KTU COVID CELL- ACTIVITY REPORT

COVID CELL,

KTU

21/04/2020

ACTIVITY REPORT OF COVID CELLS FORMED IN THE AFFILIATED COLLEGES OF APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

1.   Reference: GO (Rt)No: 489/2020/HEDN, dated 23 -03-2020 and APJ Abdul Kalam Technological University‟s letter to colleges, dated March 26, 2020, with the subject "An appeal to all Principals, Faculty and Students under the APJ Abdul Kalam Technological University to be part of Kerala State‟s Corona Safe Network"

2.   Submitted hereunder is the Activity Report of the COVID Cells constituted in the Colleges after the above-mentioned letter.

SUMMARY OF THE ACTIVITIES

The University constituted a KTU COVID Cell under the chairmanship of Dr. S Ayoob, Pro Vice Chancellor of the University, on March 26, 2020. The Cell went into action immediately.

KTU COVID Cell, for a start, pointed out to the affiliated colleges that they should be prepared to deal with a potentially worsening situation and be ready to provide full support to the state government in its fight against the deadly disease.

Colleges were directed to form their respective COVID 19 Cells and prepare their response plans. To trigger, it was suggested to implement initiatives like establishment of Corona Care Centres, developing COVID 19 Triage Mobile App, initiation of Food Banks/Community kitchen, setting up of Pedestal Operated/Sensor operated Community Sanitation stations and institute a technical support team etc.

Further to this, the University initiated the **APJAKTU Emergency Ventilator Challenge** wherein the students were given the task of developing, designing and prototyping of low-cost portable ventilators, in case the situation goes out of hands and the state might need ventilators in large numbers.

The University‟ suggestions were gladly accepted by some colleges and they accomplished the recommendations put forward.

Hereunder are some of the activities taken up by the colleges.

1 UNIVERSITY COLLEGE OF ENGINEERING, MUTTOM

The College constituted a COVID 19 Cell with the Principal-in-Charge as the chairman. Besides, the college made hand sanitizers, complying with the WHO guidelines, and distributed them to the general public. The step was gratefully received by the community around.

കോവിഡ് - 19

മാതൃകാ പ്രവർത്തനവുമായി മുട്ടം എൻജിനിയറിംഗ് കോളജ്

തൊടുപുഴ: ബ്രേക്ക് ദ ചെയിൻ കാമ്പയിന്റെ ഭാഗമായി സാനി റ്റൈസർ നിർമിച്ച് നൽകി മുട്ടം യൂണിവേഴ്സിറ്റി എൻജിനിയറിം ഗ് കോളജിലെ അധ്യാപകരും ലാബ് ജീവനക്കാരും.

കോളജിലെ ലാബ് സൗകര്യ ങ്ങൾ പ്രയോജനപ്പെടുത്തിയാ ണ് അധ്യാപകരും ജീവനക്കാ രും സാനിറ്റൈസർ നിർമിക്കുന്ന ത്. ലോകാരോഗ്യ സംഘടന നി ർദേശിക്കുന്ന ഫോർമുല പ്രകാ രമാണ് സാനിറ്റൈസർ നിർമി ക്കുന്നത്. കോളജിൽ നിർമിച്ച

സാനിറ്റൈസർ ജില്ലാ കോടതി യിലും തൊടുപുഴ പോലീസ് സ്റ്റേഷനിലും വിതരണം ചെ യ്തു.

ജില്ലാ ജഡ്ജി മുഹമ്മദ് വസീം, ജില്ലാ ലീഗൽ സർവീസ് അഥോ റിറ്റിചെയർമാൻ ദിനേശ് എം. പി ഉള്ള എന്നിവർ ജില്ലാ കോടതിയി ലും ഡിവൈഎസ്പി കെ.പി ജോസ്, സിഐ സജീവ് ചെറി യാൻ എന്നിവർ തൊടുപുഴ പോ ലീസ് സ്റ്റേഷനിലും സാനിറ്റൈ സർ ഏറ്റുവാങ്ങി. 100 മില്ലി ലിറ്ററി ന്റെ 150 ഓളം സാനിറ്റൈസറുക

ളാണ് കോളജിൽ നിർമിച്ച് വിത രണം ചെയ്തത്. വരും ദിവസങ്ങ ളിൽ കൂടുതൽ സാനിറ്റൈസർ നിർമിച്ച് തൊടുപുഴ ബസ്സ്റ്റാൻ ഡുകളിൽ വിതരണം ചെയ്യുക യും ബോധവത്കരണ കാമ്പയി നുകൾ സംഘടിപ്പിക്കുകയും ചെയ്യും.

കോളജ് വൈസ് പ്രിൻസിപ്പൽ ഡോ.ജോസ് സെബാസ്റ്റ്യൻ, എ ൻഎസ്എസ് പ്രോഗ്രാം ഓഫീ സർ എം.ജെ. മനോജ്,കെ.ആർ. രജീഷ് ബാബു, രാജു കെ.റാം എന്നിവർ നേതൃത്വം നൽകി.

▲ The college has developed a low-cost portable ventilator with state-of-the-art features. Named 'Jeeva Shwasam', the ventilator is designed to augment the efforts of the government in tackling the COVID pandemic.

▸▸ Harikrishnan, an 8th semester student of Electrical Engineering of the college, developed an app named „QuarmTkm" to monitor the people in quarantine. The app was handed over to district administration.

▸▸ Community kitchen set up by the college serves breakfast and lunch for 200 people for a week at the Golden Jubilee Hostel. This is done in tandem with district administration and the expenses were solely borne by TKM management.

