

COVID-19: DRDO's Contribution



Press Information Bureau
Government of India

Ministry of Defence

Fri, 17 APR 2020 3:07PM

DRDO introduces two new products to enable COVID-19 disinfection process

Defence Research and Development Organisation (DRDO) in its continuous quest to contribute towards fight against COVID-19, has been developing several solutions from its existing arsenal of technologies and experience. These consist of innovations and quickly configuring the products for present requirements. Today DRDO has introduced two products which can enhance the operations at public places during the pandemic.

Automatic Mist Based Sanitiser Dispensing Unit

Centre for Fire Explosive & Environment Safety (CFEES), Delhi along with HPO 1, using its expertise in mist technology for fire suppression, has developed automatic mist based sanitiser dispensing unit. It is a contactless sanitiser dispenser which sprays alcohol based hand rub sanitiser solution for sanitisation of hands while entering the buildings/office complexes, etc. It is based on water mist aerator technology, which was developed for water conservation.

The unit operates without contact and is activated through an ultrasonic sensor. A single fluid nozzle with low flow rate is used to generate aerated mist to dispense the hand rub sanitiser. This sanitises the hands with minimum wastage. Using atomiser, only 5-6 ml sanitiser is released for 12 seconds in one operation and it gives the full cone spray over both palms so that disinfection operation of hands is complete.

It is a very compact unit and bulk fill option makes it economical and long lasting product. It is easy to install system as wall-mountable or on a platform. As an indication of operation an LED illuminates the spray.

The unit was manufactured with the help of M/s Riot Labz Pvt Ltd, Noida, and one unit has been installed at DRDO Bhawan. The unit can be used for sanitisation of hands at entry and exit to hospitals, malls, office buildings, residential buildings, airports, metro stations, railway stations, bus stations and critical installations. The product is also expected to be very useful for entry/ exit of isolation and quarantine centres.

UV Sanitisation Box and Hand-held UV device

Defence Institute of Physiology & Allied Sciences (DIPAS) and Institute of Nuclear Medicine & Allied Sciences (INMAS), DRDO laboratories in Delhi have designed & developed Ultraviolet C Light based sanitisation box and hand held UV-C (ultraviolet light with wavelength 254 nanometres) device. The UV-C consists of a shorter, more energetic wavelength of light. It is particularly good at destroying genetic material in COVID-19. The radiation warps the structure RNA which prevents the viral particles from making more copies of themselves. The UV-C kills microbes quickly. Sanitisation of the items by employing UV-C light avoids the harmful effects of



the chemicals used for the disinfection. This is environment friendly and is a contact free effective sanitisation method.

The UV-C box is designed for disinfecting personal belongings like mobile phone, tablets, purse, currency, cover of office files, etc. COVID-19 virus will be deactivated by using UVC lamps in one minute placed equi-distantly in a box with UV dose of 100 mJ/cm². The UV lamps used in the sanitisation box also emits 185 nm which produces ozone and is able to take care of the unexposed area on the surfaces of the objects placed in the box.

The hand held device having eight watt UV-C lamp disinfects office and house hold objects like chairs, files, postal delivered items and food packets with an exposure of 45 second at a 100 mJ/cm² irradiance placed at a distance of less than two inches. This measure can reduce the transmission of Coronavirus in office and public environment which is required to work in all conditions.

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रक्षा मंत्रालय

Fri, 17 APR 2020 3:07PM

डीआरडीओ ने कोविड-19 की टाणुशोधन प्रक्रिया में सक्षम बनाने के लिए दो नए उत्पाद लॉन्च किए

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।

रक्षा अनुसंधान एवं विकास संगठन (डीआरडीओ) कोविड-19 से लड़ाई में योगदान देने के अपने सतत प्रयास में अपनी प्रौद्योगिकियों एवं अनुभव के वर्तमान शस्त्रागार से कई समाधानों का विकास करता रहा है। इनमें नवोन्मेषण एवं त्वरित गति से वर्तमान आवश्यकताओं के लिए उत्पादों की समाकृति बनाना शामिल है। आज डीआरडीओ ने दो नए उत्पाद लांच किए हैं जो महामारी के दौरान सार्वजनिक स्थानों पर परिचालनों को बढ़ावा दे सकते हैं।

ऑटोमैटिक मिस्ट आधारित सैनिटाइजर डिस्पेंसिंग यूनिट

सेंटर फॉर फायर एक्सप्लोसिव एंड इनविरोनमेंट सेफ्टी (सीएफईईएस), दिल्ली ने एचपीओ 1 के साथ मिल कर आग बुझाने के लिए मिस्ट टेक्नोलॉजी में अपनी विशेषज्ञता का उपयोग करते हुए ऑटोमैटिक मिस्ट आधारित सैनिटाइजर डिस्पेंसिंग यूनिट का विकास किया है। यह एक संपर्करहित सैनिटाइजर डिस्पेंसर होता है जो भवनों/कार्यालय परिसरों आदि में प्रवेश करने के दौरान हाथों के सैनिटाइजेशन के लिए अल्कोहल आधारित हैंड रब

सैनिटाइजर सॉल्यूशन का छिड़काव करता है। यह वाम्टर मिस्ट ऐरेटर टेक्नोलॉजी पर आधारित है जिसे जल संरक्षण के लिए विकसित किया गया था।

यह यूनिट बिना संपर्क के परिचालित होता है और एक अल्ट्रासोनिक सेंसर के जरिये गतिशील होता है। निम्न प्रवाह दर के साथ एक सिंगल फ्लुइड नोजल का उपयोग हैंड रब सैनिटाइजर को डिस्पेंस करने के लिए ऐरेटेड मिस्ट को जेनेरेट करने के लिए किया जाता है। यह न्यूनतम बर्बादी के साथ हाथों को सैनिटाइज कर देता है। एटोमाइजर का उपयोग करते हुए, एक परिचालन में 12 सेंकेंड के लिए केवल 5-6 एमएल सैनिटाइजर का उपयोग किया जाता है और यह दोनों हथेलियों के ऊपर फुल कोन स्प्रे देता है जिससे कि हाथों का कीटाणुशोधन परिचालन पूरा हो जाता है।

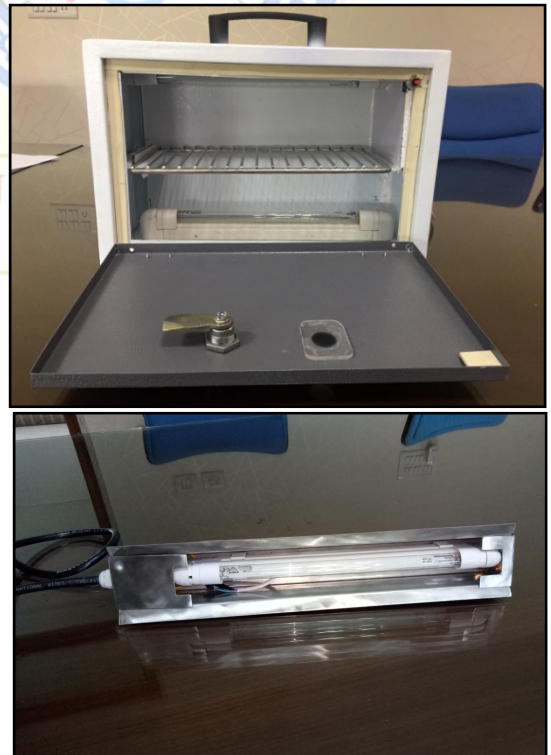
यह एक बहुत कैम्पैक्ट यूनिट है और बल्क फिल ऑप्शन इसे किफायती और दीर्घकालिक समय तक चलने वाला उत्पाद बना देता है। इस सिस्टम को किसी प्लेटफॉर्म पर या वॉल-माउंटेडबल के रूप में संस्थापित करना आसान है। परिचालन के एक संकेत के रूप में, एक एलईडी स्प्रे को प्रकाशित करती है।



इस यूनिट का निर्माण मेसर्स रियोट लैब्स प्राइवेट लिमिटेड, नोएडा की सहायता से किया गया था और और एक यूनिट डीआरडीओ भवन में संस्थापित की गई है। यूनिट का उपयोग अस्पतालों, मॉल्स, कार्यालय भवनों, आवासीय भवनों, हवाई अड्डों, मेट्रो स्टेशनों, रेलवे स्टेशनों, बस स्टेशनों एवं महत्वपूर्ण प्रतिष्ठानों के प्रवेश एवं निकास पर हाथों के सैनिटाइजेशन के लिए किया जा सकता है। इस उत्पाद के आइसोलेशन एवं क्वारांटाइन केंद्रों के प्रवेश एवं निकास पर भी काफी उपयोगी होने की उम्मीद है।

यूवी सैनिटाइजेशन बॉक्स एवं हैंड-हेल्ड यूवी

डिवाइसडिफेंस इंस्टीच्यूट ऑफ फिजियोलॉजी एंड एलायड साईंसेज (डीआईपीएएस) एवं इंस्टीच्यूट ऑफ न्यूक्लियर मेडिसिन एंड एलायड साईंसेज (आईएनएमएएस), दिल्ली में डीआरडीओ प्रयोगशालाओं ने अल्ट्रा-वॉयलेट सी लाइट आधारित सैनिटाइजेशन बॉक्स एवं हैंड-हेल्ड यूवी-सी (वेवलेंथ 254 नैनोमीटर के साथ अल्ट्रा-वॉयलेट लाइट) डिवाइस की डिजाइन एवं विकास किया है। यूवी-सी एक छोटा, लाइट के अधिक इनर्जेटिक वेवलेंथ से बना होता है। यह विशेष रूप से कोविड-19 में जेनेटिक मैटेरियल को नष्ट करने में अच्छा होता है। रेडियेशन स्ट्रक्चर आरएनए को बिगाड़ देता है जो वायरल पार्टिकल्स को अपनी और अधिक प्रतियां बनाने से रोकता है। यूवी-सी माइक्रोब्स को तेजी से मार डालता है। यूवी-सी लाइट तैनात करने के द्वारा मर्दों का सैनिटाइजेशन कीटाणुशोधन के लिए प्रयुक्त रसायनों के हानिकारक प्रभावों से रोकता है। यह पर्यावरण के अनुकूल होता है और संपर्करहित प्रभावी सैनिटाइजेशन प्रणाली है।



