

Chapter 4

Conclusion



This book shows a buffet of artificial intelligence applications from drone to deep learning and from data analysis to the prediction of next pandemic disease along with its drug discovery. Today the entire globe is under the threat of COVID-19 affecting around 200 countries. The death toll reported in these highly affected countries has become catastrophic. Countries next in line where the pandemic is still in the second stage is closely monitored so as to check and create a barrier where there lies a severe chance of community spread. Here, close monitoring of sensitive regions using drones and modelling of the prediction mechanism to visualize the extent and severity of the spread of the disease within the community is highly required. Effective usage of drones has been reported encompassing community monitoring during lockdown to sanitization of the highly susceptible and the next probable hotspots. On the other hand, data analysis plays a pivotal role to understand the nature and the potential ability of community spreading. Although several drugs, which are administered to treat some major diseases in the developing nations are currently undergoing clinical trials and various tests for their response towards COVID-19. Although several promising results have come to the fore, nailing down to the vaccine is still an up-hill task.

Prediction of the risk of infection, its severity and nature of spread is attained by implementing machine learning models based on risk factors such as age, pre-existing disease, general habit and hygiene, frequency of social interactions, climate and socio-economic structures. The application of wearable body sensing devices also has a major impact in providing significant alerts by closely monitoring underlying health conditions. The self-triage system, m-health applications and AI assisted chatbots also play significant roles to help anxious patients. However, the reliability of several chatbots, m-health apps, etc. has been found to be highly questionable being linked to untrustworthy third-party sources with major privacy issues.

Artificial Intelligence is marching towards maturity. However, the masses are yet to acknowledge and adapt the advanced technologies developed by the medical researches. The pandemic like COVID-19 actually serves as a catalyst to develop

the algorithm for modern viral disease detection mechanism and life-saving drug discovery. Several government-aided and private research institutes and funding agencies are coming forward to patronize research on drug discovery, severity measurement, PPE suit development, mask and sanitizer production, etc. Several prototypes and concepts have been tested, data collected and analysed. All the valuable information has been put to real-life test through this pandemic. The positive responses received from nations, which implemented AI techniques to curb and control the disease, indicate that this concept has paved the path towards restricting the spread of the pandemic along with suggesting standardized techniques for detection and monitoring of life-threatening diseases. Although this has been a panic-stricken journey, lots of valuable experience has been learned and practiced.

Anticipating a future where AI applications will evolve and enhance to serve the mankind.