



**IJIRCCCE**

e-ISSN: 2320-9801 | p-ISSN: 2320-9798



# INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN COMPUTER & COMMUNICATION ENGINEERING

**Volume 9, Issue 6, June 2021**

**ISSN** INTERNATIONAL  
STANDARD  
SERIAL  
NUMBER  
INDIA

**Impact Factor: 7.542**



9940 572 462



6381 907 438



ijircce@gmail.com



www.ijircce.com

# Prediction of Sales and Production for Patients after COVID-19 Breakdown

Barve Pooja Popat<sup>1</sup>, Magar Sonam Shankarrao<sup>2</sup>, Pawar Vidya Shivaji<sup>3</sup>, Prof.P.P.Belsare<sup>4</sup>

Department of Computer Engineering, S.B.Patil College of Engineering, Savatribai Phule Pune University, Indapur, Vangali, Maharashtra, India

**ABSTRACT:** The Covid-19 crisis fully gripped the globe as our first issue of the transaction is concerned. While this was not the first time that such disease had threatened to keep world under lockdown. Since the coronavirus, it has become challenging to healthcare staff and hospitals for maintaining the flow of the high number of cases. And also demand and market for stock of sanitizers, face masks, ventilators, PPE's is increased to more limit. Mostly the apps use Bluetooth sensors for tracing purpose. As the app takes relative location between two devices, based on projection system incorporate longitude and latitude. The apps have less ability to accurately locate a device within 2m, so that they can just record the true "contacts" in one's immediate requirement and not those up to 10m. This paper is reviewed through various research paper articles, and other useful internet materials. The proposed system uses data mining techniques to discover and extract patterns making use of database system and machine learning algorithms. For this purpose in our proposed system we are using static dataset on which regression algorithm is applied to predict value considering hotspot areas and infected patients method. Thus, this system is more effective, reliable and efficient to get quality analysis with accurate result.

**KEYWORDS:** Prediction, machine learning, covid-19, supervised learning, Filtered Algorithm.

## 1. INTRODUCTION

In the general population in public areas particularly where distance is not possible and areas of community transmission fabric masks are recommended to prevent onward transmission. In some situations it includes school grounds. If wearers are infected then before symptoms of illness appeared in them masks may help to protect others. The national or local guidelines and policy should be inline on wearing a mask or face cover. Where the used masks should be worn and disposed properly. But as increased in media attention in the weeks due to Covid-19 is leading to the coronavirus outbreaks in United States and all over globe which led to reports of sold out face masks, other cleaning products, hand sanitizers in stores. As it is understandable that this situation is worst, and this critical juncture has reached to the situation that healthcare workers do not have enough protective equipment kit for themselves. It has been come to an account by experts that this crisis will last for many more weeks to months as, the efforts are underway at many hospitals of reusing and rationing of equipments. It is not an immediate process while the manufacturing of more masks is needed. I propose mostly affected either local/state or federal government in places is trying to or buying back PPE which was bought by community members previously. Individuals are willing to give some of their personal stock of equipments hopefully as they see, healthcare workers around them risking their lives for the betterment of those being affected by Covid-19. As more long term solution are proposed this stock of equipments could provide and serve as temporary relief for affected peoples. Covid-19 in the country are being monitored at the highest level in collaboration with the states and various actions have been initiated for prevention, containment zone management areas. The factories are trying to produce essential items like personal protection equipment for the medical personnel also factories and workers are working round the clock in order to meet the requirement of PPE's, ventilators and masks. During Covid-19 crisis all drug companies have assured the government that there will be no any shortage of drugs, while Bharat Electronic Limited is going to manufacture ventilators and even those are developed and produced by auto manufacturers. For any emergencies medical personnel are fully prepared and trained. The medical personnel working in intensive care units, isolation areas uses the personal protection equipment (PPE) to protect them from acquiring infection. The PPEs was not manufactured in country. The government of India promoted and made proactive efforts for PPEs and for manufacturing them in the country as there is huge requirement considering in future needs. In this endeavour Ministry of Health, Ministry of Welfare, Ministry of Textiles have been working together. 11 Manufacturers have cleared quality tests while considering domestic manufacturers as rise to this occasion so far. So the order of 21 lakh PPE are placed to them. They have been currently supplied 6-7,000 PPE per day and this is expected to increase

and go up to 15,000 per day within the next week. Also quality test is passed by one more manufacturer today the order of 5 lakh PPEs is given to him.

