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समाचार पत्रों से चयित अंश
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COVID-19: DRDO's Contribution

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Ministry of Defence

Sun, 10 May 2020 5:32PM

DRDO lab develops automated UV systems to sanitise electronic gadgets, papers

Hyderabad based Defence Research and Development Organisation (DRDO) premier lab, Research Centre Imarat (RCI), has developed an automated contactless UVC sanitisation cabinet, calledDefence Research Ultraviolet Sanitiser (DRUVS). It has been designed to sanitise mobile phones, iPads, laptops, currency notes, cheque leafs, challans, passbooks, paper, envelopes, etc.

DRUVS Cabinet

The DRUVS cabinet is having contactless operation which is very important to contain the spread of virus. The proximity sensor switches, clubbed with drawer opening and closing mechanism, makes its operation automatic and contactless. It provides 360 degree exposure of UVC to the objects placed inside the cabinet. Once the sanitisation is done, the system goes in sleep mode hence the operator need not wait or stand near the device.

The RCI has also developed an automated UVC currency sanitising d evice, called NOTESCLEAN. Bundles of currency notes can be sanitised using DRUVS, however disinfection of each currency notes using it will be a time consuming process. For that purpose, a sanitising technique has been developed, where one has to just place the loose currency notes at the input slot of the device. It picks the notes one by one and makes them pass through a series of UVC lamps for complete disinfection.

Automated UVC currency sanitising device NOTESCLEAN

ABB/SS/Nampi/KA/DK/Savvy/ADA

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Press Information Bureau
Government of India

रक्षा मंत्रालय

Sun, 10 May 2020 5:32PM

डीआरडीओ लैब नेइलेक्ट्रॉनिक गैजेट्स, कागजों और करेंसी नोटों को कीटाणुमुक्तकरनेके लिए स्वचालित यूवी सिस्टम विकसित किया

रक्षा अनुसंधान और विकास संगठन (डीआरडीओ) की प्रमुख प्रयोगशाला, रिसर्च सेंटर इमारत (आरसीआई), हैदराबाद ने एक स्वचालित व संपर्करहित यूवीसी सेनेटाइजेशन कैबिनेट विकसित किया है, जिसे डिफेन्स रिसर्च अल्ट्रावायोलेट सेनेटाइज़र (डीआरयूवीएस) नाम दिया गया है। इसे मोबाइल फोन, आईपैड, लैपटॉप, करेंसी नोट, चेक, चालान, पासबुक, कागज, लिफाफे आदि को कीटाणुमुक्तकरने के लिए डिजाइन किया गया है।

डीआरयूवीएस कैबिनेट

डीआरयूवीएसकैबिनेट का संपर्करहित संचालन किया जा रहा है जो वायरस के प्रसार को रोकने के लिए बहुत महत्वपूर्ण है। सेंसर स्विच तथा दराज को खोलने और बंद करने की सुविधा-इसके संचालन को स्वचालित और संपर्क रहित बनाती है। कैबिनेट के अंदर रखी गई वस्तुओं परयूवीसीका सभी तरफ से असर (360 डिग्री एक्सपोजर) होताहै। कीटाणुमुक्तकरनेकी प्रक्रिया समाप्त हो जाने के बाद सिस्टम स्लीप मोड में चला जाता है इसलिए संचालन करनेवाले को उपकरण के पास इंतजार करने या खड़े होने की आवश्यकता नहीं होती है।

नोट्सक्लीन- स्वचालित यूवीसीकरेंसी नोट सैनिटाइजिंग उपकरण

आरसीआई ने एक स्वचालित यूवीसीकरेंसी नोट सैनिटाइजिंग उपकरण भी विकसित किया है, जिसे नोट्सक्लीन नाम दिया गया है। डीआरयूवीएस का उपयोग करके नोटों के बंडलों को कीटाणुमुक्त किया जा सकता है, हालांकि इसका उपयोग करते हुए प्रत्येक करेंसी नोट को कीटाणुमुक्त करने की इस प्रक्रिया में काफी समय लगेगा। इसके समाधान के लिए, एक सैनिटाइजिंग तकनीक विकसित की गई है, जिसके तहतउपकरण के इनपुट स्लॉट मेंनोटों के बंडल को खुले रखनाहै। उपकरणएक-एक करके नोटों को लेता है और उन्हें पूर्ण रूप से कीटाणुमुक्तकरने के लिए यूवीसीलैंप की एक श्रृंखला से होकर ले जाता है।

एएम / जेके/डीसी

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రక్షణ మంత్రిత్వ శాఖ

Sun, 10 May 2020 5:32PM

ఎలక్ట్రానిక్ గాడ్జెట్లు, పేపర్లు మరియు కరెన్సీ నోట్లను శుభ్రపరచడానికి ఆటోమేటెడ్ యూవీ వ్యవస్థను అభివృద్ధి చేసిన డీఆర్‌డీఓ ల్యాబ్

డిఫెన్స్ రీసెర్చ్ అండ్ డెవలప్‌మెంట్ ఆర్గనైజేషన్ (డీఆర్‌డీఓ) ప్రీమియర్ ల్యాబ్, హైదరాబాద్ కేంద్రంగా పని చేస్తున్న "రీసెర్చ్ సెంటర్ ఇమారత్ " (ఆర్‌సీఐ) ఆటోమేటెడ్ కాంటాక్ట్‌లెస్ యూవీసీ శానిటైజేషన్ క్యాబినెట్‌ను అభివృద్ధి చేసింది. దీనికి "డిఫెన్స్ రీసెర్చ్ అతినీల లోహిత శానిటైజర్" (డీఆర్‌యూవీఎస్) అని నామకరణం చేశారు. ఈ పరికరం మొబైల్ ఫోన్లు, ఐప్యాడ్‌లు, ల్యాప్‌టాప్‌లు, కరెన్సీ నోట్లు, చెక్ లీఫ్‌లు, చలాన్లు, పాస్ బుక్‌లు, పేపర్, ఎన్వలప్‌లు మొదలైన వాటిని క్రిమిసంహరణ చేసి తగిన విధంగా శుభ్రపరిచేలా దీనిని రూపొందించారు. డీఆర్‌యూవీఎస్ క్యాబినెట్ కాంటాక్ట్‌లెస్ ఆపరేషన్ కలిగి ఉంటుంది. దీంతో వైరస్ వ్యాప్తిని కట్టడి చేసేందుకు గాను ఇది ఎంతగానో ఉపయుక్తంగా ఉండనుంది. సామీప్య సెన్సార్ స్విచ్‌లు, డ్రాయర్ ఓపెనింగ్ మరియు క్లోజింగ్ మెకానిజంతో దీని ఆపరేషన్‌ను ఆటోమేటిక్ మరియు కాంటాక్ట్‌లెస్‌గా చేస్తోంది. క్యాబినెట్ లోపల ఉంచిన వస్తువులకు యూవీసీ 360 డిగ్రీల పూర్తి ఎక్స్పోజర్ను అందిస్తుంది. శానిటైజేషన్ పూర్తయిన తర్వాత సిస్టమ్ దానంతట అదే స్లీప్ మోడ్‌లోకి వెళుతుంది, అందువల్ల ఆపరేటర్ పరికరం దగ్గర వేచి ఉండాల్సిన అవసరం ఉండదు.

డీఆర్యూవీఎస్ క్యాబినెట్

- స్వయంచాలక యూడీసీ కరెన్సీ శుభ్రపరిచే పరికరం నోట్స్‌క్లీన్

కరెన్సీ నోట్లను శుభ్రపరిచే పరికరం నోట్స్‌క్లీన్

ఆర్‌సీఐ సంస్థ స్వయంచాలక యూవీసీ కరెన్సీ శానిటైజింగ్ పరికరాన్ని కూడా అభివృద్ధి చేసింది. దీనికి నోట్స్‌క్లీన్ అని నామకరణం చేశారు. కరెన్సీ నోట్ల కట్టలను డీఆర్‌యూవీఎస్ ఉపయోగించి శుభ్రపరచవచ్చు. అయితే ప్రతి కరెన్సీ నోట్లను క్రిమిసంహారణ చేయడం సమయం తీసుకునే ప్రక్రియ అవుతుంది. దీని కోసం ఒక పరిశుభ్రత సాంకేతికతను అభివృద్ధి చేయబడింది. కొత్తగా రూపొందించిన పరికరం యొక్క ఇన్పుట్ స్లాట్ వద్ద వదులుగా ఉన్న కరెన్సీ నోట్లను ఉంచితే..ఇది నోట్లను ఒక్కొక్కటిగా ఎంచుకొంటూ పూర్తి క్రిమిసంహారక కోసం యూఈసీ దీపాల గుండా తీసుకు వెళుతుంది. దీంతో కరెన్సీ నోట్లు వైరస్ రహితంగా శుభ్రపరచబడతాయి.

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The Tribune

Mon, 11 May 2020

From 47,000 per year to 2 lakh a day, India's PPE kit production skyrockets

Chandigarh: There has been a massive spike in the production of personal protection equipment (PPE) in the country following the outbreak of the COVID-19 pandemic. From just 47,000 items being produced annually, the output has gone up to about two lakh per day.

Stating this on Sunday, Dr G Satheesh Reddy, Secretary, Defence Research and Development Organisation and Chairman, DRDO, said coronavirus has also provided a lot of opportunity for research and development and industrial production, but cautioned that delays in development is of no use.

He was addressing scientists and staff members at the Centre for Development of Advanced Computing (C-DAC), Mohali, via video conferencing on the occasion of the centre's 32nd foundation day. Directors and senior scientists from various laboratories of the Defence Research and Development Organisation, Council for Scientific and Industrial Research and other institutions also participated in the conference.

He also spoke about medical ventilators produced by the industry with assistance by DRDO, which though low cost ranging from Rs 1.5 to 4 lakh were world class products and also have export potential.

Dr Reddy said C-DAC, an autonomous body under the Ministry of Electronics and Information Technology, will be considered as an "extended arm" of the Defence Research and Development Organisation (DRDO) for undertaking applied research. He said that in today's environment different organisations cannot function in silos and there were many areas in which both the establishments would work together.

Lauding the role of the Mohali centre in research and development in the electronics and information technology fields, he said artificial intelligence tools developed by it would be required in almost all fields.

Dr PK Khosla, Director C-DAC, Mohali, gave an overview of the work done in the organisation's four verticals – healthcare technology, cyber security, e-governance and education and training. He also spoke about four new areas that C-DAC is now focusing upon. These include artificial intelligence, augmented and virtual, robotics and quantum computing. He said that several new projects have been initiated in these domains.

C-DAC is a research and development organisation of the Ministry of Electronics and Information Technology engaged in strengthening national technological capabilities in the context of global developments and responding to change in the market needs. It has 11 centres across the country, including Mohali.

