

# **IOT BASED HEALTHCARE SERVICE RECOMMENDATION SYSTEM FOR DIABETIC FOOT ULCER USING MACHINE LEARNING**

## **RESEARCH PROPOSAL**

In India, the healthcare industry has risen to prominence. And this expansion is significantly influenced by digitization. Deloitte predicts that the Indian healthcare market would increase from US\$ 100 billion in 2016 to US\$ 280 billion in 2022, growing at a CAGR of 23%. Numerous hospitals and medical institutes have gathered enormous volumes of clinical data in the form of patient medical records, test results, treatment plans, etc. Although data is frequently dispersed over several web sources, such as informational blogs, sites, etc., there is a wealth of information available online for patients to interpret those medical documents. As a result, patients frequently become perplexed and uncertain while researching their therapy. Recommender systems can therefore be utilized in the healthcare sector to offer people improved health services. According to current research findings, persons with the same condition may react differently to the same medicine. A medication may work well for one patient while failing to have the desired effects on a different patient with the same disease. Medication that is prescribed specifically for an individual while taking into account all the factors that affect their reaction to therapy is known as personalized medicine. So , we are planning to implement a new study on a device that monitors the patient with diabetic foot ulcer . The presented research work involves a set of five research objectives which are listed below.

- To collect the various problems or issues that were correctly faced by the patient with diabetic foot ulcer.
- To develop an optimization algorithm to effectively process the collected data set.
- To create an IOT device integrated with an ARM processor.
- Collecting the data from the host via the device and stored.
- To design an intelligent recommendation system using convolutional neural networks (CNN) to match the patients and doctors.