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CONTENT

S. No.	TITLE	Page No.
	COVID-19: DRDO's Contribution	1-21
1.	DRDO develops kiosk for Covid-19 sample collection	1
2.	डीआरडीओ ने कोविड-19 नमूना संग्रहण के लिए कियोस्क विकसित किया	2
3.	కోవిడ్-19 నమూనాలు సేకరించడానికి కియోస్కులను అభివృద్ధి చేసిన డిఆర్డీఓ	3
4.	Fight against coronavirus: DRDO creates kiosk for taking Covid-19 samples	4
5.	DRDO develops swab testing kiosk COVSACK that reduces risk of exposure for doctors	5
6.	DRDO delivers kiosks for COVID-19 sample collection to Hyderabad hospital; cubicles aimed at reducing risk of exposure for healthcare workers	6
7.	DRDO develops kiosk for COVID-19 sample collection	6
8.	Covid-19: Ordnance Factory Board to supply 1.1 lakh coveralls in 40 days	7
9.	DRDO's sample collection kiosk to combat spread	8
10.	DRDO develops kiosk for Covid-19 sample collection	9
11.	DRDO develops Covid-19 sample collection booth to cut down on PPEs	10
12.	Covid-19: DRDO develops disinfection chamber 'COVSACK' to help healthcare workers	10
13.	Hyderabad: DRDL developed COVID sample collection kiosk	11
14.	"Covid Sample Collection Kiosk" developed by DRDL, Hyderabad	12
15.	Covid sample collection kiosk developed by DRDO	12
16.	DFRL hands over 6,500 ready-to-eat meals to MCC	13
17.	OFB units making coveralls for warriors	14
18.	DRDL कोविड -19 नमूनों के 'हैंड्स-ऑफ' संग्रह के लिए कियोस्क विकसित	15
19.	कोरोना वायरस से लड़ने के लिए DRDO ने तैयार किया मास्क, एन-95 से भी ज्यादा सुरक्षित	15
20.	स्वास्थ्यकर्मियों को कोरोना से बचाने के लिए डीआरडीओ को मिली बड़ी कामयाबी, अब इस तरह लिए जा सकेंगे संक्रमित मरीजों के सैंपल	16
21.	డిఆర్డీఓ కోవిడ్-19 నమూనా సేకరణ కోసం కియోస్కు	17
22.	Proud of the Country (Telugu News)	18
23.	What is personal sanitisation enclosure (PSE) unit and how does it work?	19
24.	Covid-19: दानापुर रेल मंडल ने तैयार किया PPE KIT, मंजूरी के लिए DRDO को भेजेगा	20
	COVID-19: Defence Forces Contributions	21-24
25.	COVID-19: YouTube tutorial guides Tripura cop to make full body sanitisation unit	21
26.	Indian Navy ships, submarines to ensure helicopter evacuation of coronavirus affected crew, quarantine in compartments	22
27.	Indian Navy ensures 24X7 operations from Visakhapatnam during Covid-19 Lockdown	23
28.	Indian Navy develops innovative 'Evacuation Pod' to airlift Covid-19 patients	24
	Defence Strategic: National/International	25-32
29.	Indian Navy 'prepared for immediate deployment' amid China's increased activities in region	25
30.	Make in India: Armed forces to get indigenous next gen communications solution, says CEO, Saankhya Labs	26
31.	Coronavirus hits Rafale deliveries to India, first four fighters expected in July, not May	27

32.	Boeing differs delivery of P-8I Neptune Maritime patrol aircraft to India	28
33.	Amidst lockdown Border Roads Organisation completes strategically important bridge in Arunachal Pradesh	29
34.	Most Advanced F-15QA for Qatar takes to air, Same one which is offered to India	30
35.	Delivery of Russian S-400 Triumf air defence missile systems for India not to be hit by Covid-19	31
36.	Despite coronavirus pandemic, China wages 'silent war' in South China Sea	32
	COVID-19: International Strategic	33-34
37.	The coronavirus crisis calls for an international response	33
	COVID-19 Research	35-39
38.	Explained: How coronavirus attacks, step by step	35
39.	New research shows how silent carriers spread coronavirus	37
40.	China clamps down on research tracing Covid-19 origins, will strictly scrutinise all papers	38
41.	Coronavirus pandemic China makes it tougher to research on origin of COVID-19: Report	39



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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

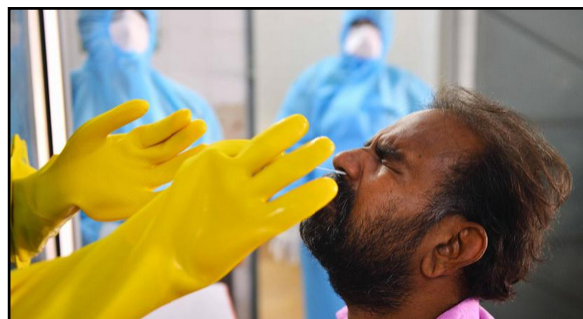
DRDO says COVSACK will reduce the need for PPE kits among health care workers who take samples from suspected patients

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, disinfects 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 Kuvempuanagar. 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 పీల్‌లింగ్ స్ప్రేస్ 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 అంబ్ దేశ రక్షణ కోసం ప్రతినిత్యం పరిశోధనలు చేసే ప్రముఖ సంస్థ. దేశ రక్షణ కోసం ఎన్నో మిస్సైల్స్, రాకెట్లు ఇతర పరికరాల తయారీలో కీలకపాత్ర వహిస్తోంది. డీఆర్డిఓ అంబ్ 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 ఆపదహస్తంగా 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 ఆటో మేటెడ్ 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 ఎన్స్ట్రాన్ మెంట్ స్ట్రాన్స్ ధ్వారా పోర్ట్ బుల్ శానిటేషన్ పరికరాన్ని ఉత్పత్తి చేయడం ప్రారంభించారు. కరోనా నేపథ్యంలో పారిశుధ్యం కీలకంగా మారిన పరిస్థితుల్లో వీవుకు తగిలించుకుని వాడగిన ఈ పరికరం ద్వారా 300 మీటర్ల దూరం వరకూగా 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 नितान्त 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>

COVID-19: Defence Forces Contribution



Wed, 15 April 2020

COVID-19: YouTube tutorial guides Tripura cop to make full body sanitisation unit

While the DRDO sanitisation units cost Rs 4,00,000, this contraption, made with the help of a YouTube video, cost Rs 15,000.

