

**JERUSALEM COLLEGE OF ENGINEERING**  
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*(An Autonomous Institution)*  
**DEPARTMENT OF BIOMEDICAL ENGINEERING**

Greetings!

We're happy to share that faculty members of our department, Dr. Sheeja V Francis, Professor & Head/BME and Ms. Nivetha B, Asst. Prof/BME have associated themselves in research works in their respective domain and had filed 1 **PATENT** each, with the office of Intellectual Property, Govt. of India. The details are given below:

**PATENT 1**

APPLICANT: Dr. SHEEJA V FRANCIS

TITLE: MOBILE CLOUD COMPUTING E-HEALTH CARE SYSTEM FOR THE DETECTION AND CLASSIFICATION OF MALIGNANT CELLS IN LUNG CANCER

FIELD OF INVENTION: BIOMEDICAL ENGINEERING

APPLICATION NO.: 202141005983

STATUS: PUBLISHED

**ABSTRACT:**

In recent years, application of Information and Communication Technology (ICT), has been gaining much popularity in the field of health care industry. For example, ICT helps people positioned at different geographical locations to get health care services at any time. Moreover, in pandemic situations like COVID-19, ICT aids elderly people or those who suffer with chronic diseases get doctor's advice or treatment without visiting the hospital. This also offers the patients, protection from acquiring COVID-19 infections. Thus, mobile or tele health care systems offer flexible and user-friendly medical solutions. One of the prime mottos of the mobile computing is to reduce the computational complexity with respect to the performance of the system by offloading various tasks to the cloud server from mobile end. A novel cloud-based decision support system for the detection of malignant cells and classification from lung cytology images has been proposed. This system helps in diagnosing the lung cancer and providing efficient access to quality health care service remotely.

## **PATENT 2**

APPLICANT: Ms. B. NIVETHA

TITLE: IOT BASED SMART WEARABLE SOCIAL DISTANCING ALERT SYSTEM

FIELD OF INVENTION: COMMUNICATION

APPLICATION NO.: 202041042946

STATUS: PUBLISHED

### **ABSTRACT:**

This invention "IOT BASED SMART WEARABLE SOCIAL DISTANCING ALERT SYSTEM" is relates to maintain social distance between fellowmen during the pandemic situation. Social distancing and sanitising have become commonplace to contain the spread of Covid 19. To ensure and remind people on maintaining a safe distance from each other, this innovation brings 30 gm weight and it can be easily carried in a pocket or can be either attached to identity cards or be worn as a watch. When the device senses another person at a distance of two or three meters, it raises an alarm and also vibrations, thereby reminding the person to maintain distance. This smart device can sense any fellowmen presence within 2 feet radius distance with the help of an effective ultrasonic sensor. The microcontroller, vibrator and sensor circuit play major role in this invention.

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