यूवी-सी बॉक्स की डिजाइन मोबाइल फोन, टैबलेट, पर्स, करेंसी, आफिस फाइल के कवर आदि जैसे व्यक्तिगत सामानों के कीटाणुशोधन के लिए तैयार की गई है। कोविड-19 वायरस 100 एमजे/सीएम पावर 2 के यूवी डोज के साथ

एक बाँक्स में एक मिनट के लिए समान दूरी पर रखे गए यूवीसी लैम्पों के उपयोग के द्वारा डिएक्टिवेट किए जाएंगे। सैनिटाइजेशन बाँक्स में प्रयुक्त यूवी लैम्प 185 एनएम भी उत्सर्जित करते हैं जो ओजोन का निर्माण करते हैं और बाँक्स में रखे गए वस्तुओं की सतहों पर अनपेक्षित क्षेत्र की देखभाल करने में सक्षम हैं।

आठ वाट यूवी सी लैम्प वाले हाथ में रखे जाने वाले डिवाइस कुर्सियों, फाइलों, डाक से भेजी जाने वाली वस्तुओं एवं दो इंच से कम दूरी पर रखे गए 100 एमजे/सीएम पावर 2 इरैडिएंस पर 45 सेकंड के एक्सपोजर के साथ फूड पैकेटों जैसे कार्यालय एवं घरेलू वस्तुओं का कीटाणुशोधन कर देते हैं।

यह उपाय कार्यालय एवं सार्वजनिक वातावरण, जिसकी सभी स्थितियों में कार्य करने की आवश्यकता होती है, में कोरोना वायरस के संचरण को कम कर सकता है।

एएम/एसकेजे (Release ID: 1615413)

<https://pib.gov.in/PressReleaseDetailm.aspx?PRID=1615413>



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రక్షణ మంత్రిత్వ శాఖ

Fri, 17 APR 2020 3:07PM

కోవిడ్ 19 వ్యాధికి సంబంధించి క్రిమిసంహారక ప్రక్రియకు వీలుగా రెండు కొత్త ఉత్పత్తులను ప్రవేశపెట్టిన డిఆర్డిఓ

డిఫెన్స్ రిసెర్చ్ ,డవలప్ మెంట్ ఆర్గనైజేషన్ (డిఆర్డిఓ) కోవిడ్ -19పై పోరాటంలో భాగంగా నూతన ఆవిష్కరణలను అందించడంలో తన వంతు పాత్రగా, ప్రస్తుతం తన వద్దగల సాంకేతిక పరిజ్ఞానం, అనుభవాల అమ్ముల పొదినుంచి పలు పరిష్కారాలను అభివృద్ధి చేసి అందిస్తూ వస్తోంది. ప్రస్తుతం అవసరాలకు అనుగుణంగా కొత్త ఉత్పత్తులను తయారు చేయడం, నూతన ఆవిష్కరణలు ఇందులో ఉన్నాయి. డిఆర్డిఓ ఈరోజు ఇందుకు సంబంధించి రెండు కొత్త ఉత్పత్తులను పరిచయం చేసింది. ఇవి కరోనా మహమ్మారి కాలంలో బహిరంగ ప్రదేశాలలో కార్యకలాపాల స్థాయిని పెంచడానికి ఉపయోగపడతాయి.

శానిటైజర్ వెదజల్లే ఆటోమేటిక్ యూనిట్

డెజిల్లోని సెంటర్ ఫర్ ఫైర్ ఎక్స్ప్లోజివ్వు,ఎన్విరాన్ మెంట్ సేఫ్టీ (CFEES) సంస్థ, మంటలను ఆర్సేందుకు పొగమంచు సాంకేతిక పరిజ్ఞానం ఉపయోగించడంలో తనకున్న నైపుణ్యాన్ని ఉపయోగించి, ఆటోమేటిక్ పొగమంచు ఆధారిత శానిటైజర్ వెదజల్లే యూనిట్ను అభివృద్ధి చేసింది. ఇది చేతులతో తాకనవసరం లేని శానిటైజర్ వెదజల్లే పరికరం, ఇది భవనాలు , కార్యాలయ సముదాయాలలోకి ప్రవేశించేటప్పుడు వారి చేతులను పరిశుభ్రం చేసి వైరస్ రహితం చేయడంకోసం ఆల్కహాల్ బేస్డ్ హ్యాండ్

రబ్ శానిటైజర్ ద్రావణాన్ని పిచికారీ చేస్తుంది. ఇది నీటి పొగమంచు ఎరేటర్ టెక్నాలజీపై ఆధారపడి పనిచేస్తుంది. నీటిని పొదుపు చేసేందుకు దీనిని రూపొందించారు.

ఈ యూనిట్ ను తాకనవసరం లేకుండా పనిచేస్తుంది అల్ట్రాసోనిక్ సెన్సార్ ద్వారా దీనిని పనిచేయించవచ్చు . చేతులను కడిగేందుకు అవసరమైన శానిటైజర్ను వెదజల్లడానికి , ఎరేటర్ పొగమంచును ఉత్పత్తి చేయడానికి తక్కువ ప్రవాహ రేటు కలిగిన ఒకే ద్రవ నాజిల్ ను అది ఉపయోగించుకుంటుంది. ఇది కనీస నీటి వృధాతో చేతులను శుభ్రపరుచుకోవడానికి ఉపయోగపడుతుంది. వాతావరణాన్ని ఉపయోగించి, ఒక సారి కేవలం 5-6 మి.లీ శానిటైజర్ 12 సెకన్ల పాటు విడుదల అవుతుంది ఇది రెండు అరచేతులపై పూర్తి స్ప్రే చేస్తుంది. తద్వారా చేతులు క్రిమిసంహారకంతో పరిశుభ్రమౌతాయి.

ఇది చాలా చక్కటి పరికరం. ఎక్కువ మొత్తం నింపడానికి ఇది అనువుగా ఉండడంవల్ల ఆర్థికంగా పొదుపుతో కూడుకున్నది. దీర్ఘకాలిక మన్నిక కలిగినదిగా చెప్పుకోవచ్చు.. దీనిని గోడకు లేదా ఏదైనా ప్లాట్‌ఫాంపై అమర్చడం సులభం.. ఇందులో స్ప్రే పనిచేస్తున్నందుకు సూచనగా ఒక ఎల్.ఇ.డి బల్బు వెలుగుతూ కనిపిస్తుంది.

నేయిడా లోని మెస్సర్స్ రియోట్ లాబ్స్ ప్రైవేట్ లిమిటెడ్ సహాయంతో ఈ యూనిట్ ను తయారు చేశారు. డిఆర్డి భవన్ వద్ద ఒక యూనిట్ ను ఏర్పాటు చేశారు. ఆసుపత్రులు, మాల్స్, కార్యాలయ భవనాలు, నివాస భవనాలు, విమానాశ్రయాలు, మెట్రో స్టేషన్లు, రైల్వే స్టేషన్లు, బస్ స్టేషన్లు , కీలక సంస్థల ప్రవేశం నిష్క్రమణ ద్వారాలవద్ద చేతుల శానిటైజేషన్ కోసం దీనిని ఉపయోగించవచ్చు. ఐసోలేషన్ , క్వారంటైన్ కేంద్రాల ప్రవేశం,నిష్క్రమణ ద్వారాల వద్ద కూడా ఇది చాలా ఉపయోగకరంగా ఉంటుందని భావిస్తున్నారు.

యువి శానిటైజేషన్ బాక్స్, చేతిలో ఇమిడే యువి పరికరం:

ధిల్లీలోని డిఫెన్స్ ఇన్స్టిట్యూట్ ఆఫ్ ఫిజియాలజీ ,అల్లెడ్ సైన్సెస్ (డిఐపిఎఎస్), ఇన్స్టిట్యూట్ ఆఫ్ న్యూక్లియర్ మెడిసిన్ , అల్లెడ్ సైన్సెస్ (INMAS), డిఆర్ డి బి ప్రయోగశాలలు అతినీలలోహిత సి లైట్ ఆధారిత శానిటైజేషన్ బాక్స్ , చేతిలో ఇమిడే UV-C పరికరాలను(అతినీలలోహిత కాంతి, 254 నానోమీటర్ల తరంగ దైర్ఘ్యంతో) రూపకల్పన చేసి అభివృద్ధి చేశాయి.

యువి-సి తక్కువ కాంతి , శక్తివంతమైన తరంగదైర్ఘ్యాన్ని కలిగి ఉంటుంది. కోవిడ్ -19 లోని జన్యు పదార్థాన్ని నాశనం చేయడంలో ఇది చాలా బాగా ఉపయోగపడుతుంది. వైరస్ ఆర్.ఎన్.ఎ నిర్మాణాన్ని రేడియేషన్లపై చేస్తుంది, వైరల్ కణాలు తమకు తాము ఎక్కువ నకళ్లు రూపొందించుకోకుండా ఇది నిరోధిస్తుంది. యువి-సి, సూక్ష్మజీవులను త్వరగా చంపుతుంది. యువి-సి కాంతిని ఉపయోగించడం వల్ల వస్తువుల శానిటైజేషన్ కోసం రసాయనాలు ఉపయోగించాల్సిన అవసరం ఉండదు. అందువల్ల రసాయనాల హానికరమైన దుప్పుభావాలు పడవు. ఇది పర్యావరణ అనుకూలమైనది . చేతితో తాకనవసరంలేని శానిటైజేషన్ పద్ధతి.