▸▸ 2000 masks and 2000 gloves were donated to district police for public distribution.
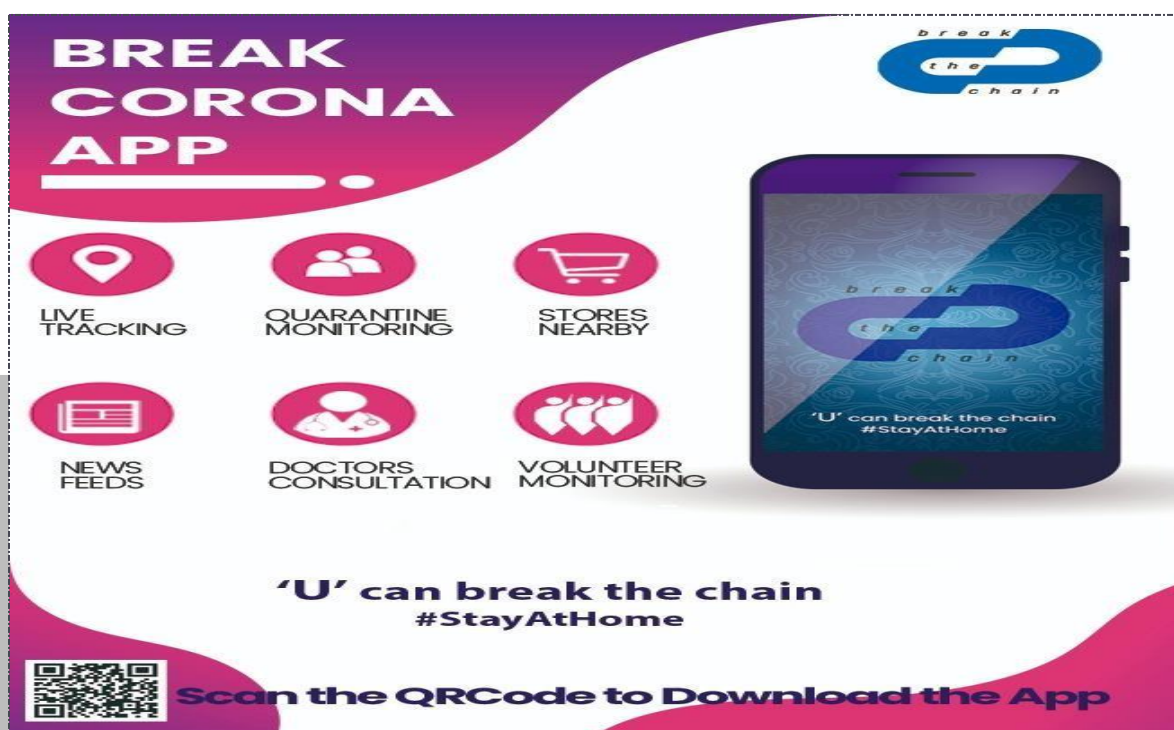
▸▸ The chemical department of the college prepared more than 100 litres of sanitizers and distributed in the locality and to the local police.

▸▸ Four hostels have been handed over to District administration and 54 people are being admitted in quarantine observation in International Hostel.
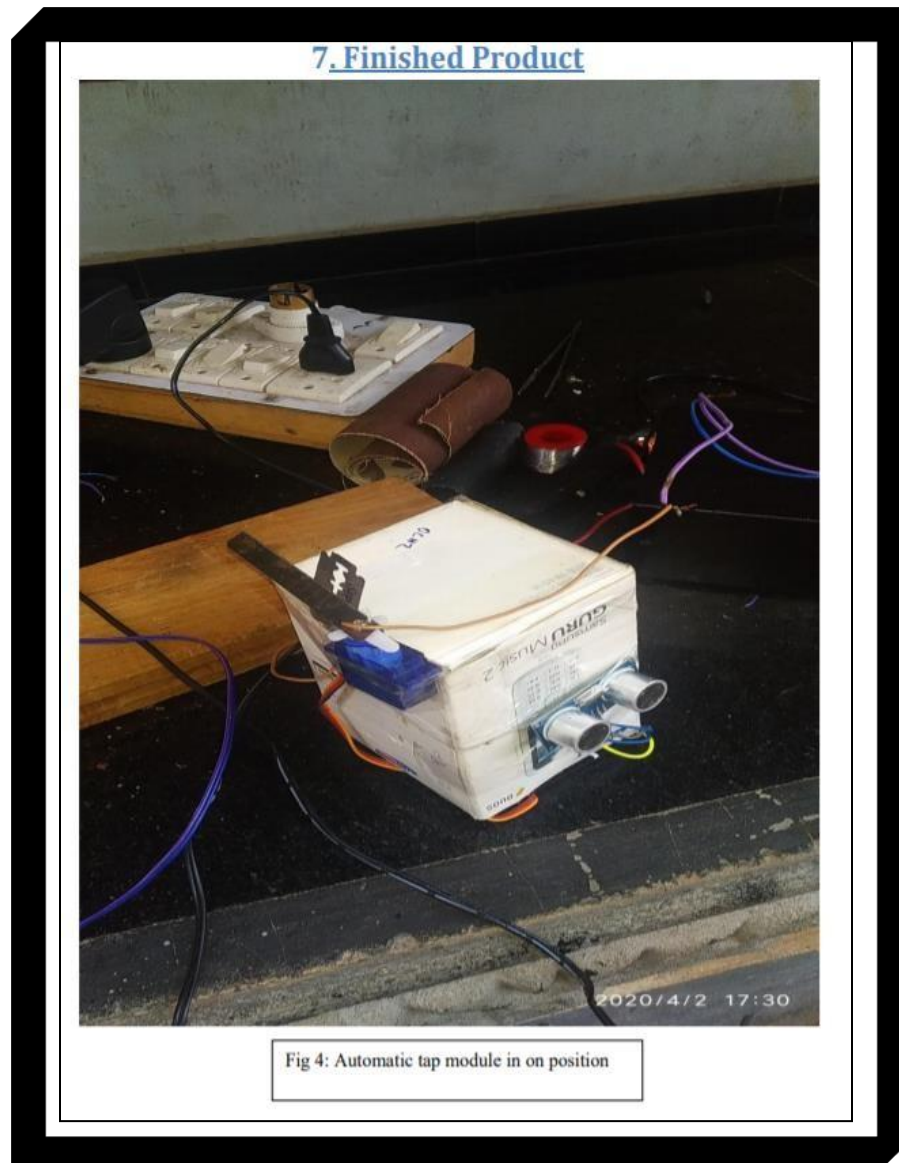
3 UNIVERSAL ENGINEERING COLLEGE, THRISSUR

The students of Universal Engineering College, Vallivattom, Thrissur, has developed an app to help people while on the go. The app alert travellers while they pass through an area where anyone has tested COVID-19 positive or in quarantine. The app provides the route map of the person if he is tested positive, provided he/she is using the app. If a person skips home quarantine rules, an alert will be sent to the authorities.

