

ABSTRACT

The demand for the development of a smart construction of a blood sample collecting systems is felt necessary in recent COVID pandemic situations that the system is more likely of non-invasive in nature, of lower cost and portable. Taking these facts into consideration, we have targeted for an automatic blood sample collecting portable system. To realize this, we have incorporated a robot that will communicate with the patient standing in front of it, through face detection, voice assistance, speech recognition, and head gestures for better interaction with the patient. After interaction with the patient, the robot will instruct the patient to the blood test where an automatic blood sample collecting system will be available, which will provide a lancet for collecting blood sample and a track for testing the blood sample. The result of the blood test will be displayed in just a few seconds.