By Debraj Deb

Agartala: The coronavirus outbreak has led a Tripura Police officer to devise a low-cost, 360-degree full body sanitisation unit following a YouTube tutorial. The unit sprays a heavily diluted solution of sodium hypochloride (one per cent to be specific) in mist form on people who stand inside the vinyl-covered booth for about four to five seconds.

Speaking to *Indianexpress.com* this evening, Khowai district Superintendent of Police Kiran Kumar said the unit is a low-cost contraption. It involves a motor, some piping, agricultural sprayers, a cover and a solution of heavily diluted sodium hypochloride.

“I was browsing the internet to do something regarding COVID-19. I found that DRDO had already worked on the formula and installed such a unit at an AIIMS Hospital,” said the official, “Earlier, it was done by District Collector at Tirupur in Tamil Nadu followed by similar steps at Jaipur in Rajasthan and Chandigarh in Haryana.”

According to the policeman, there are ample videos available on YouTube with step-by-step guides on how to build the unit. “I simply followed the instructions and completed the unit within Rs 15,000,” he said. The contraption was ready in 11 hours, with the help of a few local plumbers.

Sodium hypochloride in the form of a bleach solution is used in the contraption. “It is a very good solution that kills almost any deadly virus instantly. But it comes in a concentrated form, which is why we diluted it to one per cent. It is almost harmless in that proportion since two per cent of this solution is used in swimming pools,” SP Kumar said.

The YouTube video he followed gave instructions suggested by the Ministry of Health and Family Welfare. The official says he tested the solution on himself before releasing the contraption for public use. It can sanitise 450 people on a daily basis and can be shifted from place to place in a moment’s notice.

Kumar has claimed that while the DRDO units cost Rs 4,00,000, his cost only Rs 15,000 to get it up and running.

A video of the sanitizer unit was posted by Tripura Police Cyber Crime Branch on their Facebook handle, with netizens lauding the idea.

In a letter from Tripura Health Secretary Debashish Basu to BSF Tripura Frontiers Inspector General, the health official requested the border guards to install RUMSHA Hydro-Pneumatic Surface disinfectant machine and RUMSHA 2 sec-360 degree full body sanitiser, which does the same job, and is in use at the Agartala Government Medical College (AGMC) and Gobinda Ballabh Pant (GBP) Hospital in Agartala.

<https://indianexpress.com/article/north-east-india/tripura/covid-19-youtube-tutorial-guides-tripura-police-officer-to-make-low-cost-full-body-sanitisation-unit-6362680/>

THE ECONOMIC TIMES

Wed, 15 April 2020

Indian Navy ships, submarines to ensure helicopter evacuation of coronavirus affected crew, quarantine in compartments

The guidelines focus on what needs to be done if a COVID-19 case is reported on board a ship or a submarine while at sea, officials said on the condition of anonymity. They said that a crew member showing signs of the virus or contracting it will be treated as an emergency case. “The priority will be to evacuate him by a helicopter to a hospital ashore,” an official said

By Shaurya Karanbir Gurung

New Delhi: The Indian Navy has issued updated guidelines for its ships and submarines at sea for ensuring the immediate helicopter evacuation of a crew member showing coronavirus symptoms to a nearest shore hospital and also designating compartments where such people can be quarantined. The guidelines come in the wake of a recent incident of scores of sailors on board a US Navy aircraft carrier being infected by the virus.

The guidelines focus on what needs to be done if a COVID-19 case is reported on board a ship or a submarine while at sea, officials said on the condition of anonymity. They said that a crew member showing signs of the virus or contracting it will be treated as an emergency case. “The priority will be to evacuate him by a helicopter to a hospital ashore,” an official said.

An Air Evacuation Pod (AEP) has been indigenously designed and developed by Naval Aircraft Yard (Kochi) under Southern Naval Command (SNC) for safe air evacuation of COVID patients from remote areas such as ships and islands in a fully sealed patient transfer capsule. The AEP is believed to remove the risk of cross infection to pilots and evacuation team, with no requirement of sanitation of aircraft post evacuation. 12 AEPs are planned for distribution across Southern, Western, Eastern and Andaman and Nicobar Naval commands.

If evacuation is not immediately possible, the patient will be isolated and those who came in close contact with him will also be quarantined at earmarked compartments on board the ship or submarine. “All platforms have been directed to identify such compartments for quarantine,” an official said.

The disinfection of affected compartments will also take place. While the navy had earlier issued guidelines on isolating crew members that show coronavirus symptoms, the fresh guidelines issued last week further add to the instructions in view of confined spaces on ships and submarines that make social distancing difficult. Navy Chief Admiral Karambir Singh in a video address to his personnel last week had said that although physical distancing on board warships and submarines is a “challenge”, these assets have to be kept free from the virus.

While no serving navy personnel has been infected by the virus, a navy veteran who was working on a contract at Navy Nagar in Mumbai has tested positive for it.

The updated guidelines also act as a “standard protocol” for the navy’s establishments as well, on the actions that need to be taken during contingencies. For example, if a ship at sea has a coronavirus case and the closest hospital is at Kochi, then the person can be evacuated by a chopper to that location. About 10 to 15 ships and submarines are at sea currently for different tasks such as patrolling the Indian Ocean. The guidelines also come in the wake of several sailors on board the aircraft carrier, USS Theodore Roosevelt, testing positive. The ship’s commanding officer, Captain Brett Crozier, was fired after he sent a letter on the urgency of the matter to his seniors.

The guidelines also give instructions on “skeletal manning” of ships and submarines while at harbour. Officials said that the navy has issued instructions to minimise the number of personnel for meeting the basic functional requirements of a ship at harbour, besides security of the assets. During a normal situation, there are several activities for a ship at harbour, such as maintenance, training, logistics and administration. However, ships and submarines will go with a complete crew while they go to sea.

Standard operating procedures before, during and after sailing has also been set. The navy has been screening crew members for signs of COVID-19, while ensuring that contact tracing be done for a person detected to be positive. Disinfection of the ship will also be carried out after it returns to its base port. At foreign ports, crew members can only disembark for essential tasks.

<https://economictimes.indiatimes.com/news/defence/indian-navy-ships-submarines-to-ensure-helicopter-evacuation-of-coronavirus-affected-crew-quarantine-in-compartments/articleshow/75136811.cms>



Wed, 15 April 2020

Indian Navy ensures 24X7 operations from Visakhapatnam during Covid-19 Lockdown

With the nationwide lockdown to prevent spread of virus during the ongoing COVID-19 pandemic, INS Dega of ENC ensured that the joint-user airfield at Visakhapatnam remains open round the clock. The manning of the airfield has been modified to ensure that all requisite safety services and airfield facilities continued to be available. This ensured that all special flights, as well as, the cargo flight of SpiceJet continued its operations unhindered. So far, 15 sorties of the cargo flight have operated since the lockdown has been enforced.

