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# समाचार पत्रों से चयित अंश Newspapers Clippings

A Daily service to keep DRDO Fraternity abreast with DRDO  
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### पाकिस्तान के ड्रोन षड्यंत्र का अंत करेगा DRDO का बनाया एंटी ड्रोन सिस्टम

पाकिस्तान की ओर से ड्रोन के जरिए हेरोइन व हथियार भेजने के कुप्रयासों को बीएसएफ अब आसानी से विफल करने में सक्षम होगी। रक्षा अनुसंधान एवं विकास संगठन (डीआरडीओ) ने ऐसा एंटी ड्रोन सिस्टम विकसित किया है, जो पाकिस्तान के ड्रोन षड्यंत्र का अंत कर देगा। आए दिन बीएसएफ के जवान पाकिस्तान की ओर से भेजे गए ड्रोन नष्ट करने या उन्हें लौटाने में सफल रहते हैं, लेकिन इसके बावजूद बहुत बार दुश्मन अपनी साजिश में कामयाब हो जाते हैं और बड़ी मात्रा में नशीले पदार्थ हथियार भारत पहुंच जाते हैं। अब ऐसा नहीं हो पाएगा। इस एंटी ड्रोन सिस्टम से ध्वनि रहित ड्रोन भी पकड़ में आ सकेंगे।

#### सेंसर आधारित तकनीक पर करेगा काम

यह सिस्टम सेंसर आधारित तकनीक पर काम करेगा। इसे जल्द ही भारत-पाक सीमा लगाया जाएगा। अभी इसका परीक्षण चल रहा है। इसे सीमा पर बड़े स्तर पर लगाने के लिए भारत सरकार कुछ बड़ी कंपनियों से अनुबंध कर चुकी है। पंजाब से सटी पाकिस्तान की सीमा पर लगने वाला यह पहला एंटी ड्रोन सिस्टम होगा।

#### जम्मू में एयरबेस पर हमले के बाद महसूस हुई जरूरत

दरअसल, जम्मू-कश्मीर में एयरबेस पर आतंकी हमले के बाद एंटी ड्रोन सिस्टम की जरूरत महसूस हुई थी। आतंकीयों ने विस्फोटक गिराने के लिए छोटे ड्रोन का इस्तेमाल किया था। इसके बाद से सीमा पार से ड्रोन गतिविधियां बढ़ रही थीं। यह अलग बात है कि चौबीस घंटे सीमा पर तैनात बीएसएफ के प्रहरियों ने इन ड्रोन को आगे नहीं आने दिया। एंटी ड्रोन सिस्टम सीमा पार से आने वाले किसी भी ड्रोन को नष्ट करने में सक्षम है। बीएसएफ के अधिकारियों के अनुसार डीआरडीओ द्वारा विकसित की गई इस तकनीक का सघन परीक्षण चल रहा है। सुरक्षा से जुड़ा मामला होने के कारण बीएसएफ के अधिकारी सिस्टम के बारे में अधिक जानकारी साझा नहीं कर रहे हैं, लेकिन वह मानते हैं कि ड्रोन हमलों को रोकने में यह तकनीक कारगर साबित होगी। हालांकि परीक्षण के दौरान पूरी तरह आश्वास्त होने के बाद इस सिस्टम को सीमा पर लगाया जाएगा।

## तकनीक में आया बदलाव

ड्रोन की तकनीक में भी बीते कुछ समय में काफी बदलाव आ गया है। पहले तेज आवाज करने वाले ड्रोन थे, लेकिन अब ध्वनि रहित ड्रोन भी सारपार से भेजे जा रहे हैं। कोहरे के सीजन में ड्रोन दिखाई भी नहीं देते, लेकिन इस अत्याधुनिक एंटी ड्रोन सिस्टम से दुश्मन के ड्रोन बच नहीं सकेंगे। 29 अप्रैल, 2022 को अमृतसर और सितंबर 2019 को तरनतारन में गिराए गए ड्रोन।

