Chapter-7

Conclusion and Future Scope

7.1 Conclusion

The present study discloses an interface of a feedback-controlled hybrid drug delivery system. The interface involves a remote patient monitoring system, which enables the doctors to view the physiological data of the patient in real time. The hybrid nature of the interface will facilitate the doctors to use the system in open loop or closed loop. Concerning the remote monitoring of a patient from a remote location, many researchers have demonstrated the transmission of the physiological data of the patient in real time. The proposed model is an IoT based hybrid drug delivery system which will facilitate a doctor to deliver the drug from the remote location. The feedback mechanism is one of the essential features of the proposed model that enables a doctor to take a diagnostic decision. An analyzer database will facilitate the doctors to view the patient data even after the case is over.

7.2 Future Scope and Limitation

As a huge amount of data generated by sensors, so it is a challenging task to manage this bulky data with the traditional software. According to a report, since 2011, the health care system in the US has generated 150 Exabyte (Raghupathi & Raghupathi, 2014) of patient related data. Therefore, big data can be used to analyze and manage the bulky data. Through data mining technology, some hidden factors in the data can also be found. These patterns could be useful for healthcare professionals to reduce the adverse drug effects (Srinivas, Rani, & Govrdhan, 2010), such as less expensive alternatives. In
short clinical decisions can be improved through the data mining. The application interface of the model interacts with the cloud interface through the internet; therefore, good internet speed is required to communicate with the cloud application. For example, it works effectively in the 3G spectrum. A cross-layer design protocol may be used to improve the reliability (low energy communication and low latency) in communication. The proposed model may be refined in the future so that it would work effectively even in the 2G spectrum. Additionally, there is a scope to make this system more compact and lightweight by using the small size body sensors.