Further, the Indian Navy continued to maintain its operational vigil carrying out regular Maritime Surveillance missions by day and night. The Dornier squadron of the Eastern Naval Command, INAS 311, operating from the air station, has been undertaking regular maritime surveillance missions as well as providing humanitarian assistance at the time of this unprecedented crisis. The squadron undertook multiple missions to ferry in personnel and equipment essentially required to fight the pandemic. Thus, airlift of doctors and medical equipment was carried out to augment the efforts of ENC in its fight against the Global Pandemic. Additionally, all other air assets have been kept mission-ready and prepared for immediate deployment should the need arise.

<http://www.newsonair.com/Main-News-Details.aspx?id=385594>



Wed, 15 April 2020

Indian Navy develops innovative 'Evacuation Pod' to airlift Covid-19 patients

New Delhi: The Indian Armed Forces are extending all possible help to the government during the COVID-19 crisis and are also devising innovative methods to fight the disease.

The Southern Command of the Indian Navy in Kochi, Kerala state, has come up with an innovative solution to minimise the threat of contracting the coronavirus while airlifting COVID-19 patients - an "Evacuation Pod".

The pod, which was developed using available stretchers, would help airlift any #COVID19 patient from a warship or any other place.

The stretcher is covered on all sides with glass-like material, cutting off the possibility of the pilots coming into contact with a patient while evacuating or airlifting them.

But it's not the first time that such an innovation has been made.

Recently, the Indian Navy's Mumbai dockyard developed an infrared-based temperature sensor with their limited available resources to compensate for the scarcity of thermal screening guns.

Meanwhile, the Indian Army is also extending help to the government in these trying times by establishing quarantine facilities in various parts of the country, and much more. The Indian Air Force has also helped in evacuating stranded nationals from countries such as China, Italy, and Iran.

Indian Prime Minister Narendra Modi on Tuesday extended the 21-day nationwide lockdown to 3 May to bring down the number of positive cases in the country. India has 10,363 confirmed cases of COVID-19 and has reported 339 deaths due to the same. However, as many as 1,036 patients have been cured or discharged, as per details given by the federal Ministry of Health and Family Welfare.

<https://sputniknews.com/asia/202004141078946781-indian-navy-develops-innovative-evacuation-pod-to-airlift-covid-19-patients---video/>



Wed, 15 April 2020

Indian Navy ‘prepared for immediate deployment’ amid China’s increased activities in region

In January, Indian Navy Chief Admiral Karambir Singh confirmed the constant presence of seven to eight People’s Liberation Army Navy warships in the Indian Ocean Region at any given time. Speaking at the Raisina Dialogue, the admiral warned: “If anyone operates in our region, they have to notify us first”.

The Indian Navy on Tuesday asserted its war preparedness while stating that it has continued to maintain its operational vigil in the Indian Ocean Region by carrying out regular maritime surveillance missions by day and night.

The statement comes against the backdrop of movements of a Chinese aircraft carrier and warships through the Miyako Strait as part of a journey to the South China Sea.

“The Dornier squadron of the ENC, INAS 311, operating from the air station, has been undertaking regular maritime surveillance missions. Additionally, all other air assets have been kept mission-ready and prepared for immediate deployment should the need arise”, a statement issued by the Indian Navy on Tuesday reads.

The statement also mentioned the preparedness of the navy to support country’s civilian authorities to maintain the supply of essential goods during the unprecedented 40-day lockdown in the country.

“The manning of the airfield has been modified to ensure that all requisite safety services and airfield facilities continued to be available”, the navy added.

On Tuesday, Indian Prime Minister Narendra Modi announced a nationwide lockdown until 3 May to contain the spread of the COVID-19 pandemic.

However, the statement issued by the navy made it clear that it will not lower down its guard to maintain its dominance in the Indian Ocean Region, which has been “threatened” by the Chinese side. Meanwhile, China has claimed that its growing presence in the region is due to patrolling practices.

Last month, the Indian Navy claimed that it had tracked a Chinese vessel near India’s strategic Andaman Islands after it passed through the Strait of Malacca.

<https://www.defenceaviationpost.com/2020/04/indian-navy-prepared-for-immediate-deployment-amid-chinas-increased-activities-in-region/>



Make in India: Armed forces to get indigenous next gen communications solution, says CEO, Saankhya Labs

A Wireless Communication and Semiconductor solutions company, it is developing next-gen communication solutions for defence purposes including 5G NR and 6G RAN

By Huma Siddiqui

In their effort to provide indigenous, reliable and secure wireless communication solutions to the armed forces, Saankhya Labs, is working with various defence OEMs to build battlefield ready radios with SDR technology platform.

A Wireless Communication and Semiconductor solutions company, it is developing next-gen communication solutions for defence purposes including 5G NR and 6G RAN.

Saankhya Labs is the only company in the country today that builds and delivers end to end solutions to customers based on its indigenous, patented, SDR chipsets. The chipsets are conceived, architected, designed & developed by Saankhya Labs and are patent protected. All the IP ownership is created and rests within India.

Parag Naik, Co-founder & CEO Saankhya Labs tells Financial Express Online, “The government’s “Make in India” initiative has given a boost to private players in the defence space. And as a company, we committed to deliver Indigenously Designed Developed and Manufactured highly secure, reliable communication systems to the armed forces.”

“Another aspect of the govt policy is to make India a leading defence export country and we will be happy to export our communication systems to friendly countries,” he says.

What is SDR Chipsets?

Historically, communication products used a platform approach wherein a combination of different chipsets, FPGAs and DSPs were used for baseband processing. “With the launch of Saankhya’s Pruthvi 3 chipset, baseband processing is implemented in firmware to serve diverse applications like broadcast, broadband, satellite communication and defence communication,” says Naik.

Adding, “Software-Defined Radio (SDR) Chipsets are chipsets which can be programmed to support multiple frequencies and broadcast standards. They are advanced computational capabilities, coupled with ultra-low power consumption and small footprint make them an ideal choice for multiple applications.”

S-Band Sat Phones

According to the company’s co-founder, “We are a Strategic MSS Technology partner of ISRO and have developed cutting edge Satellite communication systems based on its SDR Chipsets. One such next-gen communication systems is SAMRAT”.

“SAMRAT is a two-way S-Band Satellite Mobile Radio Terminal (Satphone), supporting voice, data, short messaging and geolocation services. It is a Satsleeve that is designed to fit as an add-on to any 5.5” Android phone, converting it to a Satphone. It operates via a user-friendly app, leveraging the phone’s display, keypad, mic/speaker and GPS. Compact and lightweight, SAMRAT is a low power consumption device. It provides a highly secure mode of communication and offers excellent redundancy in no mobile network coverage areas,” he explains.