## दस मिनट में कहीं भी लगा सकेंगे

नया सिस्टम दस मिनट में अंतरराष्ट्रीय सीमा में स्थापित किया जा सकेगा। इसे कहीं भी लाना और ले जाना आसान होगा। यह एक ही समय में एक से अधिक ड्रोन को पकड़ने में सक्षम है।

## ड्रोन नष्ट करने की प्रमुख घटनाएं

नौ मई, 2022 को बीएसएफ ने अमृतसर के गांव भरोवाल में ड्रोन को नष्ट कर दिया। इसके साथ साढ़े दस किलोग्राम हेरोइन बंधी हुई थी। 29 अप्रैल को बीएसएफ ने अमृतसर सेक्टर के गांव दाउके कलां में पाकिस्तान ड्रोन को नष्ट किया, लेकिन इससे कुछ बरामद नहीं हुआ। सात मार्च को बीएसएफ ने फिरोजपुर सेक्टर में ड्रोन को गिराया। इससे सवा चार किलोग्राम हेरोइन मिली। सितंबर 2019 में ड्रोन से पांच एके-47 व इसकी 16 मैगजीन, चार पिस्टल व आठ मैगजीन, नौ हैंड ग्रेनेड, पांच सेटेलाइट फोन और 10 लाख रुपये की जाली भारतीय करंसी भेजी गई थी। यह अब तक की सबसे बड़ी खेप है।

## ये प्रयास भी हो रहे

इसी वर्ष मई में बीएसएफ ने एक श्वान को भी सीमा पर तैनात किया है। फूटी नाम की यह मादा श्वान 500 मीटर से अधिक दूरी पर ड्रोन की आवाज सुनकर अलर्ट कर सकती है। बीएसएफ के जवानों को ड्रोन को हवा में नष्ट करने के लिए विशेष प्रशिक्षण दिया जा रहा है। सीमा पार से आ रहे ड्रोन की जानकारी देने वाले व्यक्ति को बीएसएफ ने एक लाख रुपये पुरस्कार देने की भी घोषणा कर चुकी है।

<https://m.jagran.com/lite/punjab/amritsar-drdo-anti-drone-system-will-end-pakistan-drone-conspiracy-jagran-special-23082084.html>



सोमवार, 19 सितंबर 2022

## भारत की रक्षा व सुरक्षा जरूरतों में मदद करेगा आइआइटी बीएचयू, डीआरडीओ के उत्कृष्टता केंद्र को रक्षा मंत्रालय की हरी झंडी

भारतीय प्रौद्योगिकी संस्थान, काशी हिंदू विश्वविद्यालय में डीआरडीओ के सहयोग से उद्योग अकादमी उत्कृष्टता केंद्र स्थापित करने के लिए रक्षा मंत्रालय से हरी झंडी मिल गई है। इसके लिए रक्षा मंत्रालय व आइआइटी-बीएचयू के बीच जल्द ही समझौता होगा। आत्मनिर्भर भारत योजना के तहत प्रधानमंत्री नरेन्द्र मोदी की पहल पर यह प्रक्रिया शुरू की गई है। इसके माध्यम से देश आत्मनिर्भर बनेगा। इसके साथ ही यहां पर इसरो की मदद से एक और केंद्र खोला गया है। इसमें रक्षा क्षेत्र से जुड़े उपकरणों की जांच की जा



रही है। रायपुर की एक कंपनी बुलेट प्रूफ जैकेट बनाई है, जिसकी गुणवत्ता की यहां पर जांच की जा रही है। संस्थान प्रशासन का कहना है कि रक्षामंत्री राजनाथ सिंह ने काशी में उद्योग अकादमी उत्कृष्टता केंद्र स्थापित करने की स्वीकृति प्रदान की है। इसके साथ ही यह केंद्र स्थापित करने की कवायद भी तेज हो गई है। समझौता होने के बाद इसे जल्द चालू कर दिया जाएगा।

