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DRDO develops kiosk for Covid-19 sample collection

Defence Research & Development Laboratory (DRDL), Hyderabad has added another product to the portfolio of Defence Research and Development Organisation (DRDO) to combat Coronavirus (COVID-19) by developing COVID Sample Collection Kiosk (COVSACK).

The unit has been developed by DRDL in consultation with the doctors of Employees' State Insurance Corporation (ESIC), Hyderabad. The COVSACK is a kiosk for use by healthcare workers for taking COVID-19 samples from suspected infected patients. Patient under test walks into the Kiosk and a nasal or oral swab is taken by health care professional from outside through the built in gloves.

The Kiosk is automatically disinfected without the need for human involvement, making the process free of infection spread. The shielding screen of kiosk cabin protects the health care worker from the aerosols/droplet transmission while taking the sample. This reduces the requirements of PPE change by health care workers.

After the patient leaves the Kiosk, four nozzle sprayers mounted in the kiosk cabin disinfect the empty chamber by spraying disinfectant mist for a period of 70 seconds. It is further flushed with water & UV light disinfection. The system is ready for next use in less than two minutes. Voice command can be given through two-way communication system integrated with the COVSACK. It is possible to configure COVSACK to be used either from inside or outside as required by the medical professionals.

The COVSACK costs nearly Rs one lakh and the identified industry based at Belgaum, Karnataka can support 10 units per day. The DRDO has designed and developed two units and handed over these to ESIC Hospital, Hyderabad after successful testing.

ABB/SS/Nampi/KA/DK/Savvy

<https://pib.gov.in/PressReleasePage.aspx?PRID=1614372>





डीआरडीओ ने कोविड-19 नमूना संग्रहण के लिए कियोस्क विकसित किया

रक्षा अनुसंधान एवं विकास प्रयोगशाला (डीआरडीएल), हैदराबाद ने कोविड नमूना संग्रह कियोस्क (कोवसैक/COVSACK) विकसित करके कोरोनावायरस (कोविड-19) से निपटने के लिए रक्षा अनुसंधान एवं विकास संगठन (डीआरडीओ) की सूची में एक और उत्पाद शामिल कर दिया है।

डीआरडीएल ने इस यूनिट को कर्मचारी राज्य बीमा निगम (ईएसआईसी), हैदराबाद के डॉक्टरों के परामर्श से विकसित किया है। कोवसैक/COVSACK संदिग्ध संक्रमित रोगियों से कोविड-19 नमूने लेने के लिए स्वास्थ्य कर्मियों के उपयोग हेतु एक कियोस्क है। कोविड परीक्षण के लिए कियोस्क में अंदर प्रवेश करने वाले व्यक्ति का स्वास्थ्य कर्मी दस्ताने के माध्यम से बाहर से ही एक फोहे में नाक या मुँह से सैंपल/सवैब ले सकता है।

कियोस्क मानव भागीदारी की आवश्यकता के बिना स्वतः संक्रमण रहित हो जाती है, जिससे प्रक्रिया संक्रमण के फैलने से मुक्त हो जाती है। कियोस्क केबिन की परिरक्षण स्क्रीन स्वास्थ्य कर्मी को नमूना लेते समय एयरोसोल/ड्रॉपलेट ट्रांसमिशन से बचाती है। इससे स्वास्थ्य कर्मियों को पीपीई बदलने कम आवश्यकता पड़ती है।

रोगी के कियोस्क छोड़ने के बाद, कियोस्क केबिन में लगे हुए चार नोजल स्प्रेयर 70 सेकंड की अवधि के लिए कीटाणुनाशक धुंध छिड़ककर खाली कक्ष को कीटाणुरहित कर देते हैं। इसे पानी और यूवी कीटाणुशोधन के साथ आगे निकाल दिया जाता है। यह सिस्टम दो मिनट से भी कम समय में अगले उपयोग के लिए तैयार हो जाता है। कोवसैक/COVSACK के साथ समेकित दोहरी संचार प्रणाली/टू-वे कम्युनिकेशन सिस्टम के माध्यम से वॉयस कमांड/ध्वनि निर्देश दिया जा सकता है। चिकित्सा कर्मियों की आवश्यकतानुसार कोवसैक/COVSACK को अंदर या बाहर की तरफ से समान रूप से इस्तेमाल करना संभव है।

कोवसैक/COVSACK की लागत लगभग एक लाख रुपये है और कर्नाटक के बेलगाम स्थित चिन्हित उद्योग प्रतिदिन इसकी 10 इकाइयों मुहैया कर सकता है। डीआरडीओ ने कोवसैक/COVSACK की दो इकाइयों का डिजाइन एवं विकसन किया है और सफल परीक्षण के बाद इन्हें ईएसआईसी अस्पताल हैदराबाद को सौंप दिया गया है।

एबीबी/एसएस/नमपिबो/केए/डीके/सेव्वी/एडीए/डीएस

<https://pib.gov.in/PressReleasePage.aspx?PRID=1614490>





కొవిడ్-19 నమూనాలు సేకరించడానికి

కియోస్కులను అభివృద్ధి చేసిన డిఆర్డీఓ

రక్షణ పరిశోధన మరియు అభివృద్ధి సంస్థ(డిఆర్డీఓ)కు చెందిన రక్షణ పరిశోధన మరియు అభివృద్ధి ప్రయోగశాల(డిఆర్డీఎల్), హైదరాబాద్ కొరొనా వైరస్(కొవిడ్-19) నమూనాలను సేకరించడానికి కియోస్కుల(సిఓవిఎస్ఎస్ఎకె)ను అభివృద్ధి చేసింది.

రాష్ట్ర ఉద్యోగుల బీమా సంస్థకు చెందిన వైద్యుల సహకారంతో రక్షణ పరిశోధన మరియు అభివృద్ధి ప్రయోగశాల(డిఆర్డీఎల్), హైదరాబాద్ ఈ కియోస్కుల విభాగాలను అభివృద్ధి చేసింది. ఈ కోవాక్ కియోస్కులను ఉపయోగించి కొవిడ్-19 నోకిన అనుమానితుల నమూనాలను సేకరించవచ్చు. ఈ యూనిట్ వెలుపలి నుండి ముందే సమకూర్చి ఉన్న చేతిమేజీళ్ళ ద్వారా ఆరోగ్య రక్షణ నిపుణులు రోగిని కియోస్కులోనికి నడవమని అతని ముక్కు మరయు నోటిని శుభ్రపరచడం ద్వారా నమూనాలను సేకరించవచ్చు.

ఈ కియోస్కు మనిషి ప్రమేయం లేకుండానే, అంటువ్యాధి వ్యాప్తిని నిరోధించగలుగుతుంది. ఈ కియోస్కుకు ఉన్న రక్షణ కవచం ఆరోగ్య కార్యకర్త నమూనాను సేకరించే సమయంలో గాలితుంపర ద్వారా ప్రసారం కాకుండా ఆరోగ్య కార్యకర్తను రక్షిస్తుంది. ఇది ఆరోగ్య కార్యకర్తలకు పిపిఇల అవసరాన్ని తగ్గిస్తుంది.