The app comes with a chat ox to discuss COVID-19 and its symptoms. The app also provides an option to chat with the doctor for other minor illness s that the patients are not needed to go to hospitals.

4 MUSALIAR COLLEGE OF ENGINEERING, CHIRAYINKEEZH

Mithun P S, a student of Musaliar College of Engineering, has designed an automatic hand-free tap which operates using sound waves created by the ultrasonic sensor. The tap reduces the chances of spreading viruses from one
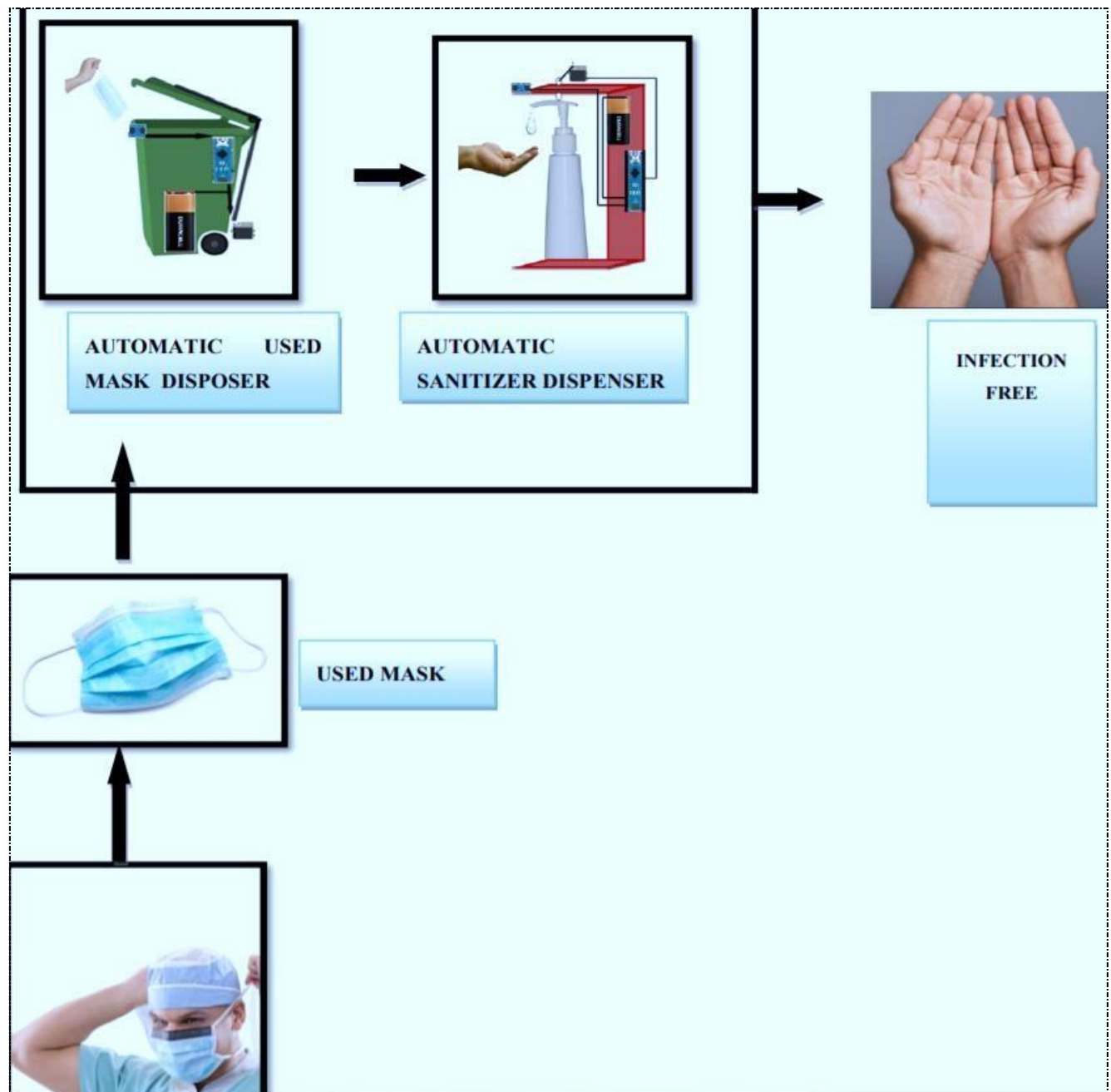
person to another. The product is cost-friendly as it can be produced at Rs 1100 per piece. If produced in bulk, the price can be reduced further.

Fig 4: Automatic tap module in on position

▶▶ AUTOMATIC USED MASK DISPOSER AND AUTOMATIC SANITIZER DISPENSER

The product helps in reducing the spread of the virus while disposing of the used masks. Used masks must be used disposed of without touching the container lid because the act of touching the lid will spread the virus. Also, after discarding the used masks, hands should be thoroughly cleaned, again without touching the

sanitizer lid. It is towards achieving this, Remya Raj A, a student of the college came up with the idea of automatic used mask disposer and automatic sanitizer dispenser. The product is easy to manufacture and operate. The basic working principle of both the products is the reflection of sound waves created by the ultrasonic sensor. The sound waves are created by the transmitter.

