Guest Editorial
Special Issue on the Role of Smart Sensing for Communicable Diseases (Including COVID-19)

COMMUNICABLE diseases spread quickly among people and animals by an infectious medium, including bacteria, viruses, etc. Recently, the world has witnessed the biggest outbreak of the century due to the novel coronavirus (COVID-19) disease. The immaculate amalgamation of sensor technology helps people to deal with such diseases. This led to motivation amongst the researchers to employ smart sensor technologies to detect, prevent, and control the lively growth of such communicable diseases. Smart sensors include biosensors, wearable sensors, unmanned vehicles, bedsheet sensors, etc., which help prevent and control communicable diseases. These smart sensors collect real-time data about the transmissibility of the disease that can be further processed using advanced machine-learning techniques. The huge real-time sensory data help obtain more precise outcomes and expedite the efficient use of smart sensors for diagnosing communicable disease viruses.

This Special Issue deals with designing and simulating smart sensor-based technologies for the detection of communicable diseases, and monitoring patients and the effects of the disease. It also includes analyzing the quarantine in the spreading of communicable diseases. Besides these, this also focuses on wearable sensors for monitoring human activities and social gatherings and novel applications of smart sensing to prevent the spread of communicable diseases.

The Guest Editors have accepted 14 research articles for publication in this Special Issue covering the following aspects of smart sensing for communicable diseases:

1) Six articles propose the detection (identification) and prevention of COVID-19 using smart devices or sensors.
2) In four articles, the authors proposed smart sensor-based technologies for monitoring and remote diagnosis of the patients.
3) Two articles reviewed smart sensing in communicable diseases (COVID-19) and presented emerging architectures, challenges, and future research directions.
4) Two articles are on analyzed communicable diseases using a neural network and a secure UAV-envisioned massive vaccine distribution for COVID-19.

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HARI PRABHAT GUPTA, *Lead Guest Editor*
Indian Institute of Technology (BHU) Varanasi
Varanasi 221005, India
e-mail: hariprabhat.cse@iitbhu.ac.in

UTTAM GHOSH, *Guest Editor*
Meharry Medical College
Nashville, TN 37203 USA
e-mail: ghosh.uttam@ieee.org

BIPLAB SIKDAR, *Guest Editor*
National University of Singapore
Singapore
e-mail: bsikdar@nus.edu.sg

TANIMA DUTTA, *Guest Editor*
Indian Institute of Technology (BHU) Varanasi
Varanasi 221005, India
e-mail: tanima.cse@iitbhu.ac.in

JAN FAIGL, *Guest Editor*
Department of Computer Science
Czech Technical University
166 36 Prague, Czech Republic
e-mail: faiglj@fel.cvut.cz

VENKAT R. BHETHANABOTLA, *Guest Editor*
University of South Florida
Tampa, FL 33620 USA
e-mail: bhethana@usf.edu

KUNAL MONDAL, *Guest Editor*
Idaho National Laboratory
Idaho Falls, ID 83415 USA
e-mail: kunal.mondal@inl.gov