Director General C-DAC, Dr Hemant Darbari, spoke about-eSanjeevniOPD, a recently launched national level telemedicine project rolled out by C-DAC Mohali, to bring medicare to people's doorsteps in these times of lockdown. It has been extended to 15 states within three weeks and provides access to over a thousand doctors.

https://www.tribuneindia.com/news/nation/from-47-000-per-year-to-2-lakh-a-day-indias-ppe-kit-production-skyrockets-83035

hindustantimes

Mon, 11 May 2020

DRDO develops devices to sanitise phones, currency notes

Research Centre Imarat (RCI), a part of Defence Research Development Organisation (DRDO), developed the Defence Research Ultraviolet Sanitiser (DRUVS)

Hyderabad: The RCI, a premier laboratory of DRDO based at Hyderabad, has developed an automated contactless UVC sanitising cabinet to sanitise mobile phones, iPads, laptops, currency notes, cheque leafs, challans, passbooks, and paper.

DRDO said on Sunday that DRUVS Cabinet has a contactless operation which is very important to contain the spread of virus.(REUTERS)

Research Centre Imarat (RCI), a part of Defence Research Development Organisation (DRDO), developed the Defence Research Ultraviolet Sanitiser (DRUVS).

DRDO said on Sunday that DRUVS Cabinet has a contactless operation which is very important to contain the spread of virus. The proximity sensor switches clubbed with drawer opening and closing mechanism makes its operation automatic and contactless.

The DRUVS provides 360 degree exposure of UVC to the objects placed inside the cabinet. Once the sanitisation is done, the system goes in sleep mode, hence the operator need not wait or stand near the device, said a statement.

RCI has also developed an automated UVC currency sanitising device called NOTESCLEAN. Bundles of currency notes can be sanitised using DRUVS, however disinfection of each currency note using it, will be a time-consuming process. For that purpose, a sanitising technique has been developed, where one has to just place the loose currency notes at the input slot of the device. It picks the notes one by one and makes them pass through a series of UVC lamps for complete disinfection, it said.

https://www.hindustantimes.com/tech/drdo-develops-devices-to-sanitise-phones-currency-notes/story-SK4b9BlAVaX1G4FASdlzLJ.html

THE NEW INDIAN EXPRESS

Mon, 11 May 2020

DRDO lab develops UV system to sanitise gadgets, currency notes

The system, Defence Research Ultraviolet Sanitiser (DRUVS), provides a 360-degree exposure of ultraviolet rays to objects placed inside the cabinet

New Delhi: The Defence Research and Development Organisation (DRDO) has developed an automated and contactless ultraviolet sanitisation cabinet to sanitise electronic gadgets, currency notes and papers, the Defence Ministry said on Sunday, as the country fights the COVID-19 outbreak.

The system, Defence Research Ultraviolet Sanitiser (DRUVS), provides a 360-degree exposure of ultraviolet rays to objects placed inside the cabinet.

Once the sanitisation is done, the system goes in sleep mode, hence the operator need not wait or stand near the device.

It is developed by DRDO's Research Centre Imarat (RCI) lab and works on the contactless operation, which is very important to contain the spread of the virus, the ministry noted.

The ministry noted that the DRUVS has been designed to sanitise mobile phones, iPads, laptops, currency notes, cheque leafs, challans, passbooks, paper, envelopes, etc.

A police officer sanitizes currency notes after collecting them from commuters as a fine for flouting lockdown norms in the wake of coronavirus pandemic in Karad Saturday April 18 2020. (Photo | PTI)

India has been under a lockdown since March 25 to curb the spread of the novel coronavirus, which has infected more than 62,900 people and killed around 2,100 in the country till now.

https://www.newindianexpress.com/nation/2020/may/10/drdo-lab-develops-uv-system-to-sanitise-gadgets-currency-notes-2141648.html

Telangana Today

Mon, 11 May 2020

Hyderabad-based DRDO labs develops no-contact UVC sanitisation cabinet

This cabinet is designed to sanitise mobile phones, iPads, laptops, currency notes, cheque leafs, challans, passbooks, paper and envelopes

Hyderabad: The Research Centre Imarat (RCI), a laboratory of DRDO based in the city, has developed an automated contactless UVC sanitisation cabinet Defence Research Ultraviolet Sanitizer (DRUVS).

This cabinet is designed to sanitise mobile phones, iPads, laptops, currency notes, cheque leafs, challans, passbooks, paper and envelopes. It has contactless operation which is important to contain the spread of virus, a press release said.

The proximity sensor switches clubbed with drawer opening and closing mechanism, makes its operation automatic and contactless.

The DRUVS provides 360 degree exposure of UVC to the objects placed inside the cabinet. Once the sanitization is done, the system goes in sleep mode and the operator need not wait or stand near the device.

RCI has also developed an automated UVC currency sanitizing device ‘Notesclean’.

Bundles of currency notes can be sanitized using DRUVS, however disinfection of each currency notes using it will be a time consuming process. For this purpose, a sanitizing technique has been developed, where one has to just place the loose currency notes at the input slot of the device. It picks the notes one by one and passes them through a series of UVC lamps for complete disinfection, the release added.

https://telanganatoday.com/hyderabad-based-drdo-labs-develops-no-contact-uvc-sanitisation-cabinet

PRAGATIVADI

Mon, 11 May 2020

DRDO lab develops automated UV systems to sanitise electronic gadgets, papers and currency notes

New Delhi: Hyderabad based Defence Research and Development Organisation (DRDO) premier lab, Research Centre Imarat (RCI), has developed an automated contactless UVC sanitisation cabinet, called Defence Research Ultraviolet Sanitiser (DRUVS). It has been designed to sanitise mobile phones, iPads, laptops, currency notes, cheque leafs, challans, passbooks, paper, envelopes, etc.

The DRUVS cabinet is having contactless operation which is very important to contain the spread of virus. The proximity sensor switches, clubbed with drawer opening and closing mechanism, makes its operation automatic and contactless. It provides 360 degree exposure of UVC to the objects placed inside the cabinet. Once the sanitisation is done, the system goes in sleep mode hence the operator need not wait or stand near the device.

The RCI has also developed an automated UVC currency sanitising device, called NOTESCLEAN. Bundles of currency notes can be sanitised using DRUVS, however disinfection of each currency notes using it will be a time consuming process. For that purpose, a sanitising technique has been developed, where one has to just place the loose currency notes at the input slot of the device. It picks the notes one by one and makes them pass through a series of UVC lamps for complete disinfection.

https://pragativadi.com/drdo-lab-develops-automated-uv-systems-to-sanitise-electronic-gadgets-papers-and-currency-notes/

iNsamachar

Mon, 11 May 2020

DRDO लैब ने इलेक्ट्रॉनिक गैजेट्स, कागजों और करेंसी नोटों को कीटाणु मुक्त करने के लिए स्वचालित UV सिस्टम विकसित किया

रक्षा अनुसंधान और विकास संगठन (DRDO) की प्रमुख प्रयोगशाला, रिसर्च सेंटर इमारत (आरसीआई), हैदराबाद ने एक स्वचालित व संपर्क रहित यूवीसी सेनेटाइजेशन कैबिनेट विकसित किया है, जिसे डिफेन्स रिसर्च अल्ट्रावायोलेट सेनेटाइज़र (डीआरयूवीएस) नाम दिया गया है। इसे मोबाइल फोन, आईपैड, लैपटॉप, करेंसी नोट, चेक, चालान, पासबुक, कागज, लिफाफे आदि को कीटाणु मुक्त करने के लिए डिजाइन किया गया है।

डीआरयूवीएस कैबिनेट का संपर्क रहित संचालन किया जा रहा है जो वायरस के प्रसार को रोकने के लिए बहुत महत्वपूर्ण है। सेंसर स्विच तथा दराज को खोलने और बंद करने की सुविधा-इसके संचालन को स्वचालित और संपर्क रहित बनाती है। कैबिनेट के अंदर रखी गई वस्तुओं पर यूवीसी का सभी तरफ से असर (360 डिग्री एक्सपोजर) होता है। कीटाणु मुक्त करने की प्रक्रिया समाप्त हो जाने के बाद सिस्टम स्लीप मोड में चला जाता है इसलिए संचालन करने वाले को उपकरण के पास इंतजार करने या खड़े होने की आवश्यकता नहीं होती है।

आरसीआई ने एक स्वचालित यूवीसी करेंसी नोट सैनिटाइजिंग उपकरण भी विकसित किया है, जिसे नोट्स क्लीन नाम दिया गया है। डीआरयूवीएस का उपयोग करके नोटों के बंडलों को कीटाणु मुक्त किया जा सकता है, हालांकि इसका उपयोग करते हुए प्रत्येक करेंसी नोट को कीटाणु मुक्त करने की इस प्रक्रिया में काफी समय लगेगा। इसके समाधान के लिए, एक सैनिटाइजिंग तकनीक विकसित की गई है, जिसके तहत उपकरण के इनपुट स्लॉट मेंनोटों के बंडल को खुले रखना है। उपकरण एक-एक करके नोटों को लेता है और उन्हें पूर्ण रूप से कीटाणुमुक्त करने के लिए यूवीसी लैंप की एक श्रृंखला से होकर ले जाता है।

https://insamachar.com/drdo-lab-developed-an-automated-uv-system-to-disinfect-electronic-gadgets-papers-and-currency-notes/

NEWS 18 हिंदी

Mon, 11 May 2020

DRDO ने बनाया खास कैबिनेट, मोबाइल फोन-लैपटॉप को तुरंत कर देगा वायरस मुक्त

अल्ट्रावायलट लाइट (UV Light) पर आधारित इस कैबिनेट (Cabinet) में मोबाइल, लैपटॉप, रुपये, कागज या अन्य सामान रखकर उन्हें कुछ देर में ही वायरस मुक्त किया जा सकता है।

नई दिल्ली: देश-विदेश में कोरोना वायरस (Coronavirus) की रोकथाम और उसे नष्ट करने के लिए तरह-तरह के उपकरण बनाए जा रहे हैं। इसी क्रम में भारत के डिफेंस रिसर्च एंड डेवलपमेंट ऑर्गनाइजेशन (DRDO) ने खास कैबिनेट बनाने का दावा किया है। उसके अनुसार अल्ट्रावायलट लाइट पर आधारित इस कैबिनेट में मोबाइल, लैपटॉप, रुपये, कागज या अन्य सामान रखकर उन्हें कुछ देर में ही वायरस मुक्त किया जा सकता है। इसे डीआरडीओ की हैदराबाद स्थित लैब में बनाया गया है।

डीआरडीओ ने बनाया खास कैबिनेट.

