

IDEA PROPOSAL

Hack O' Holics

Theme

HealthCare-Technology can help us successfully conquer the battle against the various enemies which are putting a strong fight against the entire human race internally, within them. It can prove to be a boon for this sector.

Problems we are facing currently

During the past two decades, India has been one of the world's best performing and most stable economies, and this economic development has given rise to vast socioeconomic changes, with an increasing risk of non-communicable diseases, including cancer. Globally, noncommunicable diseases (NCDs) accounted for 71% of total deaths. In India, NCDs were estimated to account for 63% of all deaths, and cancer was one of the leading causes (9%). One of the key problems in the treatment of cancer is the early detection of the disease. Often, cancer is detected in its later stages, when it has compromised the function of one or more vital organ systems and is widespread throughout the body.

Solution to these problems

"If people have access to primary care and referral systems then cancer can be detected early, treated effectively and cured. Cancer should not be a death sentence for anyone, anywhere," said Ren Minghui, assistant director-general, Universal Health Coverage/ Communicable and Noncommunicable Diseases, WHO.

Our solution aims at providing early detection and treatment of patients suffering from skin cancer. This would definitely help in reducing the mortality rate due to cancer and improve the health care sector of our country.

Functionality of the solution

- ✚ We aim at designing a web page and an android application which will be beneficial for the healthcare sector in quick detection and analysis of skin cancer. Foremost after logging in, the patient needs to enter his/her basic details. Then the patient would have to upload an image of the lesion. Our model will analyze this image and apply the ML algorithm (Convolution Neural Network) thereby predicting the probability of the skin lesion being benign or malignant. Further it will also classify its subtype, if malignant.
- ✚ Besides detection of skin cancer, it will also enable quick treatment which can save a person's life as it will automatically fix an appointment in the nearest diagnostic centre and transfer all the metadata like age, sex, place of lesion, etc. of the patient.

“At least 7 million lives could be saved over the next decade, by identifying the most appropriate science for each country situation, by basing strong cancer responses on universal health coverage, and by mobilizing different stakeholders to work together”, said Tedros Adhanom Ghebreyesus, director-general, WHO.