

Machine learning plays an essential part in the health industry in today's society. It can help medical professionals to take care of patients more properly. By the use of an automated system, challenges in the health care services can be handled. Researchers are also working on the way to create smart solutions using machine learning. Using these smart solutions, the identifications and treatment of the diseases becomes easy. Machine learning helps us to detect diseases more precisely hence patient's disease can be treated at an early stage and the danger to patient's health could be reduced. In the same way, Machine learning can be used to predict a very dangerous communicable disease i.e COVID19. COVID-19 disease can be caught through coming into contact with the infected person's blood and bodily fluids, or by inhaling airborne viruses. These communicable diseases can be a threat to life if we don't treat it with proper guidance. Therefore, we require a predictive expert system to predict given diseases which will make the prediction process a little bit more easy. Generally these communicable diseases[1] spreads commonly in rural areas where people don't have sufficient medical facilities and hospitals and due to this the disease is generally not treated properly, which results in more deaths in rural areas. Also sometimes this can even happen in urban areas as well if there is 1 less level of awareness and facilities. By using machine learning techniques, a predictive expert system can be created which gives an satisfactory prediction of this disease along with required and proper treatment. The availability of machine learning techniques for predicting communicable diseases make it easier to fight against communicable disease such as COVID-19. 1.1 COVID-19

Coronavirus disease, also known as COVID-19, is a contagious disease caused by the

coronavirus. It's first case was reported in December 2019. It started spreading from person to person and within a short span of time it has affected almost all the countries across the world and became a deadly pandemic. It has had an impact on millions of individuals all around the world. COVID-19 or coronavirus disease 2019 is an illness caused by a novel coronavirus which is now referred to as severe acute respiratory syndrome coronavirus 2 (SARS - Cov-2). The International Committee on Taxonomy of Viruses named it SARS-Cov-2 because its symptoms were similar to those of the SARS virus that broke out in 2003. According to the WHO, coronaviruses is a group of the viruses that has symptoms ranging from a common cold to more serious illnesses. WHO has declared coronavirus as a deadly disease and has also provided guidelines regarding this virus across the world which includes the way to identify this disease, the way to remain safe from this virus, what measures should be done, what symptoms to look for, and when should you go to the hospital? Coughing and sneezing, fever, and breathing issues are the most prevalent COVID-19 symptoms. Diarrhea, hearing difficulties, a loss of smell and taste, chest pains, and nasal congestion are some of the other symptoms.. COVID-19 transmits from one person to another person when they come in direct contact with one another or when the person infected from COVID-19 sneezes or coughs. It is a respiratory illness, hence our respiratory system is directly affected through it. It is highly contagious. It can also spread if a person comes into contact with a surface or food item that has been in contact with a COVID-19 infected person. The WHO also released some precautionary guidelines to remain safe from getting infected with COVID-19 virus which includes wearing a face mask, avoid handshaking,

following maintain social distance, and enforcing a lockdown. If COVID-19 can be predicted through an automated system, COVID-19's spread can be slowed. Also early diagnosis reduce the death rate and unnecessary use of medical resources. At present research related to prediction using machine learning is actively going on but mostly using medical CT photographs. Using machine learning techniques, this project aims to forecast the COVID-19 disease using symptoms such as fever, tiredness, dry cough, age, and gender.