डीआरडीओ के अनुसार यह कैबिनेट कॉन्टेक्टलेस है। इसे खोलने के लिए बटन का उपयोग होता है। इसमें रखे किसी भी सामान पर अल्ट्रावायलेट रौशनी का 360 डिग्री एक्सपोजर होता है। जब सामान का सैनिटाइजेशन खत्म हो जाता है तो यह कैबिनेट खुद ही स्लीप मोड में चला जाता है।

इससे पहले DRDO ने यूवी (अल्ट्रावायलेट) ब्लास्टर नामक यूवी डिसइंफेक्टेंट टावर (UV blaster tower) बनाने में कामयाबी हासिल की थी। यह मशीन 12 गुणा 12 के कमरे को 10 मिनट में वायरसमुक्त करने की क्षमता रखती है।

डीआरडीओ के अनुसार इस यूवी ब्लास्टर से कोरोना वायरस के अति संवेदनशील क्षेत्रों को कम समय में वायरस मुक्त किया जा सकता है। इसे दिल्ली स्थित डीआरडीओ की प्रयोगशाला लेजर साइंस एंड टेक्नोलॉजी सेंटर ने गुरुग्राम की कंपनी न्यू एज इंस्ट्रूमेंट एंड मैटीरियल्य प्रा. लि. के साथ मिलकर बनाया है।

डीआरडीओ के अनुसार यूवी ब्लास्टर को कंप्यूटर और अन्य इलेक्ट्रॉनिक उत्पादों को कीटाणु रहित करने के लिए इस्तेमाल किया जाता है। यह उत्पाद एयरपोर्ट, शॉपिंग मॉल, मेट्रो, होटल, फैक्टरी और ऑफिसों में इस्तेमाल किया जा सकता है। इसे वाईफाई के जरिये भी दूर से चलाया जा सकता है। 12 गुणा 12 का कमरा यह 10 मिनट में वायरस मुक्त कर सकता है। वहीं 400 स्क्वायर फीट क्षेत्र को यह 30 मिनट में वायरस मुक्त कर देगा।

https://hindi.news18.com/news/nation/drdo-developes-uv-cabinet-for-sanitize-mobile-and-laptops-3100618.html

दैनिक जागरण

Mon, 11 May 2020

डीआरडीओ ने विकसित की मोबाइल, लैपटॉप और करेंसी सैनिटाइज करने वाली मशीन

पूरा देश कोरोना के खिलाफ जंग लड़ रहा है ऐसे में डीआरडीओ ने मोबाइल लैपटॉप और करेंसी को सैनिटाइज करने वाली डिवाइस विकसित की है।

हैदराबाद: भारत के रक्षा अनुसंधान और विकास संगठन (DRDO) ने मोबाइल फोन, लैपटॉप और करेंसी को सैनिटाइज करने वाली एक मशीन विकसित की है। हैदराबाद की डीआरडीओ प्रयोगशाला ने इस डिवाइस का नाम डिफेंस रिसर्च अल्ट्रावॉयलेट सैनिटाइजर रखा है। यह डिवाइस प्रॉक्सिमिटी सेंसर स्विच ड्रॉअर ओपनिंग और क्लोजिंग मैकेनिज्म में काम करता है। मशीन के अंदर रखी हुई वस्तुओं को UVC का 360 डिग्री एक्सपोजर प्रदान करता है। मशीन के अंदर रखी हुई वस्तु एक बार साफ होने के बाद डिवाइस स्लीप मोड में चली जाती है।

पूरा देश कोरोना के खिलाफ जंग लड़ रहा है ऐसे में डीआरडीओ ने मोबाइल लैपटॉप और करेंसी को सैनिटाइज करने वाली डिवाइस विकसित की है।

डीआरडीओ ने डिसइंफेक्शन टॉवर का भी किया विकास

वहीं, इसके पहले डीआरडीओ ने एक पराबैंगनी (यूवी) डिसइंफेक्शन टॉवर का विकास किया है। यह टॉवर कोरोना संक्रमण बहुल क्षेत्रों को बिना किसी केमिकल के इस्तेमाल के बहुत जल्द संक्रमणमुक्त करने में सक्षम है।

रक्षा मंत्रालय ने एक बयान में बताया था कि कमरा अगर 12 गुना 12 फीट के आकार का हो तो यह टॉवर उसे सिर्फ 10 मिनट में संक्रमणमुक्त कर देगा। अगर कमरे का क्षेत्रफल 400 वर्गफीट हो और उपकरण उसके अलग-अलग हिस्सों में रखे जाएं तो उसे संक्रमणुक्त होने में सिर्फ 30 मिनट लगेंगे।' मंत्रालय ने बताया था कि इस टॉवर को लैपटॉप व मोबाइल के वाईफाई लिंक के जरिये भी संचालित किया जा सकता है। इसमें 43 वाट के छह यूवीसी लैंप लगे होते हैं, जिनका तरंगदैर्ध्य 254 नैनोमीटर होता है और वे 360 डिग्री में प्रकाश देते हैं।

https://www.jagran.com/news/national-drdo-develops-mobile-laptop-and-currency-sanitizing-machine-20258832.html

नवभारत टाइम्स

Mon, 11 May 2020

डीआरडीओ प्रयोगशाला ने इलेक्ट्रॉनिक गैजेट, नोट को संक्रमणमुक्त करने के लिए यूवी प्रणाली विकसित की

नयी दिल्ली: रक्षा मंत्रालय ने रविवार को कहा कि रक्षा अनुसंधान एवं विकास संगठन (डीआरडीओ) ने इलेक्ट्रॉनिक गैजेट, नोट और कागज को सेनेटाइज करने के लिए एक स्वचालित एवं सम्पर्करहित 'अल्ट्रावायलेट सेनेटाइजेशन कैबिनेट' विकसित किया है। डीआरडीओ ने ऐसे समय में यह कदम उठाया है जब देश कोविड-19 से निजात पाने का प्रयास कर रहा है। डिफेंस रिसर्च अल्ट्रावायलेट सेनेटाइजर (डीआरयूवीएस) प्रणाली कैबिनेट में रखी चीजों पर 360 डिग्री से पराबैंगनी किरणें (अल्ट्रावायलेट रेज) डालता है। एक बार सेनेटाइज (संक्रमणमुक्त) हो जाने पर प्रणाली स्वयं बंद हो जाती है, इसलिए इसे संचालित करने वाले को उपकरण के पास इंतजार करने या खड़े होने की जरूरत नहीं पड़ती। मंत्रालय ने कहा कि इसे डीआरडीओ के रिसर्च सेंटर इमारत (आरसीआई) द्वारा विकसित किया गया है और यह सम्पर्क में आये बिना ही कार्य करता है जो कि इस वायरस के प्रसार के लिए बहुत महत्वपूर्ण है। मंत्रालय ने कहा कि डीआरयूवीएस को मोबाइल फोन, आईपैड, लैपटॉप, नोट, चेक, चालान, पासबुक, कागज, लिफाफा आदि को संक्रमणमुक्त करने के लिए डिजाइन किया गया है। भारत में कोरोना वायरस के प्रसार पर रोक के लिए 25 मार्च से लॉकडाउन लागू है। देश में अभी तक इससे 62,900 से अधिक लोग संक्रमित हो चुके हैं और इससे करीब 2100 लोगों की मौत हो चुकी है।

(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-laboratory-develops-uv-system-for-transmission-of-electronic-gadget-note/articleshow/75661855.cms

BANSAL -N-E-W-S-

Mon, 11 May 2020

DRDO ने विकसित की मोबाइल, लैपटॉप और करेंसी सैनिटाइज करने वाली मशीन

भारत के रक्षा अनुसंधान और विकास संगठन (DRDO) ने मोबाइल फोन, लैपटॉप और करेंसी को सैनिटाइज करने वाली एक मशीन विकसित की है। हैदराबाद की डीआरडीओ प्रयोगशाला ने इस डिवाइस का नाम डिफेंस रिसर्च अल्ट्रावॉयलेट सैनिटाइजर रखा है। यह डिवाइस प्रॉक्सिमिटी सेंसर स्विच ड्रॉअर ओपनिंग और क्लोजिंग मैकेनिज्म में काम करता है। मशीन के अंदर रखी हुई वस्तुओं को UVC का 360 डिग्री एक्सपोजर प्रदान करता है। मशीन के अंदर रखी हुई वस्तु एक बार साफ होने के बाद डिवाइस स्लीप मोड में चली जाती है।

डीआरडीओ ने डिसइंफेक्शन टॉवर का भी किया विकास

वहीं, इसके पहले डीआरडीओ ने एक पराबैंगनी (यूवी) डिसइंफेक्शन टॉवर का विकास किया है। यह टॉवर कोरोना संक्रमण बहु लक्षेत्रों को बिना किसी केमिकल के इस्तेमाल के बहुत जल्द संक्रमणमुक्त करने में सक्षम है।

रक्षा मंत्रालय ने एक बयान में बताया था कि कमरा अगर 12 गुना 12 फीट के आकार का हो तो यह टॉवर उसे सिर्फ 10 मिनट में संक्रमणमुक्त कर देगा। अगर कमरे का क्षेत्रफल 400 वर्गफीट हो और उपकरण उसके अलग-अलग हिस्सों में रखे जाएं तो उसे संक्रमणुक्त होने में सिर्फ 30 मिनट लगेंगे।' मंत्रालय ने बताया था कि इस टॉवर को लैपटॉप व मोबाइल के वाईफाई लिंक के जरिये भी संचालित किया जा सकता है। इसमें 43 वाट के छह यूवीसी लैंप लगे होते हैं, जिनका तरंगदैर्ध्य 254 नैनोमीटर होता है और वे 360 डिग्री में प्रकाश देते हैं।

https://bansalnews.com/country/drdo-develops-mobile-laptop-and-currency-sanitizing-machine/450867-45.html

livemint

Mon, 11 May 2020

DRDO develops ultraviolet system to sanitise currency notes, electronic gadgets

By Rajendra Saxena

- ***The system called DRUVS (Defence Research Ultraviolet Sanitiser) works on contactless operation***
- ***DRUVS has been developed by DRDO's Research Centre Imarat lab***

New Delhi: Defence ministry on Sunday said the Defence Research and Development Organisation (DRDO) has developed an automated and contactless ultraviolet sanitisation cabinet to sanitise electronic gadgets, currency notes and papers.

The system called DRUVS (Defence Research Ultraviolet Sanitiser) provides a 360-degree exposure of ultraviolet rays to objects placed inside the cabinet. Once the sanitisation is done, the system goes in sleep mode, hence the operator need not wait or stand near the device.

The DRUVS has been developed by DRDO's Research Centre Imarat lab and works on contactless operation, which is very important to contain the spread of the virus.

The contactless ultraviolet sanitisation system has been designed to sanitise mobile phones, iPads, laptops, currency notes, cheque leafs, challans, passbooks, paper, envelopes, etc.

