



# Artificial Intelligence and Covid - 19 Deep Learning Approaches for Treatment.

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**Abstract**—The applicability of an E- Health Solution that improves healthcare delivery settings in the rural parts of the developing world and discusses a proposed patient-centric E- Health Solution that suits the rural setting is the main objective of this project. The main benefit of implementing such an E-Health Solution is that it ensures the availability of the Specialist across a distance at many E- Clinics within the short-Est possible time frame. Some of the important features supported by this solution are : prediction of disease that might be required for diagnostic decision making by doctors, seamless work without much technical dependency (without maintenance); affordable, adequate and accessible solution for Patient care management system.

When a patient visits the clinic it is necessary to go through all the records to find the relevant record which imposes delay to the process. The patient records are piled up for searching a particular record when a clinic is about to start. This problem could be addressed by connecting the Patient and the Consultant through a web-based Electronic Medical Record (EMR) system. The use of electronic medical records would also help manage patient's medical records more efficiently.

## II. PROPOSED ALGORITHM

Society Problem:

Many Local pharmacies are selling medicine with or without prescription from the doctors. So the abuse of selling medicine that affects the general people suffering different diseases and young generations getting addicted which spread out over the country. Most of the doctors prescribe medicine on a hand written prescription paper and giving suggestion to make the laboratory test to the patients to verify their diseases. Mostly, patients lose their previous prescription and also the laboratory test report which will create problem to doctors to verify their previous diseases and to make decisions. At present in the cities, healthcare and diagnostic centers practice limited applications of electronic patient record mainly in the diagnostic services but having no share or access to their database in the local hospitals. Although the patients are paying a lot for their health services, they are getting less benefit from these health care systems and they feel that they are victim by themselves. As a result, patients are mentally disappointed, isolating their important health record; suffering different problems and cannot store their health record safely

**Keywords**—Administrator , Arogya-vibhag , Doctor  
Electronic Medical Record (EMR).

## I. INTRODUCTION

The Patients in rural areas incur heavy expenditure in travelling long distances spending lot of time to consult Specialists in cities due to the lack of Specialists in their areas. This issue can be addressed by an e- Solution that makes appropriate use of Electronic Medical Records (EMR) and Telemedicine technologies which enables the patient to consult a Specialist through e-Consultation. Healthcare delivery setting in rural parts today exposes limited access to highly specialized consultancies. Patients in rural areas have to travel long distances to consult a Specialist in an urban area. This entails huge amount of cost, time and inconvenience especially in the elderly, post-operative and re-convalescing patients who have received specialized treatments. In rural area patient's medical records are stored in the record rooms of the hospitals where they are ordered and managed manually.

### III. System Architecture

The rural e-health system is a web app which can be helpful for people in rural areas, as they do not have access to good medical facilities. In this age of digitalization, this means is put to use and can save lives. For detection of disease data mining technique is used. SVM algorithm is used. In the system, the admin can add doctors including specialties, view and delete doctors. He can add, view and delete Arogya-Vibhag. The Arogya-Vibhag Jr. Doctor can add patient and their details like their symptoms. He can search for specialist doctor and detect disease, view allocated doctor and chat with him and view the prescription. The Senior Doctor will be in contact with the Arogya-Vibhag Doctor. He can view the allocated patients, view their symptoms and system detected diseases. He can chat and submit the prescription to the ArogyaVibhag Doctor. The patients of rural area will be heavily benefited by the rural e-health system.

**1.Administrator :** The admin can login and operate the whole system. The ad[1]min will login and can add, delete and view the Doctor and Arogya-Vibhag.

**2.Arogya-Vibhag (Jr. doctor) :** The user Arogya-Vibhag (Jr. Doctor) can lo[1]gin to the system and add patients details. Arogya –Vibhag (Jr. doctor) can search for doctor based on symptoms. Arogya-Vibhag (Jr. doctor) can view allocated Doctor. Chat with Senior Doctor.