इस केंद्र के खुलने के बाद भारत की रक्षा व सुरक्षा जरूरतों को अपने ही देश में पूरी करने में सहायता मिलेगी। साथ ही भविष्य की प्रौद्योगिक विकास के लिए अनुसंधान भी बढ़ेगा। यहां प्रारंभिक सत्र में कार्य किए जाएंगे। इसमें कार्यक्षेत्र, पाउडर धातुकर्म, कार्यात्मक इलेक्ट्रॉनिक सामग्री व उच्च शक्ति माइक्रोवेव स्रोत व उपकरणों के तहत अनुसंधान क्षेत्रों में जिन समस्याओं में समाधान होगा, उसमें कार्य तेजी से किया जाएगा। बताया जा रहा है कि गणित ऊर्जा भेदक, कवच सामग्री, एयरो-इंजन, बूस्टर मोटर केसिंग, भिन्न सामग्री में शामिल होने, स्वदेशी एडिटिव मैम्पूफैक्चरिंग ग्रेड धातु पाउडर की मुद्रण क्षमता के संश्लेषण से संबंधित कार्य होंगे। हाई पावर माइक्रोवेव जिसमें प्लाज्मा हीटिंग, हाईपावर पार्टिकल एक्सेलेरेटर, पावर बीमिंग, सीमिति थर्मोन्यूक्लियर फ्यूजन, प्लाज्मा जेनेरेशन और डायरेक्ट एनर्जी वेपनरी शामिल है। यह केंद्र लक्ष्य अनुसंधान को प्रेरित तो करेगा ही साथ ही रक्षा क्षेत्र की सामग्री को भी बनाने में मदद करेगा।

<https://www.jagran.com/uttar-pradesh/varanasi-city-iit-bhu-to-help-india-defense-and-security-needs-drdo-center-of-excellence-gets-green-signal-from-ministry-of-defense-23083471.html>

## Defence News

## Defence Strategic : National/International



पत्र सूचना कार्यालय  
भारत सरकार

रक्षा मंत्रालय

सोमवार, 19 सितंबर 2022

रक्षा मंत्री श्री राजनाथ सिंह ने मिस्र के राष्ट्रपति श्री अब्देल फतह अल-सीसी से काहिरा में मुलाकात की

दोनों पक्ष सैन्य सहयोग को और मजबूत करने और संयुक्त प्रशिक्षण, रक्षा सह-उत्पादन और उपकरणों के रखरखाव पर ध्यान केंद्रित करने पर सहमत हुए

रक्षा मंत्री श्री राजनाथ सिंह ने 19 सितंबर, 2022 को काहिरा में मिस्र के राष्ट्रपति श्री अब्देल फतह अल-सीसी से मुलाकात की। रक्षा मंत्री का गर्मजोशी से स्वागत करते हुए राष्ट्रपति अल-सीसी ने बताया कि भारत

और मिस्र के बीच ऐतिहासिक रूप से द्विपक्षीय संबंध अच्छी तरह से स्थापित हैं। उन्होंने दोनों देशों के बीच सैन्य सहयोग की सराहना करते हुए कहा कि समझौता ज्ञापन पर हस्ताक्षर रक्षा क्षेत्र में एक बड़ी उपलब्धि है। दोनों नेताओं ने सैन्य सहयोग को और मजबूत करने और संयुक्त प्रशिक्षण, रक्षा सह-उत्पादन और उपकरणों के रखरखाव पर ध्यान केंद्रित करने पर सहमति व्यक्त की।