India has been under a nationwide lockdown since 25 March to curb the spread of the novel coronavirus, which has infected more than 62,900 people and killed around 2,100 in the country till now.

https://www.livemint.com/news/india/drdo-develops-ultraviolet-system-to-sanitise-currency-notes-electronic-gadgets-11589119009637.html

నమస్తే తెలంగాణ

Mon, 11 May 2020

Currency notes... smart phones senitizers

కరెన్సీ నోట్లకు.. స్మార్ట్‌ఫోన్లకూ శానిటైజర్

అభివృద్ధిచేసిన డీఆర్డీవో హైదరాబాద్ ఆర్సీఐ ల్యాబ్

హైదరాబాద్, నమస్తేతెలంగాణ: కరోనా నేపథ్యంలో చేతులను తరచూ శుభ్రం చేసుకుంటున్నాం. కానీ, మనం అనునిత్యం ఉపయోగించే కరెన్సీనోట్లు, స్మార్ట్‌ఫోన్లు, వంటి ఉపకరణాలను శానిటైజ్ చేయడం మాత్రం క్లిష్టమైన సమ స్యే. డిఫెన్స్ రీసెర్చ్ అండ్ డెవలప్‌మెంట్ ఆర్గనైజేషన్ (డీఆర్డీవో) దీనికి చక్కని పరిష్కారం కనుగొన్నది. ఫోన్లు, ఐపాడ్స్, ల్యాప్‌టాప్స్, కరెన్సీ నోట్లు, కాగితాలు, చెక్కులు, చలాన్లు, పాస్‌బుక్‌లు, పుస్తకాలు తదితరాలను శానిటైజ్ చేసేందుకు డీఆర్డీవో హైదరాబాద్ ల్యా బ్ డిఫెన్స్ రీసెర్చ్ ఆల్ట్రావయోలెట్ శానిటైజర్ (డీఆర్‌యూవీఎస్)- క్యాబినెట్‌ను అభివృద్ధిచేసినట్టు రక్షణ శాఖ ఆదివారం వెల్లడించింది. క్యాబినెట్‌లో వస్తువులు పెడితే 360 డిగ్రీల్లో యూవీ కిరణాలు ప్రసరించి అవి పూర్తిస్థాయిలో శానిటైజ్ (క్రిమి/వైరస్ రహి తం) అవుతాయని తెలిపింది. తర్వాత క్యాబినెట్ స్లీప్‌మోడ్‌కి వెళ్తుందని పేర్కొన్నది. పరికరం సమీపంలో ఎవరూ ఉండకుండా, ముట్టుకోకుండానే దీన్ని ఆపరేట్‌చేసేలా తీర్చిదిద్దారని వివరించింది. సెన్సార్‌తో పనిచేసే స్విచ్‌లు, ఆటోమెటిక్ మెకానిజం వల్ల దీన్ని వినియోగించవచ్చని పేర్కొన్నది. ఒక్కో కరెన్సీ నోటును యూవీ కిరణాల సమక్షంలో సూక్ష్మజీవి రహితంచేసేలా నోట్స్‌క్లీన్ డివైజ్‌ను కూడా ఆర్సీఐ అభివృద్ధి చేసినట్టు వివరించింది.

https://epaper.ntnews.com/Home/ShareArticle?OrgId=2b6c66be&imageview=1

ఆంధ్రజ్యోతి ABN
We Report You Decide

Mon, 11 May 2020

DRUVs Currency senitizing machine: DRDO new invention

'ధ్రువ్స్'.. కరెన్సీ శానిటైజింగ్ మెషీన్

డీఆర్‌డీవో సరికొత్త ఆవిష్కరణ

» మొబైల్స్, ఎలక్ట్రానిక్ గాడ్జెట్స్ శుద్ధి

అల్వాల్, మే 10(ఆంధ్రజ్యోతి): కరోనా వ్యాప్తితో జనం కరెన్సీ నోట్లను, ఎలక్ట్రానిక్ గాడ్జెట్లను ముట్టుకోవాలంటేనే భయపడే పరిస్థితులు ఏర్పడ్డాయి. దీనికి పరిష్కారంగా హైదరాబాద్ డీఆర్‌డీవో ప్రీమియర్ లాబ్ ఆర్‌సీఐ (రీసెర్చ్ సెంటర్ ఇమారత్) ఓ శానిటైజింగ్ యంత్రాన్ని తయారు చేసింది. కాంటాక్ట్ అవసరం లేకుండా ఆటోమాటిక్ సెన్సార్ సిస్టమ్‌తో పని చేసే ఈ యంత్రం పేరు 'ధ్రువ్స్' (డిఫెన్స్ రీసెర్చ్ అల్ట్రావైలెట్ శానిటైజర్). దీనికి సెన్సార్ స్విచ్‌లు అమర్చడం వల్ల దీని దగ్గరకు వెళ్లగానే ఆటోమేటిక్‌గా కాబినేట్ తెరుచుకుంటుంది. శానిటైజ్ చేయాల్సిన వస్తువును అందులో ఉంచిన వెంటనే దీని ఆపరేషన్ మొదలవుతుంది. దీనితో మొబైల్స్, ఐపాడ్స్, లాప్‌టాప్స్ తదితరాలను శానిటైజ్ చేసుకోవచ్చు. అలాగే కరెన్సీ నోట్లను శానిటైజ్ చేసేందుకు కూడా మరో యూవీ (అల్ట్రావైలెట్ క్లీనింగ్) యంత్రాన్ని ఆర్‌సీఐ అభివృద్ధి చేసింది. దీని పేరు 'నోట్స్ క్లీన్'.

https://epaper.andhrajyothy.com/m5/2668034/Telangana/11-05-2020#page/8/1

NTV
ప్రతిక్షణం ప్రజాపక్షం

प्रसार एवम् विस्तार
के 50 वर्ष

Mon, 11 May 2020

DRDO develops automated UV systems to sanitise electronic gadget

కొత్తరకం శానిటైజర్...ఇక ఫోన్లు,

ఐపాడ్లు, కరెన్సీ కి నో వైరస్.!

హైదరాబాద్‌లోని డీఆర్డీఓ విభాగం నిపుణులు కొత్తరకం శానిటైజర్ ను తయారు చేసారు. ఈ శానిటైజర్ తో ఎలక్ట్రానిక్ ఉపకరణాలను, కాగితాలను శుభ్రం చేయవచ్చు. దీనిని డిఫెన్స్ రీసెర్చ్ అల్ట్రావయొలెట్ శానిటైజర్‌గా పిలుస్తారు. దీనిలో ఉండే ప్రత్యేక పరికరం 360 డిగ్రీల్లో యూవీ కిరణాలు ప్రసరింపజేస్తుంది. దాంతో వైరస్

నాశనమవుతుంది. ఈ పరికరం లోపల మొబైల్ ఫోన్లు, ఐపాడ్లు, కరెన్సీ నోట్లు, చెక్కులు, చలాన్లు, పాసుబుక్కులు ఉంచి శుభ్రం చేయవచ్చు. దీనిలో శానిటైజేషన్ పూర్తవ్వగానే ఆటోమేటిగ్గా స్లీప్ మోడ్లోకి వెళుతుంది. కరోనా మహమ్మారి ప్రత్యక్ష తాకిడి ద్వారా కరెన్సీ, పరికరాలపై బ్రతికి ఉంటుంది కాబట్టి ఈ పరికరం ఉపయోగించడం ద్వారా వైరస్ ను కట్టడి చేయడానికి ఆస్కారం ఉంటుంది. ఇక హైదరాబాద్ లో తయారు చేసిన ఈ శానిటైజర్ ఎంతగానో ఉపయోగపడుతుందని నిపుణులు అభిప్రాయపడుతున్నారు.

https://www.ntvtelugu.com/post/drdo-develops-automated-uv-systems-sanitise-electronic-gadget

COVID-19: defence Forces Contribution

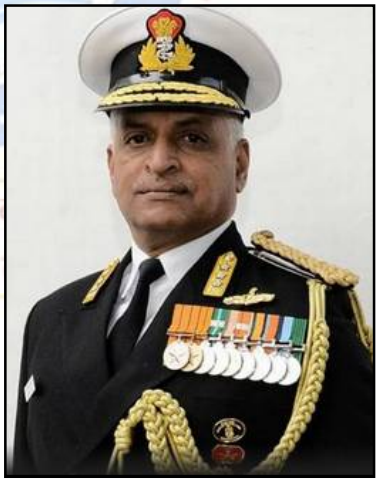
THE HINDU

Mon, 11 May 2020

We were ready for evacuation of Indians from abroad, says Vice Chief of the Naval Staff

By S. Anandan

On the heels of the Navy embarking on seaborne repatriation of Indians stranded overseas owing to the COVID-19 pandemic, Vice Admiral G. Ashok Kumar, Vice Chief of the Naval Staff, tells S. Anandan in an interview that the force is at the ready for evacuation of Indians from abroad or for movement of stranded islanders within India, as and when ordered by the Government of India.



Vice Chief of the Naval Staff, Vice Admiral G. Ashok Kumar. | Photo Credit: Special Arrangement

While the Navy has carried out several evacuations of Indian nationals and HADR missions in the past, the one that's being undertaken now is all the more challenging given the risk it poses to the ships' crew and the naval fraternity, by extension. Could you tell us how this was factored in planning for Op SamudraSetu?

The Indian Navy has considerable experience and has played a huge role in numerous evacuation operations in the past. Op Blossom in 2011, to evacuate around 15,000 stranded Indian nationals from Libya to Malta; Op Rahat in 2015 to evacuate around 5000 from Yemen; Op Nistar to bring back stranded fishermen from Socotra; are all recent examples of evacuation operations undertaken by the Indian Navy.

Of course, this time around, it was a lot different. We had to ensure safety of the crew as well as the evacuees. In any case, since our operational deployments are on fully on, the commands had implemented numerous steps to ensure crew safety. The crew remains as a unit for 14 days in harbour before the ship is deployed and proper screening is done.

The fact that we have not had a single case on board any ship is a credit to these measures that have been implemented. In addition, to cater to the safety of the evacuees, relevant areas on board the ships have been thoroughly sanitised, additional medical gear and medical personnel embarked, rationalised the capacity to ensure requisite safety measures such as social distancing, created isolation facilities on board in case any COVID-19 symptoms were to be noticed during passage,etc. The additional paramedic training conducted for our personnel is also bound to come

in handy in an emergency. We are hopeful that we have done enough to ensure the safety of one and all – the crew as well as the evacuees.

How has mission deployment helped in the logistics of the operation?

As you are aware, the Indian Navy adopted the concept of Mission Based Deployments in 2017. Our ships have maintained continuous presence at a number of important regions of the Indian Ocean Region (IOR). This has helped us not only to compile a comprehensive maritime domain awareness, but also helped us undertake foreign cooperation initiatives with all our friendly foreign countries, react instantly to any developing Humanitarian Assistance and Disaster Relief (HADR) situation, progress joint EEZ patrols, Coordinated Patrols (CORPATs)etc, thus enhancing Indian Navy's ability to expeditiously address non-traditional threats, and our status as the 'preferred security partner' for all our friends in the IOR. Hence, the logistics support for regular extended deployments, and the familiarity developed of the entire IOR, does come in very handy while undertaking such operations. In any case, sustenance and prolonged presence in any area is the strength of our Navy. Of course, as I said earlier, the challenges that we faced this time around were very different and unique, because of the COVID specific requirements that we had to cater to.

