

Outlook

Tue, 21 April 2020

DRDO lab develops 10,000 face shields for PGI, Chandigarh

Chandigarh, April 22 (IANS): The Terminal Ballistics Research Laboratory (TBRL) here is developing 10,000 full face protective shields for examining infected COVID-19 patients for the PGI Hospital, an official said on Wednesday.

"TBRL is producing 10,000 full face protective shields for the PGI. A total 2,000 face protective shields have been handed over to the PGI and 5,000 will be provided in next 5-6 days," TBRL Director Manjit Singh said in a statement.

TBRL is a lab of the Defence Research and Development Organisation (DRDO).

He said over 700 protective shields were given to the Chandigarh Police on Tuesday.

Director General of Police Sanjay Beniwal lauded the TBRL for providing PPE, sanitizers and face shield to the police.

He appreciated that the face shields are much useful and able to provide full face protection to the police personnel on duty.

The Director said the face shields are single-use as well as multiple-use even its shielding sheet could be replaced easily if required.

In addition, the TBRL is also acting as a facilitator for the procurement of bio-suits developed by another DRDO lab for use by healthcare service providers.

An important DRDO establishment based in Chandigarh, the TBRL is involved in development, production, processing and characterisation of different high explosive compositions, fragmentation studies of warheads, captive flight testing of bombs, missiles and airborne systems and ballistics evaluation of protective system like body armour, vehicle armour and helmets.

<https://www.outlookindia.com/newscroll/drdo-lab-developes-10000-face-shields-for-pgi-chandigarh/1810594>



Wed, 22 April 2020

BrahMos Aerospace helps Jabalpur with PPE Kits, N-95 Masks

BrahMos Aerospace, the Indo-Russian joint venture known the world over for making missiles, has given 500 PPE kits and 2,500 N-95 masks to the Jabalpur district administration in Madhya Pradesh to help in the fight against coronavirus. The missile company's Chief Executive Officer (CEO) Dr Sudhir Kumar Mishra assured that they will provide more assistance to Jabalpur whenever required, a state public relations official said on Tuesday.

"The countrys prestigious BrahMos Aerospace has given 500 personal protective equipment (PPE) kits, 2,500 N-95 masks and 30 thermal scanners to the Jabalpur district administration, he said.

These vital equipment were handed over to Jabalpur Collector Bharat Yadav by the Red Cross Society secretary Ashish Dixit on behalf of the missile manufacturing company, the official said.

The collector also thanked BrahMos Aerospace CEO Sudhir Kumar Mishra, who is an alumnus of Government Jabalpur Engineering College, for the help.

<https://idrw.org/brahmos-aerospace-helps-jabalpur-with-ppe-kits-n-95-masks/#more-225659>



Tue, 21 April 2020

DRDO's AI subsidiary launches SAMPARC App to track Covid-19 patients: Report

After partnering with an Ahmedabad-based textile association to produce 'N-99' masks, DRDO has yet again taken steps to fight the COVID-19 pandemic. According to a report, the Centre for Artificial Intelligence and Robotics (CAIR) – one of DRDO's AI arms – has created a technology-focused solution to track patients who are under quarantine.

A team of 20 scientists have reportedly developed the app over three weeks. It is monikered SAMPARC, short for Smart Automated Management of Patients and Risks. The app has already been offered to various state governments to enable AI-driven measures to slow the outbreak. In fact, it has been hosted exclusively for state governments in India.

With several states including Maharashtra and Gujarat struggling to contain the spread of the virus, this initiative by CAIR will be effective as the country prepares to come out of an extended lockdown.

SAMPARC to track COVID-19 Patients

The technology consists of a server-side application that can be used to keep a check on whether or not patients affected by COVID-19 are respecting quarantine rules.

The app, released in the first week of April, was first offered to the Uttar Pradesh government. Less than a month on, the next version of the software is being readied based on the feedback received from users of the current version. Large scale usage is reportedly expected to happen with newer versions of the app.

According to the report, the app only needs the location of the patient and their photos, and nothing else. Moreover, since it is based on information fed by state officials (and not on crowd-sourced data), it may be more authentic and reliable.

However, an important point to note here is that the app is meant only for tracking patients, and not for contact tracing, which is key to curb the outbreak.

How Does It Work?

SAMPARC's system is anchored around geo-fencing and AI-based automated face recognition, and would enable state officials to keep a track on patients using a map-like interface that displays relevant information. This interface would also be colour-coded to depict hotspots and containment zones in an area.

Its widespread use could also mean that patients may be able to isolate themselves at home during the quarantine period, rather than rely on government facilities. This could greatly reduce the load on state functionaries.

<https://analyticsindiamag.com/drds-ai-arm-launches-samparc-app-to-track-covid-19-patients/>

Firstpost.

Wed, 22 April 2020

DRDO, Ahmedabad textile body to produce high quality cloth to make N-99 masks to fight coronavirus

The Ahmedabad Textile Industry Research Association (ATIRA) in collaboration with the Defence Research and Development Organisation has produced a high-quality cloth to make masks of 99 per cent filter efficiency, the highest among all kind of masks available in the country.