5 SREEPATHY INSTITUTE OF MANAGEMENT AND TECHNOLOGY (SIMAT)

The college constituted a COVID Cell with Principal serving in its chair. To support the people of the locality, a team of students developed two apps named Shops and Consumers which are available to download on PlayStore. S2 CSE students K Nanda Krishnan, Ajith and Abhin created the app under the guidance of Prof. Saneesh P S. The apps come with the following features:

⏩ Compare

▸ You can compare the prices of the same items in different nearby shops.

⏩ Watch items:

▸ You will be notified of price changes of any items that you have added to your watchlist.

⏩ Shopping List

▸ Adding items to the shopping list made fast and simple

⏩ Place order
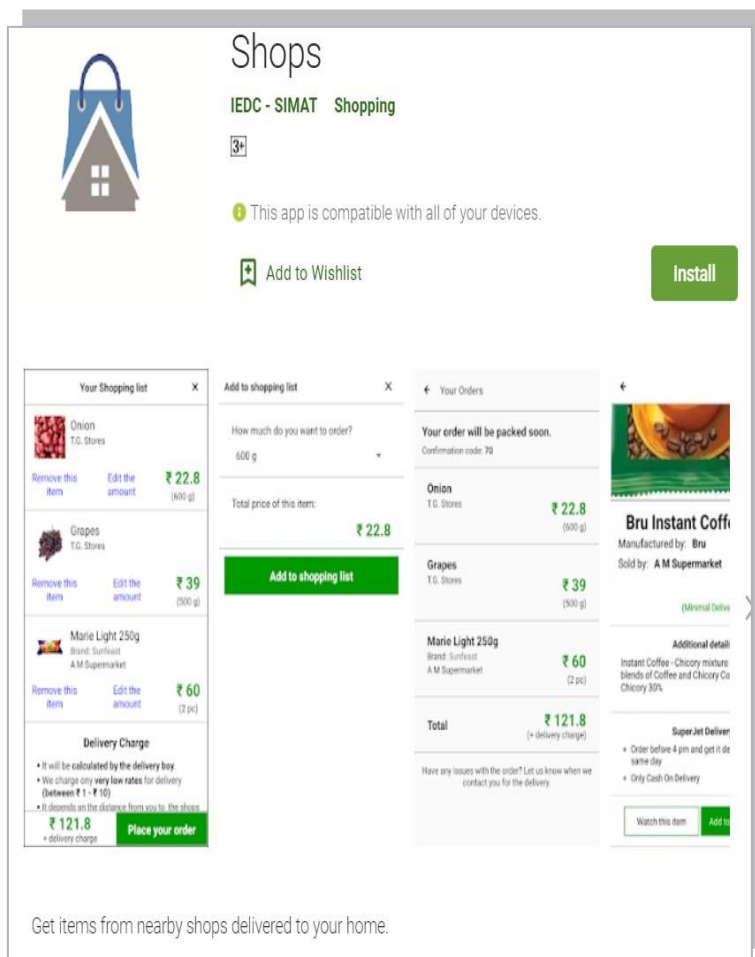
▸ Placing of orders made the easiest. Place orders from different shops in one tap.

⏩ Live Order Status

▸ Let's you know the live status of your order.

⏩ Search
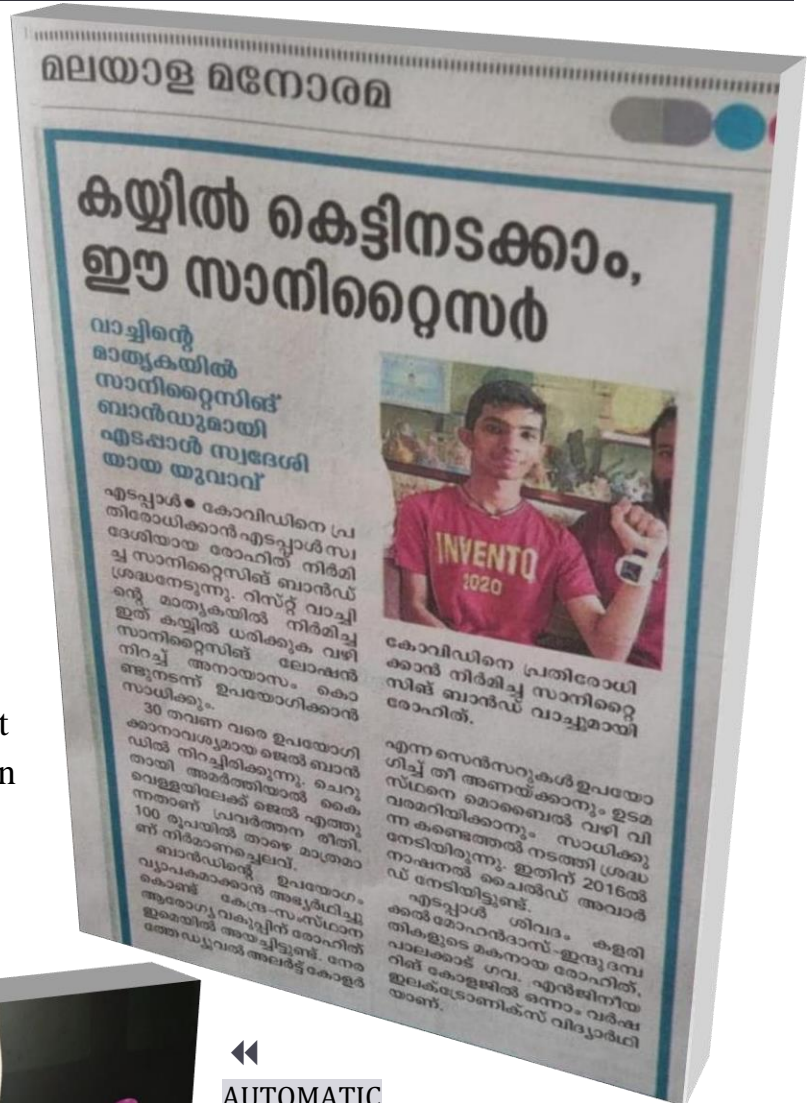
▸ Search items in your nearby shops and find the best one.