UHF IP Radios for Perimeter Security and Long-range Communication

“Our UHF based communication systems include MEGHDOOT Base Station and DHAVAL CPE Modems. These are used to provide long-range non-lineofsight communication. The range of these systems is up to 12 KM. MEGHDOOT base stations are installed in a central command

location while DHAVAL CPE Modems are in remote locations. The communication is over UHF band frequency”.

DHAVAL CPE modems can also be connected to infrared sensors and cameras for perimeter security. IP radios can be used to transmit data from a remote location to the central command location. They can also be used to control cameras and sensors from the central location.

Satellite based Vessel Tracking Systems

NAVDOOT is a two-way Mobile Satellite Service terminal designed to operate as a satellite-based vessel tracking system for augmenting coastal security. The IP67 compliant terminal provides excellent water and dust protection in harsh marine environments. It comprises of an S-Band Modem, GPS/GLONASS Receiver (upgradable to IRNSS-NAVIC), Bluetooth Module, Antenna and Battery. An Android APK is used for control, configuration and interaction with the device.

To allow coast guard to communicate with fishermen when they are at deep sea, NAVDOOT will be installed in all fishing vessels. “This allows the coast guard to track and monitor fishing vessels in Indian coastal waters. It will also monitor boats near the international maritime boundary. It has 2-way communication capabilities”, he adds.

Next-gen Communication Solutions of 5G NR and 6G RAN

Development work is going on the Next-Gen communication systems including 5G NR based on ORAN and a 6G AI-based Cognitive Radio Access Network which automatically and dynamically adjusts the radio environment.

“These technologies can fulfil the future communication needs of the defence forces,” Naik concludes.

<https://www.financialexpress.com/defence/make-in-india-armed-forces-to-get-indigenous-next-gen-communications-solution-says-ceo-saankhya-labs/1927908/>



Wed, 15 April 2020

Coronavirus hits Rafale deliveries to India, first four fighters expected in July, not May

France will remain under lockdown until 11 May, delaying the delivery. Indian personnel are now undergoing limited training that had completely stopped in March

By Snehes Alex Philip

New Delhi: The delivery of the Rafale fighter jets will be pushed back due to the coronavirus crisis. The first four aircraft are likely to land in India by July 2020 and not May as earlier scheduled.

Defence sources told ThePrint on the condition of anonymity that Dassault Aviation’s Bordeaux-Mérignac production facility, which manufactures the Rafale, has been hit by the lockdown in France, which will continue until 11 May.

Sources said the training of Indian personnel on the Rafale has resumed in a limited manner, after being stopped completely for a week-and-a-half late in March. The training flights are operating under strict Covid-19 protocols.



ThePrint had reported on 20 March that the Covid-19 pandemic could impact the delivery of Rafales.

Schedule Goes for a Toss

The first four Rafales had been formally handed over to India in October 2019, and were set to arrive in May. But now the entire schedule has been sent for a toss.

“The lockdown in France is till 11 May. Even then, one is not sure if everyone will be allowed to join back or will be there any new limits,” an official involved in the Rafale project said.

A second source added: “Even if everything is opened up, there are certain protocols in place that need to be followed. Permissions will also have to be sought from all the countries over which the Rafale will fly. This will take time.”

Four Rafale jets are currently under production at Dassault’s facility, while four others are undergoing trials.

Rafale in India

According to the contract, of the 36 Rafales India has ordered, 11 are to be delivered every year.

The first set of the Rafale aircraft will be commissioned into the 17 Squadron ‘Golden Arrows’ in Ambala, while a second squadron is set to come up in Hasimara, West Bengal, to secure India’s eastern borders.

By integrating the Rafale, the Indian Air Force will have the most potent 4.5-generation fighter aircraft.

Equipped with a wide range of weapons, the Rafale is designed to carry out air dominance, aerial reconnaissance, ground support, in-depth strike, anti-ship strike and nuclear deterrence missions. The jet is referred to as an “omnirole” combat aircraft.

<https://theprint.in/defence/coronavirus-hits-rafale-deliveries-to-india-first-four-fighters-expected-in-july-not-may/401717/>



Wed, 15 April 2020

Boeing differs delivery of P-8I Neptune Maritime patrol aircraft to India

The second batch of 4 Boeing P-8I Neptune advanced maritime patrol/anti-submarine warfare (ASW) aircraft which were supposed to arrive in India by end of this month has been deferred by Boeing due to ongoing issues due to pandemic of China virus in the country.

According to Indian defense officials, arrivals of the first plane will happen in July and the other three aircraft in 2021. India already operates 8 P-8I maritime patrol aircraft from its Naval base in Rajali and the second batch of four P-8I maritime patrol aircraft will be based in Naval base in Dabolim on its Western side which more focused on the Arabian sea and movement of Pakistani Navy in the vicinity.

Indian MoD decided to procure 6 more P-8I maritime patrol aircraft deal soon with Boeing.

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<https://idrw.org/boeing-differs-delivery-of-p-8i-neptune-maritime-patrol-aircraft-to-india/#more-225262>





Wed, 15 April 2020

Amidst lockdown Border Roads Organisation completes strategically important bridge in Arunachal Pradesh

While country is busy fighting Corona pandemic with national lockdown positive news comes from farflung Upper Subansiri district of Arunachal Pradesh where a team of Border Roads Organisation (BRO) has completed a strategically important bridge.

An officer of the BRO told, “23 Task Force of Project Arunank of BRO has completed launch of 430 feet long Multi Span Bailey Bridge over the Subansiri River at Upper Subansiri District head quarter Daporijo. This bridge is the only link of 451 villages and the security forces located in the



areas of district bordering China.” The jacking down and decking of the bridge will follow in the next 4 days and it will be through for major traffic, added the source.

Talking about stringent measures taken to safeguard the personnel from the Corona Virus the officer said, “Personnel of the Task Force were working on it since 17 March and braved the lockdown by following stringent sanitising protocols.”

Sources said, “Given the strategic importance of task BRO was asked to replace the risky dilapidated structure after the personal intervention of the Arunachal Chief Minister and the Director General of the Border Roads.”

Government as a policy is focused on such connectivity to the border areas to strengthen the border security and it is desirable in the long term that such areas, which are largely under populated, be populated with sympathetic indigenous population. This policy requires a good road network, firstly for motivating migrated population to return to their areas and secondly, for their logistic support/sustenance.’ BRO is entrusted with the responsibility of development and sustenance of country’s strategic road infrastructure.