What were the specific, unique challenges posed by this evacuation mission?

Before its arrival at Male, Jalashwa crew had undergone mandatory quarantine. The vessel, the Navy's second biggest, also stocked HADR and COVID-protection material for 1,000 people in addition to other medical stores. It took on extra medical personnel and set up disinfectant mist spraying at entry point and UV sanitisation of stores. Disinfection teams were created and social distancing protocols implemented. The crew to handle the evacuees were separated from those involved in operations. Separate accommodation was arranged for women, children and the elderly. Protocols were evolved for embarkation, baggage disinfection and for daily medical screening and social distancing while on the voyage. The evacuees were put at ease with facilities for entertainment, regular medical checks and permission to walk on flight deck during designated hours.

Could you tell us the scope of the operation? Is it going to be under way for some time given that the pandemic is showing no signs of abating?

The Indian Navy is always ready and geared up to undertake any such requirements for the nation. The scope of Op SamudraSetu will depend on the number of our citizens requiring evacuation. This is being worked out by various organs of our government. We are ready to deploy more ships and also to undertake a number of trips as the situation demands. While we continue to hope for the best, we are ready for the worst.

Will the Navy also ferry home islanders of L&M stranded in Kochi?

Yes. The Indian Navy is fully prepared and ready to undertake any such movement of personnel, be it from abroad to India or within India, as and when ordered by the Government of India.

Finally, when are you sending evacuation vessels to the Persian Gulf, which has a sizeable Indian diaspora? Could you give details?

The Indian Navy is ready for repatriation of people from any country. Our ships are prepared. The call, on when and from where, once taken, the Indian navy will execute the plan.

https://www.thehindu.com/news/national/we-were-ready-for-evacuation-of-indians-from-abroad-says-vice-chief-of-the-naval-staff/article31554445.ece

THE NEW INDIAN EXPRESS

Mon, 11 May 2020

Operation Samudra Setu: Indian Navy arrives at Male port to evacuate nearly 200 Indians

The evacuees have been divided into groups to avoid crowding at common areas like the dining hall and bathrooms, the Navy noted

New Delhi: Indian Navy ship INS Magar on Sunday arrived at Male to bring nearly 200 stranded Indian nationals home from Maldives amid the coronavirus pandemic.

Concurrently, INS Jalashwa, the first ship carrying evacuees from Maldives under Operation Samudra Setu, reached Kochi harbour this morning with 698 Indian citizens, the Navy said in a statement.

INS Magar, designed for landing operations, had made all necessary logistic, medical and administrative preparations at her base port Kochi to comfortably accommodate civilians before setting sail towards Maldives.

The ship will evacuate nearly 200 citizens while ensuring all precautions, including social distancing norms, are followed, the Navy stated.

"An entirely separate section of the ship with essential facilities like food and washrooms has been prepared to accommodate the evacuees and a separate mess has been allotted for ladies, infants and senior citizens," it mentioned.

The evacuees have been divided into groups to avoid crowding at common areas like the dining hall and bathrooms, the Navy noted.

Air India is operating 64 repatriation flights from May 7 to May 14 while the Navy has deployed two ships as India rolled out a massive evacuation plan on Tuesday to bring back thousands of its nationals stranded abroad due to the coronavirus lockdown.

From the Gulf countries to Malaysia and the UK to the US, the multi-agency operation christened Vande Bharat Mission will see the state-owned airline operate the non-scheduled commercial flights till May 14 to ferry around 15,000 Indian nationals from 12 countries.

In this mission, the Navy had launched Operation Samudra Setu (Sea Bridge) under which it dispatched two ships to Male to commence the first phase of the evacuation operation from May 8.

https://www.newindianexpress.com/nation/2020/may/10/operation-samudra-setu-indian-navy-arrives-at-male-port-to-evacuate-nearly-200-indians-2141606.html

hindustantimes

Mon, 11 May 2020

Govt sends aid to Indian Ocean states

The Indian Navy's INS Kesari, a 5,600-tonne landing ship, was deployed following requests for assistance from the Indian Ocean countries, the external affairs ministry said on Sunday

By Rezauk H Laskar

New Delhi: India has despatched a warship with two medical teams and medical supplies to help authorities in the Maldives, Mauritius, Madagascar, Comoros and Seychelles combat Covid-19, symbolising the importance attached by New Delhi to its maritime neighbourhood.

The Indian Navy's INS Kesari, a 5,600-tonne landing ship, was deployed following requests for assistance from the Indian Ocean countries, the external affairs ministry said on Sunday. The warship is carrying consignments of essential medicines and food supplies.

The two medical assistance teams on board will be deployed in Mauritius and Comoros to help their governments deal with the Covid-19 crisis and a dengue fever outbreak in Comoros.

A person familiar with developments said the operation, named Mission Sagar, "implicitly conveys the inclusion of Madagascar and Comoros as part of India's Indian Ocean vision" and the growing importance of the Indian Ocean region in foreign policy.

"This is the first time a single assistance mission is covering all island countries of the western Indian Ocean," the person said on condition of anonymity. "It also reflects the contiguity of the government's Indian Ocean policy."

India on Sunday sent medical assistance to the Maldives, Mauritius, Madagascar, Comoros and Seychelles by the naval ship INS Kesari to help in dealing with the coronavirus pandemic, under Mission Sagar. (PTI)

INS Kesari will also deliver consignments of Covid-19-related medicines to Mauritius, Madagascar, Comoros and Seychelles and 600 tonnes of food supplies to the Maldives. It is also carrying a special consignment of ayurvedic medicines for Mauritius in response to a request made by foreign minister Nandcoomar Bodha to his Indian counterpart.

The consignments for Madagascar and Comoros include hydroxychloroquine tablets. India supplied 50,000 hydroxychloroquine tablets to the Maldives last month and more supplies were also sent to Mauritius and Seychelles.

The Indian Ocean region is now getting the same importance as India's immediate neighbours, the person cited above said. The Maldives, Sri Lanka, Mauritius and Seychelles were among the first countries to receive Covid-19-related aid from India and a team of select medical personnel was sent to Male to augment the preparedness of authorities there to tackle the pandemic. Special flights have carried two consignments of medicines to Sri Lanka.

"This is also the only region where three medical teams have been sent – to the Maldives earlier and now to Mauritius and Comoros. This conveys India's readiness to deploy manpower and also the confidence in Indian expertise in these countries," the person said.

"Though all the assistance is request-based, these operations display our readiness and capability to step up even as we have challenges at home, and also cement our status as first responder in any crisis," the person added.

The Indian Navy has also played a key role in repatriating some 1,000 Indian nationals from the Maldives since last week. The navy deployed two warships to Male to bring them back.

The name of Mission Sagar was inspired by the prime minister's vision of "Sagar" – Security and Growth for All in the Region. It is also in line with India's "time-tested role as the first responder in the region", the external affairs ministry said.

Last month, India activated a currency swap arrangement with the Maldives and said it would provide $150 million to help the country mitigate the economic impact of the pandemic. The facility is part of the $400 million currency swap agreement signed in July 2019.

India has also deployed a medical rapid response team to Kuwait and provided hydroxychloroquine tablets to many countries in the neighbourhood as grants.

https://www.hindustantimes.com/india-news/govt-sends-aid-to-indian-ocean-states/story-fF7Xfr4tsLoJd1ploCuoyK.html

THE TIMES OF INDIA

Mon, 11 May 2020

Navy facilitates remote monitoring of Covid patients at VIMS intensive care

Visakhapatnam: In an attempt to reduce the risk of coronavirus (Covid-19) transmission to the health staff of Visakha Institute of Medical Sciences (VIMS), the Eastern Naval Command (ENC) has devised and provided a remote monitoring facility to check on the parameters of ICU patients. Director of VIMS Dr K Satyavaraprasad had requested to explore the feasibility of remote monitoring of vital parameters when the Indian Navy handed over the Portable Multifeed Oxygen Manifold recently.

Following the request, a core team comprising two officers and four workers of the Naval Dockyard-Visakhapatnam expeditiously designed and came up with a solution.

The audio-visual output of the bedside Patient Monitoring System was converted to HDMI (High Definition Media Interface) output and multiplexed for all 48 beds in ICU through a digital video recorder and provided on a big display outside the ICUs where the staff sits.

The facility includes monitoring of all patients simultaneously or selecting as required including zooming on a patient and an audio alarm if any vitals are beyond.

Further, the same parameters through HDMI ethernet converter have also been provided to the doctors on their mobile phones. The doctor can at any time from any place, with internet connectivity, monitor his 48 patients in the ICU.

The conceptualisation to final implementation at VIMS and handing over to the VIMS director was completed in six days.

https://timesofindia.indiatimes.com/city/visakhapatnam/navy-facilitates-remote-monitoring-of-covid-patients-at-vims-intensive-care/articleshow/75664271.cms

THE NEW INDIAN EXPRESS

Mon, 11 May 2020

India needs 'whole-of-govt approach' to confront strategic uncertainties: Army Chief

Gen Naravane said that there has been no let up in Indian Army's "posture" while guarding the Line of Actual Control (LAC) with China because of the coronavirus pandemic

New Delhi: The time has come for India to adopt a "whole-of-government approach" in decisively confronting the "strategic uncertainties" looming on its horizon as well as non-traditional threats like pandemics, Army Chief Gen Manoj Mukund Naravane has said, strongly pitching for broadening the country's national security doctrine.

Talking about complex geo-political power play in India's neighbourhood, Gen Naravane said the Indian armed forces are determined to "cement" the country's reputation as a net security provider in the region.

Lt Gen Manoj Mukund Naravane (Photo | ADG PI - Indian Army Twitter)

"There is an entire spectrum of strategic uncertainties that looms on the horizon and a whole-of-government approach is the need of the hour to deal with them," the Army Chief said.

Though Gen Naravane did not elaborate, his comments came in the backdrop of Pakistan-supported Taliban's aim for a role in power structure in Afghanistan and China's persistent efforts to expand military ties with countries like Sri Lanka, Nepal, Myanmar and the Maldives.

"In dealing with issues of global nature, the armed forces with their inherent capabilities and capacities will cement India's reputation as a net security provider in the region, taking security as a holistic concept," Gen Naravane said.

India is learnt to have been worried over the extremely fragile and dynamic situation in Afghanistan after the US sealed a historic deal with the Taliban providing for withdrawal of American troops from the war-ravaged country.

The Army Chief further said that India needs to broaden its understanding of national security and must examine non-traditional threats like pandemics "de-novo" as they have the potential to inflict severe damage on the country.

"We need to act and prepare ourselves accordingly". He said the "traditional threats" facing India remained "unabated" and the armed forces are fully geared up to deal with them.

Gen Naravane said that there has been no let up in Indian Army's "posture" while guarding the Line of Actual Control (LAC) with China because of the coronavirus pandemic.

The LAC is the de-facto border between the two countries.