The college has come out with two innovative products.

▶▶ WEARABLE SANITIZER

The low-cost sanitizer can be used like a wristwatch and it can be used 25-30 times before refilling. The product comes in three models. Rohit, S2 ECE student, has developed the product. Rohit was a winner of President's Award for young innovators during his school days and was a finalist of the IEEE Innovation contest held at Stamford University, Taiwan, in 2019.

മലയാള മനോരമ

കയ്യിൽ കെട്ടിനടക്കാം, ഈ സാനിറ്റൈസർ

വാച്ചിന്റെ മാതൃകയിൽ സാനിറ്റൈസിങ് ബാൻഡുമായി എടപ്പാൾ സ്വദേശിയായ യുവാവ്

എടപ്പാൾ ● കോവിഡിനെ പ്ര തിരോധിക്കാൻ എടപ്പാൾ സ്വ ദേശിയായ രോഹിത് നിർമി ച്ച സാനിറ്റൈസിങ് ബാൻഡ് ശ്രദ്ധനേടുന്നു. റിസ്റ്റ് വാച്ചി ന്റെ മാതൃകയിൽ നിർമിച്ച ഇത് കയ്യിൽ ധരിക്കുക വഴി സാനിറ്റൈസിങ് ലോഷൻ നിറച്ച് അനായസ ഉപ യോഗിക്കാൻ സാധിക്കും. കൊ 30 തവണ വരെ ഉപയോഗി ക്കാനാവശ്യമായ ഉപയോഗി ഡിൽ നിറച്ചിരിക്കുന്നു. ബാൻ തായി അമർത്തിയാൽ കൈ വെള്ളയിലേക്ക് ജെൽ എത്തു ന്നതാണ് പ്രവർത്തന രീതി. 100 രൂപയിൽ താഴെ മാത്രമാ ണ് നിർമാണചെലവ്. ബാൻഡിന്റെ ഉപയോഗ വ്യാപകമാക്കാൻ ആരോഗ്യ വകുപ്പിന് രോഹിത് ഉരുഡുവൽ അലർട്ട് കൊ കൊണ്ട് കേന്ദ്ര-സംസ്ഥാന ഇടപ്പാൾ അറിയിച്ചിട്ടുണ്ട്. നേര

കോവിഡിനെ പ്രതിരോധി ക്കാൻ നിർമിച്ച സാനിറ്റൈ സിങ് ബാൻഡ് വാച്ചുമായി രോഹിത്.

എന്ന സെൻസറുകൾ ഉപയോ ഗിച്ച് തീ അണയ്ക്കാനും സ്ഥ ലമോ മൊബൈൽ വഴി വി വരമറിയിക്കാനും സാധിക്കു ന്ന കണ്ടെത്തൽ നടത്തി ശ്രദ്ധ നേടിയിരുന്നു. ഇതിന് 2016ൽ നാഷനൽ ചൈൽഡ് അവാർ ഡ് നേടിയിട്ടുണ്ട്.

എടപ്പാൾ ശിവ കളരി തിക്കലുള്ള മോഹനദാസ്-ഇന്ദുദമ്പ പാലക്കാട് മകനായ രോഹിത്, നിൽ കോളജിൽ ഒന്നാം വർഷ ഇലക്ട്രോണിക്സ് വിദ്യാർഥി യാണ്.

◀◀ AUTOMATIC SANITIZER DISPENSER

The sensor-based sanitizer dispenser is developed by Mr. Anuraj N, adhoc Asst. Professor, CSE Dept, at his startup M/s Saron Innovature Labs. The product has been installed at sub-treasury Sreekrishnapuram, Primary Health Center Sreekrishnapuram, and Govt. Medical College, Thrissur.
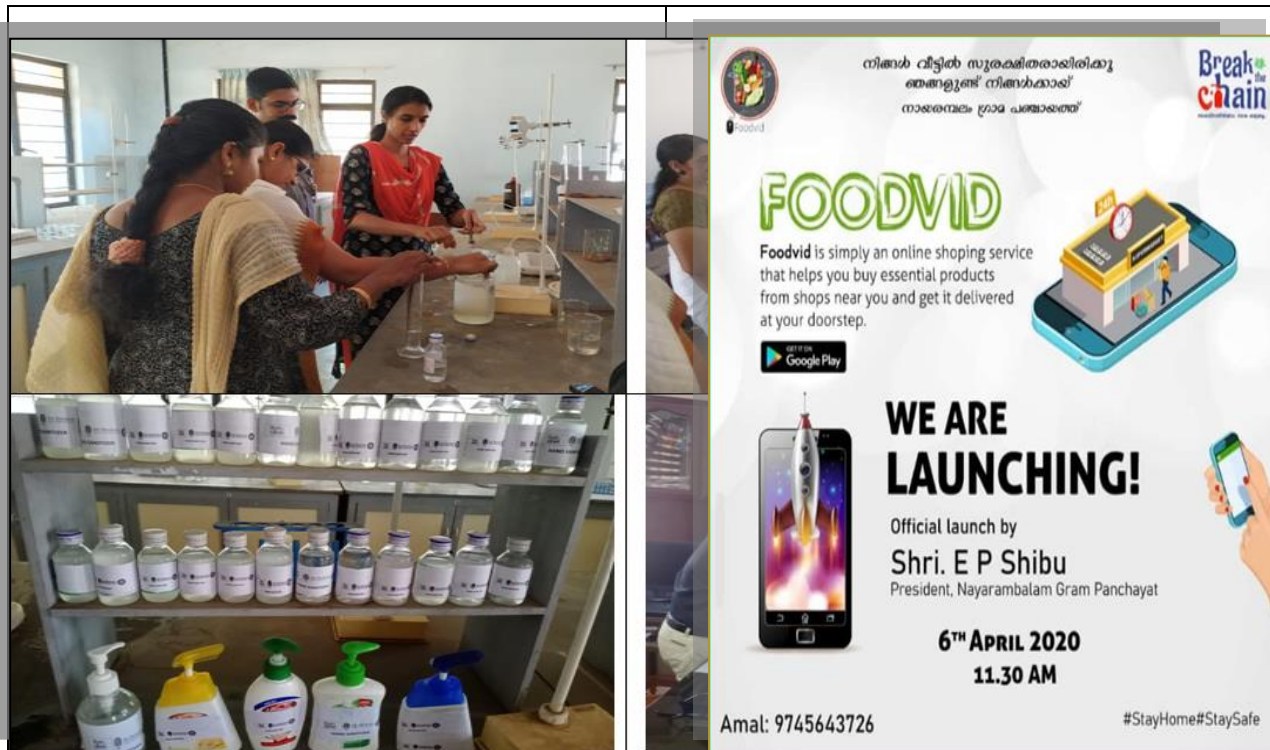
7   MES COLLEGE OF ENGINEERING, KUTTIPURAM