उन्होंने रक्षा उत्पादन की आवश्यकता पर बल दिया और उस संबंध में विशिष्ट प्रस्तावों पर चर्चा की। श्री राजनाथ सिंह ने आतंकवाद के खिलाफ मिस्र द्वारा उठाए गए कदमों की सराहना की। राष्ट्रपति सिसी ने इस बात पर जोर दिया कि आतंकवाद के खतरे का मुकाबला करने के लिए भारत और मिस्र को विशेषज्ञता और सर्वोत्तम प्रथाओं का आदान-प्रदान करने की आवश्यकता है। रक्षा मंत्री ने यह स्वीकार किया कि मिस्र अफ्रीका में भारत के सबसे महत्वपूर्ण व्यापारिक भागीदारों में से एक है और दोनों देशों में द्विपक्षीय व्यापार में काफी विस्तार हुआ है। उन्होंने भारत और मिस्र के बीच बहुपक्षीय मंचों में घनिष्ठ सहयोग पर संतोष व्यक्त किया। श्री राजनाथ सिंह ने नवंबर 2022 में कॉप 27 की सफल मेजबानी के लिए शुभकामनाएं दीं।

<https://www.pib.gov.in/PressReleasePage.aspx?PRID=1860685>



**Press Information Bureau**  
**Government of India**

**Ministry of Defence**

*Mon, 19 Sept 2022 7:01 P.M*

## **Raksha Mantri Shri Rajnath Singh Calls on President of Egypt Mr Abdel Fattah El-Sisi in Cairo**

**Both sides agree to further strengthen military cooperation and focus on joint training, defence coproduction & maintenance of equipment**

Raksha Mantri Shri Rajnath Singh called on President of Egypt Mr Abdel Fattah El-Sisi in Cairo on September 19, 2022. The Raksha Mantri was received very warmly by President El-Sisi, who pointed out that bilateral relations between India and Egypt are well-established through history. He expressed appreciation that military-to-military cooperation between both the countries has reached a new level and that signing of MoU on defence cooperation is a major achievement.

Both leaders agreed to further develop military cooperation and focus on joint training, defence coproduction and maintenance of equipment. They emphasised the need for coproduction and to discuss specific proposals in that regard. Shri Rajnath Singh expressed appreciation for the firm stand taken by Egypt against terrorism. President Sisi emphasised that there is need for India & Egypt to exchange expertise and best practices in countering the threat of terrorism. The Raksha Mantri acknowledged that Egypt is among the most important trading partners of India in Africa and that bilateral trade has expanded significantly. He noted with satisfaction the close

cooperation in multilateral forums between India and Egypt. Shri Rajnath Singh conveyed his best wishes for the successful hosting of COP27 in November 2022.

<https://www.pib.gov.in/PressReleasePage.aspx?PRID=1860660>



**Press Information Bureau**  
**Government of India**

**Ministry of Defence**

*Mon, 19 Sept 2022 3:28 P.M*

## **Shri Vijoy Kumar Singh Assumes Charge as Secretary, Ex-Servicemen Welfare**

Shri Vijoy Kumar Singh assumed charge as Secretary, Ex-Servicemen Welfare, Ministry of Defence on September 19, 2022. Shri Singh is a 1990-batch IAS officer of Punjab cadre, who has an experience of more than 32 years in administration. Shri Vijoy Kumar Singh recently served as Special Secretary in Ministry of Textiles. Prior to this appointment there, he had served as Joint Secretary in Department of Personnel & Training. He had extensive interactions with serving as well as retired Armed Forces personnel during his career in Punjab.

<https://www.pib.gov.in/PressReleasePage.aspx?PRID=1860557>



*Tue, 20 Sept 2022*

## **India's 1st Prototype Of 'Mountain Tank' To Be Rolled Out By 2023; L&T Says Selected As Development Partner**

India's search for a light tank could end soon as L&T revealed that it is a partner in the 'Zorawar Program' aimed at building light tanks for the Indian Army, with the first prototype expected to be unveiled in late 2023. Long on the lookout for a light tank, the Indian Army recently began Project Zorawar (roughly translated as "project powerful"), which calls for the introduction of homegrown light tanks to facilitate quicker deployment and movement in high-altitude battle zones. L&T is now selected as a development partner for the homegrown light tanks, according to Jayant D Patil, senior executive vice-president for the defense at L&T, who made this statement to Janes on September 16.