"Along the LAC, patrolling continues as before though we have put the ceremonial border personnel meetings on hold. There is also greater reliance on hotlines," he said.

The Chief of Army Staff said the effort has been to adhere to the directives issued by both the governments following two informal summits between Prime Minister Narendra Modi and Chinese President Xi Jinping.

"As far as our deployment along the border with China is concerned, the focus is on mutual understanding and respect for the sanctity of LAC and ensuring that no untoward incident takes place due to our differing perceptions of the LAC," he said.

"Our focus has been to ensure all misunderstandings are mitigated amicably through discussions and existing mechanisms," Gen Naravane said.

The India-China border dispute covers 3,488-km-long Line of Actual Control.

China claims Arunachal Pradesh as part of southern Tibet while India contests it.

Both sides have been asserting that pending the final resolution of the boundary issue, it is necessary to maintain peace and tranquillity in the border areas.

Gen Naravane said troops deployed along borders in remote and high altitude areas are at minimum risk of getting infected by the coronavirus as the areas are inaccessible to ordinary people.

He said only troops who are medically validated as being coronavirus-free are being allowed to replace the personnel deployed in key formations and frontiers.

"You have to keep in mind that in most of these places, due to the nature of deployment and living arrangements, social distancing is not feasible.

However, wherever possible, social distancing and hygiene measures are being strictly enforced," he said.

Gen Naravane said ensuring safety of his force from the pandemic is his foremost priority as the Army will be able to assist the country in dealing with the challenge if the troops are fighting fit.

"The need for maintaining social distancing and hygiene norms assumes significant importance in the forces because of the higher density of personnel living inside barracks and the increased attendant possibility of the virus spreading within the forces," he said.

He said all the units and formations have been issued comprehensive instructions to maintain social distancing wherever feasible and adhere to highest hygiene standards.

https://www.newindianexpress.com/nation/2020/may/10/india-needs-whole-of-govt-approach-to-confront-strategic-uncertainties-army-chief-2141585.html

THE HINDU

Mon, 11 May 2020

Roll out of Integrated Battle Groups delayed due coronavirus pandemic: Army Chief

New Delhi: Army Chief Gen. M.M. Naravane has said that a comprehensive “test-bedding” of the Integrated Battle Groups (IBGs) was concluded but its roll out has been delayed due to the coronavirus pandemic.

Army Chief Gen. M.M. Naravane. File | Photo Credit: PTI

The Army planned to introduce the IBGs, comprising a mix of infantry, artillery, air defence, tanks and logistics units, as part of a far reaching revamp of its war fighting capability, particularly along the borders with China and Pakistan.

“The roll out of the IBGs has been delayed due to the outbreak of the pandemic and the need to divert critical resources towards containment efforts,” the Army chief told *PTI*.

“However, I can assure you that we will roll out the IBGs in the requisite time frame as the conceptual groundwork has already been laid out and extensive test-bedding had already been carried out prior to the outbreak,” he said.

The Army chief also said that there could be some disruptions in defence production and procurement in the wake of the pandemic, but it will be a “temporary phase”.

After years of deliberations, the Army decided to raise the IBGs along the borders with China and Pakistan that will help it carry out swift strikes in case of a war. Each IBG will be headed by a Major General and comprise around 5,000 troops.

Ahead of Chinese President Xi Jinping's visit to India in October, the Indian Army carried out the "Him Vijay" exercise in Arunachal Pradesh primarily to test the effectiveness of the IBGs in mountain combat exercise.

Each IBG would be modelled on specific operational requirement considering the topography as well as threat perceptions.

Asked whether the financial burden triggered by the pandemic will have a bearing on the Army's long pending military procurement programme, he said it may have some impact in the short term.

"Defence production and procurement are elaborate and long drawn processes involving integration of various systems and subsystems and dependent on global supply chains. Due to the pandemic, there could be some disruptions, but I see this as a temporary phase," he said.

At the same time, Gen. Naravane said there have been "numerous buffers" which will be leveraged to fast track production once the situation normalises "as it is a matter of when and not if".

Though indigenous manufacturing will be impacted, he said, its magnitude will be much lower.

"We are therefore reviewing our contracts and procurement plans in detail to ensure that delays are minimised and local vendors are not affected greatly and are in continuous dialogue with all stakeholders," the Army chief said.

He said the Indian Army has invested heavily in indigenisation of supply chains and inventory over the last few years.

"So this crisis will not affect us as adversely as other countries. Most of our ongoing procurement are under 'buy Indian' categories from Indian industries which retain adequate reserves of assemblies/sub-assemblies from foreign suppliers to cater for contingencies," Gen. Naravane said.

https://www.thehindu.com/news/national/roll-out-of-integrated-battle-groups-delayed-due-coronavirus-pandemic-army-chief/article31550377.ece

Business Standard वम् विस्तार के 50 वर्ष

Mon, 11 May 2020

Bipin Rawat defends lower spending, says military plays limited role

Army Chief Naravane says roll out of IBGs delayed due Covid-19

By Ajai Shukla

New Delhi: Just days after a top ministry of defence (MoD) official warned of sharp cuts in the defence allocations for 2020-21, the Chief of Defence Staff (CDS), General Bipin Rawat, said the military should not be "misrepresenting its requirements" in order to "go in for large amounts of "weapons' imports."

Rawat's remarks have been greeted with shock in military social media chat groups

Backing the government's cuts on defence expenditure, Rawat said in Delhi on Saturday that military planners should stop pretending that India's military was playing a global role. Given the military's limited role, indigenously produced weapons were adequate, said Rawat.

"We are not expeditionary forces that have to deploy around the

globe. We have to guard and fight only along our borders and, of course, dominate the Indian Ocean Region (IOR). So we should not go in for larger amounts of imports by misrepresenting our operational requirements," stated the CDS.

Instead of imports, Rawat said the military should boost the "Make in India" initiative by using indigenously developed weapons, even if those met just 70 per cent of the specifications the military ideally required. Given an opportunity, he said,

India's defence industrial base would learn to build world-class equipment, incorporating cutting-edge technologies.

Rawat's remarks have been greeted with shock in military social media chat groups. There is dismay at the suggestion that the military has been importing equipment under false pretences, and at the exhortation to go into combat with "inferior" weaponry.

Rawat has departed from two central tenets embraced by successive military chiefs: First, the operating assumption that India is an Indo-Pacific regional power, not just a local actor; and second, that the army, navy and air force must never be technologically overmatched by an enemy. It is assumed that if indigenous weaponry were inferior, the government would import what was needed from the global arms market.

The erosion of the military budget by Covid-19 is evoking concerns, similar to Rawat's, from retired service chiefs as well. Admiral Arun Prakash (Retired), one of India's navy chiefs, cautioned on Thursday that budget cuts meant that India could no longer afford enmity with both China and Pakistan.

Stating that New Delhi should do what it takes to mend fences with Beijing, Prakash said: "We just cannot handle two fronts. If you have two enemies make peace with one… It's time to think like Chanakya and make peace on one front… Pakistan is only a puppet of China. China is the main adversary and it would make sense to come to terms with China." Pointing to the growing military mismatch between India and China, Prakash admitted that India's "Maritime Capability Perspective Plan" goal of fielding a 200-warship navy by 2027 appears "very unlikely." On the other hand, China's growing presence in the Indian Ocean is "a far more challenging issue… the Chinese are on the up and they are going to appear here in strength," he said.

Navy in the fight against Covid

In a separate interview on Thursday, the navy's vice chief, Vice Admiral Ashok Kumar, described a heavily engaged navy, which had warships continuously at sea for months, and unable to enter ports for fear of the Covid-19 contagion.

Reflecting a belief shared by numerous serving personnel, Prakash said the armed forces could have done much more to help out-of-work labourers who are migrating to their villages, many on foot. He said the armed forces have "deep resources and organisation and all that is needed is for the government to call on them to assist "citizens of India in distress." A senior general in the army's logistics branch said the army has 68,000 lorries and over 5,000 functional cookhouses across the country and could have played a major role in easing the migration of labourers.

Roll out of IBGs delayed

The planned roll out of Integrated Battle Groups (IBGs) has been delayed due to the coronavirus pandemic, Army Chief Gen MM Naravane said, noting that a comprehensive "test-bedding" of the proposed structure has concluded for its introduction. (*With PTI inputs)*

https://www.business-standard.com/article/economy-policy/bipin-rawat-defends-lower-spending-says-military-plays-limited-role-120051100025_1.html

DEFENCE AVIATION POST
Your Connect To The World Of Defence And Aviation

Mon, 11 May 2020

India will have the 3rd most powerful Navy in the world by 2030

The most powerful navies in 2030 will be a reflection of the broader state of the world. Some countries are invested in preserving the current international order, and see naval power as a means to maintain it. Other emerging countries are building navies commensurate with their newfound sense of status, often with an eye towards challenging that order.

The eastward shift in naval power will continue in 2030, a product of both declining defense budgets in Europe and growing economies in Asia. While the most powerful navies of the Cold War were concentrated largely in Europe, by 2030 both China and India will be on the list, with Japan and South Korea as runners-up also fielding large, modern naval forces.

Ship-wise, there are two classes that will define the most powerful navies: aircraft carriers and ballistic missile submarines. Aircraft carriers reflect the need to maintain a global, or even regional, power-projection capability. Ballistic-missile submarines reflect a maturation and diversification of a country's nuclear arsenal, with an eye toward maintaining a second-strike capability in case of surprise attack. More than any other type, those two will define naval power in the early-to-mid twenty-first century.

The United States

The United States, the dominant naval power worldwide in 1945, will continue to dominate the seas eighty-five years later. By 2030 the Navy will be halfway through its thirty-year shipbuilding plan and have built three Gerald R. Ford–class aircraft carriers to begin replacing existing Nimitz-class carriers. Amphibious ship numbers should be slightly higher than current numbers, and the first ship in class to replace the Ohio ballistic missile submarines should enter service in 2031.

In surface combatants, all three Zumwalt-class cruisers will be in service—assuming the program remains fully funded—and the Navy will have built thirty-three more Arleigh Burke–class destroyers. A next-generation version of the Littoral Combat Ship will enter production in 2030.

Under current plans the U.S. Navy should reach its three-hundred-ship goal between 2019 and 2034, but after that period the number of surface combatants begins to drop. These plans also assume a higher than average shipbuilding budget, while at the same time the service must compete with the budget demands of other services—particularly the Air Force—and domestic programs. While U.S. naval superiority isn't ending any time soon, the period after 2030 will be a critical one.

The Royal Navy of 2030 will be paradoxically the smallest and yet most powerful in the history of the United Kingdom. A combination of two new aircraft carriers, restoring fixed-wing flight to navy after a forty-year hiatus, and a fleet of ballistic-missile submarines will keep a numerically inferior Royal Navy in the top five.

The Royal Navy's surface fleet, currently at nineteen destroyers and frigates, will shrink even further to six Type 45 guided-missile destroyers and eight Global Combat Ship frigates. The number of nuclear-powered attack submarines will remain constant at seven.

