**Android Smart Monitoring and**

**Detection for COVID-19**

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**Abstract**

Sever acute respiratory syndrome or known as SARS is one of the highly infectious disease caused by a coronavirus. Detecting or Screening a potential infected person plays a vital role in preventing the spread of the disease. The use of infrared thermal cameras has been proposed as a noninvasive, cost effective, speedy and fairly accurate means for mass screening of potential infected persons. Infrared thermography creates a digital image showing temperature patterns of the subject. It is believed that IR (Infrared Radiation) cameras has potential to detect fever, cardinal symptoms of SARS and avian influenza (Bird flu).

**Introduction**

**“**Have you ever thought that your smart phone can protect you from COVID-19? Well nowadays, majority of the human population will agree that smart phones are considered as a vital need for their everyday lives/routine. Since we are facing a global crisis, why don’t we consider to use our devices to help us to deal with the virus from spreading.”

Based on the World Health Organization, coronaviruses are a family of viruses that cause a victim from a common cold to a more severe disease such as SARS and MERS (Middle East respiratory syndrome). These types of viruses were originally transmitted through animals to people. For example, SARS can be transmitted from cats to humans while MERS infects humans through a type of camel. But also there are known coronaviruses circulating in animals today that have not infected any humans yet. Coronavirus attacks the respiratory system through nose. After an incubation of three days, they cause the symptoms of common cold, sneezing, runny nose and sometimes cough, usually the disease resolves in few days. COVID-19 is an infectious disease, it is primarily spread between people through simple breathing and cough. The time from exposure to onset of symptoms usually takes between 2 to 14 days. Maintaining distance from people coughing or sneezing, hand washing, as well as avoiding touching one`s face is recommended to prevent the disease from spreading.

Infrared Camera or thermal imaging camera is a device that creates image by the use of infrared radiation, like the usual camera it forms an image using visible light. The art of getting and analyzing the data provided by IR camera is called thermography. Thermal cameras work by reading Infrared (IR) light which is an electromagnetic radiation of small particles called photons. All objects or living things having temperature above absolute zero emit infrared radiation, and this is how heat was transferred and detected by thermal cameras.

Having all that information, this research aims to introduce an innovative way on how to deal with the COVID-19 by merging thermal scanner function with smart phones features. And to prove that we can deal any modern problems by providing modern solutions.