రోగి కియోస్కును వీడిన తరువాత నాలుగువైపుల నుండి కియోస్కు కాబిన్లోనికి క్రిమిసంహారకాన్ని 70 సెకండ్ల పాటు పిచికారీ చేసి శుభ్రపరుస్తుంది, అనంతరం నీటితో కడిగి అతిస్థిలలోహిత వెలుతురు ద్వారా శుభ్రపరుస్తుంది. తద్వారా రెండు నిమిషాల్లోనే తదుపరి వినియోగానికి తయారవుతుంది. ఈ కియోస్కులు రెండు వైపులా కంఠ ధ్వని ఆదేశాలను సమన్వయ పరచుకొని పనిచేస్తుంది. అందువలన ఇది వైద్య నిపుణులు ఈ యూనిట్ను లోపలి నుండి మరియు బయటి నుండి కూడా వినియోగించుకునే సౌకర్యం కలదు. దీని వెల సుమారు రు. లక్ష ఉంటుంది కాగా రోజుకు 10 యూనిట్లు అందించడానికి కర్ణాటకలోని బెల్గాంకు చెందిన పరిశ్రమ ముందుకు వచ్చింది. రక్షణ పరిశోధన మరియు అభివృద్ధి సంస్థ(డిఆర్డీఓ) రెండు యూనిట్లను తయారుచేసింది, వీటిని పరీక్షించగా విజయవంతమైన ఫలితాలు వెలువడ్డాయి, అనంతరం వీటిని హైదరాబాదులోని ఇఎస్ఐసి ఆసుపత్రికి అందజేసారు.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1614475>

Fight against coronavirus: DRDO creates kiosk for taking Covid-19 samples

The shielding screen of the kiosk cabin protects the healthcare worker from contracting any infection from the COVID-19 patient while taking the sample

By Huma Siddiqui

To ensure minimal contact between suspected COVID-19 patients and health workers, the Defence Research and Development Organisation (DRDO) has created a COVSACK (COVID Sample Collection Kiosk).

According to DRDO, “This kiosk will help healthcare workers collect samples from patients who could possibly be infected. The samples can be collected by healthcare workers even without them wearing Personal Protective Equipment (PPE) kits.”



How Does this Work?

The kiosk is designed in a manner that it can be disinfected automatically without human interference, with the help of its in-built features.

There is no need for medical workers to wear PPE while taking samples.

It can be automatically disinfected with the help of in-built sprayers that spray disinfectant solution and water. This is followed by disinfection via UV lights.

One per cent sodium hypochlorite solution is sprayed for one minute to disinfect the walls.

The chamber is designed and built to provide access to healthcare workers who can take a swab from the suspected patient with minimal contact.

The shielding screen of the kiosk cabin protects the healthcare worker from contracting any infection from the patient while taking the sample.

One-way communication is established for instructing the patient during the sample-collection procedure.

So far successful containment of COVID-19 patients after testing with oral swabs and isolating the positive cases is the only viable way to stop the spread of coronavirus, as there are no drugs to cure it.

How does Coronavirus Spread?

Based on the available evidence, the COVID-19 virus is transmitted between people through close contact and air droplets. The people at the highest risk of infection are those who come in close contact with a COVID-19 patient or who take care of COVID-19 patients.

DRDO & Private Sector Join Hands

DRDO released a list of industry partners for production of equipment which is of critical importance in fighting COVID-19.

“DRDO is not into manufacturing. The list of 29 companies that has been released is to ensure bulk manufacturing of critical items that are required on an urgent basis and across the country. And manufacturing on such a huge scale is possible through the private sector,” a senior officer of DRDO said.

The technology has been handed over to the private sector companies for non-medical products like masks, ventilators, PPE, face shield, isolation shelters, etc.

As was reported by Financial Express Online last week, Bengaluru-based Defence PSU has been identified to make around 30,000 ventilators. DRDO has already shared the on-board

Oxygen-generator technology, which was developed for the indigenous Light Combat Aircraft 'Tejas'. The technology used onboard the fighter aircraft is now being used for making ventilators.

<https://www.financialexpress.com/lifestyle/fight-against-coronavirus-drdo-creates-kiosk-for-taking-covid-19-samples/1928651/>



Wed, 15 April 2020

DRDO develops swab testing kiosk COVSACK that reduces risk of exposure for doctors

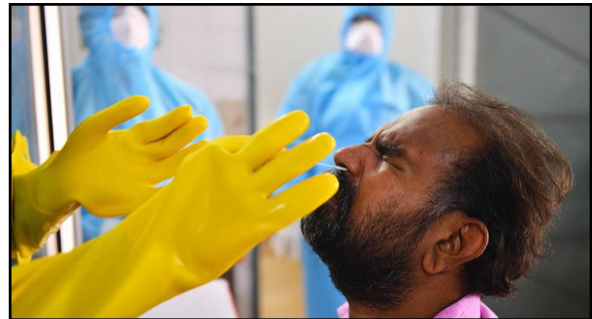
DRDO says COVSACK will reduce the need for PPE kits among health care workers who take samples from suspected patients

By Chetana Belagere

Bengaluru: The Defence Research and Development Organisation (DRDO) has developed COVSACK (COVid SAmpLe Collection Kiosk), a unique kiosk for swab testing of COVID-19 patients, which ensures zero physical contact with the doctor.

COVSACK was designed and developed by Dr Jaiteerth Joshi, Sc 'G', DRDL, Hyderabad. This kiosk was installed in ESI Hospital, Sanathinagar, Hyderabad on Tuesday.

This reduces the need for PPE kits among health care workers who take samples from suspected patients, according to DRDO. There is zero human intervention even in disinfecting the kiosk, because of the auto-disinfection system in place.



In this, only the patients enter the kiosk. The shielding screen (or glass window-like structure on one side of the Kiosk) protects the healthcare worker from the aerosols of the patient while taking the sample.

The door of the kiosk is also made airtight with a rubber gasket.

A glove compartment allows doctor to reach the patient. A two-way communication system is setup so that doctors can pass on instructions and patients can also clarify the doubts, said one of the developers of the kiosk.

Auto-disinfection

After the patient is swabbed and leaves the kiosk, two nozzles on top and two on the sides spray sodium hypochlorite (1%) solution, to disinfect the walls of empty chamber for the next patient.

Then, the inbuilt sprayers rinses down the chemical, that is let out through a drain at the base of the kiosk. The kiosk will also undergo UV light disinfection.

The disinfection process will be complete in 70 seconds, said the DRDO scientist.

Dual Mechanism

This kiosk can also be reversed to make the doctor sit inside while the patients remain outside, in case the numbers of tests are more.

<https://www.newindianexpress.com/nation/2020/apr/14/drdo-develops-swab-testing-kiosk-covsack-that-reduces-risk-of-exposure-for-doctors-2130076.html>

DRDO delivers kiosks for COVID-19 sample collection to Hyderabad hospital; cubicles aimed at reducing risk of exposure for healthcare workers

The Defence Research and Development Organisation (DRDO) has developed a COVID Sample Collection Kiosk (COVSACK) to be used by healthcare workers.

The kiosk has been developed by the Defence Research & Development Laboratory (DRDL) in consultation with the doctors of Employees' State Insurance Corporation (ESIC), Hyderabad.

How will COVSACK work?

A suspected coronavirus patient walks into the kiosk and a nasal or oral swab is taken by healthcare workers from outside through built-in gloves. This ensures that there is no physical contact between the patient and the doctor.

The shielding screen of the kiosk restricts transmission of aerosols/droplet of a COVID-19 infected person to the healthcare worker. This also reduces the requirement of personal protective equipment, or PPE, change by frontline workers.

How is the kiosk cleaned after COVID-19 testing sample is collected?

The COVSACK is automatically disinfected and there is no requirement of human involvement, making the process free and safe from spreading infection.

As soon as the patient leaves the kiosk, four nozzle sprayers placed inside disinfect the empty chamber. Disinfectant mist is sprayed in the empty chamber for 70 seconds and it is further flushed with water and ultra-violet light disinfection.

The COVSACK is ready to take sample of the next patient in less than two minutes.