మొబైల్ ఫోన్, టాబ్లెట్లు, పర్స్, కరెన్సీ, ఆఫీసు పైళ్ళు కవర్ వంటి వ్యక్తిగత వస్తువులను క్రిమిరహితం చేయడానికి యువి-సి బాక్స్ రూపొందించారు..బాక్స్లో యువి-సి దీపాన్ని ఉపయోగించి ఒక నిమిషంలో కోవిడ్ -19 వైరస్‌ను నిర్వీర్యం చేయవచ్చు., ఇది ఓజోన్‌ను ఉత్పత్తి చేస్తుంది . పెట్టెలో ఉంచిన వస్తువుల ఉపరితలాలను పరిరక్షించగలదు.

ఎనిమిది వాట్ల యువి-సి దీపం కలిగిన, చేతిలో ఇమిడే ఈ పరికరం రెండు అంగుళాల కన్నా తక్కువ దూరంలో ఉంచిన 100 ఎంజె,సిఎం2 ఇరాడియన్స్ వద్ద 45 సెకన్ల పాటు కుర్చీలు, పైళ్ళు, పోస్టల్ డెలివరీ చేసిన వస్తువులు , ఆహార ప్యాకెట్ల వంటి వాటిపై కాంటిని ప్రసరింపచేస్తే ఆ వస్తువులు క్రిమిరహితం అవుతాయి . ఆఫీసులు, పబ్లిక్ ప్రదేశాలు, పని ప్రదేశాలలో కరోనా వైరస్ వ్యాప్తిని అరికట్టడానికి ఇది ఎంతగానో ఉపయోగపడుతుంది.

(Release ID: 1615402)

<https://pib.gov.in/PressReleaseDetailm.aspx?PRID=1615402>



Sat, 18 APR 2020

Wallet, Mobile ಹಾಗೂ Currency Noteಗಳನ್ನು Coronavirus ముక్తವಾಗಿಸಲು బంతు మશీన్

మ్యైక్రోవేవ్ ఓవన్ రిలేతి కాణేసువ ఈ విశేష డిస్ ఇన్ఫెక్షన్ బాక్స్ 'అల్ట్రావైట్-సి' తంత్రజ్ఞానద ఆధాద మేలే కాయనిరహిసుత్తదే. ఈ బాక్స్ నల్లి నిమ్మ మోబైల్ అన్న ఒందు నిమిష ఇట్టరే నిమ్మ మోబైల్ క్రిమి ముక్తవగుత్తదే. ఇన్నోండే కుర్చీ, మేజు, ఫ్యాన్, ఆహారద పొట్టణగళన్న కారోనా ముక్తవಾಗಿಸలు యువి-ల్యాంప్ వొందన్న కుడ సిద్ధపడిసలగాదే.

నవదేహలి: కారోనా వైరస్ నింద పారాగలు స్యాని టైసర్ అన్న బళసి పారాగబకుదు, ఆదరే, నమగే అత్యంత వ్యయక్తికవారిరువ వస్తుగళాద పర్స్, మోబైల్ హాగూ కరెన్సీ నోటుగళిగే కారోనా వైరస్ అపాయి హేబ్బాగిరుత్తదే. ఇంతకుదరల్లి ఈ వస్తుగళన్న నావేల్ కారోనా వైరస్ నింద ముక్తవಾಗಿಸలు DRDO ఒందు విశేష అల్ట్రా వైట్ బాక్స్ వొందన్న తయారిసిదే. ఈ బాక్స్ నల్లి కేవల ఒందు నిమిషదవరగే వస్తుగళన్న ఇట్టరే అవు సోంకుముక్తవగుత్తవే ఎన్నలగాదే.

UV-C రేడియేషన్ తంత్రజ్ఞానద మేలే ఇదు కాయనిరహిసుత్తదే.

డిఆర్డిఓ ప్రకార, ఈ నిర్దిష్ట సోంకునివారక-పేట్టిగయు అల్ట్రా వైట్-సి అందరే యువిసి వికిరణ తంత్రజ్ఞానదొందిగే కాయనిరహిసుత్తదే, ఇదన్న దేహలి మూలద డిఫెన్స్ ఇన్స్టిట్యూట్ ఆఫ్ ఫిసియాలజి అండ్ అల్ట్రా సౌన్డ్స్ మత్తు ఇన్స్టిట్యూట్ ఆఫ్ న్యూక్లియర్ మేడిసిన్ మత్తు అల్ట్రా

ಸೈನ್ಸ್ ಅಭಿವೃದ್ಧಿಪಡಿಸಿವೆ. ಯುಎಸಿ ಕೋವಿಡ್ -19 ರ ಅನುವಂಶಿಕ-ವಸ್ತುವನ್ನು ತೆಗೆದುಹಾಕಲು ತುಂಬಾ ಸಹಾಯಕವಾಗಿದೆ. ಇದರ ವಿತರಣೆ ಆರ್ಎನ್‌ಎಯನ್ನು ನಾಶಪಡಿಸುತ್ತದೆ. ಇದರಿಂದ ವೈರಸ್ ಕಣಗಳಿಗೆ ತಮ್ಮ ಪ್ರತಿರೋಧಕಗಳನ್ನು ಉತ್ಪತ್ತಿಸಲು ಸಾಧ್ಯವಾಗುವುದಿಲ್ಲ. ರಾಸಾಯನಿಕಕ್ಕಿಂತ ಇದು ಉತ್ತಮ ತಂತ್ರವಾಗಿದೆ, ಏಕೆಂದರೆ ರಾಸಾಯನಿಕವನ್ನು ಬಳಸುವುದು ಹಾನಿಕಾರಕವಾಗಿದ್ದರೆ, UV-C ಪರಿಸರ ಸ್ನೇಹಿಯಾಗಿದೆ.

ಮೈಕ್ರೋವೇವ್ ಓವನ್ ರೀತಿ ಕಾಣಿಸುವ ಈ ವಿಶೇಷ ಡಿಸ್ ಇನ್‌ಕ್ಯೆಂಟ್ ಬಾಕ್ಸ್ 'ಅಲ್ಟ್ರಾವೈಲೆಟ್-ಸಿ' ತಂತ್ರಜ್ಞಾನದ ಆಧಾರದ ಮೇಲೆ ಕಾರ್ಯನಿರ್ವಹಿಸುತ್ತದೆ. ಈ ಬಾಕ್ಸ್ ನಲ್ಲಿ ನಿಮ್ಮ ಮೊಬೈಲ್ ಅನ್ನು ಒಂದು ನಿಮಿಷ ಇಟ್ಟರೆ ನಿಮ್ಮ ಮೊಬೈಲ್ ಕ್ರಿಮಿ ಮುಕ್ತವಾಗುತ್ತದೆ. ಇನ್ನೊಂದೆಡೆ ಕುರ್ಚಿ, ಮೇಜು, ಫೈಲ್, ಆಹಾರದ ಪೊಟ್ಟಣಗಳನ್ನೂ ಕೊರೊನಾ ಮುಕ್ತವಾಗಿಸಲು ಯುಎಲ್-ಲ್ಯಾಂಪ್ ವೊಂದನ್ನು ಕೂಡ



ಸಿದ್ಧಪಡಿಸಲಾಗಿದೆ. DRDO ನೀಡಿರುವ ಮಾಹಿತಿ ಪ್ರಕಾರ ಇದರಲ್ಲಿರುವ ಲೆನ್ಸ್ ಗಳಿಂದ 185nm UV-C ಹೊರಸೂಸುತ್ತವೆ ಮತ್ತು ಇವು ಓಜೋನ್ ತಯಾರಿಸುತ್ತವೆ. ಇದರಿಂದ ನೇರವಾಗಿ ಪರಿಣಾಮ ಬೀರದ ನಿಮ್ಮ ಸಾಮಾನುಗಳ ಭಾಗ ಕೂಡ ಸೋಂಕು ಮುಕ್ತವಾಗುತ್ತದೆ.

ಇದೇ ರೀತಿ ಡಿಆರ್‌ಡಿಒ ಯುಎಸಿ ದೀಪವೊಂದನ್ನು ಸಹ ಸಹ ವಿನ್ಯಾಸಗೊಳಿಸಿದ್ದು, ಇದು ಕುರ್ಚಿ, ಟೇಬಲ್, ಫೈಲ್, ಫೋನ್-ಬಾಕ್ಸ್, ಕೊರಿಯರ್ ಮತ್ತು ಕಾಲು ಪ್ಯಾಕೆಟ್‌ಗಳನ್ನು ಸಂಕುರಹಿತ ಮಾಡುತ್ತದೆ. ಇದಕ್ಕಾಗಿ, ಈ ಬಿಡಿಭಾಗಗಳ ಎರಡು ಇಂಚುಗಳ ಒಳಗೆ ಈ ದೀಪವನ್ನು ತರಬೇಕು ಮತ್ತು ಅದನ್ನು ಸುಮಾರು 45 ಸೆಕೆಂಡುಗಳವರೆಗೆ ಉರಿಸಬೇಕು.

