunity to access remote or difficult-to-reach places.

Biography

1999 Professional Certificate in Accounting, 2000 Electronic Banking and Web Business, 2001 Scientific Communications for Students – European vs. British Accounting System, 2008 Financial and Banking Degree, 2010 DCSE DELL CERTIFICATION conducted by World Wide Tech Services, 2016 Scientific Communications for Students – Reducing Chemical Pollution on Double Flow Turbojet Engines.