Price

The COVSACK costs around Rs 1 lakh. DRDO has designed two units and handed them over to ESIC Hospital in Hyderabad.

The manufacturing industry based at Belgaum in Karnataka can make 10 units of COVSACK each day.

India has so far reported close to 11,000 cases of COVID-19. The contagion has claimed lives of over 350 people in the country.

<https://www.firstpost.com/health/drdo-delivers-kiosks-for-covid-19-sample-collection-to-hyderabad-hospital-cubicles-aimed-at-reducing-risk-of-exposure-for-healthcare-workers-8259731.html>



DRDO develops kiosk for COVID-19 sample collection

New Delhi, April 14: Defence Research & Development Laboratory (DRDL), Hyderabad has added another product to the portfolio of Defence Research and Development Organisation

(DRDO) to combat Coronavirus (COVID-19) by developing COVID Sample Collection Kiosk (COVSACK).

The unit has been developed by DRDL in consultation with the doctors of Employees' State Insurance Corporation (ESIC), Hyderabad. The COVSACK is a kiosk for use by healthcare workers for taking COVID-19 samples from suspected infected patients. Patient under test walks into the Kiosk and a nasal or oral swab is taken by health care professional from outside through the built in gloves.

The Kiosk is automatically disinfected without the need for human involvement, making the process free of infection spread. The shielding screen of kiosk cabin protects the health care worker from the aerosols/droplet transmission while taking the sample. This reduces the requirements of PPE change by health care workers.

After the patient leaves the Kiosk, four nozzle sprayers mounted in the kiosk cabin disinfect the empty chamber by spraying disinfectant mist for a period of 70 seconds. It is further flushed with water & UV light disinfection. The system is ready for next use in less than two minutes. Voice command can be given through two-way communication system integrated with the COVSACK. It is possible to configure COVSACK to be used either from inside or outside as required by the medical professionals.

The COVSACK costs nearly Rs one lakh and the identified industry based at Belgaum, Karnataka can support 10 units per day. The DRDO has designed and developed two units and handed over these to ESIC Hospital, Hyderabad after successful testing.

<http://www.prameyanews.com/drdo-develops-kiosk-for-covid-19-sample-collection/>



hindustantimes hindustantimes.com

Wed, 15 April 2020

Covid-19: Ordnance Factory Board to supply 1.1 lakh coveralls in 40 days

The OFB's protective suits, which are vital for the safety and well being of healthcare professionals at the forefront of the fight against the coronavirus pandemic, conform to ISO Class 3 exposure standards.

Stepping forward in the fight against the coronavirus disease (Covid-19), the Ordnance Factory Board has begun supplying coveralls as part of an initial order of 1.1 lakh units placed by HLL Lifecare Limited, a government statement said on Tuesday. Also, the Defence Research and Development Organisation has come up with a Covid sample collection kiosk.

The OFB's protective suits, which are vital for the safety and well being of healthcare professionals at the forefront of the fight against the pandemic, conform to ISO Class 3 exposure standards.

"The manufacture of an initial order of 1.10 lakh units from HLL is in full swing. This order will be completed in 40 days," the statement said.

The OFB is the country's main producer of military arsenal and controls 41 ordnance factories engaged in the production of artillery guns, tanks, armoured personnel carriers, bombs, rockets, anti-aircraft guns, parachutes and small arms.

The board is ramping up its efforts to help fight the coronavirus. It has already developed and begun supplying special tents that can be used for medical emergency, screening and quarantine.

The DRDO has also developed a bio-suit to protect healthcare professionals at the forefront of the fight against Covid-19.

In its latest contribution to the fight against the pandemic, the DRDO has designed and developed a Covid sample collection kiosk (COVSACK).

This has been developed by the Defence Research and Development Laboratory, Hyderabad, in consultation with the doctors of Employees' State Insurance Corporation.

It will reduce the requirement of personal protection equipment (PPE) change by healthcare workers, said another government statement.



“The kiosk is automatically disinfected without the need for human involvement, making the process free of infection spread. The shielding screen of kiosk cabin protects the health care worker from the aerosols/droplet transmission while taking the sample,” the statement said.

After the patient leaves the kiosk, four nozzle sprayers mounted in the cabin take 70 seconds to disinfect the chamber.

“The COVSACK costs nearly Rs one lakh and the identified industry based at Belgaum, Karnataka can support 10 units per day. The DRDO has designed and developed two units and handed over these to ESIC Hospital, Hyderabad after successful testing,” the statement added.

<https://www.hindustantimes.com/india-news/ordnance-factory-board-to-supply-1-1-lakh-coveralls-in-40-days/story-ONpcmL4McU3XhcAJLM0egK.html>



Wed, 15 April 2020

DRDO's sample collection kiosk to combat spread

Defence Research & Development Laboratory (DRDL), Hyderabad, has added another product to the portfolio of DRDO products to combat COVID-19 by developing ‘COVSACK – COVID SAmple Collection Kiosk’ on Tuesday.

The unit has been developed by DRDL, in consultation with the doctors of ESIC, Hyderabad. COVSACK is a kiosk for use by healthcare workers for taking COVID-19 samples from suspected patients. A patient under test walks into the kiosk and a nasal or oral swab is taken by healthcare professional from outside through the built-in gloves.

The kiosk is automatically disinfected without the need for human involvement, making the process free of infection spread. The shielding screen of kiosk cabin protects the healthcare worker from the aerosols/droplet transmission while taking the sample. This reduces the requirements of PPE change by healthcare workers.

After the patient leaves the kiosk, four nozzle sprayers mounted in the kiosk cabin disinfect the empty chamber by spraying disinfectant mist for a period of 70 seconds. It is



further flushed with water and UV light disinfection. The system is ready for next use in less than two minutes. Voice command can be given through two-way communication system integrated with COVSACK. It is possible to configure the kiosk to be used either from inside or outside as required by the medical professionals.

The COVSACK costs nearly ₹1 lakh and the identified industry based at Belgaum, Karnataka, can support 10 units a day. DRDO has designed and developed two units and handed them over to ESIC Hospital Hyderabad after successful testing, said a press release.

<https://www.thehindu.com/news/cities/Hyderabad/drdo-sample-collection-kiosk-to-combat-spread/article31342226.ece>



Wed, 15 April 2020

DRDO develops kiosk for Covid-19 sample collection

Defence Research & Development Laboratory (DRDL), Hyderabad has added another product to the portfolio of Defence Research and Development Organisation (DRDO) to combat Coronavirus (COVID-19) by developing COVID Sample Collection Kiosk (COVSACK).

The unit has been developed by DRDL in consultation with the doctors of Employees' State Insurance Corporation (ESIC), Hyderabad. The COVSACK is a kiosk for use by healthcare workers for taking COVID-19 samples from suspected infected patients. Patient under test walks into the Kiosk and a nasal or oral swab is taken by health care professional from outside through the built in gloves.

The Kiosk is automatically disinfected without the need for human involvement, making the process free of infection spread. The shielding screen of kiosk cabin protects the health care worker from the aerosols/droplet transmission while taking the sample. This reduces the requirements of PPE change by health care workers.

After the patient leaves the Kiosk, four nozzle sprayers mounted in the kiosk cabin disinfect the empty chamber by spraying disinfectant mist for a period of 70 seconds. It is further flushed with water & UV light disinfection.

The system is ready for next use in less than two minutes. Voice command can be given through two-way communication system integrated with the COVSACK. It is possible to configure COVSACK to be used either from inside or outside as required by the medical professionals.

The COVSACK costs nearly Rsone lakh and the identified industry based at Belgaum, Karnataka can support 10 units per day.

