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Acculi Labs brings out mobile app for COVID-19 risk assessment

30 July 2020 | News

The startup has launched a mobile app which uses the power of smartphone processor and smartphone sensors to capture a bunch of body signals.



The Centre for Augmenting WAR with COVID-19 Health Crisis (CAWACH), an initiative by the Department of Science & Technology (DST), has selected Bangalore based startup Acculi Labs to develop a COVID risk assessment profile called Lyfas COVID score.

Acculi Labs is armed with 'Lyfas' a clinical-grade, non-invasive, digital functional biomarker smartphone tool for screening, early detection, root cause analysis, acute event risk assessment, prognosis, and home monitoring of chronic diseases which they have repurposed to Lyfas COVID score.

The new technology developed with support from the DST will detect the possible infection in an asymptomatic individual to prioritize the conventional testing queue as well as carry out a risk assessment of an asymptomatic individual to become symptomatic.

Lyfas is an Android application in which, when one keeps the index finger on the rear phone camera of a mobile phone for 5 minutes, captures the capillary pulse and blood volume change and derive 95 biomarkers with proprietary algorithms and signal processing techniques.

It uses the power of a smartphone processor and sensors to capture a bunch of body signals. The signals are subsequently processed on the principle of Photoplethysmography(PPG), Photo Chromatography(PCG), Arterial Photoplethysmography(APPG), mobile spirometry, and Pulse Rate Variability(PRV).

Lyfas then provides cardio-respiratory, cardio-vascular, hematology, hemorheology, neurology based parameters that are capable of tracking minute pathophysiological changes in the body.

These changes are further profiled into organ system-wide response. The technology is focused on population screening, monitoring of quarantined individuals, and surveillance at the community spreading phase.