ATIRA is developing the cloth material for the preparation of five lakh 'N-99 masks', which it says would be better in quality than the N-95 masks that have been in huge demand of late in the fight against coronavirus.

While the N-95 respirator is able to filter 95 per cent of the very small airborne particles, the efficiency of the N-99 mask to filter such particles will be 99 per cent.

The Ahmedabad-based textile research association claims it is the only facility in the country to produce filter cloth for N-99 masks.

"Ninty nine per cent filtration is the highest among all types of masks available in India. There were many challenges initially, but with the untiring efforts of our highly competent scientists and research technicians, we were able to successfully develop this cloth and produce it on large scale, ATIRA director Pragnesh Shah told PTI.



The N-95 respirator is able to filter 95 per cent of the very small airborne particles. Representational image

The N-99 mask has five layers out of which two are of nanomesh which are inside and three outer layers are of cloth, he said.

"Currently, the filter cloth is manufactured at a state-of-the-art facility of ATIRA as per the WHO guidelines. The Government of India and the Defence Research and Development Organisation (DRDO) have recognised the efficiency of these masks, Shah said.

The high-quality cloth for over 3.5 lakh masks has already been handed over to DRDO, while production of more such material is going on, said ATIRA deputy director Deepali Palawat, who is heading the project.

"This project is the finest example of collaboration and coordination with the government. It was difficult to procure raw materials during the lockdown. The government has moved mountains to help us procure the raw materials and provided full support during the lockdown," she said.

Palawat said it was difficult to convert the research centre into a production unit but a 15-member ATIRA staff, including scientific officers and technicians, are working round-the-clock to fulfil DRDO's order of five lakh masks.

"The DRDO is getting these masks ready for health ministry officials, doctors of the All India Institute of Medical Sciences (AIIMS) and top defence cadre, she said.

"We are happy that we are able to help the Indian government and people during such unprecedented times. Our partnership with DRDO has yielded something noteworthy for the country," ATIRA council member Punit Lalbhai said.

ATIRA is a renowned body set up here in 1947 by textile mills as an autonomous non-profit R&D institution.

Its activities cover various aspects, from fibre to finished fabrics in traditional textiles as well as technical textiles in the arena of geo-textiles, nano web technology and composites, as per the association's website.

<https://www.firstpost.com/health/drdo-ahmedabad-textile-body-to-produce-high-quality-cloth-to-make-n-99-masks-to-fight-coronavirus-8285651.html>

THE ECONOMIC TIMES

Wed, 22 April 2020

Made from cloth for employees' uniforms, Northern Railways to deliver its first order of 2,000 masks

With the government making wearing of masks mandatory in public and at the workplace, these come at a cost Rs 5.94 each against the market price of Rs 7.50 and could well serve to meet the rising demand of masks in the coming days.

New Delhi: Having made face masks out of fabric meant for employees' uniforms, the Northern Railways has bagged its first order of 2,000 masks that are washable, cheap and even available in orange, the colour worn by trackmen on duty.

A Delhi Residents' Welfare Association is the Northern Railways' first paying client and received the first batch of these masks on Tuesday.

With the government making wearing of masks mandatory in public and at the workplace, these come at a cost Rs 5.94 each against the market price of Rs 7.50 and could well serve to meet the rising demand of masks in the coming days.

Its USP of being a multi-use mask gives it a leg up from the ordinary masks which have to be disposed off after every use, making it an expensive affair for any household.

Since the priority for railways is to cater to the needs of its employees, the masks made by the zone will first be distributed among its 1.3 lakh employees.

The workshops under the zone have already manufactured 35,000 masks, officials said, adding that by May end the figure is likely to touch a lakh.

"They are such a hit now that some RWA's have shown interest in them and are placing orders. They are made of surplus cloth meant for uniforms for our employees which remained unused. We have received orders from a RWA and we will be supplying them with the reusable masks," Arun Arora, Principal Chief Mechanical Engineer of Northern Railway told.

The zone will be fabricating 10,000 such masks every week, some of which will be given to railway employees while others will be given to associations which are requesting them on a payment basis, he said.

The Jagadhri Workshop of northern railway has in fact also made disposable masks for the railways' medical staff, the cloth for which is being bought separately.

The washable masks are currently in use in the five divisions of northern railway, RDSO Lucknow and by its own workshop staff, besides the railway hospitals where the disposable ones are being used.

"We want people to know that we are making these masks, that they are available and we will ramp up production if needed," said Arora.

However, it is not just masks that the zone is manufacturing to augment the government's efforts to fight coronavirus, specially in areas where there is major shortfall.

It has produced DRDO approved coveralls for medical staff and hand sanitisers for their staffers.

While the railways' coveralls come for Rs 447, similar pieces in the market are pegged at Rs 808. Similarly, railways have produced sanitisers for Rs 119 for a litre, while in the open market it costs Rs 468.

Developed at the Jagadhri Workshop, the coveralls were approved by DRDO within five days.

<https://economictimes.indiatimes.com/industry/transportation/railways/made-from-cloth-for-employees-uniforms-northern-railways-to-deliver-its-first-order-of-2000-masks/articleshow/75269988.cms>