The DRDO has designed and developed two units and handed over these to ESIC Hospital, Hyderabad after successful testing.

<http://www.ddinews.gov.in/national/drdo-develops-kiosk-covid-19-sample-collection>

DRDO develops Covid-19 sample collection booth to cut down on PPEs

In an attempt to mitigate the dependence of healthcare workers on Personal Protection Equipment (PPEs), the Defense Research and Development Organisation (DRDO) has invented an enclosed kiosk that can be used to collect COVID-19 samples from suspected cases.

“The concept is based on the missile containers that we use. Here, the main advantage of this design is that the doctor can stand outside the kiosk while the patient goes inside to be examined. Using gloves built into the glass face of the kiosk, the doctor can collect samples from the patient,” an official of the DRDO said.

In a statement, DRDO added the invention is a result of its attempts to help mitigate the danger faced by medical staff working at the frontlines of the struggle against COVID-19.

“The people most at risk of infection are those who are in close contact with a COVID-19 patient or who care for COVID-19 patients. So far, successful containment of COVID-19 involves testing patients with oral swabs and isolating the positive cases,” the statement said.

The COVSACK (Covid Sample Collection Kiosk) can help healthcare workers take samples from suspicious patients, without the need of PPE kits, DRDO said.

The kiosk also has a feature to disinfect the interiors automatically without human interaction, after the patient has exited. The solution used will be one percent sodium hypochlorite solution for a period of 1 minute to leave the walls of the chamber disinfected. It will be further flushed with water from the inbuilt sprayers and UV light disinfection.

<https://www.deccanherald.com/national/drdo-develops-covid-19-sample-collection-booth-to-cut-down-on-ppes-825446.html>



Covid-19: DRDO develops disinfection chamber 'COVSACK' to help healthcare workers

The Defence Research and Development Organization (DRDO) has designed a disinfection chamber for healthcare workers who are in the forefront of the battle against coronavirus, it said on Tuesday

By Manish Prasad

The Defence Research and Development Organization (DRDO) has designed a disinfection chamber for healthcare workers who are in the forefront of the battle against coronavirus. "DRDO has developed a 'COVSACK – COVID Sample Collection Kiosk', that can help health care workers take samples from suspicious patients, without the need of PPE kits," an official release read.

The COVSACK is designed so that the kiosk can be disinfected automatically via its inherent features without any help of human personnel.

The COVID-19 virus is transmitted between people through close contact and droplets. The people most at risk of infection are those who are in close contact with a COVID-19 patient or who care for COVID-19 patients.

"The COVSACK has an auto disinfection facility with inbuilt sprayers of disinfectant solution & water followed by UV lights disinfection. The chamber is designed and built with access to health care workers from outside to take a swab from the suspected patient. The shielding screen of kiosk cabin protects the health care worker from the aerosols of the patient while taking the sample. This minimizes the use of PPE (Personal protective equipment) by the health care worker for each sample taken," an official said.

The autodisinfection by sprayers mounted in the kiosk cabin, disinfected by spraying 1% sodium hypochlorite solution for a period of 1 minute to leave the walls of chamber disinfected. It will be further flushed with water from the inbuilt sprayers & UV light disinfection." he added.

<https://www.indiatvnews.com/news/india/covid-19-drdo-develops-disinfection-chamber-covsack-to-help-healthcare-workers-607612>



Telangana Today

Wed, 15 April 2020

Hyderabad: DRDL developed COVID sample collection kiosk

COVSACK is a kiosk for use by health care workers for taking COVID-19 samples from suspected patients

Hyderabad: Defence Research and Development Laboratory (DRDL), Hyderabad has added another product to the portfolio of DRDO products to combat COVID-19 by developing 'COVSACK – Covid sample collection kiosk'.

The unit has been developed by DRDL, in consultation with the doctors of ESIC, Hyderabad. COVSACK is a kiosk for use by health care workers for taking COVID-19 samples from suspected patients. Patient under test walks into the kiosk and a nasal or oral swab is taken by health care professional from outside through the built in gloves.

The kiosk is automatically disinfected without the need for human involvement, making the process free of infection spread. The shielding screen of kiosk cabin protects the health care worker from the aerosols/ droplet transmission while taking the sample.

This reduces the requirements of PPE change by health care workers. After the patient leaves the kiosk, four nozzle sprayers mounted in the kiosk cabin disinfect the empty chamber by spraying disinfectant mist for a period of 70 seconds.

The system is ready for next use in less than 2 minutes.

Voice command can be given through two-way communication system integrated with the kiosk



and it could be configured to be used either from inside or outside as required by the medical professionals.

The DRDO has designed and developed two units and handed over the same to ESIC Hospital Hyderabad after successful testing.

<https://telanganatoday.com/hyderabad-drdl-developed-covid-sample-collection-kiosk>



Wed, 15 April 2020

"Covid Sample Collection Kiosk" developed by DRDL, Hyderabad

Hyderabad: A COVID-19 Sample Collection Kiosk which gets automatically disinfected without the need for human involvement has been developed by the Defence Research & Development Laboratory (DRDL), Hyderabad. The kiosk is for use by health care workers to take samples from suspected infected patients, an official release said. A patient has to walk into the kiosk where a nasal or oral swab is taken by a health care professional from outside through built in gloves. After he exits, four nozzle sprayers disinfect the empty chamber by spraying disinfectant mist for 70 seconds. It is further flushed with water and Ultra violet light disinfection and is ready for use by the next patient in less than two minutes. Voice command can be given through two-way communication system integrated with the COVSACK, the release said. The shielding screen of the kiosk cabin protects the health care worker from aerosols/droplet transmission while samples are being taken. This reduces the need for health care workers to change Personal Protective Equipment, the release said the unit has been developed by DRDL (under the DRDO), in consultation with doctors of ESIC (Employees' State Insurance Corporation), Hyderabad. The release said it is possible to configure COVSACK to be used either from inside or outside as required by medical professionals. COVSACK costs nearly Rs one lakh and the identified industry based at Belgaum in Karnataka can support 10 units per day two units have been handed over to the ESIC Hospital in Hyderabad after successful testing, it added.

(Disclaimer: This story has not been edited by Outlook staff and is auto-generated from news agency feeds. Source: PTI)

<https://www.outlookindia.com/newscroll/covid-sample-collection-kiosk-developed-by-drdl-hyderabad/1802379>



Wed, 15 April 2020

Covid sample collection kiosk developed by DRDO

New Delhi: Defence Research & Development Laboratory (DRDL), Hyderabad has added another product to the portfolio of Defence Research and Development Organisation (DRDO) to combat Coronavirus (COVID-19) by developing COVID Sample Collection Kiosk (COVSACK).

The unit has been developed by DRDL in consultation with the doctors of Employees' State Insurance Corporation (ESIC), Hyderabad. The COVSACK is a kiosk for use by healthcare workers for taking COVID-19 samples from suspected infected patients. The patient under test walks into the Kiosk and a nasal or oral swab is taken by health care professionals from outside through the built-in gloves.

The COVID Sample Collection Kiosk is automatically disinfected without the need for human involvement, making the process free of infection spread. The shielding screen of kiosk cabin

protects the health care worker from the aerosols/droplet transmission while taking the sample. This reduces the requirements of PPE change by health care workers.

After the patient leaves the Kiosk, four nozzle sprayers mounted in the kiosk cabin disinfect the empty chamber by spraying disinfectant mist for a period of 70 seconds. It is further flushed with water & UV light disinfection. The system is ready for the next use in less than two minutes. Voice command can be given through a two-way communication system integrated with the COVSACK. It is possible to configure COVSACK to be used either from inside or outside as required by the medical professionals.