ಡಿಆರ್‌ಡಿಒ ಪ್ರಕಾರ, ಈ ಎರಡೂ ಉತ್ಪನ್ನಗಳನ್ನು ಗೃಹ, ಕಚೇರಿ ಇತ್ಯಾದಿಗಳಲ್ಲಿ ಬಳಸುವುದರಿಂದ ಕೊರೊನಾ ವೈರಸ್ ಹರಡುವ ಅಪಾಯವನ್ನು ಗಮನಾರ್ಹವಾಗಿ ಕಡಿಮೆ ಮಾಡಬಹುದು. ಜೊತೆಗೆ ಡಿಆರ್‌ಡಿಒ ಸಂವೇದಕಗಳಲ್ಲಿ ಚಾಲನೆಯಲ್ಲಿರುವ ಸ್ವಯಂಚಾಲಿತ ಸ್ಯಾನಿಟೈಜರ್ ವಿತರಣಾ ಘಟಕವನ್ನೂ ಸಹ ಸಿದ್ಧಪಡಿಸಿದೆ. ಈ ಘಟಕವನ್ನು ಮುಟ್ಟದೆಯೇ ನೀವು ನಿಮ್ಮ ಕೈ ಮತ್ತು ಅಂಗೈಗಳನ್ನು ಯಾವುದೇ ರೀತಿಯ ಸೂಕ್ಷ್ಮಾಣುಗಳಿಂದ ಮುಕ್ತವಾಗಿಸಬಹುದು.

<https://zeenews.india.com/kannada/india/drdo-developed-special-uv-c-box-to-make-your-wallet-currency-notes-and-mobile-phone-free-of-coronavirus-26033>

DRDO introduces two new products to enable coronavirus Covid-19 disinfection process

The DRDO has been developing several solutions from its existing arsenal of technologies and experience. These consist of innovations and quickly configuring the products for present requirements

By Ananya Das

The Defence Research and Development Organisation (DRDO), in a bid to fight against coronavirus COVID-19, on Friday introduced two products to enable the disinfection process and enhance the operations at public places during the pandemic. The two products are--automatic mist based sanitiser dispensing unit and UV sanitisation box and hand-held UV device.

The DRDO has been developing several solutions from its existing arsenal of technologies and experience. These consist of innovations and quickly configuring the products for present requirements.



Automatic Mist Based Sanitiser Dispensing Unit

Centre for Fire Explosive & Environment Safety (CFEES), Delhi along with HPO 1, using its expertise in mist technology for fire suppression, has developed automatic mist based sanitiser dispensing unit. It is a contactless sanitiser dispenser which sprays alcohol-based hand rub sanitiser solution for sanitisation of hands while entering the buildings/office complexes, etc. It is based on water mist aerator technology, which was developed for water conservation.

The unit operates without contact and is activated through an ultrasonic sensor. A single fluid nozzle with a low flow rate is used to generate aerated mist to dispense the hand rub sanitiser. This sanitises the hands with minimum wastage. Using an atomiser, only 5-6 ml sanitiser is released for 12 seconds in one operation and it gives the full cone spray over both palms so that disinfection operation of hands is complete.

It is a very compact unit and bulk fill option makes it an economical and long-lasting product. It is easy to install a system as wall-mountable or on a platform. As an indication of operation, an LED illuminates the spray.

The unit was manufactured with the help of M/s Riot Labz Pvt Ltd, Noida, and one unit has been installed at DRDO Bhawan. The unit can be used for sanitisation of hands at entry and exit to hospitals, malls, office buildings, residential buildings, airports, metro stations, railway stations, bus stations and critical installations. The product is also expected to be very useful for entry/ exit of isolation and quarantine centres.

UV Sanitisation Box and Hand-held UV Device

Defence Institute of Physiology & Allied Sciences (DIPAS) and Institute of Nuclear Medicine & Allied Sciences (INMAS), DRDO laboratories in Delhi have designed & developed Ultraviolet C Light-based sanitisation box and handheld UV-C (ultraviolet light with wavelength 254 nanometres) device. The UV-C consists of a shorter, more energetic wavelength of light. It is particularly good at destroying genetic material in COVID-19. The radiation warps the structure RNA which prevents the viral particles from making more copies of themselves. The UV-C kills microbes quickly. Sanitisation of the items by employing UV-C light avoids the harmful effects of the chemicals used for the disinfection. This is environment friendly and is a contact-free effective sanitisation method.

The UV-C box is designed for disinfecting personal belongings like mobile phone, tablets, purse, currency, the cover of office files, etc. COVID-19 virus will be deactivated by using UVC lamps in one minute placed equidistantly in a box with a UV dose of 100 mJ/cm². The UV lamps used in the sanitisation box also emits 185 nm which produces ozone and is able to take care of the unexposed area on the surfaces of the objects placed in the box.

The handheld device having eight watts UV-C lamp disinfects office and household objects like chairs, files, postal delivered items and food packets with an exposure of 45 seconds at a 100 mJ/cm² irradiance placed at a distance of fewer than two inches. This measure can reduce the transmission of Coronavirus in office and public environment which is required to work in all conditions.

<https://zeenews.india.com/india/drdo-introduces-two-new-products-to-enable-coronavirus-covid-19-disinfection-process-2277153.html>



Sat, 18 April 2020

Coronavirus: Defence research body develops 2 more products to combat Covid-19

DRDO has now introduced two other products which can enhance operations to control spread of the infection at public places during the pandemic

New Delhi: Boosting India's capabilities in combating the coronavirus pandemic, the DRDO has developed two more products including an automatic mist-based sanitiser dispensing unit, officials said on Friday.

The other product is a UV sanitisation box, they said.

"The Defence Research and Development Organisation (DRDO) in its continuous quest to contribute towards the fight against COVID-19, has been developing several solutions from its existing arsenal of technologies and experience," the DRDO said in a statement.

These consist of innovations and quickly configuring the products for present requirements. DRDO has now introduced two other products which can enhance operations to control spread of the infection at public places during the pandemic, it said.

"Centre for Fire Explosive & Environment Safety (CFEES), Delhi, using its expertise in mist technology for fire suppression, has developed automatic mist-based sanitiser dispensing unit," it said.

It is a contactless sanitiser dispenser which sprays alcohol-based hand rub sanitiser solution for sanitisation of hands while entering the buildings or office complexes, among other places. It is based on water mist aerator technology, which was developed for water conservation, the DRDO said.

The unit operates without contact and is activated through an ultrasonic sensor.

It is a very compact unit and its bulk fill option makes it economical and long-lasting product. It is easy to install as a wall-mountable system or on a platform. As an indication of operation an LED illuminates the spray, it added.



The products include an automatic mist-based sanitiser dispensing unit and UV sanitisation box

The unit was manufactured with the help of Riot Labz Pvt Ltd, Noida, and one unit has been installed at DRDO Bhawan.

The unit can be used for sanitisation of hands at entry and exit to hospitals, malls, office buildings, residential buildings, airports, metro stations, railway stations, bus stations and critical installations.

The product is also expected to be very useful at points of entry and exit at isolation and quarantine centres, the DRDO said.

Besides, the Defence Institute of Physiology & Allied Sciences (DIPAS) and Institute of Nuclear Medicine & Allied Sciences (INMAS), DRDO laboratories in Delhi have designed and developed ultraviolet C light-based sanitisation box and hand-held UV-C (ultraviolet light with wavelength 254 nanometres) device, it said.

The UV-C consists of a shorter, more energetic wavelength of light. It is particularly good at destroying genetic material in COVID-19, the statement said.

The UV-C box is designed for disinfecting personal belongings like mobile phone, tablets, purse, currency, cover of office files, etc.

Meanwhile, a webinar was organised by Society of Indian Defence Manufacturers (SIDM) in collaboration with the DRDO on Friday, led by Secretary Department of Defence Research (DD R&D) and Chairman Defence Research and Development Organisation (DRDO) Dr G Satheesh Reddy and other stakeholders.

Mr Reddy addressed the plenary session and lauded the efforts of industry in coming forward to produce COVID-19 related medical equipment for supporting the national cause of combating the pandemic, the statement said.

He briefed on the new DRDO design for PPEs and assured that complete know-how will be shared with industries seeking it, it said.

Reddy also said R&D efforts are being undertaken on reusability of the PPE fabrics. A serious effort is being put for indigenisation of critical components for ventilators, oxygen cylinders, goggles, test kits, swabs and Viral Transport Mediums (VTMs), the statement added.

<https://www.ndtv.com/india-news/coronavirus-defence-research-body-drdo-develops-2-more-products-to-combat-covid-19-2213810>



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Sat, 18 April 2020

DRDO introduces products which can enhance ops at public places during pandemic

Defence Research and Development Organisation, DRDO in its continuous quest to contribute towards fight against COVID-19, has been developing several solutions from its existing arsenal of technologies and experience.

Today, DRDO has introduced two products which can enhance the operations at public places during the pandemic. One is Automatic Mist based Sanitiser Dispensing Unit and UV Sanitisation Box and Hand-held UV device.

Centre for Fire Explosive and Environment Safety, CFEES, Delhi, using its expertise in mist technology for fire suppression, has developed Automatic Mist based sanitiser dispensing unit. It is a contactless sanitiser dispenser which sprays alcohol based hand rub sanitiser solution for sanitisation of hands while entering the buildings or office complexes. It is based on water mist aerator technology, which was developed for water conservation.

The unit operates without contact and is activated through an ultrasonic sensor. A single fluid nozzle with low flow rate is used to generate aerated mist to dispense the hand rub sanitiser. This sanitises the hands with minimum wastage. The unit can be used for sanitisation of hands at entry and exit to hospitals, malls, office buildings, residential buildings, airports, metro stations, railway stations, bus stations and critical installations. The product is also expected to be very useful for entry or exit of isolation and quarantine centres.



Defence Institute of Physiology and Allied Sciences, DIPAS and Institute of Nuclear Medicine and Allied Sciences, INMAS, DRDO laboratories in Delhi have designed and developed Ultraviolet C Light based sanitisation box and hand held UV-C (ultraviolet light with wavelength 254 nanometres) device.

The UV-C consists of a shorter, more energetic wavelength of light. It is particularly good at destroying genetic material in COVID-19. The radiation warps the structure RNA which prevents the viral particles from making more copies of themselves. The UV-C kills microbes quickly. Sanitisation of the items by employing UV-C light avoids the harmful effects of the chemicals used for the disinfection. This is environment friendly and is a contact free effective sanitisation method.