**3.Doctor (Senior Doctor) :** The Senior Doctor can register and login. Senior Doctor can view allocated patients. also view symptoms Detected Disease. with Arogya-Vibhag (Jr. doctor). Submit Prescription for Arogya -Vibhag.

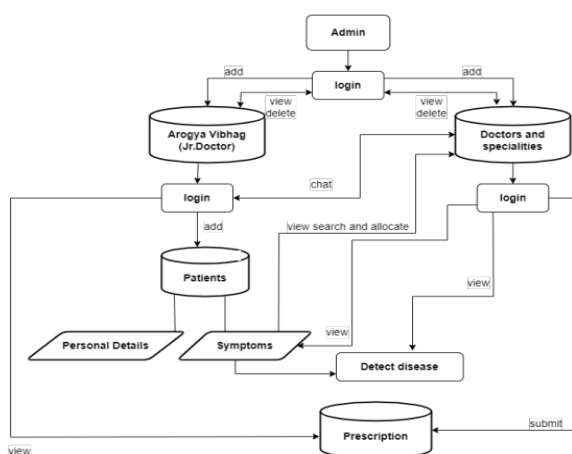


Fig. System Architecture

**System architecture has this major blocks:**

1. Administrator.
2. Arogya-Vibhag (Jr. doctor).
3. Doctor (Senior Doctor).

### IV. EXPERIMENT AND RESULT

1. Home page:



## 2. Admin Login :



Fig. Admin Login

## 3. Arogya- Vibhag Login page:

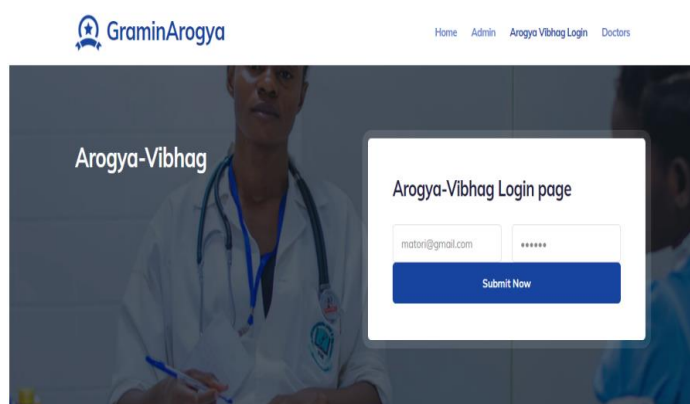
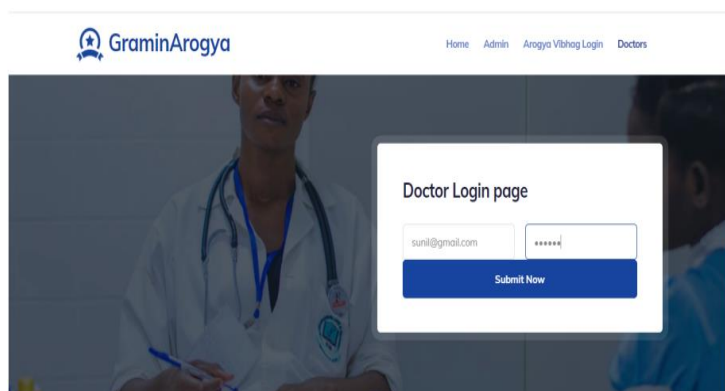


Fig. Arogya-Vibhag Login Page

## 4. Doctor Login



## V.CONCLUSION

A detail description of the E-Solution as a proof of technology which was developed to support the problems prevailing in the current healthcare settings in rural areas. It shows the significance of implementing an Electronic Medical System and about the system architecture, application design, technologies used and how the system model should be optimized to suit the conditions considering the critical issues, challenges and security constraints as well. It is concluded that this is a promising solution that facilitates health consultations in rural communities of developing Countries with less Cost, Travel Time and Travel Distance, making a healthy population that will in turn catalyst the global development process.

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