The COVSACK costs nearly Rs One lakh and the identified industry based at Belgaum, Karnataka can support 10 units per day. The DRDO has designed and developed two units and handed over these to ESIC Hospital, Hyderabad after successful testing.



<https://pragativadi.com/covid-sample-collection-kiosk-developed-by-drdo/>

STAR OF MYSORE

Sun, 12 April 2020

DFRL hands over 6,500 ready-to-eat meals to MCC

Mysore/Mysuru: Defence Research and Development Organisation (DRDO) – Defence Food Research Laboratory (DFRL), Mysuru, has supplied 6,500 ready-to-eat meals to Mysuru City Corporation (MCC) to be distributed among labourers and daily wagers who are facing severe hardship due to nationwide lockdown.

The products, including Khichidi, Tomato Rice, White Rice with Dal Fry along with ready-to-drink Lemon Juice, were handed over by Dr. Anil Dutt Semwal, Director, DFRL to N.M. Shashikumar, Additional Commissioner, MCC, in the premises of Jayamma Govindgowda Kalyana Mantapa in Kuvempunagar. Dr. M.M. Parida, Associate Director, Dr. N. Gopalan, Additional Director and Dr. R. Kumar, Additional Director, were present.

All products were prepared and processed by following strict hygienic conditions, packed in multi-layer retort packaging materials. The products are commercially sterile; the shelf life of the products is one year under ambient conditions, according to a press release.

<https://starofmysore.com/dfrl-hands-over-6500-ready-to-eat-meals-to-mcc/>



OFB units making coveralls for warriors

Responsible for manufacturing state-of-the-art weapons and ammunition for the armed forces, the Ordnance Factory Board (OFB) units are now working round the clock producing more than one lakh coveralls to the frontline fighters of coronavirus pandemic. And pitching in the national effort, the Defence Research and Development Organisation (DRDO) has indigenously developed COVID sample collection kiosk costing about Rs 1lakh. Both the premier organisations are also manufacturing and supplying sanitisiers to various agencies now engaged in the battle against the disease.

Giving details of the contribution of the OFB factories, defence ministry officials said here on Tuesday the OFB has started supply of coveralls conforming to ISO Class 3 exposure standards. Manufacture of initial order of 1.10 lakh from HLL Lifecare Limited (HLL) is in full swing. This order will be completed in 40 days.

This is in addition to the Factories Board developing special two-metre tents which can be used for medical emergency, screening, hospital triage and quarantine purposes. These are made up of waterproof fabric, mild steel and aluminium alloy. Supplies have already started.

Similarly, manufacture of hand sanitiser is on war footing and more than 70,000 litres have already been supplied to different agencies. Two test facilities for blood penetration test has been established, one at Chennai and another at Kanpur.

The OFB has also set aside 280 beds in 10 hospitals for isolation. This has been done as per Ministry of Health and Family Welfare (MoHFW) requirement. The OFB is also trying to produce face masks as per pilot order quantity placed by HLL.

More than 90,000 non-medical masks have been manufactured and distributed. Testing facilities for medical masks would also be in place by this week.

As regards the DRDO, they said its Defence Research & Development Laboratory (DRDL), Hyderabad has developed COVID Sample Collection Kiosk (COVSACK) in consultation with the doctors of Employees' State Insurance Corporation (ESIC), Hyderabad.

The COVSACK is a kiosk for use by healthcare workers for taking COVID-19 samples from suspected infected patients. Patient under test walks into the Kiosk and a nasal or oral swab is taken by health care professional from outside through the built-in gloves.

The Kiosk is automatically disinfected without the need for human involvement, making the process free of infection spread.

The COVSACK costs nearly Rs 1lakh and the identified industry based at Belgaum, Karnataka can support 10 units per day. The DRDO has designed and developed two units and handed over these to ESIC Hospital, Hyderabad after successful testing.

<https://www.dailypioneer.com/2020/india/ofb-units-making-coveralls-for-warriors.html>

DRDL कोविड -19 नमूनों के 'हैंड्स-ऑफ' संग्रह के लिए कियोस्क विकसित

हैदराबाद: रक्षा अनुसंधान एवं विकास प्रयोगशाला (डीआरडीएल), हैदराबाद ने स्वास्थ्यकर्मियों को संदिग्ध मरीजों से सुरक्षित रूप से कोविड -19 नमूने एकत्र करने के लिए एक कियोस्क विकसित किया। COVSACK या COVID नमूना संग्रह कियोस्क कोविड -19 का मुकाबला करने के लिए रक्षा अनुसंधान और विकास संगठन (DRDO) द्वारा विकसित उत्पादों के एक पोर्टफोलियो के लिए नवीनतम अतिरिक्त है।

रोगी कियोस्क में चलता है और एक नस्लीय या मौखिक स्वाब एक स्वास्थ्य देखभाल पेशेवर द्वारा निर्मित दस्ताने के माध्यम से बाहर से लिया जाता है। ईएसआईसी अस्पताल, हैदराबाद के डॉक्टरों के परामर्श से DRDL द्वारा यूनिट विकसित किया गया है। मानव की भागीदारी की आवश्यकता के बिना कियोस्क स्वचालित रूप से कीटाणुरहित हो जाता है, जिससे यह प्रक्रिया संक्रमण से मुक्त हो जाती है। कियोस्क केबिन की परिरक्षण स्क्रीन नमूना लेते समय एयरोसोल / छोटी बूंद के प्रसारण से स्वास्थ्य कार्यकर्ता को बचाता है। डीआरडीएल ने कहा कि स्वास्थ्य कर्मियों द्वारा पीपीई परिवर्तन की आवश्यकताओं को कम करता है।

रोगी को कियोस्क छोड़ने के बाद, कियोस्क केबिन में लगाए गए चार नोजल स्प्रेयर खाली कक्ष को 70 सेकंड की अवधि के लिए कीटाणुनाशक धुंध स्प्रे करके कीटाणुरहित करता है। इसे आगे पानी और यूवी प्रकाश कीटाणुशोधन के साथ प्रवाहित किया जाता है। सिस्टम दो मिनट से भी कम समय में अगले उपयोग के लिए तैयार है। वॉइस कमांड को COVSACK के साथ एकीकृत दो-तरफा संचार प्रणाली के माध्यम से दिया जा सकता है।

COVSACK की लागत लगभग 1 लाख रुपये है और कर्नाटक के बेलगाम स्थित पहचान उद्योग प्रति दिन 10 इकाइयों का समर्थन कर सकता है। DRDO ने दो इकाइयों को डिजाइन और विकसित किया और सफल परीक्षण के बाद उन्हें ESIC अस्पताल, हैदराबाद को सौंप दिया।

<https://hindi.siasat.com/news/drdl-कोविड-19-नमूनों-के-हैंड्स-ऑ-1192586/amp/>



कोरोना वायरस से लड़ने के लिए DRDO ने तैयार किया मास्क, एन-95 से भी ज्यादा सुरक्षित

नीरज राजपूत

- इस मास्क में सुरक्षा की पांच लेयर यानि परतें हैं जिसमें दो लेयर नैनो-वेब के हैं।
- इन एन-99 मास्क को जल्द सरकारी एजेंसियों को सौंप दिया जाएगा।

नई दिल्ली: कोरोना वायरस से लड़ने के लिए डीआरडीओ ने एक बेहद ही कामगर मास्क तैयार किया है। इसे एन-99 के नाम से जाना जाएगा। ये मास्क एन-95 से भी ज्यादा सुरक्षित है। डीआरडीओ के मुताबिक, इस एन-99 मास्क को डीआरडीओ की ग्वालियर स्थित डीआरडीई लैब ने तैयार किया है। इस मास्क में सुरक्षा की पांच लेयर यानि परतें हैं