While the company is involved in the platform's development, he said that L&T is not assured a role in the tank's production phase. Patil explained that under the Indian process,



development and manufacturing contracts could not be combined. “Developed equipment has to undergo field evaluation trials and emerge successful for the induction clearance, and then [the] production ordering process begins,” he added. Patil did not go into detail about L&T’s involvement in the project. However, Janes was informed by a senior source at the Defence Research and Development Organisation (DRDO) that L&T is working with the state-owned organization on the development project.

“We [DRDO and L&T] are planning to disclose a prototype by the end of 2023,” the source added. The project is overseen by the Combat Vehicles Research and Development Establishment(CVRDE) of the DRDO.

### India’s Quest to Acquire Light Tank

The development of light tanks for the Indian Army was announced by the Modi government on March 3, 2022. This move was made under the Make-I category of the 2020 Defence Procurement Procedure (DPP). The Indian Army sensed a compelling need to put light tanks into service to counter China and establish operational superiority in high-altitude areas like Ladakh. After the border conflict with China in the summer of 2020, India initially considered purchasing the Russian light tank Sprut SDM1.

A Request for Information (RFI) for 350 light tanks in the 25-ton weight category was released by the Directorate General of Mechanized Forces in April 2021 on behalf of the Ministry of Defence (MoD). However, the country has now decided to develop its own light tank rather than import them. The production and upkeep of India’s imported fleet of tanks had been impeded by the interruption in the world supply chain for defense-related components brought on by the ongoing Russia-Ukraine conflict. India must therefore create a light tank for the Indian Army domestically.

Indian Army’s Lt Col JS Sodhi (Retd) told the EurAsian Times, “Light tanks can tremendously enhance the combat potential in the High Altitude Areas (HAA) as they can be tailor-made to the existing infrastructure like bridges and roads and will have great maneuverability to give a better combat edge to the Indian Army.” “Since they will be tailor-made for the existing infrastructure, they can be inducted in a short time frame. Timely induction is of immense importance due to the precarious geopolitical situation that India is located in as it has hostile neighbors in its eastern and western borders,”

### The China Factor

The Indian Army had to deploy bigger tanks like the T-72 and the T-90 after the deadly border clash with China. The Russian-origin T-90 and T-72 tanks weigh about 46 tons. Arjun Mk 1A, India’s indigenous main battle tank, weighs around 68.5 tons. These tanks are not typically designed for use in high-altitude settings. Instead, they work well in the plains and deserts. In a similar line, Sodhi said, “India requires light tanks for operations in High Altitude Areas (HAA) in its arsenal as the existing tanks being used are very heavy as their primary role is to take part in operations in deserts and plains.”

“Because of the heavy weight, these tanks are difficult to be used in mountainous areas as maneuverability and transportation from one place to other is extremely restricted, hence their full combat effectiveness and efficacy can’t be utilized to the fullest,” he added. China, on the other hand, is thought to have many highly modern, cutting-edge tanks that are employed in combat as a blend of medium and light tanks with high power-to-weight ratios. In the last two years, Beijing has positioned the most recent ZTL-11 wheeled armored personnel carriers, CSK series assault vehicles, and ZTQ 15 (Type 15) third-generation modern light tanks along the LAC in Eastern Ladakh.

India’s light tank development has advanced due to the operational difficulties of using large main battle tanks (MBTs) in mountain warfare. For instance, China’s ZTQ-15 light tanks can easily zoom through mountain passes while Indian armored battalions struggled to transport their heavy T-72s across terrain up to 17,500 feet. Maj Gen Harsha Kakar (Retd) previously told the EurAsian Times that “considering the terrain, lightweight tanks are best suited. Strategically it will enhance defensive and offensive options. A clear signal to the Chinese; we mean business and are no pushovers.”

Sodhi suggested that “Zorawar, when inducted in the Indian Army, will prove to be a game changer in India’s standoff with China. Armored firepower, when utilized aptly and appropriately, can break havoc as its awe and shock action pulverizes the enemy apart from the immense damage caused by a tank’s firepower.