The Electrical Engineering department of MES College developed COVID 19 Face Shiels which can be used by doctors, nurses and other healthcare workers caring for patients with confirmed or suspected Coronavirus disease. The masks can be disinfected and reused. The making charge of one mask is around Rs 120. The mask was developed by electrical department community service centre college in-charge Mrs. K Nishada, head of electrical department Dr. K Nafisa, community service centre college in-charge Mr. Sajeer and FabLab in-charge Mr. Shine. Other members of the squad are Unais KP, Firuz and Ashwin Manoj.

8   ILAHIA COLLEGE OF ENGINEERING AND TECHNOLOGY

Students of the college are participating in OSM (OpenStreetMap) Mapping which marks the houses, hospitals, bridges, police station, bus stops, rivers etc. The mapping helps authorities to a great extent towards rebuilding the area in case it is destroyed by any disaster like flood, tsunami, earthquakes, landslides, cyclones, storms etc. Students are actively involved in helping the needy by distributing

medicines and food to them. The college has also formed a COVID Cell for helping the government in times of need.

9 ADISHANKARA INSTITUTE OF ENGINEERING AND TECHNOLOGY, KALADY

▸ SANITIZERS AND MASKS

The college ventured into the mass production of masks and sanitisers and distributed it locally to the police stations, KSEB office and water authority office. The college also gave away food packets to the offices. Teachers and students came together to produce sanitisers in large numbers.

▸ 'FOODVID' APPLICATION

FoodVid, an android application, is a platform where one can order the essential groceries from nearby shops and get it delivered at the doorstep. Foodvid app was developed by Mr.Amal pradeep of S8 EC A, ASIET.

medicines and food to them. The college has also formed a COVID Cell for helping the government in times of need.

▶ COVID CARE

Regional - Mentor of Change (R- MoC) of Atal Innovation Mission (AIM) and Asst. Prof. of Adishankara Engineering College, Er. Anuroop K B, conceptualised and designed a web app named 'COVID Care'. The app is developed to prevent the social spread of deadly COVID-19. The app connects those who are in home quarantine and their family members to the nearby volunteers through whom they can procure necessary items. The college has also developed an automated hand sanitizer dispenser called 'Hygieia.

10 MOHANDAS COLLEGE OF ENGINEERING AND TECHNOLOGY

Students of Electrical Department under the aegis of electrical association ETERJA prepared 100 bottles of hand sanitizer. The sanitizers made under the guidance of Prof. Neethu U, assistant professor of EEE department, complying to the WHO guidelines were handed over to the Thiruvananthapuram Mayor.
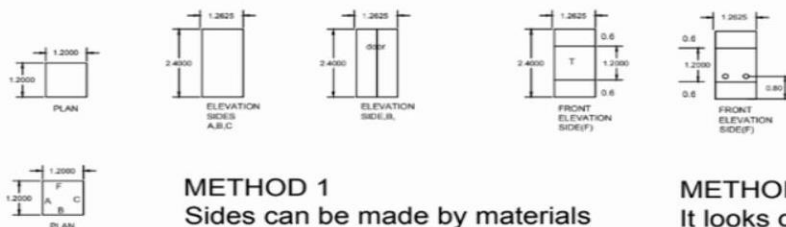

▶▶ The NSS Unit 159 of the college distributed masks to the primary health centre, Vattiyoorkavu.

11 COLLEGE OF ENGINEERING, THALASSERY

The College constituted a COVID 19 Cell with the principal as its chairman. Furthermore, the college ladies hostel has been converted to an isolation ward with 55 rooms. Taking an innovative step, the College proposed a design model at Govt. Medical College Manjeri, Malappuram, for COVID 19 sample collection. The design is shown below.

METHOD 1
Sides can be made by materials like shera board, bison board or by material like ACP , The portion T must be made of transparent material, all corners should be properly sealed by silicone gum
1. 1/2 Inch MS or SS angles can be used for side
15 cm dia PVC drain connector can be used to fix gloves

METHOD2
It looks good if its is made by UPVC as shown in video

NOTE
8 feet by 8 feet cube is selected because of standard material availability of material size in the market

drawn by
sajan 8943344771

12. SREE BUDDHA COLLEGE OF ENGINEERING, PATTOOR

In order to promote hand hygiene and thwart the invisible threat of Coronavirus, the Biotechnology and Biochemical Engineering Department of SBCE Pattoor prepared 4 litres of Isopropyl alcohol-based hand sanitizers, following the WHO

guidelines. The sanitizers packed in 20 ml pocket-sized bottles were distributed free of cost to the police, excise, health department and other government offices in Nooranad grama panchayats.

13 AMAL JYOTHI COLLEGE OF ENGINEERING, KOTTAYAM

In a novel initiative, the college along with district administration, Kottayam, developed 'Healthy Kottayam, a website and hybrid mobile application to keep track of people suspected of contracting COVID 19. Faculty members of the Computer Science & Engineering Department, as well as students of the Computer Science & Engineering Department, Electronics & Communication Engineering Department & Department of Computer Applications, were involved in the development of the application. In all, 800 healthcare staffers are using the app which functions as an e- dashboard in which details of each person in quarantine is entered on a daily basis. The information entered can be accessed by the district administration officials. Through the app, the officials can contact the quarantined patients directly, and update their information. Updates made by health workers are approved by medical officers, and this helps in identifying the hotspots of the district. The app users are provided with help through call centres. Each medical institution is given a separate account to view and manage the data they have entered. Security

measures are taken by the development team to make sure that the data is handled safely without any possible breach.