In various hospitals in country 3.34 lakh PPEs are available now. Indian government have already supplied and produced 60,000 PPE kits. 10,000 PPEs from china has been arranged by Red Indian Cross Society and received, distributed in country. The other donated 3 lakh PPE will be arrived and received by 4<sup>th</sup> April. Also order of 3 lakh PPE is placed to ordinance factories. Worldwide demand for foreign sources of PPE kits has increased. The Ministry of External Affairs also approaches PPEs, order is placed to Singapore based online platform for supply of 10 lakh PPE kits. Companies in Vietnam and Turkey has been identified with over 1 lakh PPE kits production capacity, which has tied up with supplier based in korea for order of 20 lakh PPE kits are being placed on this company through MEA. The two domestic producers manufactured N95 masks who can supply 50,000 masks per day. They are ramping with the capability to produce 1 lakh masks per day next week. DRDO is collaborating to produce 20,000 N99 masks per day to the local manufacturers. The week time is needed for these products to become available for fast supply. The stock available in hospitals have 11.95 lakh N95 masks in India. The 1.40 lakh masks are being distributed today and in past two days additional 5 lakh masks were distributed. As from Singapore 10 lakh masks would be part of PPE kits in next coming days. The tend to develop acute respiratory disease syndrome (ARDS) ventilators are required for Covid-19 patients. At this movement less than 20 Covid-19 patients are on ventilator support. On meantime, for treatment of Covid-19 patients over 14,000 ventilators have been identified in various hospitals in country. An order of 10,000 ventilators has been placed on domestic manufacturers Agfa Healthcare in Noida as they are able to develop suitable ventilators for patients. By the 2<sup>nd</sup> week of April suppliers are expected to commence. So in addition, Bharat Electronic Limited has been placed order of 30,000 ventilators and they are going to collaborate with domestic manufacturers about this endeavour. Manufacturing of ventilators is also prepared by Indian auto manufacturers. In the meantime, international companies like Hamilton, Mind ray and Draeger have been placed order of supplying ventilators. China has been approached for sourcing 10,000 ventilators by Ministry of External Affairs.

## II. RELATED SYSTEM

There are many applications which provide online education to student like Khan Academy for coaching, EDX for high quality courses, Kahoot! and Byju's etc but some of them charges much more but our application is free of cost there are no any charges. Above application are not available 24/7 but our application open 24/7. This is a open source for anybody, anytime, from any place in the world there are no limit of location and country. In this application we provide a extra teaching staff block which share their views and thoughts. In this application teacher are those who are educated but live in old age home, those who want to share their views but they don't have any medium for all those this application is useful. The application make a bridge between old people and new generation. It is useful for housewives also which are want to learn but have some restrictions

### 3. Proposed System

Technical architecture is concerned about how large software applications can be or should be organized for better performance and ease of development. The commonly used option is a 3 or n tier architecture.

- **Presentation tier (or client-tier):** It maintains the "look and feel" of an system and application. It is responsible for the receiving user events, controlling the user interface and presentation of data. Most ecommerce applications are web-based. HTML, CSS and Javascript languages are used for programming. JSP or ASP is used for dynamic content.
  - **Application tier:** This layer represents the business logic of the applications. It is usually uses a Java Application Server (Web Sphere or Web Logic). There're several sub-layers within the application layer.
  - **Analysis Data:** System performs analysis on stock data using 4 algorithms: a) Moving average algorithm b) Neural nephro algorithm c) Forecasting algorithm d) Regression algorithm.  
After applying above 4 algorithms find the most efficient algorithm for calculating predicted value and making decision we called it as filtered algorithm.
1. **Analysis using Filtered Algorithm:** Once get the filtered algorithm we find the predicted value and decision using this algorithm. Take last month of data analyze it using filtered algorithm according to that put the result to users.
- **Data tier:** The persistence of application information is managed by this layer. It is usually powered by a relational database server (Oracle or MySQL).