जिसमें दो लेयर नैनो-वेब के हैं। कपड़ा मंत्रालय के साथ मिलकर दो प्राइवेट कंपनियां इस मास्क को तैयार कर रही हैं। ये कंपनियां मुंबई और कोलकता में हैं।

डीआरडीओ के महानिदेशक (लाइफ साईसेज़) एके सिंह के मुताबिक, इन एन-99 मास्क को जल्द सरकारी एजेंसियों को सौंप दिया जाएगा। एके सिंह ने दावा किया कि ये मास्क 99 प्रतिशत तक कोरोना वायरस से लड़ने की क्षमता रखता है। आपको बता दें कि ग्वालियर स्थित डिफेंस रिसर्च एंड डेवलपमेंट एस्टेबलिशमेंट (डीआरडीई) लैब भारत की चुनिंदा बायोसेफ्टी लैब में से एक है जो कैमिकल और बायोलॉजिकल हथियारों के खिलाफ लड़ने के लिए तकनीक तैयार करती है।

हाल ही में डीआरडीओ लैब खास फॉर्म्यूलेशन के सैनेटाइज़र और फर्श साफ करने के लिए डिसइंफेक्टेंट को तैयार किया गया था। अबतक इस फॉर्म्यूलेशन को आईबी, सीबाआई, एनटीआरओ, एसपीजी, एनएससीएस (नेशनल सिक्योरिटी काउंसिल सेक्रेटियरेट), नीति आयोग, थलसेना, वायुसेना, नौसेना, रक्षा मंत्रालय, पीएमओ (प्रधानमंत्री कार्यालय) और प्रधानमंत्री के 7 एलकेएम रोड स्थित आवास को उपलब्ध कराया गया है। करीब बीस हजार लीटर सैनेटाइज़र अकेले दिल्ली पुलिस को सप्लाई किया गया है।



साथ ही अब इन प्रोडक्ट्स को बड़ी मात्रा में लोगों को उपलब्ध कराने के लिए डीआरडीओ की दूसरी लैब्स को बनाने की मंजूरी दे दी गई है। डीआरडीओ देश की सेनाओं के लिए कई एनबीसी (न्युक्लियर, बायोलॉजिकल एंड कैमिकल) किट और गियर-सूट बना चुकी है। इससे पहले भी डीआरडीई ने स्वाइन-फ्लू और जापानी-बुखार (एनसेफेलाइटिस) की डिटेक्शन किट बना चुकी है।

<https://www.abplive.com/news/india/drdo-prepares-mask-to-fight-corona-virus-safer-than-n-95-1351555>

इंडिया

Wed, 15 April 2020

स्वास्थ्यकर्मियों को कोरोना से बचाने के लिए डीआरडीओ को मिली बड़ी कामयाबी, अब इस तरह लिए जा सकेंगे संक्रमित मरीजों के सैंपल...

*सबसे अहम बात ये है कि कोरोना से पीड़ित मरीजों का इलाज करने वाले
डॉक्टर और नर्स सैंपल लेते वक्त मरीज के संपर्क में नहीं आएंगे।*

राजीव रंजन

- **स्वास्थ्यकर्मियों को कोरोनावायरस से बचाने के लिए डीआरडीओ ने बड़ी कामयाबी हासिल की है।**

नई दिल्ली: कोरोनावायरस के उपचार के लिए डीआरडीओ (डिफेंस रिसर्च एंड डेवलपमेंट ऑर्गनाइजेशन) ने सैंपल कलेक्शन कियोस्क बनाया है। यह देश में पहली बार बना एक ऐसा कियोस्क है जहां स्वास्थ्यकर्मी बिना पीपीई यानि किट के भी कोरोना संदिग्धों का सैंपल ले सकते हैं। दरअसल कोविड-19 वायरस अधिकतर कोरोना संक्रमित मरीजों के संपर्क में आने की वजह से फैलता है। जब कभी संक्रमित व्यक्ति के संपर्क में कोई भी आदमी आता है तो वह भी कोरोना से पीड़ित हो जाता है। ऐसे में स्वास्थ्यकर्मी जो मरीज का इलाज या फिर देखभाल कर रहे होते हैं वे सबसे ज्यादा कोरोना से प्रभावित होते हैं।

अब तक मिली जानकारी के मुताबिक कोविड19 को ज़्यादा से ज़्यादा लोगों की टेस्टिंग और पॉजिटिव लोगों को आइसोलेट करके ही रोका जा सकता है क्योंकि अभी तक इसकी कोई दवा नहीं बन पाई है। कियोस्क को इस तरह से डिज़ाइन किया गया है कि ये ऑटोमैटिक असंक्रमित यानि कि डिसइन्फेक्ट हो जाएगा। ये चेंबर ऐसे बनाया गया है कि स्वास्थ्यकर्मी बाहर से संदिग्ध मरीज का सैम्पल ले सकते हैं। इसमें मरीज चेम्बर के अंदर जाता है और स्वास्थ्य कर्मी बाहर रहता है।

मरीज से बात करने के लिये कॉम्युनिकेशन सिस्टम बनाया गया है। इसकी शील्ड स्क्रीन मरीज के ऐरो सोलोस से स्वास्थ्यकर्मी को बचाती है जब वो सैम्पल लेते हैं। साथ ही आटोमैटिक तौर पर कियोस्क में ही बने सप्रयर्स और यूवी लाइट की मदद से सेनेटाइज हो जाता है। इसमें हर दो मिनट के बाद एक मरीज का सैम्पल लिया जा सकता है। इसका इस्तेमाल कोरोना के लिये बने अस्पताल में शुरू हो चुका है। सबसे अहम बात ये है कि कोरोना से पीड़ित मरीजों का इलाज करने वाले डॉक्टर और नर्स सैम्पल लेते वक़्त मरीज के संपर्क में नहीं आएंगे।

<https://khabar.ndtv.com/news/india/drdo-got-huge-success-to-save-health-workers-from-corona-2211704>



Wed, 15 April 2020

Kiosk for DRDO Kovid-19 sample collection డిఆర్డిఓ కోవిడ్-19 నమూనా సేకరణ కోసం కియోస్క్

మన తెలంగాణ/హైదరాబాద్ : హైదరాబాద్లోని డిఫెన్స్ రీసెర్చ్ అండ్ డెవలప్‌మెంట్ లేబోరేటరీ(డిఆర్డిఓఎల్), కోవిడ్-19ను ఎదుర్కోవటానికి డిఆర్డిఓ ఉత్పత్తుల పోర్ట్‌పోలియోకు కోవ్‌సాక్ కోవిడ్ శాంపిల్ కలెక్షన్ కియోస్క్‌ను అభివృద్ధి పర్చడం ద్వారా మరో ఉత్పత్తిని జోడించినట్లైంది. హైదరాబాద్లోని ఇఎస్‌ఐసి వైద్యులతో సంప్రదించి ఈ యూనిట్‌ను డిఆర్డిఓఎల్ అభివృద్ధి చేసింది. కోవ్‌సాక్ అనేది అనుమానిత రోగుల నుంచి కోవిడ్-19 నమూనాలను తీసుకోవడానికి ఉపయోగించే కియోస్క్. తొలుత రోగి కియోస్క్‌లోకి నడుస్తాడు. నాసికా లేదా నోటిని శుభ్రపరచును. ఆరోగ్య సంరక్షణ నిపుణులు బయట నుండి గ్లోవ్‌లో నిర్మించిన ద్వారా నమూనాలు తీసుకుంటారు. మానవ ప్రమేయం అవసరం లేకుండా కియోస్క్ స్వయంచాలకంగా క్రిమిసంహారకమవుతుంది. ఈ ప్రక్రియ ద్వారా సంక్రమణ వ్యాప్తి లేకుండా చేస్తుంది. కియోస్క్ క్యాబినెట్ యొక్క పీల్‌ింగ్ స్క్రీన్ ఆరోగ్య సంరక్షణ కార్మికుడిని ఏరోసోల్స్/బిందు బిందువుల నుండి రక్షిస్తుంది.