The UV-C box is designed for disinfecting personal belongings like mobile phone, tablets, purse, currency and cover of office files. COVID-19 virus will be deactivated by using UVC lamps in one minute placed equi-distantly in a box with UV dose of 100 mJ/cm². The UV lamps used in the sanitisation box also emits 185 nm which produces ozone and is able to take care of the unexposed area on the surfaces of the objects placed in the box.

The hand held device having eight watt UV-C lamp disinfects office and house hold objects like chairs, files, postal delivered items and food packets with an exposure of 45 second. This measure can reduce the transmission of Coronavirus in office and public environment which is required to work in all conditions.

<http://www.newsonair.com/News?title=DRDO-introduces-products-which-can-enhance-ops-at-public-places-during-pandemic&id=385866>

Outlook
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ज्ञान प्रसार एवम् विस्तार
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Sat, 18 April 2020

DRDO develops two more products to combat Covid-19

New Delhi: Boosting India's capabilities in combating the coronavirus pandemic, the DRDO has developed two more products including an automatic mist-based sanitiser dispensing unit, officials said on Friday.

The other product is a UV sanitisation box, they said.

"The Defence Research and Development Organisation (DRDO) in its continuous quest to contribute towards the fight against COVID-19, has been developing several solutions from its existing arsenal of technologies and experience," the DRDO said in a statement.

These consist of innovations and quickly configuring the products for present requirements. DRDO has now introduced two other products which can enhance operations to control spread of the infection at public places during the pandemic, it said.

"Centre for Fire Explosive & Environment Safety (CFEES), Delhi, using its expertise in mist technology for fire suppression, has developed automatic mist-based sanitiser dispensing unit," it said.

It is a contactless sanitiser dispenser which sprays alcohol-based hand rub sanitiser solution for sanitisation of hands while entering the buildings or office complexes, among other places. It is based on water mist aerator technology, which was developed for water conservation, the DRDO said.

The unit operates without contact and is activated through an ultrasonic sensor.

It is a very compact unit and its bulk fill option makes it economical and long-lasting product. It is easy to install as a wall-mountable system or on a platform. As an indication of operation an LED illuminates the spray, it added.

The unit was manufactured with the help of Riot Labz Pvt Ltd, Noida, and one unit has been installed at DRDO Bhawan.

The unit can be used for sanitisation of hands at entry and exit to hospitals, malls, office buildings, residential buildings, airports, metro stations, railway stations, bus stations and critical installations.

The product is also expected to be very useful at points of entry and exit at isolation and quarantine centres, the DRDO said.

Besides, the Defence Institute of Physiology & Allied Sciences (DIPAS) and Institute of Nuclear Medicine & Allied Sciences (INMAS), DRDO laboratories in Delhi have designed and developed ultraviolet C light-based sanitisation box and hand held UV-C (ultraviolet light with wavelength 254 nanometres) device, it said.

The UV-C consists of a shorter, more energetic wavelength of light. It is particularly good at destroying genetic material in COVID-19, the statement said.

The UV-C box is designed for disinfecting personal belongings like mobile phone, tablets, purse, currency, cover of office files, etc.

Meanwhile, a webinar was organised by Society of Indian Defence Manufacturers (SIDM) in collaboration with the DRDO on Friday, led by Secretary Department of Defence Research (DD R&D) and Chairman Defence Research and Development Organisation (DRDO) Dr G Satheesh Reddy and other stakeholders.

Reddy addressed the plenary session and lauded the efforts of industry in coming forward to produce COVID-19 related medical equipment for supporting the national cause of combating the pandemic, the statement said.

He briefed on the new DRDO design for PPEs and assured that complete know-how will be shared with industries seeking it, it said.

Reddy also said R&D efforts are being undertaken on reusability of the PPE fabrics. A serious effort is being put for indigenisation of critical components for ventilators, oxygen cylinders, goggles, test kits, swabs and Viral Transport Mediums (VTMs), the statement 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/drdo-develops-two-more-products-to-combat-covid19/1806160>

DRDO innovates automatic sanitiser and ultraviolet devices to fight coronavirus

The ultraviolet device, which is hand held, can disinfect office and house objects like chairs, files and food packets, the defence ministry said. It also comes as a box, which has been designed to disinfect personal belongings such as mobile phones, files and wallet

By Shaurya Karanbir Gurung

New Delhi: From an automatic mist-based sanitiser for use while entering offices to ultraviolet devices that can destroy the genetic material of COVID-19, the Defence Research and Development Organisation introduced these two new technologies on Friday that are aimed at preventing the spread of the coronavirus.

The ultraviolet device, which is hand held, can disinfect office and house objects like chairs, files and food packets, the defence ministry said. It also comes as a box, which has been designed to disinfect personal belongings such as mobile phones, files and wallet.

The DRDO's Centre for Fire Explosive & Environment Safety (CFEES), Delhi, has developed an automatic mist based sanitiser dispensing unit, the defence ministry said. It is a contactless sanitiser dispenser, which sprays alcohol based hand sanitiser, for use at the entry of buildings and office complexes.

The unit was manufactured with the help of Riot Labz Private Limited, Noida, and one unit has been installed at the DRDO Bhawan in Delhi. "The unit can be used for sanitisation of hands at entry and exit to hospitals, malls, office buildings, residential buildings, airports, metro stations, railway stations, bus stations and critical installations. The product is also expected to be very useful for entry and exit of isolation and quarantine centres," the ministry said.

The sanitiser operates without contact and is activated through an ultrasonic sensor. A single fluid nozzle is used to generate aerated mist to dispense the hand rub sanitiser. It sanitises the hands with minimum wastage. "It is easy to install the system as wall-mountable or on a platform. As an indication of operation an LED illuminates the spray," the ministry said.

Meanwhile, the Defence Institute of Physiology & Allied Sciences (DIPAS) and Institute of Nuclear Medicine & Allied Sciences (INMAS), both DRDO laboratories in Delhi, have designed and developed Ultraviolet C Light based sanitisation box and a hand held UV-C (ultraviolet light with wavelength 254 nanometres) device. The UV-C consists of a shorter, more energetic wavelength of light.

"It is particularly good at destroying genetic material in COVID-19. The radiation warps the structure RNA, which prevents the viral particles from making more copies of themselves. The UV-C kills microbes quickly. The hand held device disinfects office and household objects like chairs, files, postal delivered items and food packets This measure can reduce the transmission of coronavirus," the ministry said.



The automatic mist based sanitiser dispensing unit is a contactless sanitiser dispenser, which sprays alcohol based hand sanitiser, for use at the entry of buildings and office complexes.

“The UV-C box is designed for disinfecting personal belongings like mobile phone, tablets, purse, currency and the cover of office files. COVID-19 virus will be deactivated by using UVC lamps in one minute when placed equidistantly in the box,” the ministry said.

<https://economictimes.indiatimes.com/news/defence/drdo-innovates-automatic-sanitiser-and-ultraviolet-device-to-fight-coronovirus/articleshow/75208924.cms?from=mdr>



Sat, 18 April 2020

DRDO comes up with two more products to fight virus

Automatic Mist based Sanitiser Dispensing Unit

The Defence Research and Development Organisation (DRDO), which has been relentlessly developing and offering solutions from its existing arsenal of technologies and experience to fight coronavirus, has released two more products.

The Centre for Fire Explosive and Environment Safety (CFEES) in Delhi along with HPO 1 has developed an automatic mist based sanitiser dispensing unit. It is a no-contact dispenser that sprays alcohol-based hand rub sanitiser solution while one is entering buildings or office complexes. It is based on water mist aerator technology, developed for water conservation.

The unit is activated through an ultrasonic sensor. A single fluid nozzle with low flow rate is used to generate aerated mist to dispense the sanitiser.

Only five-six ml of the sanitiser is released for 12 seconds in one operation and it gives the full cone spray over both palms for complete disinfection.

It is a very compact unit and bulk fill option makes it economical and a long lasting product. It is also an easy to install system as wall-mountable or on a platform. The unit was manufactured with the help of M/s Riot Labz Pvt. Ltd. at Noida, and one unit has been installed at DRDO Bhawan.

UV-C Sanitisation Box

The Defence Institute of Physiology & Allied Sciences (DIPAS) and Institute of Nuclear Medicine & Allied Sciences (INMAS), DRDO laboratories in Delhi, have designed and developed an Ultraviolet C Light-based sanitisation box and hand held UV-C (ultraviolet light with wavelength 254 nanometres) device.

The UV-C consists of a shorter and more energetic wavelength of light. It is particularly good at destroying genetic material in COVID-19. Sanitisation of the items by employing UV-C light avoids the harmful effects of chemicals used for disinfection. It has been designed for disinfecting personal belongings like mobile phone, tablets, purse, currency, and cover of office files. COVID-19 virus will be deactivated by using UVC lamps in one minute placed equidistantly in a box with UV dose of 100 mJ/cm².

The hand-held device having eight watt UV-C lamp disinfects office and household objects like chairs, files, postal delivered items and food packets with an exposure of 45 second at a 100 mJ/cm² irradiance placed at a distance of less than two inches. This measure can reduce the spread of coronavirus in offices and other public places.

<https://www.thehindu.com/news/cities/Hyderabad/drdo-comes-up-with-two-more-products-to-fight-virus/article31370321.ece>

DRDO develops contactless sanitiser dispenser, UV light-based disinfection box to fight COVID-19

After developing bio suits, COVID-19 sample collection kiosks and other products to help healthcare workers to fight the coronavirus disease, the Defence Research and Development Organisation (DRDO) has now developed two new products to enable COVID-19 disinfection process.

Centre for Fire Explosive & Environment Safety (CFEES), Delhi, using its expertise in mist technology for fire suppression, has developed automatic mist based sanitiser dispensing unit. It is a contactless sanitiser dispenser which sprays alcohol based hand rub sanitiser solution for sanitisation of hands while entering the buildings/office complexes, etc.