Of the 3488 km long Line of Actual Control with China 1126 lies with Arunachal Pradesh alone.

<https://idrw.org/amidst-lockdown-border-roads-organisation-completes-strategically-important-bridge-in-arunachal-pradesh/#more-225265>



Wed, 15 April 2020

Most Advanced F-15QA for Qatar takes to air, Same one which is offered to India

Boeing successfully completed the first flight of the F-15QA fighter, the most advanced version of the jet ever manufactured. Developed for the Qatar Emiri Air Force (QEAF), the jet demonstrated its next-generation capabilities during its 90-minute mission. The flight took off and landed from Lambert International Airport in St. Louis.

“We are very proud of this accomplishment and looking forward with great excitement to the continued successes of this program,” said Col. Ahmed Al Mansoori, commander, QEAF F-15 Wing. “This successful first flight is an important milestone that brings our squadrons one step closer to flying this incredible aircraft over the skies of Qatar.”



Boeing’s flight test team, led by Chief Test Pilot Matt Giese, implemented a precise mission checklist to test the multirole aircraft’s capabilities. The aircraft demonstrated its maneuverability during its vertical “Viking” takeoff and by pulling nine Gs, or nine times the force of earth’s gravity, in its subsequent maneuvering in the test airspace. Checks of systems such as avionics and radar were also successful. A test team monitoring the data in real time confirmed the aircraft performed as planned.

“This successful first flight is an important step in providing the QEAF an aircraft with best-in-class range and payload,” said Prat Kumar, Boeing vice president and F-15 program manager. “The advanced F-15QA not only offers game changing capabilities but is also built using advanced manufacturing processes which make the jet more efficient to manufacture. In the field, the F-15 costs half the cost per flight hour of similar fighter aircraft and delivers far more payload at far greater ranges. That’s success for the warfighter.”

The U.S. Department of Defense awarded Boeing a \$6.2 billion contract in 2017 to manufacture 36 F-15 fighter jets for the QEAF. Boeing will begin delivering aircraft to the customer in 2021. In addition, Boeing was awarded a U.S. Air Force foreign military sale contract in 2019 for F-15QA aircrew and maintenance training for the QEAF.

The F-15QA brings to its operators next-generation technologies such as fly-by-wire flight controls, digital cockpit; modernized sensors, radar, and electronic warfare capabilities; and the world’s fastest mission computer. Increases in reliability, sustainability and maintainability allow defense operators to affordably remain ahead of current and evolving threats.

Through investments in the F-15QA platform and partnership with the U.S. Air Force, Boeing is now preparing to build a domestic variant of the advanced fighter, the F-15EX. F-15EX became a program of record for the Air Force when the National Defense Authorization Act for fiscal year 2020 was signed on Dec. 30, 2019. In January, the Air Force issued public notifications of its intent to award sole-source a contract to Boeing for eight jets. Future plans call for as many as 144 aircraft.

<https://idrw.org/most-advanced-f-15qa-for-qatar-takes-to-air-same-one-which-is-offered-to-india/#more-225260>

Delivery of Russian S-400 Triumph air defence missile systems for India not to be hit by Covid-19

Depending on the situation, Prime Minister Narendra Modi and the Russian President Vladimir Putin are likely to meet next month

By Huma Siddiqui

Amidst the global pandemic of coronavirus, the delivery schedule of the S-400 Triumph air defense missile systems, as well as other military programmes between India and Russia are not expected to be delayed.

Depending on the situation, Prime Minister Narendra Modi and the Russian President Vladimir Putin are likely to meet next month.

“It is all dependent on the global situation. If it is safe to fly, there is a possibility of PM Modi visit to Russia to participate in the Anniversary Celebrations of the Victory Day in May. And if not then the two leaders are likely to meet in July for the BRICS and SCO summits, preparations for which are going on,” said a source.

Both leaders have had telephone talks and agreed to help each other in the fight against COVID-19.

The two leaders are also expected to meet each other in India for the annual summit later this year. “Military cooperation, as well as the military contracts between the two countries among other matters, is of great importance. Officers from the two sides are having regular discussions on these,” the source said.

Financial Express Online has already reported that the mode of payment for the S-400 has already been formalized. Russian officials had in 2019 made clear that to eliminate dependency on USD, perhaps the option of using of Rupee-Rouble currency will be preferred.

The contract for the S-400 missile system was inked on the sidelines of the Indo-Russia annual summit in India in 2018.

The Financial Express Online was told that the payment for the missile system will be made by India’s main bank to the state-owned Russian Sberbank.

What is India Buying?

With the mode of payment issue sorted out, the delivery of the missile system is staggered and it will be completed in the first half of 2025 when the fifth and the final regimental set will be delivered.

The Ministry of Defence has signed a \$ 5.2 billion deal for five regiments of the S-400 Triumph. This will be deployed in not only in the National Capital Region but also along the Mumbai-Baroda Industrial Corridor.

This will be under the Indian Air Force (IAF) and these will give more strength to the Air Defence and the officers and men who will operate this will be trained in Moscow as per the contract.

Referred to as the SA-21 ‘Growler’ by NATO, the S-400 has for four types of missiles.

There are different ranges varying between 40 km, 100 km, 200-km and 400 km.

This according to experts will help in forming an impenetrable interlocking grid of missiles.

It has the capability to be readied in a few minutes and can detect and destroy low flying as well as high flying targets.

Missiles and launchers will be mounted on cross country trucks.

It has 92N6E electronically-steered phased array radar.

Has the capability to track around 300 targets spread over an area of 600 kms away.

They are resistant to electronic jamming too.

What has the Indian Envoy Said?

In an interview with the Russian news agency TASS, the Indian ambassador Bala Venkatesh Varma has said that “The pandemic will not impact the contracts between the two countries, and the delivery of the S-400 systems will be on time.”

In February this year, the Deputy Director of Russia’s Federal Service for Military-Technical Cooperation (FSMTC) Vladimir Drozhzhov had announced that the delivery of the first batch of S-400 Triumph air defense missile systems to India would be by end of 2021, as per the schedule.

<https://www.financialexpress.com/defence/delivery-of-russian-s-400-triumf-air-defence-missile-systems-for-india-not-to-be-hit-by-covid-19/1927888/>



Wed, 15 April 2020

Despite coronavirus pandemic, China wages ‘silent war’ in South China Sea

On April 3, 2020, coronavirus cases had crossed the 1 million mark globally, the world’s attention was focused on containing the cases but for Beijing’s business continued as usual in the South China Sea.

