**AI BASED COVID-19 RECOGNITION SYSTEM**

The COVID-19 outbreak has put the whole world in an unprecedented difficult situation bringing life around the world to a frightening halt and claiming thousands of lives. Due to COVID-19's spread in 212 countries and territories and increasing numbers of infected cases and death tolls mounting to 5,212,172 and 334,915 (as of May 22 2020), it remains a real threat to the public health system. This paper renders a response to combat the virus through Artificial Intelligence (AI). Some Deep Learning (DL) methods have been illustrated to reach this goal, including Generative Adversarial Networks (GANs), Extreme Learning Machine (ELM), and Long /Short Term Memory (LSTM). It delineates an integrated bioinformatics approach in which different aspects of information from a continuum of structured and unstructured data sources are put together to form the user-friendly platforms for physicians and researchers. The main advantage of these AI-based platforms is to accelerate the process of diagnosis and treatment of the COVID-19 disease. The most recent related publications and medical reports were investigated with the purpose of choosing inputs and targets of the network that could facilitate reaching a reliable Artificial Neural Network-based tool for challenges associated with COVID-19. Furthermore, there are some specific inputs for each platform, including various forms of the data, such as clinical data and medical imaging which can improve the performance of the introduced approaches toward the best responses in practical applications.

**EXISTING SYSTEM:**

In the existing system with the progress of the pandemic and rising number of the confirmed cases and patients who experience severe respiratory failure and cardiovascular complications, there are solid reasons to be tremendously concerned about the consequences of this viral infection. Determining appropriate approaches to reach solutions for the COVID-19 related problems have received a great deal of attention. However, another huge problem that researchers and decision-makers have to deal with is the ever-increasing volume of the date, known as big data that challenges them in the process of fighting against the virus. This justifies how and to what extent Artificial Intelligence (AI) could be crucial in developing and upgrading health care systems on a global scale.

**DISADVANTAGES OF EXISTING SYSTEM:**

* The progress of the pandemic and rising number of the confirmed cases and patients then the existing model does not work.
* Problem that researchers and decision-makers have to deal with is the ever-increasing volume of the date, known as big data, that challenges them in the process of fighting against the virus.
* Image-based medical diagnosis is not possible.
* **Algorithm**: Back-Propagation (BP) algorithm

**PROPOSED SYSTEM:**

The proposed System focuses on the introduction of some applicable AI-based strategies that can support existing standard methods of dealing with COVID-19 in health care systems around the world. With the aim of foregrounding the enhanced effectiveness of these strategies and techniques, their formation has been informed by and based on the most recent AI-related published medical updates as well as the latest updates on COVID-19. Therefore, this section presents ideas that can enhance and speed up ANN-based methods obtaining process to improve treatment methods and health management as well as recognition and diagnosis. However, the optimal effectiveness of AI tools during COVID-19 pandemic depends on the extent of human input and collaboration in different roles humans play.

**ADVANTAGES OF PROPOSED SYSTEM:**

* The input layer as the initial layer is related to the database and is designed for database access. A high-speed channel is used to couple this layer with the main (front-end) computer (s).
* Image-based medical diagnosis is possible the user has to give the CT scan image to the model, then our model will predict where the person viral infected or not.
* LSTM networks are very advantageous for learning sequences with longer-term patterns of unknown length.

**Algorithm**: LSTM, ANN

**SYSTEM REQUIREMENTS:**

**HARDWARE REQUIREMENTS:**

* System : Intel Core i9.
* Hard Disk : 1 TB.
* Monitor : 15’’ LED
* Input Devices : Keyboard, Mouse
* Ram : 32 GB.

**SOFTWARE REQUIREMENTS:**

* Operating system : Windows 10.
* Coding Language : Python
* Tool : PyCharm, Visual Studio Code
* Database : SQLite

**REFERENCE:**

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