The unit operates without contact and is activated through an ultrasonic sensor. A single fluid nozzle with low flow rate is used to generate aerated mist to dispense the hand rub sanitiser. This sanitises the hands with minimum wastage. Using atomiser, only 5-6 ml sanitiser is released for 12 seconds in one operation and it gives the full cone spray over both palms so that disinfection operation of hands is complete.

Meanwhile, Defence Institute of Physiology & Allied Sciences (DIPAS) and Institute of Nuclear Medicine & Allied Sciences (INMAS), DRDO laboratories in Delhi have designed and developed Ultraviolet C Light based sanitisation box and hand held UV-C (ultraviolet light with wavelength 254 nanometres) device. The UV-C consists of a shorter, more energetic wavelength of light. It is particularly good at destroying genetic material in COVID-19.

The UV-C box is designed for disinfecting personal belongings like mobile phone, tablets, purse, currency, cover of office files, etc. COVID-19 virus will be deactivated by using UVC lamps in one minute placed equi-distantly in a box with UV dose of 100 mJ/cm². The UV lamps used in the sanitisation box also emits 185 nm which produces ozone and is able to take care of the unexposed area on the surfaces of the objects placed in the box.

<https://timesofindia.indiatimes.com/gadgets-news/drdo-develops-contactless-sanitiser-dispenser-uv-light-based-disinfection-box-to-fight-covid-19/articleshow/75203330.cms>

ज्ञान प्रसार एवम् विस्तार

R. REPUBLICWORLD.COM

Sat, 18 April 2020

Covid-19: DRDO develops contact-less automatic mist based sanitiser dispensing unit

DRDO has indigenously developed an automatic mist based sanitiser dispensing unit to help disinfect an individual's hands without any contact

Mumbai: In the fight against the Coronavirus pandemic, the Defence Research and Development Organisation (DRDO) has indigenously developed an automatic mist based sanitiser dispensing unit to help disinfect an individual's hands without any contact. It is a contactless sanitiser dispenser which sprays alcohol-based hand rub sanitiser solution for sanitisation of hands while entering the buildings/office complexes, etc. It is based on water mist aerator technology, which was developed for water conservation.

Elaborating on the functioning of the sanitiser, DRDO stated that the unit operates without contact and is activated through an ultrasonic sensor. "A single fluid nozzle with a low flow rate is used to generate aerated mist to dispense the hand rub sanitiser. This sanitises the hands with minimum wastage. Using an atomiser, only 5-6 ml sanitiser is released for 12 seconds in one

operation and it gives the full cone spray over both palms so that disinfection operation of hands is complete," a press release by the DRDO read.

"It is a very compact unit and bulk fill option makes it an economical and long-lasting product. It is easy to install the system as wall-mountable or on a platform. As an indication of operation an LED illuminates the spray," it added.

DRDO develops 'Covsack'

Earlier, the DRDO in Hyderabad had developed a first-of-its-kind machinery for COVID-19 sample collection which eliminates the use of PPEs with no physical contact between patients and doctors and the risk of doctors getting infected. The device is known as 'Covsack'. Taking a cue from the machinery used for titanium welding of missiles, the DRDO developed the state-of-art device within three days of time.

It takes only 10 to 15 minutes to test a patient and the machine sanitises automatically using chemical sprays and water pipelines after the patient exits. Within 60 to 70 seconds, the device is ready for the next test, he added.

The DRDO is set to conduct a demonstration, following which, it will begin the manufacturing process in full swing. Currently, the Organisation based in Hyderabad holds the manufacturing capacity of 10 devices per day and they are trying to ramp up the capacity to deliver more products to hospitals.

<https://www.republicworld.com/india-news/general-news/covid-19-drdo-devlops-contact-less-automatic-mist-based-sanitiser.html>



Sat, 18 April 2020

पर्स, मोबाइल फोन, और करेंसी नोट्स को कोरोना वायरस फ्री बनाने के लिए DRDO ने तैयार किया खास यूवीसी बॉक्स

नीरज राजपूत

- माइक्रोवेव की तरह दिखने वाला ये खास डिसइंफेक्टेंट बॉक्स 'अल्ट्रा वायलेट-सी' रेडिएशन तकनीक से चलता है। एक मिनट के लिए मोबाइल को बॉक्स में रखने से मोबाइल कीटाणु-रहित हो जाता है। वहीं कुर्सी, मेज, फाइल, फूट-पैकेट्स को कोरोना वायरस से मुक्त रखने के लिए यूवीसी-लैंप तैयार किया है।
- डीआरडीओ के बनाए इन दोनों प्रोडक्ट्स से ऑफिस में कोरोना वायरस को फैलने से रोकने में मदद मिलेगी।

नई दिल्ली: कोरोना वायरस से बचने के लिए सैनेटाइजर से हाथ साफ कर तो बचा जा सकता है लेकिन अपनी सबसे पर्सनल-चीजें जैसे पर्स, मोबाइल और करेंसी नोट्स पर कोविड-19 के कीटाणु का खतरा हमेशा बना रहता है। ऐसे में इन चीजों से नोवल कोविड-19 वायरस को खत्म करने के लिए डीआरडीओ ने एक खास अल्ट्रा-वायलेट बॉक्स तैयार किया है। इस बॉक्स में एक मिनट के लिए सामान रखते ही डिसइंफेक्टेंट हो जाता है।

यूवीसी रेडिएशन तकनीक से काम करता है डिसइंफेक्टेंट-बॉक्स

डीआरडीओ के मुताबिक, ये खास डिसइंफेक्टेंट-बॉक्स अल्ट्रा वायलेट-सी यानि यूवीसी रेडिएशन तकनीक से काम करता है, जिसे दिल्ली स्थित डिफेंस इंस्टीट्यूट ऑफ फिजयोलॉजी एंड एलाइट साईंसेज़ ने इंस्टीट्यूट ऑफ न्युक्लियर

मेडिसन एंड एलाइड साईसेज़ के साथ मिलकर तैयार किया है। ये यूवीसी कोविड-19 के जैनेटिक-मेटेरियल को खत्म करने में काफी सहायक होता है। इसकी रेडिएशन से आरएनए खत्म हो जाता है और वायरस के कण अपनी कॉपी नहीं बना पाते हैं। ये कैमिकल के इस्तेमाल के बजाए एक बेहतक तकनीक है, क्योंकि कैमिकल इस्तेमाल करना हानिकारक होता है। जबकि यूवीसी पर्यावरण के अनुकूल है।

माइक्रोवेव ओवन की तरह दिखने वाला इस बॉक्स में यूवीसी लैंप की मदद से मोबाइल फोन, पर्स और करेंसी नोट्स आदि को आसानी से कीटाणु-मुक्त बनाया जा सकता है। इसके लिए इन सामान को सिर्फ एक मिनट के लिए बॉक्स के अंदर रखना होता है। डीआरडीओ के मुताबिक, इन यूवीसी लैंप्स से 185एनएम निकलती है जो ऑजोन बनाती है जिससे सामान का वो हिस्सा जो सीधे लाइट के सामने नहीं पड़ता है वो भी डिसइंफेक्ट हो जाता है।



इसी तरह से डीआरडीओ ने एक यूवीसी-लैंप भी तैयार किया है जिसके एक्सपोजर से कुर्सी, मेज, फाइल, पोस्टल-बॉक्स, कुरियर और फूट-पैकेट्स को कोरोना वायरस से असंक्रमित किया जा सकता है। इसके लिए इस लैंप को इन सामान के दो इंच की दायरे में लाकर करीब 45 सेकेंड तक दिखाना है।

कोरोना वायरस फैलने का खतरा काफी कम हो सकता है

डीआरडीओ के मुताबिक, इन दोनों प्रोजेक्ट्स के ऑफिस इत्यादि में इस्तेमाल से कोरोना वायरस फैलने का खतरा काफी कम हो सकता है। इसी तरह से सेंसर से चलने वाला एक ऑटोमैटिक सेनेटाइजर डिस्पेंसिंग-यूनिट भी डीआरडीओ ने तैयार किया है। इस यूनिट को बिना छूए ही हाथ और हथेलियां किसी भी कीटाणु से साफ हो जाती हैं।

<https://www.abplive.com/news/india/drdo-has-prepared-a-special-uvc-box-to-make-purse-mobile-phones-and-currency-notes-free-of-coronavirus-ann-1354885>

नवभारत टाइम्स

क 50 वर्ष

Sat, 18 April 2020

कोविड-19 महामारी से लड़ने के लिए

डीआरडीओ ने बनाए दो और उत्पाद

नयी दिल्ली: कोरोना वायरस महामारी के संकट से निपटने के लिए भारत की क्षमता में वृद्धि करते हुए रक्षा अनुसंधान एवं विकास संगठन (डीआरडीओ) ने दो और उपकरणों का निर्माण किया है जिसमें एक आटोमैटिक सेनिटाइजर मशीन शामिल है। अधिकारियों ने शुक्रवार को यह जानकारी दी। उन्होंने बताया कि अन्य उपकरण एक पराबैंगनी सेनिटाइजेशन बॉक्स है। डीआरडीओ ने एक वक्तव्य में कहा कि कोविड-19 महामारी से लड़ने की दिशा में डीआरडीओ ने अपनी तकनीकी दक्षता और अनुभव से कई उपकरणों का निर्माण किया है और इसी क्रम में सार्वजनिक स्थलों पर संक्रमण को फैलने से रोकने के लिए दो और उत्पाद बनाए गए हैं। संगठन ने कहा कि दिल्ली स्थित डीआरडीओ के विस्फोटक एवं पर्यावरण सुरक्षा केंद्र (सीएफईईएस) ने एक ऑटोमैटिक झाग आधारित सेनिटाइजर मशीन बनाई है जिसे छूने की आवश्यकता नहीं होगी। मशीन से अपने आप अल्कोहल आधारित सेनिटाइजर निकलेगा जिसे हाथ पर लगाया जा सकेगा। इस मशीन का इस्तेमाल कार्यालय परिसरों और इमारतों में प्रवेश करने से पहले