Why is the South China Sea so important to China? how much business is conducted on this route? A Chinese surveillance ship hit and sunk a Vietnamese fishing boat in the disputed waters, eight people onboard the sinking vessel and two other Vietnamese boats were captured and detained.

It’s been more than a week and Beijing has steadily increased its presence and frequency of harassment. It is consolidating and strengthening its position in the South China Sea because besides China there are five other claimants of territories in this resource-rich waterway.

The state of Taiwan, Vietnam, Philippines, Malaysia and Brunei lay claim to the islands, together these nations have over 11,000 cases of the coronavirus. The outbreak in these countries has stalled most defence activities but the outbreak in mainland China has apparently been contained.

The coronavirus is a ‘foreign crisis’ now and Beijing is reminding the smaller neighbors of its supremacy. At least 130 Chinese vessels have been spotted near the Philippine occupied Pagasa island since January. Two new research stations have been launched on China’s large man-made islands – Fiery Cross & Subi Reef. These facilities are apparently conducting field navigation & scientific research in the Spratlys – a disputed archipelago.

Since March, Chinese fighter jets have been conducting unprecedented air drills off the coast of Taiwan. It was followed by the deployment of an aircraft carrier – Liaoning that was intercepted by Japan’s military and now with the sinking of a Vietnamese boat, the dragon’s strategic game plan is getting clearer.

Beijing is using the pandemic to wage a silent war for lasting domination of this waterway, A war that may soon engulf more waterways and more countries if it remains unchecked & unreported.

<https://idrw.org/despite-coronavirus-pandemic-china-wages-silent-war-in-south-china-sea/#more-225268>



Wed, 15 April 2020

The coronavirus crisis calls for an international response

While local policymakers are understandably focused on mitigating the widespread damage of a domestic crisis, the United States will soon need to demonstrate its ability as the leading global power to deliver relief when requested overseas

By Nilanthy Samaranayake

Amid all the headlines about the coronavirus pandemic, a notable development may have escaped the attention of observers. U.S. Deputy Secretary of State Stephen Biegun organized a conference call with close allies and partners to discuss the crisis and ways to coordinate their responses. The call featured senior officials from the governments of India, Australia, Japan, South Korea, New Zealand and Vietnam. The participants plan to meet in weekly conference calls.

Most of the populations in these countries are currently under lockdown orders or stay-at-home orders. While the coronavirus crisis continues to unfold, it is important to recall another time when the United States and its close allies and partners conferred intensely after another black swan event with tremendous transnational effects: the December 26, 2004, Indian Ocean tsunami.

In the aftermath of an earthquake in the Indonesian archipelago, a tsunami swept through the region, killing more than two hundred thousand people, mostly in Indonesia, Sri Lanka and Thailand. Nations from around the world responded by providing disaster relief to the affected countries. The U.S. military conducted Operation Unified Assistance to deliver relief. The USNS Mercy, which is currently operating off America's West Coast, was among the ships that participated in relief efforts.

This episode illustrated the critical importance of diplomatic cooperation and operational coordination when the United States works with its treaty allies and strategic partners. The United States, India, Australia and Japan formed an active coordination group known as the Tsunami Core Group, run by senior diplomats from the four countries. CNA examined this crisis response coordination, particularly between the United States and India, in a 2014 study, *Improving U.S.-India HA/DR Coordination in the Indian Ocean*.

It is true that the coronavirus crisis presents operational differences with the tsunami relief efforts. In particular, there is no critical infrastructure damage around which militaries can focus their relief efforts. Nevertheless, there are some similarities, and therefore lessons to be learned, at the strategic level. All four governments have considerable stakes in how they address this crisis within their own borders and how they demonstrate leadership in planning their overseas responses. At present, all are summoning the power of their militaries in various ways. At the same time, all four are currently engaged in larger, strategic-level competition with China over the rules and norms in international politics and economy. Notably, Biegun's conference call did not include a representative from China, the source of the outbreak.

There are several takeaways and lessons to be learned from the international response to the tsunami. First, after banding together to address a transnational, non-traditional security crisis, the Tsunami Core Group members eventually moved on to traditional security cooperation based on shared geopolitical interests and threat perceptions. The group laid the foundation for the Quadrilateral Security Dialogue of the United States, Japan, Australia and India. In particular, the tsunami response advanced U.S.-India strategic relations by providing an example of how the

bilateral defense relationship could function in operations. At the height of cooperation under the Quad grouping in 2007, the four countries participated in a naval exercise called MALABAR, which Beijing criticized as being focused on containing China.

Although this grouping eventually dissolved due to differing threat perceptions of China, the Quad consultations have been resurrected in the past few years, even at the ministerial level. In September 2019, Secretary of State Mike Pompeo met with counterparts from India, Australia and Japan. Will cooperation on the pandemic, another non-traditional security issue, intensify the geopolitical, traditional security cooperation between these democratic powers as they continue to view China's rise with concern?

The second takeaway from 2004 is obvious: China was not a member of the Tsunami Core Group, nor did it provide significant relief assistance to affected countries. In 2004, however, China was not the economic and military powerhouse that it is today. Allies and partners coordinating on a plan to battle the coronavirus, also known as COVID-19, should consider opportunities to work with Beijing where useful. As Washington envisions a new era of great-power competition with China, there is room for cooperation between competitors as outlined in a recent CNA report and demonstrated in other non-traditional security experiences such as counterpiracy in the Gulf of Aden and the search for Malaysia Airlines Flight 370. U.S.-China relations during the response to the pandemic will inform our understanding of the full spectrum of U.S. strategic options going forward in this era of great-power competition.

The third lesson from the Tsunami Core Group is the clear value of allies and partners to U.S. crisis response operations. In addition to the former Tsunami Core Group countries, Biegun's call included South Korea, New Zealand and Vietnam. The weekly meeting so far appears to have a regional focus, but long-standing, global U.S. allies such as France and the UK should eventually be invited to participate. These countries are often conceived of in the transatlantic context, but they are close U.S. allies with global territories, responsibilities and operations. For its part, France is deploying two Mistral-class naval ships to the Caribbean and western Indian Ocean for the coronavirus response under Operation Résilience. Meanwhile, the UK navy continues to maintain its overseas deployments and stands ready to deliver humanitarian assistance when requested.