14 THEJUS ENGINEERING COLLEGE, VELLARAKAD

The college initiated various activities to fight the COVID-19 pandemic.

▶▶ NSS volunteers of the college prepared handwash and distributed it to nearby police stations and other government offices in and around Kunnamkulam.

▼ NSS volunteers of the College conducted social awareness campaigns at public places like bus station and railway station, Thrissur. The staff in-charge of NSS

technical cell and assistant professor Mr Vipinkrishna R assisted Kerala Fire and Rescue Department's disinfecting activities.

▸▸The public relations department of the college designed and circulated posters in support of the Janata Curfew observed on March 22.

▸▸The teaching and non-teaching staff of the college made low-cost hand sanitizers to be distributed among the staff who had to come to the college for administrative works.

15 MAR BASELIOS INSTITUTE OF TECHNOLOGY AND SCIENCE, KOTHAMANGALAM

 The Research and Consultancy Cell of Department of Computer Science and Engineering of the college developed an android app for Pothanicad Grama Panchayath, Ernakulam. The app helps in improving the quality of interaction between officials of a Grama Panchayat and its citizens. The application provides the details of the panchayat, details of officials with their contact details, details of a notification issued by the officials and the services it provides.

16 SCMS SCHOOL OF ENGINEERING AND TECHNOLOGY, PALISSERY

SCMS School of Engineering and Technology has developed cost-effective technology to prevent the further spread of Coronavirus. The team of technocrats

from SCMS has designed 5 types of innovative preventive measures as a part of their research programme.

▶▶ LASER CUT FACE MASKS

A low cost splash protection face mask fabricated using laser cut machine. This mask protects doctors against droplet trasmission from patients.

▶▶ REUSABLE FACE MASKS

The team has also manufactured reusable N95 compatible 3D printed face masks. The filter in the mask can be removed and replaced periodically.

▶▶ DOOR OPENER

This door opener helps the user to open doors without touching the knob or pressing the lift button without physically touching the switches.

▶▶ VENTILATOR SPLITTER

Ventilator splitter (Y splitter) which is fabricated and 3D printed in the Fablab at the campus.

▶▶ SANITIZER

The college has distributed 400 litres of sanitizer to health workers, staff in the local self government bodies, police stations, banks and other organisations.

The members of the National Service Scheme unit 110 of the college have been working in tandem with the District Collectorate, Malappuram, and the District Medical Office Malappuram in different volunteering activities.

▶▶ SCREENING AT THE CALICUT INTERNATIONAL AIRPORT

The volunteers joined hands with the Health Department and Police in screening the passengers that came by flights from different countries. The volunteers collected different data including the name, locality, etc. and transferred the same to the district administration.

As many as 2000 data was collected through this.

▶▶ 'CONTACT HEALTH', A SELF MONITORING APP FOR AFFECTED AND ISOLATED PERSONS

The students' app development team, Techzia, developed an android app named „Contact Health". The app was developed on a special request from Manjeri Medical College. Through the app, the patients and those who are in isolation can update their health conditions by themselves.

▶▶ CONTACT TRACING

The volunteers have been actively engaging in tracing the primary and secondary contacts that had come from abroad. As many as 20000 contacts have been traced and more than 7000 persons have been called and personally advised.

The volunteers helped the transport department and RTO Malappuram in issuing pass to vehicles which carry goods. As many as 1200 passes have been issued so far with the technical help of the volunteers.

18 JAWAHARLAL COLLEGE OF ENGINEERING AND TECHNOLOGY, PALAKKAD

The college organised an online panel discussion on to discuss COVID-19 and explore the technical assistance that can extended to combat the deadly disease. Thirty-five participants belonging to 14 colleges across kerala took part in the discuss, that came up with these suggestions:

• Create an online social media page where students can jointly collect the data & share verified news as posters or newsletter.

• Create a chatbot for clearing doubts.

• Provide geo tag for those in isolation so they can be monitored.

• Make mask without medication.

• Produce sanitizers in small scale to be given in neighborhood.

• Create informative illustration videos, and

• Encourage public to donate blood.

▶▶ VIDEO ON HOW TO MAKE HAND SANITIZER

Vaisakh S Nair, an S6 student CSE, has prepared a video on 'HOW TO MAKE HAND SANITIZER USING HYDROGEN PEROXIDE AND ISOPROPYL'. The video, now available on YouTube, helps people to prepare their own sanitizers if the same is not available in shops. The link to the video is: https://youtu.be/RVMPl30-9es

19   JOHN COX MEMORIAL CSI INSTITUTE OF TECHNOLOGY, THIRUVANANTHAPURAM

The college came up with four product proposals

▶▶ PORTABLE CMV VENTILATOR

Yorken Chrisha, a student of CE S4 devised the proposal. The portable ventilator is used to transport a patient with artificial respiration support after hospitalalisation. Benefits are improved gas exchange and decreased effort for breathing.

▶▶ VIRUS REPELLER

Akshara Ravi of CS S4 came up with the machine in which antiseptic liquid is filled. The liquid is vaporized using the machine and the vapor is blown to the surrounding. The virus in the atmosphere will be killed by the antiseptic vapor and the surrounding is cleaned.

▶▶ OXYGEN MATTER

Rency Mathew of CS S4 conceived the product which will help to produce oxygen at low-cost. In this product, the tank is filled with water, and the water is separated through electrolysis and as a result oxygen is separated. This product can be used in houses of the patients.

▶▶ AIR PURIFIER

Shibin K. of EE S4 contrived the air purifier which can prevent the chance of the diseases spreading through air. This is a product for indoor use. The air with virus is filtered and virus is killed. It can be used in hospitals in order to filter the atmospheric air.