किया जा सकेगा। डीआरडीओ की दो अन्य प्रयोगशालाओं के सहयोग से पराबैंगनी प्रकाश से सेनिटाइज करने वाला उपकरण बनाया गया है। इस बक्से के प्रयोग से मोबाइल फोन, टैबलेट, बटुआ, मुद्रा, फाइल के कवर इत्यादि जैसी छोटे सामान को सेनिटाइज किया जा सकेगा।

(यह आर्टिकल एजेंसी फीड से ऑटो-अपलोड हुआ है। इसे नवभारतटाइम्स.कॉम की टीम ने एडिट नहीं किया है।)

<https://navbharattimes.indiatimes.com/india/drdo-makes-two-more-products-to-fight-kovid-19-epidemic/articleshow/75210555.cms>

दैनिक जागरण

Sat, 18 April 2020

Coronavirus: वायरस को रोकने के लिए DRDO

ने बनाया संपर्क रहित सैनिटाइजर डिस्पेंसर

रक्षा अनुसंधान और विकास संगठन (डीआरडीओ) ने एक संपर्क रहित सैनिटाइजर डिस्पेंसर विकसित किया है जो संक्रमण के प्रसार को रोकने में मदद करता है।

नई दिल्ली: देश में बढ़ते कोरोना वायरस के मामलों को देखते हुए जहां सरकार ने देश में लागू लॉकडाउन की अवधि को 3 मई तक के लिए बढ़ा दिया है। वहीं, सीओवीआईडी -19 के खिलाफ लड़ाई में योगदान देने की अपनी निरंतर खोज में, रक्षा अनुसंधान और विकास संगठन (डीआरडीओ) ने एक संपर्क रहित सैनिटाइजर डिस्पेंसर विकसित किया है जो संक्रमण के प्रसार को रोकने में मदद करता है।

डीआरडीओ के अध्यक्ष के प्रौद्योगिकी सलाहकार एस जोशी ने कहा कि डीआरडीओ ने एक संपर्क रहित डिस्पेंसर विकसित किया है और इसे अपने मुख्यालय में तैनात किया है। मशीन किसी भी स्पर्श के बिना सैनिटाइजर को 20 सेकंड तक फैलाती है और इमारतों में प्रवेश करने वाले लोगों को कीटाणुरहित करने में मदद करती है। इस तरह की मशीनें अन्य एजेंसियों को भी प्रदान की जा सकती हैं।



रक्षा मंत्रालय ने एक बयान में कहा कि इकाई संपर्क के बिना काम करती है और एक अल्ट्रासोनिक सेंसर के माध्यम से सक्रिय होती है। कम प्रवाह दर के साथ एक एकल द्रव नोजल का उपयोग हाथ रगड़ने वाले सैनिटाइजर को फैलाने के लिए वातित धुंध उत्पन्न करने के लिए किया जाता है। यह न्यूनतम अपव्यय के साथ हाथों को साफ करता है।

रक्षा अनुसंधान और विकास संगठन (डीआरडीओ) ने एक संपर्क रहित सैनिटाइजर डिस्पेंसर विकसित किया है जो संक्रमण के प्रसार को रोकने में मदद करता है।

एटमाइजर का उपयोग करते हुए, केवल 5-6 मिलीलीटर सैनिटाइजर को एक ऑपरेशन में 12 सेकंड के लिए जारी किया जाता है और यह दोनों हथेलियों पर पूरा शंकु स्प्रे देता है ताकि हाथों की कीटाणुशोधन पूरी हो जाए। जानकारी के लिए बता दें कि देश में लगातार कोरोना वायरस के मामलों में बढ़ोतरी हो रही है। देश में फिलहाल कोरोना वायरस संक्रमितों की संख्या 13 हजार के पार पहुंच गई है। वहीं, केंद्र सरकार ने देश में लागू लॉकडाउन की अवधि को बढ़ाते हुए 3 मई तक लोगों से घरों में रहने की अपील की है। बता दें कि फिलहाल कोरोना वायरस के कारण पूरी दुनिया में संक्रमितों की संख्या 28 लाख से ज्यादा हो गई है।

<https://www.jagran.com/news/national-coronavirus-drdo-develops-contactless-sanitiser-dispenser-to-prevent-spread-of-covid19-20199730.html>

DRDO वैज्ञानिकों ने बनाया बिना केमिकल इस्तेमाल वाला सैनिटाइजर कैबिनेट

- कोरोना वायरस के खिलाफ DRDO RCI के वैज्ञानिकों का अहम प्रयास
- RCI वैज्ञानिकों ने बनाया UVC सैनिटाइजर कैबिनेट
- बिना केमिकल इस्तेमाल के सैनिटाइज करना संभव

हैदराबाद: डीआरडीओ हैदराबाद के डिफेंस लेबोरेटरी, रिसर्च सेंटर इमारत (RCI) ने UVC सैनिटाइजर कैबिनेट विकसित किया है। खास बात ये कि अल्ट्रा वॉयलेट किरणों की तकनीक से लैस ये कैबिनेट आपके इस्तेमाल किए हुए N-95 मास्क, मोबाइल फोन्स, आईपैड, लैपटॉप, करेंसी नोट, चेक बुक के पन्ने और कई अहम चीजों को बिना केमिकल के इस्तेमाल के सैनिटाइज करता है।

कोविड-19 के खिलाफ जंग में शरीक मेडिकल स्टाफ सहित बाकी जरूरी सेवाओं में रत स्टाफ के लिए जरूरी है कि वे बार बार इस्तेमाल की चीजों को सैनिटाइज करते रहें। जिसमें डीआरडीओ आरसीआई की तरफ से विकसित यूवीसी सैनिटाइजर कैबिनेट काफी कारगर साबित हो सकता है। खासकर N-95 मास्क को इस कैबिनेट में डालकर बार बार इस्तेमाल में लिया जा सकता है। मेडिकल एमरजेंसी की स्थिति में मास्क की बाजार में कमी है। ऐसे में UVC सैनिटाइजर कैबिनेट मुफीद साबित हो सकता है।



DRDO RCI वैज्ञानिक एस गोपीनाथ और सौरभ कुमार

UVC सैनिटाइजर कैबिनेट बैंकिंग सेवा में कार्यरत लोगों के लिए भी काफी उपयोगी बताई जा रही है। WHO गाइडलाइन के मुताबिक कोरोना वायरस कुछ घंटों तक नोट या फिर कागजों पर टिका रह सकता है। ऐसे में बैंककर्मी बिना झिझक के ग्राहकों के लिए नोट कैबिनेट के जरिए सैनिटाइज कर पाएंगे। इसके बाद इसे फिर से ग्राहकों के लिए जारी किया जा सकता है।

UVC सैनिटाइजर कैबिनेट विकसित करने में साइंटिस्ट सौरभ कुमार (Sc: 'D') और एस गोपीनाथ, आउटसॉर्टिंग साइंटिस्ट व निदेशक (SINT) की अहम भूमिका रही। जिसमें आरसीआई के निदेशक BHSV मूर्ति का सक्रिय दिशा-निर्देश शामिल रहा।

खास बात ये कि देशभर में जारी लॉकडाउन और इस दौरान घोषित अवकाश के बावजूद वैज्ञानिकों ने अपने जज्बे का प्रदर्शन करते हुए सैनिटाइजर कैबिनेट विकसित किया। वैज्ञानिक सौरभ कुमार ने बातचीत में बताया कि एक हफ्ते के रिकॉर्ड कम समय में इस परियोजना को पूरा किया गया। इस दौरान इन्होंने लैब में अवकाश के बावजूद काम करने के लिए अपने वरिष्ठ अधिकारियों से इजाजत ली। फिर तीन से चार दिनों के लगातार और अथक परीश्रम के बाद इन्हें UVC सैनिटाइजर कैबिनेट को आकार देने में सफलता हासिल हुई।

वैज्ञानिकों ने बताया कि कैबिनेट में इस्तेमाल किए गए यूवीसी किरणों में वायरस और सूक्ष्म परजीवियों को मारने की क्षमता होती है। ये किरणें सीधे तौर पर वायरस के डीएनए पर हमला करती हैं, और इनके प्रसार या प्रजनन को तत्काल रोक देती हैं। कुल मिलाकर कहें तो ये किरणें घातक से घातक वायरस, जिसमें कोरोना वायरस भी शामिल है, को निष्क्रिय करने की क्षमता रखती हैं।

UVC किरणें न सिर्फ वायरस बल्कि इंसानों और जीवों के लिए भी घातक हैं। लिहाजा विकसित कैबिनेट में तमाम सहूलियतों का ध्यान रखा गया है। ताकि इंसान का कोई अंग सीधे तौर पर किरणों के संपर्क में न आ जाय।

<https://hindi.sakshi.com/news/news/drdo-rci-hyderabad-scientists-configured-uv-cabinet-78359>



Sat, 18 April 2020

कोरोना: DRDO का फैसला, अब INMAS में होगी टेस्टिंग

रक्षा अनुसंधान विकास संगठन (DRDO) ने पर्सनल प्रोटेक्टिव इक्विपमेंट (पीपीई) और मास्क की डिलीवरी में देरी को देखते हुए टेस्टिंग सुविधा को रक्षा अनुसंधान विकास प्रतिष्ठान (DRDE), ग्वालियर से इंस्टीट्यूट ऑफ न्यूक्लियर मेडिसिन एंड एलाइड साइंसेज (INMAS) में स्थानांतरित कर दिया है।