The Royal Navy is responsible for the UK's nuclear deterrent and currently operates four Vanguard-class nuclear-powered ballistic-missile submarines, each equipped with sixteen launch

tubes for Trident D-5 missiles. The Vanguard class is expected to be replaced with the Successor class starting in 2028.

The UK's sea-based power projection capability will be in the form of the Queen Elizabeth–class of aircraft carriers. The two conventionally powered ships, Queen Elizabeth and Prince of Wales, will each displace sixty-five thousand tons fully loaded and capable of carrying up to fifty aircraft. Aircraft will include the F-35B Lightning II fighter and Merlin, Wildcat, Chinook and Apache helicopters. The two carriers will optionally double as amphibious transports capable of carrying up to nine hundred Royal Marines or troops of the Army's Sixteenth Air Assault Brigade.

China

The People's Liberation Army Navy (PLAN) of 2030 will continue to build on the ground broken by the PLAN of 2016. Currently, China has four major ship hulls it seems to be content with: the Type 052D guided-missile destroyer, Type 054A frigate, Type 056 corvette and Type 071 amphibious transport. All four are mature designs in large-scale production that will form the bulk of the fleet in 2030.

By one prediction, by 2030 the PLAN will have ninety-nine submarines, four aircraft carriers, 102 destroyers and frigates, twenty-six corvettes, seventy-three amphibious ships and 111 missile craft, a whopping 415 ships in total, to approximately 309 in the U.S. Navy of 2030. This would put China in a solid position as the world's largest navy by number of ships—though not by total ship tonnage.

Could China really reach 415 ships? Such a total would probably require twice as many submarines to be produced annually, a boost in destroyer production to achieve a net gain as older designs age out, and a huge increase in amphibious ships. It would also require two more carriers than are currently in service or under construction. Reaching such a goal would require a substantial increase in the PLAN's budget—at a time when the Chinese Communist Party is finally applying the brakes to defense-budget increases.

Other ships under construction will form China's fleet in 2030 are the Type 055 destroyer and Type 001A aircraft carrier. A new ballistic-missile submarine to supplement and eventually replace the Type 094 Jin class is also likely. The 094 class is notoriously noisy underwater and not a particularly good place to put a fraction of China's three hundred or so nuclear warheads.

India

The Indian Navy will be the second (or third, if you count Russia) Asian navy on this list. India has recently begun pouring enormous resources into its naval service, and as a result by 2030 could have one of the top five navies on the planet.

Barring unforeseen naval developments in other countries, by 2030 India will have the second largest carrier fleet in the world, with three flattops. If all goes according to plan, India should have three aircraft carriers: Vikramaditya, Vikrant and Vishal, together fielding a total of about 110–120 aircraft.

India will also have at least nine destroyers, including two guided missiles of the Kolkata class, three of the Delhi class, and four of the in-construction Visakhapatnam class. This is one less than what India has at present, and the number of hulls will have to increase if India is serious about protecting three aircraft carriers. Roughly two-thirds of the Indian Navy's frigate fleet is modern enough to make it to 2030, particularly the Shivalik and Talwar classes, but India will have to increase the number of frigates overall—especially if Pakistan is serious about putting nuclear weapons on submarines.

India is in the process of standing up a sea-based leg of its nuclear triad, with the first ballistic missile submarine, Arihant, expected to be operational soon. Three Arihant subs are planned and an overall "boomer" fleet of six submarines is expected.

Russia

The combination of a downturn oil prices and Western sanctions from its annexation of the Crimea will put a crimp in Russia's economic stride for the near future. After economic growth of

up to six percent annually, the bear is in recession with no immediate end in sight. A plan to replace 90 percent of Russian military equipment, including ships and naval equipment, has stalled. *https://www.defenceaviationpost.com/2020/05/india-will-have-the-3rd-most-powerful-navy-in-the-world-by-2030/*

Mon, 11 May 2020

आखिर एयरफोर्स की नौकरी क्यों छोड़ रहे हैं वायुसैनिक, जानिए क्या है सच्चाई

वेस्टर्न एयर कमांड (Western Air Command) के कई अधिकारियों के बीच एक विभागीय चिट्ठी घूम रही है, जो यह बता रही है कि वायुसैनिक (Airmen) अपनी नौकरी क्यों छोड़ देते हैं और यह चेतावनी भी दे रही है कि इससे भारतीय वायुसेना (Indian Air Force) को परेशान होने की ज़रूरत क्यों है। जानिए क्या भारतीय वायुसेना पर कोई नकारात्मक असर पड़ने वाला है।

भारतीय वायुसेना (Air Force) में तैनात वायुसैनिक अपनी सेवाएं क्यों छोड़ रहे हैं? इस सवाल का जवाब जानने के लिए एक आंतरिक सर्वे किया गया और वायुसैनिकों का मन जाना गया तो पता चला कि सर्विस (Air Force Service) छोड़ने का सबसे बड़े कारणों में काम के लिए उपयुक्त वातावरण का न होना है। स्टेशन कमांडरों, कमांडिंग अफसरों (Commanding Officers) और वायु अधिकारी कमांडिंग के बीच इस आशय का पत्र घूम रहा है। विस्तार से जानिए कि वायुसैनिक क्यों सर्विस छोड़ रहे हैं।

एक तिहाई की शिकायत, 'सही माहौल नहीं'

30 अप्रैल के इस विभागीय पत्र में दो साल तक किए गए सर्वे का हवाला देकर यह स्पष्ट किया गया है कि 13 से 20 साल के सर्विस ब्रैकेट में क्या रुझान सामने आए। ट्रिब्यून इंडिया ने इस पत्र के हवाले से रिपोर्ट में लिखा है कि करीब 32% ने माना कि वायुसैनिक 20 साल बाद फोर्स इसलिए छोड़ देते हैं क्योंकि उन्हें काम के लिए वातावरण उपयुक्त नहीं लगता।

ज्ञान प्रसार एवम् विस्तार
के 50 वर्ष

दूसरा बड़ा कारण है बेहतर विकल्प

वायुसैनिकों के वायुसेना छोड़ने का दूसरा बड़ा कारण नागरिक जीवन में बेहतर विकल्पों का होना है। आंतरिक सर्वे में शामिल किए गए लोगों में से 25% ने यह कारण माना है। जबकि 7% ने फोर्स छोड़े जाने का एक कारण कम वेतन होना भी माना। इसके अलावा, 19% ने माना कि ज़्यादा मूवमेंट और 17% ने माना कि करियर में विकास की संभावनाओं का न होना बड़े कारण हैं।

क्यों है चिंता का विषय?

वायुसेना रिकॉर्ड कार्यालय यानी एएफआरओ ने पिछले पांच सालों में किए विश्लेषण में खुलासा किया कि 45% वायुसैनिकों ने 20 साल के एग्रीमेंट के बाद फोर्स छोड़ने का विकल्प चुना जबकि उनके पास सेवा में एक्सटेंशन लेने का विकल्प था। पत्र में कहा गया है कि 'प्रशिक्षित और अनुभवी मानव संसाधन को गंवाना संस्था के लिए अच्छा नहीं है इसलिए विशेषज्ञों को रोकने के लिए ज़रूरी कदम उठाए जाएं क्योंकि ऐसा होता रहा तो भारतीय वायसुेना की गतिविधियों पर नकारात्मक असर पड़ेगा।'

नीति बनाने के लिए अब क्या कदम होंगे?

कहा गया है कि भारतीय वायुसेना में तकनीक का बहुत महत्व है। साथ ही, सेना वायुसैनिकों को ट्रेंड करने में कीमती समय और संसाधन लगाती है इसलिए ऐसे में अनुभवी मैनपावर का जाना अखरने वाला है। वेस्टर्न एयर कमांड ने अपने फील्ड कमांडरों से वायुसैनिकों को पिछले कुछ सालों में हुए नीतिगत बदलावों के बारे में जागरूक करने को कहा है।

साथ ही, वायुसैनिक सेवाएं न छोड़ें, इसके लिए सभी फील्ड कमांडरों से फीडबैक मांगे गए हैं, जिनके आधार पर वायुसेना के मुख्यालय को आगे की नीतियां बनाने में आसानी होगी।

https://hindi.news18.com/news/knowledge/know-reasons-and-threats-why-airmen-are-leaving-indian-air-force-bhvs-3100273.html

moderndiplomacy

Mon, 11 May 2020

Pakistan's befitting response to India's offensive naval buildup

By Hairs Bilal Malik

Over the last few years, India has embarked on an extensive and all-encompassing naval modernization program. This has been carried out primarily because of India's aspiration for becoming a 'blue water' navy aimed at dominating the Indian Ocean and beyond. In this regard, India has expanded both its indigenously developed weaponry and most recently signed short and long-term hi-tech defence deals with the US to consolidate its naval buildup. By doing so, India has been able to enhance its strategic relationship with the US while acquiring advanced and sophisticated naval hardware. Since India has been recognized as the 'major defence partner' by the US, these deals carry a significant weight age for both its diplomatic and strategic ties with the US. Based on this, India's offensive naval buildup would lead to significant long-term implications for the regional security and stability of South Asia.

In modernizing its navy, India's major focus seems to be enhancing its deterrent capabilities against Pakistan. This has been done with the acquisition of aircraft carriers, nuclear and conventional submarines, sea-launched cruise and ballistic missiles, destroyers, and attack and reconnaissance planes. At present, India possesses and intends to acquire a broad range of advanced weapons in its naval inventory that includes; advanced anti-ship missiles, torpedoes, and anti-surface and anti-submarine aircrafts. Furthermore, during President Trump's first-ever official visit to India in February 2020, a deal worth $ 3 billion was finalized. The deal along with the provision of six AH-64E Apache attack helicopters for the Indian Army also includes 24 MH-60R Seahawk helicopters for the Indian Navy aimed at enhancing its anti-submarine and anti-surface warfare capabilities. Such acquisitions by India would likely further enhance its future capabilities vis-à-vis Pakistan.

It is worth mentioning here that the capabilities of both the AH-64E and MH-60R would be augmented by the Communications, Compatibility, and Security Agreement (COMCASA), which formalized the integration of secure, bilateral communication networks between the US and India back in 2018. These helicopters would be the first post-COMCASA hardware available to the Indian military and

especially to its navy. Once acquired, upon delivery, the helicopters could come fully integrated with bilaterally secure networks and communications. This would increase Indian naval capabilities and dramatically enhance US-India military interoperability. In the same vein, this would likely help incorporate India into the larger sphere of cooperation with other western militaries that use similar equipment and software acquired from the US.