As Deputy Secretary Biegun continues his diplomatic efforts and as the State Department has announced financial assistance to global partners, the time is ripe for the U.S. military to follow this lead through coordinated operations with other countries. While policymakers are understandably focused on mitigating the domestic crisis, the United States will soon need to demonstrate its ability as the leading global power to deliver relief when requested overseas. Although the majority of confirmed coronavirus cases and deaths are now in the advanced economies, the outbreak is expected to worsen in developing countries, which could quickly become overwhelmed. At present, six Indian navy ships are reportedly on standby to deliver relief to neighboring countries when requested, while the country remains on lockdown and Indian military services are responding domestically. Given the unknown trajectory of the pandemic, U.S. military officials should begin discussions with allied and partner counterparts such as India and France to explore options for coordinating operations—perhaps in a “COVID Core Group.”

<https://nationalinterest.org/feature/coronavirus-crisis-calls-international-response-144157>

Explained: How coronavirus attacks, step by step

It is still a 'novel' coronavirus that causes COVID-19, but the emerging picture has given researchers clues about how to target it. A look at its structure, how it infects, and the behaviours scientists hope to block

By Kabir Firaque

New Delhi: In the search for a treatment for COVID-19 disease, researchers have been targeting specific behaviours of the novel coronavirus (SARS-CoV2) that causes the disease. While the virus itself is still being studied, the hunt for a treatment is based on what is known so far about the way it infects humans.

So, how does it infect someone?

It begins with the “spike” that gives coronaviruses their name. A coronavirus is surrounded by a fatty outer layer (“envelope”) and on the surface of this layer is the “corona” (crown) of spikes made of protein.

On the surface of human cells is an enzyme called ACE2, which acts as the receptor that enables SARS-CoV2 to launch its attack. The virus’s spike protein binds to the receptor, then fuses with the cell surface, and releases its genetic material (RNA in the case of SARS-CoV2) into the cell. The coronavirus that causes SARS, called SARS-CoV, uses the same ACE2 receptor to invade a cell.

Once inside, the virus replicates itself by using the cell’s molecular mechanism. All these stages involve various interactions between virus proteins and human proteins. Any treatment being developed or researched will look to inhibit these activities at one stage or the other.

Which treatment specifically tries to inhibit which activity?

The Solidarity trials, a World Health Organization (WHO) initiative that includes India, are investigating four lines of treatment using existing drugs. Separately, various research institutions are studying the virus’s functioning in the hope that the knowledge will lead to repurposing of existing drugs or development of new ones.

The Solidarity experiments are trying to find out if virus activity can be inhibited:

At reception stage: This is the target of trials with a combination of anti-malarial drugs chloroquine and [hydroxychloroquine](#). Part of the hope comes from a 2005 study in the *Virology Journal* that studied chloroquine’s role against the SARS virus. It found chloroquine prevented that virus’s ability to attach itself to the ACE2 receptors. However, because chloroquine causes severe side effects, the current trials are being done with a combination with its less toxic derivative [hydroxychloroquine](#).

The effect of these two drugs on SARS-CoV2 is still being studied around the world.

At cell entry stage: The chloroquine-hydroxychloroquine combination comes into play again. Many viruses enter a cell by acidifying compartments within the membrane at the cell surface, and then breaching the membrane itself. When chloroquine and hydroxychloroquine enter the compartment, it loses part of its acidity; the aim of the trials is to hinder the virus at this stage.

At replication stage: A number of trials are looking at obstructing replication at a key step during which the virus uses enzymes to break down proteins, leading to a chain of new viruses. The drug lopinavir, for example, has been known to inhibit the enzyme used by HIV to split proteins, but because lopinavir itself tends to break down in the human body, it is used in combination with ritonavir, which allows it to last longer. One set of Solidarity trials is looking at

this combination of anti-HIV drugs, and another is investigating lopinavir-ritonavir combined with interferon-beta, a molecule that regulates inflammation in the body.

The Solidarity trials with the drug remdesivir, originally created to fight the Ebola virus, will seek to inhibit the novel coronavirus by targeting the action of a key enzyme that facilitates its replication. Previous studies had shown it effective in animals infected with SARS and MERS coronaviruses. This year, a study published in Cell Research reported that a combination of chloroquine and remdesivir can hinder replication of SARS-CoV2 in cultured cells.

What are other studies looking at?

Some studies are looking at the structure of the virus, while others are investigating its behaviour as a potential target for future drugs. For example:

Structure: At the Max Planck Institute in Germany, researchers identified the spike protein as not only the sharpest weapon of the virus but also its Achilles' heel. Antibodies can recognise the spike protein, bind to it, and mark it as a target for immune cells. However, the virus also has a sugar coat that hides parts of its spike proteins from the immune cells.

Therefore, the researchers are analysing the sugar shield, and trying to calculate how the spike proteins move on the surface of the virus and how they change their shape. Using supercomputers, the researchers hope to identify binding sites for antibodies, and plan to compare these with the binding properties of existing drugs, and thus identify ingredients that can block the spike protein. "Of course, repurposing drugs that are already on the market is much faster than finding new active ingredients and testing them in lengthy clinical trials," Gerhard Hummer, Director at the Max Planck Institute of Biophysics, said in a statement.

Behaviour: In a study last week in the Journal of Clinical Medicine, researchers from the Universities of Bologna and Catanzaro (Italy) mapped the interactions between virus proteins and human proteins. When the virus attacks, the body responds by activating certain proteins and deactivating others to hinder it. At the same time, the body has other mechanisms that the virus exploits. These were what the researchers mapped, identifying specific proteins.

"This valuable information about the effects of the new coronavirus on the proteins of human cells may prove to be fundamental in redirecting the development of drug therapies, since common antiviral treatments seem to be unsuccessful," lead author Federico M Giorgi of the University of Bologna said in a statement.

Beyond the Solidarity trials, are there studies on specific drugs?

Reports are emerging from time to time. In Nature last week, an international collaboration led by researchers at ShanghaiTech University reported six possible drug candidates, which they identified after testing more than 10,000 compounds. The project targeted SARS-CoV2's main enzyme for splitting proteins, Mpro, which plays a key role in mediating viral replication. Researchers added drugs directly to the enzyme or to cell cultures growing the virus, assessing how much of each compound is required to stop the enzyme. Six drugs appeared to be effective, they reported.

<https://indianexpress.com/article/explained/coronavirus-covid-19-virus-sars-cov2-6361206/?RelEdit>

New research shows how silent carriers spread coronavirus

Silent carriers of coronavirus may play a significant role in spreading the disease, according to research conducted in Iceland.

By Kristen V Brown

San Francisco: Silent carriers of the virus that causes Covid-19 may play a significant role in spreading the disease, according to research conducted in Iceland.

The findings, to be published in the New England Journal of Medicine on Tuesday, provide a striking picture of how the SARS-CoV-2 virus spreads through an entire population and how containment efforts might curb its transmission.

