

## **For consideration under COVID -19 Initiatives by NITs**

### **Title: Affordable Non-Contact Temperature measurement device**

**Category: Portable Testing device for COVID-19 Screening**

#### **Abstract:**

World Health Organization declared Coronavirus disease-2019 (COVID-2019) a Public Health Emergency of International Concern. Since its identification in late December 2019 in Wuhan, Hubei Province, People's Republic of China, the number of cases imported into other countries like India is increasing, and the epidemiological map is changing rapidly. In Populated Country like India, the best way to control the spread of virus is measuring the body temperature precisely, therefore, it is very important to develop a set of high-precision infrared thermodetector for mass screening of COVID\_19 population. Even after subdue of virus it is required by Companies, Schools, and Colleges to deploy a screening mechanism to identify the virus at early stage thus in demand for the infrared thermometer. In this project to measure the human body temperature, an non-contact infrared thermometer is used where temperature from a portion of the thermal radiation sometimes called black-body radiation emitted by the humans being measured. They are sometimes called laser thermometers as a laser is used to aim the location spot, the thermometer, or non-contact thermometers or temperature guns, to measure temperature from a distance. By knowing the amount of infrared (IR) energy emitted by the humans and its emissivity, the human's temperature can often be determined within a certain range of its actual temperature. Since we are in demand for infrared thermometers. The aim of this project to develop a low cost non-contact infrared thermometers so that it can be affordable by everyone to be used in mass screening of COVID-19 status.

**Expected Time-line:** 2 months

**Remarks:** Funding requirement -Rs. 15,000/-

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