### 3.1 Goals And Objectives

Following are the goals and objectives of our proposed system:

- To build prediction model for the hospital and patients for particular area
- .To study the current patient data affect by corona market trend and collect trend data.
- To build prediction model for the hospital and patients for particular area in a city listed under affected due to corona using multilayer perceptron (MLP) Neural Network technique.
- To compare the model with real data for its accuracy and efficiency.

### 3.2 Features

Features of proposed system are as follows:

- **All-around technological enhancement.** Unnecessary visits to rendering hospitals, deeply analysing and passively accumulating important health data, etc.As we already know all these is possible due to advanced tech capacities galore enough. Fantastic long-term innovations have a great space provided by IoT.
- **Cost savings.** The efficient autonomous systems will cost less to manage and ‘employ’ in the long run which is one of the greatest advantages of IoT in healthcare.Better cost savings due to fewer hospital journeys when things comes to patients as well as accelerated diagnostics and treatment.
- **Accessibility.** Doctors can get all real time data and monitor the situation and condition of patients on command without leaving their office.

### 3.3 Block Diagram

The following figure shows the block diagram of proposed system:

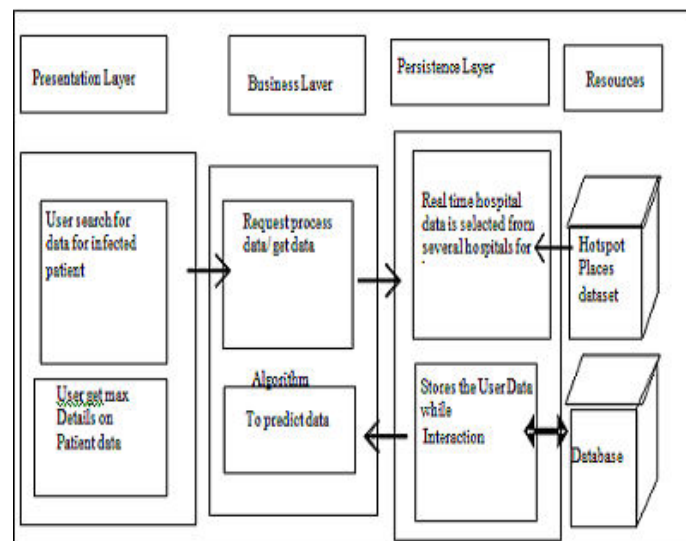
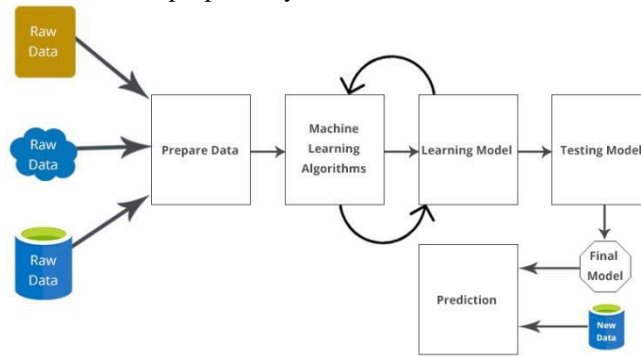


Fig -1: Block diagram of proposed system

### 3.4 Flow Chart

Following figure shows the workflow of our proposed system:



**Fig -2:** Flow chart of proposed system

## IV. CONCLUSIONS

Prediction method the system's error rate is close to not more than 10% which implies a very high 90 % prediction accuracy. Integrated data and analyses bring detailed results from dataset based on infected patient's method and its relations related to need of masks ventilators etc.

