



(<http://ipindia.nic.in/index.htm>)



(<http://ipindia.nic.in/index.htm>)

Patent Search

Invention Title	SMART FACE SHIELD
Publication Number	27/2020
Publication Date	03/07/2020
Publication Type	INA
Application Number	202041026386
Application Filing Date	23/06/2020
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	TEXTILE
Classification (IPC)	A42B 3/22

Inventor

Name	Address	Country	Nationality
Mr K.NITALAKSHESWARA RAO	Associate Professor Department of CSE, Narasaraopeta Engineering College Narasaraopet Guntur Dt AP 522601, India	India	India
Dr Ch. SATYANANDA REDDY	Professor Department of Computer Science and Systems Engineering. AU College of Engineering (A), Andhra University, Visakhapatnam, Andhra Pradesh India 530003, India	India	India
Mr SRIRAM PARABRAHMA CHARI	Research scholar, Department of CSE, Sathyabama Institute of Science and Technology (Deemed to be University), Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai-600 119, Tamilnadu, India.	India	India
Mr N. SRINIVASA RAO	Assistant Professor Department of IT Bapatla Engineering College, Bapatla Guntur Dt AP 522101, India	India	India
Mr D.V.SRINIVASA RAO	Associate professor, Department of EEE Narasaraopeta Institute of Technology Narasaraopet Guntur Dt AP 522601, India	India	India
Mrs. SHAZIYA SULTANA	Assistant Professor, Department of Electrical Engineering, Deccan College of Engineering & Technology, Hyderabad, Telangana.500034, India	India	India
Mr. SYED MUJTABA MAHDI MUDASSIR	Assistant Professor, Department of Electrical Engineering, Deccan College of Engineering & Technology, Hyderabad, Telangana, India-500034.	India	India
Mr. ARSHAD MOHAMMED	Assistant Professor, Department of Electrical Engineering, Muffakham Jah College of Engineering & Technology, Rd No 3 Mount Pleasant, Banjara Hills, Hyderabad, Telangana, India-500034.	India	India

Applicant

Name	Address	Country	Nationality
Mr K.NITALAKSHESWARA RAO	Associate Professor Department of CSE, Narasaraopeta Engineering College Narasaraopet Guntur Dt AP 522601, India	India	India
Dr Ch. SATYANANDA REDDY	Professor Department of Computer Science and Systems Engineering. AU College of Engineering (A), Andhra University, Visakhapatnam, Andhra Pradesh India 530003, India	India	India
Mr SRIRAM PARABRAHMA CHARI	Research scholar, Department of CSE, Sathyabama Institute of Science and Technology (Deemed to be University), Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai - 600 119. Tamilnadu, India.	India	India
Mr N. SRINIVASA RAO	Assistant Professor Department of IT Bapatla Engineering College, Bapatla Guntur Dt AP 522101, India	India	India
Mr D.V.SRINIVASA RAO	Associate professor, Department of EEE Narasaraopeta Institute of Technology Narasaraopet Guntur Dt AP 522601, India	India	India
Mrs. SHAZIYA SULTANA	Assistant Professor, Department of Electrical Engineering, Deccan College of Engineering & Technology, Hyderabad, Telangana.500034, India	India	India
Mr. SYED MUJTABA MAHDI MUDASSIR	Assistant Professor, Department of Electrical Engineering, Deccan College of Engineering & Technology, Hyderabad, Telangana India.500034	India	India
Mr. ARSHAD MOHAMMED	Assistant Professor, Department of Electrical Engineering, Muffakham Jah College of Engineering & Technology, Rd No 3 Mount Pleasant, Banjara Hills, Hyderabad, Telangana India.500034	India	India

Abstract:

Exemplary aspects of the present disclosure are directed towards the SMART FACE SHIELD consists a holder 101 and a PVC transparent sheet 102. The holder 101 comprises of Solar-Cell 101a, Battery 101b, ESP32-microcontroller 101c, UV-LEDs 101d, Micro-Fan 101e, HEPA-filter 101f, Motion Sensor 101g, Air quality Sensor 101h, Ultrasonic Sensor 101i, NTC-Temperature sensor 101j, Heartrate sensor 101k, camera 101m and Buzzer 101n. Ultrasonic Sensor101i and Camera 101m alerts the wearer about social distancing through the buzzer 101n. While UV-LEDs 101d illuminate and disinfect the shield 102 if no human presence is detected by motion sensor101g. Micro-Fan 101e sucks air through HEPA-filter 101f, and circulates on to the face. Heartrate sensor 101k monitor wearer"s heart rate, and NTC-Temperature sensor 101j monitor the temperature. Social distancing, Disinfecting status, wearer heart rate, and temperature along with air quality parameters communicated to the user interface 103 by ESP32-microcontroller 101c through LoRa enabled WiFi/RF/ Bluetooth 104.

Complete Specification

Claims:We Claim:

1. A Smart Face Shield comprising:

Holder part 101 and PVC sheet 102 where Holder 101 houses sensor assembly, namely Motion Sensor 101g, Air quality Sensor 101h, Ultrasonic Sensor 101i, NTC-Temperature sensor 101j, Heartrate sensor 101k, camera 101m along with Solar cell 101a and LiPo battery 101b. ; and

Holder portion also houses UV LEDs 101d, Buzzer 101n for disinfecting the face shield 102; and

Micro-Fan 101e and HEPA filter 101f fitted in the side portion of Holder 101 sucks the air and circulated the pure air on to the face of the wearer.

An Ultrasonic sensor 101i and Camera placed in front of the smart face shield to detect human presence in front of the wearer and alerts them; and

An Air quality101h sensor placed in the Holder portion 101 detects the air quality parameters and communicates the data to the user interface 103 through communication media 104; and

Heart rate sensor 101k and NTC Temperature sensor 101i monitors the temperature and heart rate of the wearer. and ESP32 microcontroller communicates the data to the

[View Application Status](#)

ES PORTAL



Department of Indu
Policy and Promotio
Government of India

Terms & conditions (<http://ipindia.gov.in/terms-conditions.htm>) Privacy Policy (<http://ipindia.gov.in/privacy-policy.htm>) Copyright (<http://ipindia.gov.in/copyright.htm>)
Hyperlinking Policy (<http://ipindia.gov.in/hyperlinking-policy.htm>) Accessibility (<http://ipindia.gov.in/accessibility.htm>) Archive (<http://ipindia.gov.in/archive.htm>)
Contact Us (<http://ipindia.gov.in/contact-us.htm>) Help (<http://ipindia.gov.in/help.htm>)

Content Owned, updated and maintained by Intellectual Property India, All Rights Reserved.

Page last updated on: 26/06/2019