He further highlighted that “Zorawar could have a better power-to-weight ratio than the Type 15, also called ZTQ-15 light tanks currently used by the PLA Army.” The Indian Army is looking for a light tank with a 25-ton weight limit and the same firepower as its traditional tanks. In addition, the military wants them to be equipped with loitering weapons, artificial intelligence (AI), tactical drone integration for surveillance to offer situational awareness, and an active defense system.

<https://eurasianimes.com/indias-1st-prototype-of-mountain-tank-to-be-rolled-out-by-2023/>



*Tue, 20 Sept 2022*

## **MIG-21 Srinagar Squadron to Retire on Sept 30**

The Indian Air Force (IAF) is sticking to its schedule of phasing out the ageing MiG-21 fighter jets and is all set to retire its Srinagar-based Squadron Number 51 on September 30. Known as ‘Sword Arms,’ this squadron became a household name when one of its pilot Wing Commander (now Group Captain) Abhinandan Varthaman shot down a Pakistani F-16 in an aerial combat three years back. The IAF has planned to retire all its remaining four squadrons (one squadron has 18-20 jets) by 2025 and Varthaman’s squadron is one of them. The MiGs were inducted into

service in the early 1960s and over subsequent years several mishaps took place involving this jet thereby raising a question mark about its flight safety record.

Varthaman was awarded Vir Chakra for his action on February 27, 2019 when Pakistan Air Force launched an aerial attack in Kashmir a day after the IAF destroyed terrorist infrastructure in Balakot in retaliation to the killing of 40 Central Reserve Police Force(CRPF)personnel on February 14 in Pulwama. Varthaman successfully chased away an intruding F-16 and shot it down in aerial combat. He crossed the border and his MiG-21 was shot down by the Pakistanis and captured. The IAF pilot was released and returned to India two days later. The IAF inducted 874 Mig-21s since 1963 and this plane is the longest serving aircraft in its inventory. Till now, nearly 400 mishaps have taken place involving this aircraft with 200 pilots and 60 civilians losing their lives. In the last seven months, six accidents occurred thereby putting a question mark over the safety record of these jets. In fact, the plane was called “Flying Coffin” at one time thereby flagging growing concerns over its safety record.

The IAF has over the years started phasing out MIG-21, which at one point of time formed the mainstay of India's air defence. The planes were upgraded from time to time to ensure operational readiness and fill the gap with delays in procurement of the latest jets. Incidentally, Russia and erstwhile Soviet Union stopped flying the MIG-21s besides Bangladesh and Afghanistan. The phase out plan in the last few years has seen the frontline SU-30s replacing the MIG-21s. With the induction of nearly 100 indigenously designed and manufactured Tejas light combat aircraft(LCA), the IAF will ensure full readiness in the next few years.

Faced with depleting fighter jet squadron fleet strength, the IAF now plans to manufacture multi-role aircraft within the country with foreign collaboration. At least 114 jets are planned to be manufactured here under the Strategic Partnership policy. The proposed cost of the deal is more than 15 billion dollars. The US, Russia, France and Sweden are likely to pitch for the deal with their F-16 and F-18, MIG-25, Rafales and Gripen jets respectively.

<https://www.dailypioneer.com/2022/india/mig-21-srinagar-squadron-to-retire-on-sept-30.html>



सोमवार, 19 सितंबर 2022

## ऑपरेशनल तैयारियों को और मजबूत करने पर जोर, इंडियन आर्मी ने बंदूक-मिसाइल के लिए जारी किए टेंडर

भारतीय सेना को भविष्य में हर संकट और स्थिति से बेहतर तरीके से निपटने के लिए लगातार मजबूत किया जा रहा है. सेना ने बंदूक (Gun), मिसाइल (Missile) और ड्रोन के इमरजेंसी खरीद के लिए टेंडर जारी किए हैं. स्वदेशी हथियारों (Indigenous Weapons) के साथ भविष्य के युद्ध लड़ने

के मकसद से भारतीय सेना ने घरेलू निर्माताओं से हथियार और कई अन्य प्रणालियों को खरीदने के लिए टेंडर जारी किए हैं. सरकार ने इसी साल अगस्त महीने में ऑपरेशनल तैयारियों को और मजबूत बनाने के लिए रक्षा बलों को इमरजेंसी अधिग्रहण शक्तियों के तहत अहम वेपंस सिस्टम को खरीदने की इजाजत दी थी.