## REFERENCES

- [1].Darmadi Komo, Chein-I Chang, Hanseok KO, "Neural Network Technology for Stock Market Index Prediction", International Symposium on Speech, Image Processing and Neural Networks, 13-16 April 1994
- [2].D. Venugopal Setty, T.M.Rangaswamy and K.N.Subramanya, "A Review on Data Mining Applications to the Performance of Stock Market", International Journal of Computer Applications, (0975 – 8887) Volume 1 – No. 3, 2010
- [3].Dase R.K. and Pawar D.D., "Application of Artificial Neural Network for stock market predictions: A review of literature", International Journal of Machine Intelligence, ISSN: 0975–2927, Volume 2, Issue 2, pp-14-17, 2010
- [4].Akhter Mohiuddin Rather, "A prediction based approach for stock returns using autoregressive neural networks", IEEE, 978-1-4673-0126-8,2011
- [5].D. Ashok kumar and S. Murugan, "Performance Analysis of Indian Stock Market Index using Neural Network Time Series Model", International Conference on Pattern Recognition, Informatics and Mobile Engineering (PRIME), IEEE, 978-1-4673-5845-3, 2013
- [6].Aditya Nawani, Himanshu Gupta, Narina Thakur, "Prediction of Market Capital for Trading Firms through Data Mining Techniques", International Journal of Computer Applications (0975 – 8887) Volume 70– No.18, May 2013
- [7].Chi Kin Chow, Tong Lee, "Construction of multi-layer feed forward binary neural network by a genetic algorithm Neural Networks", IJCNN Proceedings of the 2002 International Joint Conference, Honolulu, HI, USA, 2002
- [8].Cao Q, Leggio KB, Schniederjans Mj., "A comparison between Fama French's model and artificial neural networks in predicting the Chinese stock market", Computers & Operations Research, Vol. 32, pp. 2499-2512, 2005
- [9].Satyajit Dhar, Tuhin Mukherjee, Arnab Kumar Ghoshal, "Performance Evaluation of Neural Network Approach in Financial Prediction: Evidence from Indian Market", Proceedings of the International Conference on Communication and Computational Intelligence, pp.597-602, 2010
- [10].Text Book "Data Mining Techniques", by Michael J.A. Berry and Gordon S. Linoff, Second edition
- [11].Gitansh Khirbat, Rahul Gupta, Sanjay Singh, "Optimal Neural Network Architecture for Stock Market Forecasting", International Conference on Communication Systems and Network Technologies, IEEE, 978-0-7695-4958-3, 2013
- [12].Binoy B. Nair, M. Patturajan, V.P Mohandas, Sreenivasan R.R., "Predicting the BSE Sensex: Performance Comparison of Adaptive Linear Element, Feed forward and Time Delay Neural Networks", IEEE, 978-1-4673-0449-8, 2012



- [13].Kumar Abhishek, Anshul Khairwa, Tej Pratap, Surya Prakash, “A Stock Market Prediction Model using Artificial Neural Network”,International Conference on Computing, Communications and Networking Technologies (ICCCNT), IEEE-20180, 26th-28th July 2012
- [14].D.S. Patil,A.B.Gavali,S.B.Gavali,”Review on Indexing Methods in Location Based Services”,2014 IEEE International Advanced Computing Conference(IACC),IEEE,21 February 2014
- [15].Londhe Swapnali,Jagtap Megha,Shinde Ranjeet,P.P.Belsare,Gavali.B.Ashwini,”A Cryptographic key Generation On A 2D Graphics Using RGB Pixel Shuffling and Transposition ”,Proceedings of the International Conference on Data Engineering and communication Technology,Spinger,Singapore,2017



**INNO**  **SPACE**  
SJIF Scientific Journal Impact Factor  
**Impact Factor: 7.542**



**ISSN** INTERNATIONAL  
STANDARD  
SERIAL  
NUMBER  
**INDIA**



# INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN COMPUTER & COMMUNICATION ENGINEERING

 **9940 572 462**  **6381 907 438**  **ijircce@gmail.com**



[www.ijircce.com](http://www.ijircce.com)

Scan to save the contact details