मंजीत सिंह नेगी

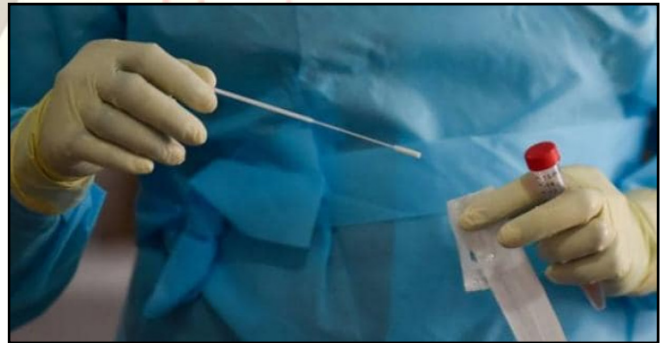
- PPE, मास्क की डिलीवरी में देरी पर DRDO का फैसला
- INMAS, DRDO की एक प्रमुख जीवन विज्ञान प्रयोगशाला

रक्षा अनुसंधान विकास संगठन (DRDO) ने पर्सनल प्रोटेक्टिव इक्विपमेंट (पीपीई) और मास्क की डिलीवरी में देरी को देखते हुए टेस्टिंग सुविधा को रक्षा अनुसंधान विकास प्रतिष्ठान (DRDE), ग्वालियर से इंस्टीट्यूट ऑफ न्यूक्लियर मेडिसिन एंड एलाइड साइंसेज (INMAS) में स्थानांतरित कर दिया है।

इंस्टीट्यूट ऑफ न्यूक्लियर मेडिसिन एंड एलाइड साइंसेज (INMAS), DRDO की एक अन्य प्रमुख जीवन विज्ञान प्रयोगशाला है। दिल्ली स्थित INMAS में टेस्टिंग के अलावा बाँडी सूट और मास्क के मूल्यांकन की भी सुविधा है और पूरी तरह से चालू है। इन चीजों के 10 से अधिक बैचों का पहले ही प्रयोगशाला में परीक्षण किया जा चुका है।

रक्षा अनुसंधान विकास प्रतिष्ठान (DRDE), ग्वालियर जो खतरनाक कोरोना (कोविड 19) वायरस से लड़ने में अग्रणी रहा है। अब एचएलएल लाइफकेयर लिमिटेड को विदेश से आने वाले मास्क और बाँडी सूट के लेबल दावों की पुष्टि करने का काम सौंपा गया है। एचएलएल लाइफकेयर लिमिटेड की ओर से पुष्टि किए जाने के बाद ही इसे अन्य एजेंसियों को वितरित किया जाएगा।

दूसरी ओर, चीन के गोंगझाउ एयरपोर्ट से गुरुवार सुबह कोरोना वायरस के इलाज में इस्तेमाल होने वाली किट्स की खेप भारत के लिए रवाना कर दी गई है। इस खेप में 6,50,000 टेस्टिंग किट्स शामिल हैं।



कोरोना संक्रमण को रोकने के लिए जांच में लाई जा रही तेजी (फाइल फोटो- पीटीआई)

इसके अलावा चीन से भारत के लिए रवाना इस खेप में रैपिड एंटी बाॅडी टेस्ट और आरएनए एक्सट्रैक्शन किट्स भी शामिल है। हालांकि इस बीच दुनिया भर के कई देशों ने चीन से मंगाए जाने वाले सामान पर घटिया क्वालिटी के हाने का आरोप लगाया है।

भारत की तरफ से ऐसी कोई शिकायत सामने नहीं आई है, लेकिन यूरोप के कई देशों ने इस पर चिंता जताई है। भारत चीन ही नहीं बल्कि दक्षिण कोरिया से भी टेस्टिंग किट्स मंगवाने के लिए संपर्क कर रहा है। इसके अलावा इंग्लैंड, मलेशिया, फ्रांस और कनाडा समते कई अन्य देशों से जांच किट को लेकर कोटेशन लिए गए हैं।

<https://aajtak.intoday.in/story/corona-virus-drdo-shifted-testing-facility-drde-gwalior-to-inmas-delhi-covid-19-1-1181737.html>

DRDO Technology



Sat, 18 April 2020

HAL to start LCA-Tejas, ALH Dhruv Production facility from 20th

By Raunak Kunde

Defense PSU Hindustan Aeronautics Limited (HAL), which had closed down all its production facility from 24th March will be reopening from 20th April and will resume manufacturing of LCA-Tejas and ALH Dhruv which had become standstill due to pandemic on orders of the Central Government.

HAL offices had open with reduced staff from 31st March but production facility and testing of the aircraft manufactured had not resumed, which will now resume from 20th April said industrial sources close to idrw.org.

Closing off the production facility will lead to some delays in the manufacturing of the aircraft under order but a limited number of the workforce will likely mean that space of rate of manufacturing will be slow due to social distancing measures being imposed.

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<https://idrw.org/hal-to-start-lca-tejas-alh-dhruv-production-facility-from-20th/#more-225437>





Sat, 18 April 2020

Ditch the SARAS go for more planes from Do 228 family

By Joydeep Ghosh

Its high time that India ditches the SARAS, a white elephant which is the NAL built SARAS plane, whose Mk1 is a 14-seater with numerous defects and an under powered engine, and has been under development since the past nearly 3 decades. Most importantly it being developed and manufactured by NAL research lab with no expertise in manufacturing planes nor any capacity series produce planes. If ever Saras goes into series production, which is highly unlikely it will have to be done by HAL only.

Now it has come to light that a SARAS Mk2 being developed with a better performance engine and 19-seater capacity, Does that number ring a bell? yes it is the same capacity as Dornier 228 being built by HAL under full TOT from Dornier/RUAG/Fairchild. Now question is,



1. Why will HAL build 2 different 19-seater planes. (SARAS mk2 and Do 228)
2. How many years before SARAS mk2 gets flight certification?
3. Why will HAL allow duplication of resources
4. As a natural progress from Do 228 is it not a better idea to go for Do 328/428/528/728/928

Case for Do 328JET/428JET/528/728/928 jets

Reliance is building the Dornier328 turboprop, so HAL can very well strike a deal with Fairchild Dornier to get full TOT about the Do 328 JET and 428 JET. The former has passenger capacity of 33, same as the turboprop and latter has a passenger capacity 44. Note the incremental natural progress in passenger carrying capacity.

HAL can start building the Do328JET and with TOT can start building the Do 428JET which was never able to compete against the costlier but popular Bombardier CRJ/Embraer ERJ/Embraer E-Jets. In the same way HAL either on its own or in association with Mahindra or Reliance can try grabbing the full ToT related to 528/728/928 jets from Fairchild Dornier. None of the 3 were ever fully built, so mostly remained a concept with design being completed and only the fuselage being constructed. Below are the specifications of these 3 jets: –

Note the incremental growth in passenger carrying capacity above from 63 to 110. This means these jets if made by HAL can practically solve the regional jet problem of India where India has been lagging behind severely and being forced to make do with Airbus/Boeing jets and other foreign design jets. Also note the fact India needs atleast 200-250 regional jets to connect every major city with far flung areas and tier II/III cities and towns. Currently HAL/NAL/ADA/ADE or anybody has not come even close to develop a concept of regional jet, only paper models have been shown in images, but this won't help solve India's need for low cost air travel.

So, it is a much better idea to go for already existing design with ToT being available, only HAL has to make the right kind of offer. Also don't forget the requirement for 200-250 regional jets will mean 1000-1500 engine requirement mostly from General Electric and some from Pratt & Whitney. This will certainly help HAL develop expertise to provide MRO for civilian engines either on its own or it can allow other private companies join hands to do it.

This will eventually result in HAL developing civilian jet engine MRO and at later stage may help in engine manufacturing subject to availability of rare earth minerals and human resources. All this creates huge potential for employment and aircraft related educational facilities/studies. Also, since other jets like Do 228/328 already have flight certification, so getting civilian flight certification for these new jets like jets like 428JET/528/728/928 shouldn't be that difficult since these are just enlarged derivatives of the original design. Also, since these jets cost much less than the popular regional jets like Bombardier or Embraer, thus creating huge opportunity for setting up several low cost airlines company as across India and generating more employment.

Case for Merging NAL with HAL

As known HAL is an aircraft maker with its own research and development unit then what is the need for keeping NAL as a separate research laboratory and duplicate resources and effort. it is a far better idea to merge NAL with HAL as then the research lab can complement HAL well with its research activities.

Let us hope better sense prevails in decision makers and they give these ideas a shot which is worth a lot in the long run in terms of providing employment, developing design expertise and above all provide low cost air travel opportunity to Indian populace, still a dream for many.

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<https://idrw.org/ditch-the-saras-go-for-more-planes-from-do-228-family/#more-225443>

	528	728	928
Wingspan	26.26 m (86 ft 2 in)	27.12 m (87 ft 4 in)	28.81 m (94 ft 6 in)
Wing sweep		23.5 degrees	23.7 degrees
Length	23.10 m (76 ft 8 in)	27.40 m (89 ft 9 in)	31.01 m (101 ft 8 in)
Height	9.05 m (29 ft 8 in)		9.97 m (32 ft 8 in)
Cabin width	3.25 m (10 ft 8 in)		
Typical cruise speed		Mach 0.81	Mach 0.8
Maximum cruise speed		Mach 0.82	
Operating range	2,963 km 1,600 nm	3,300 km 1,781 nm	3,565 km 1,925 nm
Empty Weight		20,435 kg (44,957 lb)	28,530 kg (62,766 lb)
Service Ceiling	11,280 m 37,000 ft		
Engine Options (2x)	General Electric CF34	General Electric CF34-8D1 (55.6 kN)	General Electric CF34 (75.6 kN)
Passengers (max)	63	80	110
Cockpit Crew	2		