In another significant development, on April 15, 2020, on India's request, the US government has notified the sale of naval specific weapons worth $ 155 million. According to this, the US would provide 10 AGM-84L Harpoon Block II air-launched missiles and 16 MK 54 lightweight torpedoes to India. The advanced Harpoon missile system would be integrated into the P-8I anti-submarine warfare aircraft aimed at conducting anti-surface warfare missions. Moreover, the MK 54 lightweight torpedo would provide India the capability to conduct anti-submarine warfare missions. India's acquisition of advanced naval weapons systems such as these would thus likely destabilize the pre-existing deterrence framework in South Asia. It would embolden India to consider countering Pakistan's existing range of naval capabilities such as its anti-ship missiles, sea-launched cruise missiles, and reconnaissance planes with greater impunity.

Pakistan, due to its economic constraints cannot compete with India on a tit for tat basis. Hence, to address such a threat, Pakistan, for the time being, seems to be enhancing its indigenously developed anti-ship and anti-submarine capabilities. In order to restore stability and address this spectrum of threat, Pakistan has two choices; first, in the long term, to purchase similar, although expensive weapons systems from the international market such as from Russia and/or China. This obviously is a tall prospect, which already seems difficult given the country's economic difficulties. Second, to counter India's advanced naval weapons while staying within its existing operational capabilities. It seems that the induction of an increased number of anti-ship and anti-submarine platforms is a more plausible and immediate solution.

In this regard, on April 25, 2020, Pakistan demonstrated its naval preparedness with a series of anti-ship missiles tests in the North Arabian Sea. The successful firing of the anti-ship missiles would likely boost up Pakistan Navy's operational capabilities and readiness. Furthermore, it was reported that a fast attack aircraft of the Pakistan Navy fired the missiles from the sea to surface level while few missiles were also fired from an underwater conventional submarine towards the ground. Pakistan's rationale for exercising this milestone is widely believed to be inclined towards neutralizing a broad range of the expected outcomes of India's naval modernization drive. This is further evident in the statement of the Naval Chief Admiral Zafar Mahmood Abbasi who acknowledged the navy's satisfactory operational preparedness. He also asserted that Pakistan is fully capable to give a befitting response to India's naval aggression, hence further reinforcing deterrence based on Pakistan's appropriate naval resort.

Hence at present, India intends to project itself as a technologically advanced country that is capable enough to establish 'strategic deterrence' in South Asia based on the deployment of advanced naval weapons systems. The acquisition of advanced missiles and torpedoes, along with technical assistance and logistic support from the US is quite alarming at the time when the world is concerned to fight against the COVID-19pandemic. This would further destabilize the already volatile South Asian region. Pakistan, which still holds a principled stance on instituting lost peace and stability in the region, is being overtly threatened by this Indian offensive naval buildup. In this regard, the induction and perhaps even testing of a medium to short-range anti-ship and anti-submarine missile seems to be the only way out, at least for the time being.

https://moderndiplomacy.eu/2020/05/10/pakistans-befitting-response-to-indias-offensive-naval-buildup/

TECHNOLOGY NETWORKS
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Mon, 11 May 2020

Turning food waste into useful chitin

NTU researchers used discarded prawn shells and ferment them using sugars from fruit waste, producing high-quality chitin that has a wide variety of uses such as food thickeners and stabilisers. Credit: NTU Singapore

Chitin serves a wide variety of uses in the food industry, such as food thickeners and stabilisers, and as anti-microbial food packaging.

The NTU method is more sustainable than current approaches that chemically extract chitin from marine waste, which is costly, consumes large amounts of energy and leads to chemical by-products that may be discharged in industrial wastewater.

Six to eight million tons of crustacean waste is generated annually around the world, with 45 to 60 per cent of shrimp shells discarded as processing by-products.

Professor William Chen, Director of the Food Science and Technology programme at NTU, who led the research, said, "The huge amount of shrimp waste has sparked industrial interest as it is an abundant source of chitin. However, there is a problem in the extraction method, which is both unsustainable and harmful to the environment.

"Our new method takes crustacean waste and discarded fruit waste and uses natural fermentation processes to extract chitin. This is not only cost-effective, but also environmentally-friendly and sustainable, and helps to reduce overall waste," said Prof Chen.

The team's findings were published in peer-reviewed journal AMB Express in January 2020.

The NTU team tested ten sources of common fruit waste such as white and red grape pomace, mango and apple peels, and pineapple cores, in various fermentation experiments. They found that fruit waste contained enough sugar content to power the fermentation process that breaks prawn shells down into chitin.

They used 'X-ray diffraction' technique to determine the atomic and molecular structure of the chitin created using the new method and its level of purity was measured using a 'crystallinity index'. The extracted crude chitin samples from prawn shells fermented using fruit waste gave a crystallinity index of 98.16 per cent, which compared to commercial chitin samples with an index of 87.56 per cent. The fermentation process using the sugar content from the fruit waste produced higher quality chitin than the commercial one.

Prof Chen said, "Our research has led to not only higher quality chitin but a more sustainable and environmentally-friendly process too. While the various types of fruit waste produced good results, the sugar from the pomace of red grapes had the best performance. This is also a cost-effective method for industry-scale operations, which could be of potential interest to wineries looking to reduce and upcycle their waste."

"This research also echoes NTU's translational research focus, which aims to develop sustainable innovations that benefit society and industry and create a greener future."

Mr Loo Yuen Meng, Managing Director of Integrated Aqua Singapore Pte. Ltd., who was not involved in the study, said, "The latest innovations developed by Prof William Chen from the Food Science and Technology programme at NTU, is an excellent example of how the expertise from an institute of higher learning can be applied to improve operational efficiency of the food industry

while reducing food processing waste. Through a simple fermentation process, the high-value chitin and chitosan recovered from the prawn shells are environment-friendly, and the products can be re-connected back to the food industry."

By leaving chitin to undergo further stages of fermentation the NTU research team also found they could ferment it further into chitosan, which can be used as a growth enhancer in plant fertilisers, or as a controlled drug delivery system in pharmaceutical treatments.

The NTU team is now exploring ways to use chitosan to enhance previous research innovations such as food packaging created using soybean residue or Okara. This could potentially lead to the development of a more durable cellulose film with anti-microbial and anti-bacterial properties.

Prof Chen is also working with multiple companies to spur the adoption of greener industrial methods in producing chitin and chitosan.

Reference

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ASIANSCIENTIST

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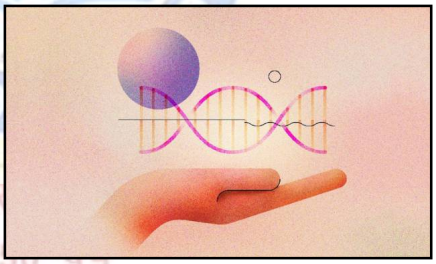
CRISPR helps find alzheimer's-linked protein

Researchers have used a CRISPR-based genetic screen to identify a new gene that could regulate the development of Alzheimer's disease

AsianScientist (May 11, 2020) – Using a CRISPR/Cas9-based system, researchers at the University of Tokyo have screened nearly 20,000 genes to identify a new regulator of a key protein linked to Alzheimer's disease. Their findings have been published in FASEB Journal.



The exact causes of Alzheimer's disease remain unknown, but one of the most popular theories focuses on a protein called amyloid beta. The aggregation—or clumping together—and depositing amyloid beta and another protein called tau are a signature of Alzheimer's disease.

To identify genes that regulate the levels of amyloid beta, the team used CRISPR/Cas9 to systematically delete 87,897 guide RNA sequences, covering a total of 19,150 genes. They then selected cells that showed higher or lower levels of amyloid beta, using next generation sequencing to identify 13 possible genes responsible for the altered levels of amyloid beta.

"We believe this is the first time anyone has used this CRISPR/Cas9 genetic screening technique to look for changes in amyloid beta production," said Dr. Yukiko Hori, a co-first author on the research paper.

By testing each of the 13 candidate genes, the researchers narrowed their focus down to calcium and integrin-binding protein 1 (CIB1), showing that cells without functional CIB1 genes produced abnormally high levels of amyloid beta protein.

"Nobody knows why the deposition of amyloid beta occurs in Alzheimer's disease patients' brains, but we think a starting point of the process could be CIB1," said Professor Taisuke Tomita, leader of the research lab that performed the study.

Gamma secretase is an enzyme that is required to process amyloid beta precursors to the final amyloid beta protein. It is usually found inside the cell but moves to the cell membrane after processing amyloid beta. In healthy cells, CIB1 is not directly involved with processing amyloid beta, but stays attached to gamma secretase both inside cells and at the cell membrane. In cells

without CIB1, gamma secretase spends more time inside the cell and does not move to the membrane. “Our results show that regulating the location of CIB1 and gamma secretase could be a new target for Alzhemier’s disease therapy,” said Hori.

Convinced by their cellular experiments, the research team then decided to search directly for changes in the amount of CIB1 in the brains of Alzheimer’s disease patients. The patient data they examined comes from a long-term project based in the US called the Religious Orders Study and Memory and Aging Project (ROSMAP). The project tracks the health of volunteers who are all professional religious leaders (nuns, priests, brothers) and agree to donate their organs for research after their death.

People diagnosed with early-stage Alzheimer’s disease had lower levels of CIB1 in their brains than healthy people. Paradoxically, people diagnosed with late-stage Alzheimer’s disease had higher-than-healthy levels of CIB1.

“We cannot say for certain why CIB1 is increased in late-stage Alzheimer’s disease. What is important is that in both the early and late stages of Alzheimer’s disease, something is abnormal about the regulation of CIB1,” said Tomita.

Future research will uncover more details about the role of CIB1 in the cellular processes that lead to unhealthy levels of amyloid beta and Alzheimer’s disease. Researchers also plan to use their CRISPR/Cas9 screening technique to search for new genes that affect the other major Alzheimer’s disease protein, tau.

https://www.asianscientist.com/2020/05/in-the-lab/crispr-alzheimers-disease-protein/

NEWS 18

Mon, 11 May 2020

On National Technology Day, PM Hails those at forefront of research to defeat Covid-19

New Delhi: n the National Technology Day on Monday, Prime Minister Narendra Modi hailed all those at the forefront of research and innovation to defeat coronavirus and remembered the "exceptional achievement" of the country's scientists in carrying out the 1998 Pokhran nuclear tests.

The National Technology Day marks the anniversary of the underground nuclear tests conducted in Rajasthan's Pokhran.

On this day in 1998, India successfully conducted first of its five nuclear tests under the then prime minister Atal Bihari Vajpayee.

"On National Technology Day, our nation salutes all those who are leveraging technology to bring a positive difference in the lives of others. We remember the exceptional achievement of our scientists on this day in 1998. It was a landmark moment in India's history," Modi said in a series of tweets.

The tests in Pokhran in 1998 also showed the difference a strong political leadership can make, he said.

The prime minister said, "Today, technology is helping many in the efforts to make the world free from COVID-19. I salute all those at the forefront of research and innovation on ways to defeat coronavirus."

Modi said he hoped that the humankind will keep harnessing technology to create a healthier and better planet.

https://www.news18.com/news/india/on-national-technology-day-pm-hails-those-at-forefront-of-research-to-defeat-covid-19-2614653.html