ఇది ఆరోగ్య సంరక్షణ కార్మికుల పిపిఇ మార్పు అవసరాలను తగ్గిస్తుంది. రోగి కియోస్క్ నుండి బయలుదేరిన తర్వాత కియోస్క్ క్యాబిన్లో అమర్చిన నాలుగు నాజిల్ స్ప్రేయర్లు 70 సెకన్ల పాటు క్రిమిసంహారక పొగమంచును చల్లడం ద్వారా ఖాళీ గదిని క్రిమి సంహారకం చేస్తాయి. ఇది నీరు, యువిలైట్ క్రిమిసంహారకతో మరింత ఉడకబెట్టబడుతుంది. సిస్టమ్ 2 నిమిషాల్లోపు తదుపరి ఉపయోగం కోసం సిద్ధమవుతుంది. కోవ్సాక్తో కమ్యూనికేషన్ సిస్టమ్ ద్వారా వాయిస్ కమాండ్ ఇవ్వచ్చు. వైద్యనిపుణులు లోపలి నుండి, వెలుపలి నుండి ఉపయోగించుకునేలా కోవ్సాక్ రూపొందించబడింది. కోవ్సాక్ ధర దాదాపు లక్ష రూపాయలు. బెల్గాం వద్ద ఈ పరిశ్రమ గుర్తించబడింది. కర్ణాటకలో రోజుకు 10 యూనిట్లు మద్దతు ఇవ్వనుండగా డిఆర్డిఓ 02 యూనిట్లను రూపకల్పన చేసి అభివృద్ధి చేసింది. పరీక్షలు విజయవంతమయిన దృష్టా హైదరాబాద్ ఇఎస్ఐసి హాస్పిటల్స్కు అప్పగించింది.

<https://www.manatelangana.news/kiosk-for-drdo-kovid-19-sample-collection/>

ఈనాడు

Tue, 14 April 2020

Proud of the Country



- కరోనా నివారణలో డీఆర్డిఓ
- చైర్మన్ గుండ్రా సతీష్ రెడ్డి కీలకపాత్ర
- ప్రపంచ యవనికలో రెపరెపలాడిన సింహపురి కీర్తి పతాక
- కోవిడ్ - 19 నివారణలో డీఆర్డిఓ కీలకపాత్ర
- తక్కువ ఖర్చుతో ఎక్కువ పరికరాల ఉత్పత్తి
- ప్రశంసలు అందుకుంటున్న సతీష్ రెడ్డి

ప్రభుస్వామి ప్రతినిధి, నెల్లూరు :

డీఆర్డిఓ అంట్ దేశ రక్షణ కోసం ప్రతినిత్యం పరిశోధనలు చేసే ప్రముఖ సంస్థ. దేశ రక్షణ కోసం ఎన్నో మిసైల్స్, రాకెట్లు ఇతర పరికరాల తయారీలో కీలకపాత్ర వహిస్తోంది. డీఆర్డిఓ అంట్ దేశ రక్షణ కోసమే అన్న నానుడిని చైర్మన్ గుండ్రా సతీష్ రెడ్డి మార్చివేశారు. ప్రస్తుత కరోనా నివారణా సమయంలో దేశ రక్షణ కోసం డీఆర్డిఓ అధ్వర్యంలో నడుస్తున్న వందలాది పరిశోధనా శాలలు, వేలాది మంది పరిశోధనా శాస్త్రవేత్తలను ఏవిధంగా

►...మీగతా 3లో

దేశానికి గర్వకారణం

మొదటిసారి తరువాయి

ఏవిధంగా మనం ఉపయోగించుకోగలం అన్నకోణంలో సతీష్ రెడ్డి చేసిన మంచి ఆలోచన ప్రస్తుతం దేశంలోని అన్ని వైద్య బృందాలకు కరోనా నివారణలో ఒక ఆపదహాస్తంగా ఉపయోగపడుతోంది. సతీష్ రెడ్డి సూచనల మేరకు డీఆర్ డీఓ శాస్త్రవేత్తల బృందం కరోనా నివారణలో తామెలా సహాయపడగలమన్న ఆలోచనతో అన్వేషణ మొదలుపెట్టి పరికరాలను సిద్ధం చేస్తోంది. కరోనా నివారణలో కీలకపాత్ర పోషిస్తున్న వైద్యులు, సిబ్బంది రక్షణ కోసం మొహంతో నహా శరీరాన్ని పూర్తిగా కప్పి ఉంచే ముసుగు, వెంటిలేటర్లకు బ్రష్ అవసరం లేని మోటార్లు, వెంటిలేటర్ల పంపులకు హై రెస్పాన్స్ సోలినాయిడ్ వాల్వ్ లు ఒకీ వెంటిలేటర్ ను ఒకీసారి ఇద్దరి నుంచి నలుగురికి ఉపయోగించే వెంటిలేషన్ సిస్టమ్, మల్టిపుల్ అడాప్టర్, కంప్యూటర్ బెస్ట్ ఆటోమేటెడ్ ఫ్లో కంట్రోల్, అత్యంత తక్కువ ధరలో వెంటిలేటర్ల తయారీ, వైద్యులకు బయోసూట్ వస్త్రాలను సతీష్ రెడ్డి నేతృత్వంలో డీఆర్ డీఓ శాస్త్రవేత్తలు రూపకల్పన చేశారు. వీటిలో ఒక్కొక్క పరికరాన్ని రూపకల్పన చేయడం, వెంటనే పరీక్ష చేయడం, వారికి సంబంధించిన పరిశ్రమలో ఆయా పరికరాల ఉత్పత్తికి శ్రీకారం చుట్టడం కూడా జరిగిపోయింది. వాటికి సంబంధించి డీఆర్ డీఓ ఆసుపత్రుల్లో పనిచేస్తున్న వైద్యులు ఆయా పరికరాలను అధ్యయనం చేసి డీఆర్ డీఓ కీలకంగా భావించే మిస్సెల్ సాంకేతిక పరిజ్ఞానంతో వాటికి మరింత మెరుగులు దిద్ది అందుబాటులోకి తీసుకొస్తున్నారు.