### स्वदेशी हथियारों और उपकरणों के लिए टेंडर

भारतीय सेना ने कहा कि हमने भारतीय रक्षा उद्योग को इमरजेंसी खरीद के लिए अहम रक्षा उपकरणों की पेशकश करने के लिए आमंत्रित किया है. बंदूकें, मिसाइल, ड्रोन, काउंटर-ड्रोन, संचार और ऑप्टिकल सिस्टम, इंजीनियरिंग उपकरण और वैकल्पिक ऊर्जा संसाधनों के लिए प्रस्ताव रखे जा रहे हैं. इंडियन आर्मी के मुताबिक ये प्रक्रिया सीमित समय सीमा पर आधारित होगी.

### 1 साल के अंदर देनी होगी डिलीवरी

भारतीय सेना (Indian Army) की ओर से कहा गया है कि इस प्रक्रिया के तहत भारतीय उद्योगों के लिए खरीद विंडो 6 महीने के लिए खुली रहेगी. इसके साथ ही अनुबंध पर साइन करने के एक साल के अंदर ही भारतीय उद्योगों को उपकरणों और स्वदेशी हथियारों की डिलीवरी देनी होगी. सेना ने ये भी कहा है कि खरीद की पूरी प्रक्रिया खुले टेंडर पूछताछ पर ही आधारित होगी. बता दें कि सेना की जरूरतों को पूरा करने के लिए पिछले कुछ वक्त से मेक इन इंडिया (Make in India) के तहत सैन्य उपकरणों और हथियारों को विकसित करने पर जोर दिया जा रहा है.

[https://www.abplive.com/news/india/defence-news-indian-army-tenders-for-buying-guns-missile-drones-from-domestic-manufacturers-for-wars-2218878/amp#amp\\_tf=From%20%251%24s&aoh=16636429307654&referrer=https%3A%2F%2Fwww.google.com](https://www.abplive.com/news/india/defence-news-indian-army-tenders-for-buying-guns-missile-drones-from-domestic-manufacturers-for-wars-2218878/amp#amp_tf=From%20%251%24s&aoh=16636429307654&referrer=https%3A%2F%2Fwww.google.com)

**mint**

Sun, 18 Sept 2022

## Indian Army Invites Defence Firms to Offer Critical Equipment for Procurement

The Indian Army on 18 September invited Indian defence industry to offer critical defence equipment for emergency procurement. For this, proposals have been fielded for guns, missiles, drones, counter-drone, loiter amunition, communication and optical systems, specialist vehicles, engineering equipment and alternative energy resources. "Indian Army invites Indian defence industry to offer critical defence equipment for emergency procurement. Proposals fielded for guns, missiles, drones, counter-drone, loiter munition, communication & optical systems, specialist Vehicles, engg equipment & alt energy resources," Indian Army said.

Apart from this, the Indian Army added that the process of procurement will be based on compressed timelines, wherein the procurement window will be open to Indian Industry for 6 months and the industry would be expected to deliver equipment within a year of signing the contract. Procurement cases will be based on Open Tender Enquiry, the force said. Earlier in the

day, the Vice Chief of the Army Staff (VCOAS) Lt Gen BS Raju visited various Defence Industries and Research Laboratories including Missile Strategic Systems, Defence Research Development Lab, Centre for High Energy Systems & Sciences, Research Centre Imarat and Bharat Dynamics Ltd at Hyderabad.

