

GOVERNMENT OF INDIA
DEPARTMENT OF ATOMIC ENERGY
LOK SABHA
STARRED QUESTION NO. *124
TO BE ANSWERED ON 28.07.2021

COVID BEEP

*124. SHRIMATI CHINTA ANURADHA :
SHRI ADALA PRABHAKARA REDDY :

Will the PRIME MINISTER be pleased to state :

- (a) whether the Government has launched the COVID BEEP which was developed by the Department of Atomic Energy (DAE) in collaboration with the IIT Hyderabad and the ESIC Medical College, Hyderabad;
- (b) if so, the details thereof ;
- (c) whether this is India's first indigenous and cost effective monitoring system for COVID-19 patients and if so, the details thereof ;
- (d) whether the Government has taken any steps to undertake the production of COVID BEEP on a large scale; and
- (e) if so, the details thereof?

ANSWER

THE MINISTER OF STATE FOR PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND PRIME MINISTER'S OFFICE (DR. JITENDRA SINGH):

(a)to(e) A statement is placed on the Table of the House.

Government of India
Department of Atomic Energy

STATEMENT REFERRED TO IN REPLY TO LOK SABHA STARRED QUESTION No. *124 DUE FOR ANSWER ON 28.07.2021 BY SHRIMATI CHINTA ANURADHA & SHRI ADALA PRABHAKARA REDDY REGARDING "COVID BEEP".

- (a)&(b) COVID-BEEP was developed by Electronics Corporation of India Ltd. (ECIL) in association with ESIC Medical College, Hyderabad. COVID-BEEP was launched by the Hon'ble Dr. Jitendra Singh, Minister of State in the Department of Atomic Energy in the presence of Shri Santosh Kumar Gangwar, former Minister of State in Ministry of Labour and Employment, Shri G. Kishan Reddy, the then Minister of State in the Ministry of Home Affairs and Shri K N Vyas, Secretary, DAE & Chairman, Atomic Energy Commission on June 07th, 2020.
- (c) Yes, Sir. This is India's first indigenous and cost effective Remote Health Monitoring System (RHMS) for Covid-19 Patients and beyond. Details of COVID beep is attached at Annexure-I.
- (d) Yes, Sir.
- (e) (i) 40 Nos. of COVID-BEEP were supplied as part of ECIL CSR activities to Government hospitals in Hyderabad for deployment and feedback in FY 2020-2021. Further, additional 100 Nos. are being prepared for dispatch to ESIC, Hyderabad by mid-August, 2021.
- (ii) DPE has been approached to examine the possibility of deployment in CPSE hospitals.
- (iii) The features of product were also presented through Virtual Conference to the Secretary, Ministry of Labour and Employment, Govt. of India on June 11th, 2021. Based on the deliberations, a proposal was submitted to Ministry of Labour & Employment for large scale deployment.

IoT based Continuous Oxygenation Vital Information remote monitoring System (COVID BEEP)

Monitoring of patient's health during medical treatment, quarantine, self-isolation and Aged parents/people staying away is a challenging task for medical staff with limited resources available in the wake of its highly contagious in nature. There is every necessity to monitor the body parameters of patient constantly and report to concerned doctor or medical staff for immediate attentive actions to reduce the fatalities. COVID-19 patients generally exhibit symptoms like fever, cough and difficulty in respiration or breath. Hence, continuous monitoring of body temperature, Oxygen saturation (SPO₂), Heart beat rate, Blood Pressure (BP), ECG and Respiration rate plays key role in assessment of the patient health condition and subsequently to support with proper medical equipment or medication. This exercise may put the doctor and medical staff in danger for constantly getting in touch with patients like COVID-19.

To address this issue, ECIL in consultation with ESIC Medical College, Hyderabad has come up with an novel solution by name "IoT based continuous oxygenation vital information remote monitoring System (COVID-BEEP)" consisting of a versatile indigenous wrist wearable device and a mobile App/ web browser by means of which patient can be monitored from any place. It can communicate with remote system or mobile by means of **GSM SIM or long-range Bluetooth**. It is also possible to track the patients with built in GPS system.



A prototype of the system has been developed and tested successfully with different patients in a joint venture with ESIC, Hyderabad, BARC Mumbai and TMH, Mumbai. The measured parameters were cross verified and revealed results from the device in agreement with the standard equipment.

ECIL has incorporated the feedback received from team of doctors and the system is ready with field deployable version with three variants.