Researchers from Amgen Inc.-owned deCODE genetics and Iceland's Directorate of Health and National University Hospital examined a large sampling of the country's population, including people who were randomly selected and didn't exhibit symptoms of Covid-19.

Iceland has undertaken a widespread effort to screen for novel coronavirus infections. At the conclusion of the study, it had screened about 6% of its total population, more than 20,000 people.

That number included more than 9,000 people with Covid-19 symptoms recruited for targeted testing. It also included more than 10,000 people who were offered screening without necessarily exhibiting symptoms, and more than 2,000 people selected randomly.

About 0.8% of those who volunteered tested positive for coronavirus, as did 0.6% of the people who were randomly selected to participate in the study, indicating that a significant number of people could have the virus without exhibiting symptoms. Targeted testing identified 1,221 Covid-19 cases among 9,199 symptomatic individuals and their contacts.

Researchers were also able to track how the virus spread in Iceland, demonstrating that it entered the country from Italy and Austria, as early cases indicated, as well as from the U.K. and other countries.

"We can follow the spread of the virus in the population," said Kari Stefansson, chief executive officer of deCODE genetics and an author of the paper. "It became obvious the virus has been sneaking into the country from many countries."

By sequencing more than 600 samples of the virus, researchers found more than 291 mutations that haven't yet been identified anywhere else.

Researchers also found that children and women are less vulnerable to infection.

Additionally, the proportions of infected people didn't change through the course of the study, indicating that containment efforts may be having some effect. In addition to widespread testing, Iceland has implemented social-distancing measures and closed some public spaces.

"The most important thing here is it shows that if you screen widely for the virus, if you put ones infected in isolation and aggressively track it, you can contain this epidemic," Stefansson said. "But for you to be able to do that you have to be vigilant."

<https://theprint.in/health/new-research-shows-how-silent-carriers-spread-coronavirus/402005/>

China clamps down on research tracing Covid-19 origins, will strictly scrutinise all papers

China govt's directive, according to a CNN report, says all academic research on the origins of the novel coronavirus must be strictly and tightly managed.

By kairvyGrewal

New Delhi: China has imposed restrictions on the publication of academic research about how the novel coronavirus originated. A central government directive and online notices published by two Chinese universities, which have now been removed, have disclosed it, said a report by the *CNN*.

These restrictions are being viewed as an effort by the Chinese government to control the narrative on the origin of the global pandemic, because the viral disease was first reported from Wuhan in the country's Hubei province.

He added, "...I don't think they will really tolerate any objective study to investigate the origin of this disease."

Strict Regulations

The directive issued by the Ministry of Education's Science and Technology Department in China states that "academic papers about tracing the origin of the virus must be strictly and tightly managed".

It also maintains that all such papers have to be approved by academic committees of universities before being sent to the education ministry's science and technology department.

After this, the paper will be sent to a task force under the state council for further scrutiny. The papers can only be submitted to journals after a university gets approval from this task force.

Some papers on Covid-19 are to be vetted by academic committees based on their "academic value" or on whether the "timing for publishing" is right.

One of the documents on these restrictions was posted at the Fudan University's website Friday. A person associated with the university told *CNN* that the document was not supposed to be made public and taken down a few hours later.

What Chinese Govt Says about the Outbreak

A number of findings on early coronavirus cases by some Chinese researches have now raised questions over the official account of the outbreak.

Chinese officials had earlier asserted that there cannot be a unanimous conclusion drawn on the exact origin of the novel coronavirus.

Zhao Lijian, a spokesperson of the Chinese foreign ministry, had in March said on Twitter the virus originated in the US and was transmitted to China by the American military.

Yanzhong Huang, a senior fellow for global health at the Council on Foreign Relations, has also been quoted by the *CNN* as saying: "It is no surprise that the government seeks to control related scientific research so that the findings do not challenge its own narrative on the origin of the virus and the government response to the crisis."

"The danger is that when scientific research is subject to the needs of those in power, it further undermines the credibility of the government narrative, making accusations of underreporting and misinformation more convincing," Huang added.

<https://theprint.in/world/china-clamps-down-on-research-tracing-covid-19-origins-will-strictly-scrutinise-all-papers/400794/>

Tue, 14 April 2020

Coronavirus pandemic | China makes it tougher to research on origin of COVID-19: Report

China has imposed restrictions on the publication of academic research on the origins of the novel coronavirus

The Chinese government is looking to muzzle research on the origin of the novel coronavirus, as per a CNN report.

The government has issued a directive under which all academic papers on COVID-19 will be subject to extra vetting before being submitted for publication, it reported.

Two Chinese universities—the Fudan University in Shanghai and the China University of Geoscience in Wuhan, posted the central government notice online before deleting it. The cached version from the geoscience university remained.

The issue has become “politically sensitive”, the report said. A source told the publication, “I think it is a coordinated effort from (the) Chinese government to control (the) narrative, and paint it as if the outbreak did not originate in China. I don't think they will really tolerate any objective study to investigate the origination of this disease.”

Moneycontrol could not independently verify the report.

This seems to be a new development as a researcher from Hong Kong who collaborated with two mainland researchers for their paper said they had faced no such diktats in February.

The publication has reached out to the Chinese Foreign Ministry for a comment on the story.

As per the notice which was removed from the web, the Ministry of Education’s science and technology department, “academic papers about tracing the origin of the virus must be strictly and tightly managed.”

The papers will now be required to be sent to the ministry’s science and technology department, which will forward it to a task force under the State Council for vetting. Only after feedback from this task force can paper be sent to journals for publication.

Other coronavirus and COVID-19 papers will also be vetted for “academic value of the study and timing of publishing”, the report added.

The notice said these instructions were issued during a meeting of the State Council task force on prevention and control of COVID-19, held on March 25.

Chinese researcher David Hui Shu-cheong - who, with a team of mainland Chinese researchers, published a clinical analysis of COVID-19 cases in the New England Journal of Medicine in February - told the publication there were no such restrictions then.

Yanzhong Huang, a senior fellow for global health at the Washington-based Council on Foreign Relations told CNN, “It is no surprise that the government seeks to control related scientific research ... the danger is that when scientific research is subject to the needs of those in power, it further undermines the credibility of the government narrative, making accusations of underreporting and misinformation more convincing.”

In China, research papers on the coronavirus are already subjected to layers of vetting after they are submitted to Chinese academic journals, according to Wang Lan, the editorial director of the Chinese Journal of Epidemiology.

<https://www.moneycontrol.com/news/world/coronavirus-pandemic-china-muzzling-research-on-origin-of-coronavirus-report-5142041.html>