డీఆర్ డీఓ నేతృత్వంలోనే పనిచేసే సెంటర్ పర్ ఫైర్ ఎక్స్ ప్లోజివ్ అండ్ ఎన్స్యూరాన్ మెంట్ స్ట్రాటజీస్ ద్వారా పోర్ట్ బుల్ శానిటేషన్ పరికరాన్ని ఉత్పత్తి చేయడం ప్రారంభించారు. కరోనా నేపథ్యంలో పారిశుధ్యం కీలకంగా మారిన పరిస్థితుల్లో వీవుకు తగిలించుకుని వాడగిన ఈ పరికరం ద్వారా 300 మీటర్ల దూరం వ్యాప్తంగా శానిటేషన్ జరిపించవచ్చు. దీంతో పాటు తీవ్రమైన కొరత ఉన్న మాస్కులు, వీవీఈలు వంటి వాటికి కూడా మిస్సెల్ సాంకేతిక పరిజ్ఞానంతో అతితక్కువ ఖర్చుతో అతిఎక్కువ ఉత్పత్తి చేసే మార్గాలను డీఆర్ డీఓ వైర్లెస్.. ప్రభుత్వానికి అందజేసి దేశాన్ని కరోనా వ్యాధి నుంచి కాపాడడంలో ఎంతో కీలకపాత్ర పోషించారు. వాస్తవానికి డీఆర్ డీఓ దేశ రక్షణకు సంబంధించిందే అయినప్పటికీ సతీష్ రెడ్డి వినూత్న ఆలోచనలతో దేశ రక్షణ అంటే ఆయుధాలు మాత్రమే కాదని, ఆరోగ్యం కూడా కీలకమని భావించిన ఆయన.. కరోనా నివారణ పరికరాలను అతితక్కువ ఖర్చుతో ఉత్పత్తి చేయడంలో విజయం సాధించి భారతదేశ కీర్తి ప్రతిష్టలను అంతర్జాతీయ యువనికల్ రెపరెవలూడెలా చేశారనడంలో అతిశయోక్తి కాదు. కీలకమైన కరోనా సంక్షోభ సమయంలో సతీష్ రెడ్డి చూపించిన చొరవ భారతదేశానికి రక్షణగా మారడం సింహపురి ప్రజలను గర్వపడేలా చేస్తుందనడంలో సందేహం లేదు. ఆయనను చూసి ఒక్క సింహపురి కాక ఆంధ్రప్రదేశ్ రాష్ట్రం యావత్ భారతదేశం ఏకాదా గర్వపడుతోంది.

<https://epaper.prabhanews.com/2633087/Sripottisreeramulu-Nellore/14-4-2020-Sripottisreeramulu-Nellore#page/1/1>



Wed, 15 April 2020

What is personal sanitisation enclosure (PSE) unit and how does it work?

Personal Sanitisation Enclosure (PSE) Unit are being installed at public places to disinfect a large number of visitors. In this PSE is an electrically operated pump creates a disinfect mist of sodium hypochlorite and reverse osmosis (RO) treated water for disinfecting through a set of at least 20 nozzles

By Hemant Singh

The outbreak of the coronavirus can be checked through social distancing and proper sanitisation only. In this direction, many efforts are being made by the scientist community and doctors.

Personal Sanitisation Enclosure (PSE) Unit are being installed at public places to disinfect a large number of visitors. Such PSE has been installed in Delhi, one at Azadpur Mandi, and another at AIIMS. The DRDO has also installed Personnel Sanitisation Enclosure outside the additional building of the Supreme Court in Delhi.

What is Personal Sanitisation Enclosure (PSE) Unit?

This is a full-body walkthrough sanitizing enclosure is designed for personnel decontamination, one person at a time. The dimension of the enclosure is around 8 feet long, 8 feet high and 4 feet wide. The PSE consists of roof-mounted and bottom tanks with 700 litre capacity with drainage.

Around 650 persons can pass through this unit for disinfection until a refill is required, and about 80 to 100 persons per hour. This is a portable system equipped with sanitiser and soap dispenser.

How does Personal Sanitisation Enclosure (PSE) work?

Its working is divided into three steps;



Step 1:- The process of decontamination starts by using a pedal at the entry gate.

Step 2:- After entering the chamber, an electrically operated pump creates a disinfect mist of sodium hypochlorite and reverse osmosis (RO) treated water for disinfecting through a set of at least 20 nozzles.

Step 3:- The mist spray is calibrated for 25 seconds and stops automatically, with the indication of completion of the operation.

The PSE can be installed anywhere, the timer can be removed for installation at busy locations such as railways, bus stations, hospitals, shopping malls, and Big vegetable and fruit mandis. In such busy places, the machine runs at the nonstop rate and people can walk through the chamber one by one.

Note: People undergoing disinfection will have to keep their eyes and mouth closed.

Who designed PSE?

The Defence Research and Development Organisation (DRDO) and Vehicle Research Development establishment, Ahmednagar has designed it and tied up with local manufacturers to create the enclosure. The cost of one PSE unit is around Rs 1.5 lac.

So the installation of the Personal Sanitisation Enclosure (PSE) is the need of the hour to prevent the outbreak of the Coronavirus in the country.

<https://www.jagranjosh.com/general-knowledge/what-is-personal-sanitisation-enclosure-pse-unit-1586843622-1>



Wed, 15 April 2020

Covid-19: दानापुर रेल मंडल ने तैयार किया PPE KIT, मंजूरी के लिए DRDO को भेजेगा

दानापुर रेल मंडल ने पीपीई किट (PPE Kit) का निर्माण शुरू किया है, जिसे डीआरडीओ को स्वीकृति के लिए भेजा जा रहा है। डीआरडीओ से स्वीकृति मिलने के बाद इसका भारी संख्या में निर्माण किया जाएगा।

दानापुर: कोरोना के चलते पूरे देश में पीपीई किट (PPE KIT) की मांग बढ़ रही है। बिहार सरकार भी इसकी कमी के बारे में लगातार कह रही है। पीपीई किट की कमी को पूरा करने में अब भारतीय रेल (Indian Railway) भी आगे आया है। ईस्ट सेंट्रल रेलवे के दानापुर रेल मंडल (Danapur Rail Mandal) ने इस ओर एक महत्वपूर्ण कदम बढ़ाया है। दानापुर रेल मंडल ने पीपीई किट (PPE Kit) का निर्माण शुरू किया है, जिसे डीआरडीओ को स्वीकृति के लिए भेजा जा रहा है। डीआरडीओ से स्वीकृति मिलने के बाद इसका भारी संख्या में निर्माण किया जाएगा। रेलवे के दानापुर डिविज़न ने अभी दस हजार किलो पीपीई किट का मैटेरियल मंगाया है। इस समय पाँच हजार किट बनाने की प्रक्रिया जारी है। डीआरडीओ से स्वीकृति के बाद इसका अधिक तादाद में निर्माण शुरू होगा।

रेलवे के अस्पतालों में होगा इसका इस्तेमाल

डीआरडीओ द्वारा सैंपल की मंजूरी के पश्चात् उत्तर रेलवे से प्राप्त 10 हजार किलो पीपीई निर्माण सामग्री से रेलवे चिकित्सालय के चिकित्सक, नर्स एवं अन्य पैरा मेडिकल स्टाफ के प्रयोग के लिए पीपीई का निर्माण पूर्व मध्य रेल के पांचो मंडलों में किया जाएगा। कोविड-19 महामारी से लड़ने के लिए चिकित्सक, नर्स, पैरा मेडिकल स्टाफ के स्वास्थ्य सुरक्षा के



लिए पीपीई का होना नितांत आवश्यक है। इतने कम समय में पीपीई का निर्माण करना पूर्व मध्य रेल के लिए एक महत्वपूर्ण उपलब्धि होगा।

बाज़ार में किट उपलब्ध नहीं होने पर उठाया कदम

बाजार में अनुपलब्धता को देखते हुए रेलवे का प्रयास है कि पीपीई किट का उत्पादन स्वयं किया जाए। इससे पहले जगाधरी में प्रथम बार पीपीई किट तैयार किया गया था जिसे डीआरडीओ ने भी अपनी स्वीकृति प्रदान कर दी है। इसी के मद्देनजर भारतीय रेल के अन्य कारखानों को भी इसके निर्माण की जिम्मेवारी दी गयी है। पूर्व मध्य रेल की यह उपलब्धि कोविड-19 के मरीजों के इलाज के दृष्टिकोण से मील का पत्थर साबित होगा।

<https://hindi.news18.com/news/bihar/patna-covid-19-danapur-railway-board-prepares-ppe-kit-to-send-to-drdo-nodsm-3014359.html>