20   ERANAD KNOWLEDGE CITY TECHNICAL CAMPUS, MALAPPURAM

The students of the college actively participated in activities to fight Corona. The college has converted its Men's Hostel to an isolation ward and handed over it to the Thrikkalangode Grama Panchayat for using in case of emergency.

▸▸ **Eight students** in turn are working with the District Collectorate, Malappuram for data entry works. The work, carried out in association with State IT Mission, was to track the corona-affected persons.

▸▸ **The students** helped the Collectorate, Health Department and the police in

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ifying the route of Covid19 patients who arrived by flight at International Airport, Calicut and tracing their primary and secondary contacts. As many as 50000 contacts have been traced and thousands were called for personal advice. The students worked at call centres set up at the collectorate to help public know more about the pandemic.

▸▸ **The students** helped in suppying the food prepared at community kitchens. Hathim Harif, a student of the college, worked at Calicut Medical College for 5 days in helping patients buying necessary medicines.

▸▸ **A total of** 156 students registered in the Sannadhasena of Govt. of Kerala. Three 3rd year students Ms Masrura Vadakkan (Civil Engineering), Mr Muhammed Arshad P (Electronics and Communication Engineering) and Mr Muhammed Shabeeb (Mechanical Engineering) are actively running Covid Help Line from their homes. Mr Anoop, a 3rd year Mechanical Engineering student, is working in association with the Asha workers by visiting the people in quarantine and monitoring their symptoms.

21 RAJAGIRI SCHOOL OF ENGINEERING AND TECHNOLOGY, KAKKANAD

▶▶ROBO HAND SOAP DISPENSER

The automatic soap dispenser, designed and built by Jerin Peter, a S2 student of Electronics and Communication Branch, works with any hand wash/sanitizers. The dispenser was made using 3D printed parts, a metal gear servo motor, an Arduino Uno, Ultrasonic sensor and some jumper wires. The CAD designs were done in fusion 360 and the files were converted into GCODE for 3d printing. The printed parts were then assembled together to form the whole product.

The total cost of the product was just Rs 664.

22 CHRIST COLLEGE OF ENGINEERING, IRINJALAKUDA

▶▶SANITIZER AND HAND WASH

The students of the college, under the guidance of Dr.V D John, vice principal & HoD of Department of Basic Science and Humanities, developed and distributed isopropyl alcohol-based hand sanitizers and hand wash following the WHO guidelines. Ten litres of hand sanitizer and 15 litres of hand wash were distributed free of cost to the Govt. Taluk Hospital and various schools in and around Irinjalakuda. Hand sanitizer kiosks were installed in Irinjalakuda Bus stand by college students.

▶▶ 3-D PROTECTIVE MASK

The college developed a protective reusable face mask to fight COVID-19. The mask can be easily made and is reusable just by changing the filter paper. Krishnan K V of sixth semester Electronics and Communication department has developed an indigenous protective reusable face mask using a 3D printer.

കോവിഡിനെ തുരത്താൻ
3ഡി മാസ്ക്
ⓓദീപിക

ഇരിങ്ങാലക്കുട: ലോക്ക് ഡൗൺ കാലത്ത്, കൊറോണയെ പ്രതിരോധിക്കാൻ 3ഡി മാസ്ക് പ്രിന്റ് ചെയ്തു കൊടുക്കുകയാണ് ഇരിങ്ങാലക്കുടെ ക്രൈസ്റ്റ് എൻജിനീയറിംഗ് കോളജിലെ മൂന്നാം വർഷ ഇലക്ട്രോണിക്സ് ആൻഡ് കമ്യൂണിക്കേഷൻ എൻജിനീയറിംഗ് വിദ്യാർഥിയായ കെ.വി. കൃഷ്ണൻ.

സ്വന്തമായി അസംബിൾ ചെയ്ത 3ഡി പ്രിന്ററിലാണ് അധ്യാപകരുടെ നിർദേശപ്രകാരം കൃഷ്ണൻ മാസ്കുകൾ പ്രിന്റ് ചെയ്യുന്നത്. ഗുണനിലവാരമുള്ള ഫിൽട്ടറുകളുടെ സഹായത്തോടെ കുറഞ്ഞ ചെലവിൽ ഈ മാസ്കുകൾ സുരക്ഷിതമായി ഉപയോഗിക്കാൻ പറ്റുമെന്ന് കൃഷ്ണൻ അവകാശപ്പെടുന്നു.

ഇരിങ്ങാലക്കുട ക്രൈസ്റ്റ് എൻജിനീയറിംഗ് കോളജ് വിദ്യാർഥിയായ കെ.വി. കൃഷ്ണൻ സ്വയം നിർമിച്ച 3ഡി മാസ്കുമായി.

⬡ 23   MET'S SCHOOL OF ENGINEERING, THRISSUR

The college undertook many activities for combatting COVID 19 in and around Mala Panchayat.

▶▶ BREAK THE CHAIN CAMPAIGN POSTER

Sudents and teachers designed an informative poster to promote handwashing using sanitizer. This poster was then fixed in and around the Panchayath as a part of campaign work.

SANITIZER DISTRIBUTION

The college staff and students produced more than 1000 sanitizer bottles and distributed them to the public

free of cost.

▶▶SANITIZATION STATION

The college implemented "Break the Chain" concept at the entrance of the Campus by installing college-made sanitizers. Free sanitizers were distributed to staff and students. A campaign and free sanitizer distribution was also organised at Kuruvilassery Church, Valiyaparambu Junction and Mala bus stand.

Sanitizers were distributed to the quarantined people of Mala panchayat.

24 VIMAL JYOTHI ENGINEERING COLLEGE, KANNUR

Saran Ratnakumar, a S4 student of EEE branch, developed a Robo Hand Sanitizer. This Robo Hand Sanitizer works automatically with the detection of the hands. The body is made with multi wood.

BY: KTU COVID CELL