Lt Gen BS Raju was briefed on latest research, development and manufacturing projects being undertaken by the establishments. In June this year, the Defence Acquisition Council cleared capital acquisition proposals of the Armed Forces amounting to ₹76,390 crore to 'Buy (Indian)', 'Buy & Make (Indian)' and 'Buy (Indian-IDDM)' categories

<https://www.livemint.com/news/india/indian-army-invites-defence-firms-to-offer-critical-equipment-for-procurement-11663504328469.html>



*Tue, 20 sept 2022*

## **PM'S Military Vision is Boosting Armed Forces**

*By Anil Gupta*

Prime Minister Narendra Modi, the first post-Independence born Prime Minister of India, is working on a mission mode ever since he assumed the charge of the government in 2014. He has taken historic decisions to redefine the political, economic and military landscape of India, which was viewed globally as a weak nation not due to its potential and capabilities, but due to a lack of strong political leadership. India's voice was often unheard on global platforms, while internally we had a government that was running through remote control.

In 2013, the whole nation viewed with shock the ugly episode of an angry Rahul Gandhi tearing in public an ordinance brought in by the Manmohan Singh-led UPA government. Rahul Gandhi was not even the president of the ruling Congress Party. The UPA government was mired in rampant corruption at the highest level, while the Prime Minister was unable to control his ministers. It was also plagued with the disease of "decision paralysis." It had a natural impact at the international level and India's global image was badly hit.

But with the arrival of Narendra Modi things began to change globally. Today, India has regained its status as Global Guru and its views on all important issues are not only heard but respected. PM Modi has a firm belief in the professionalism and supremacy of the Indian Armed Forces. He is a firm believer in the fact that no nation can aspire to be a global power without strong and capable armed forces. In 2014, he inherited the armed forces which were suffering from "hollowness". The equipment held by the armed forces was not only critically low but also suffered from obsolescence. The armed forces were crying for modernisation but the UPA government paid no heed. Many defence contracts signed by the then government were mired in the charges of corruption putting a halt to any new contracts that were needed for modernisation.

At one stage, the then Defence Minister AK Antony had announced even lack of funds as one of the reasons. Modi understood that India can ill afford high import budgets to maintain the armed forces. When Modi took over as the Prime Minister, he had a clear vision for the Indian Armed Forces. To put it simply, he wanted to transform the Indian military from a mere “force” to a military “power”, shedding its colonial legacy. He knew that it would not be easy for him to change the deep-rooted mindset of customs and traditions of the armed forces and carry them along with his vision of not only “Indigenisation” but “Indianisation” as well. He, therefore, will have to tread a very cautious path.

From “Agnipath” to “INS Vikrant”, the various decisions taken by the government are a continuum of Modi’s military vision. In his first address to the Combined Commanders Conference in 2014, he said, “the world was looking at India with renewed interest, confidence and excitement and there was a universal current of expectation from India to emerge not only as one of the poles of the global economy but also as one of the anchors of global and regional security.” While talking of future threats, the PM said, “The threats may be known but the enemy may be invisible. Domination of cyberspace will become increasingly important making its control as critical as that of land, sea and air.” He touched upon the importance of the integration of the armed forces, reforms in procurement processes, domestic development and production of defence equipment, long-term threat assessment and “Digital Armed Forces.”

He also wanted to transform the armed forces. Slowly, the PM’s vision began to be given practical shape. Acquisition of Rafale fighter jets, rolling out of a new defence procurement policy, the delegation of financial powers to the Vice Chiefs of the three forces, the creation of a new Department of Military Affairs under the Ministry of Defence, appointment of the Chief of Defence Staff with powers of a secretary of the government of India, modernisation of armed forces and mandate for theatrisation were few notable and welcome decisions.

The cross-border operations across the LOC and air strikes deep inside the enemy territory symbolised the growing strength and the confidence of Indian Armed Forces under the Modi government. Aatmanirbhar Bharat and self-reliance in defence forces is another initiative of the Modi government and part of Modi’s military vision. Construction of a defence corridor, ban on import of certain military equipment, indigenous production of 108 military equipment, and export of military hardware, including Brahmos, are the giant steps taken by the Modi government towards self-reliance. The list of equipment to be produced indigenously include sensors, simulators, sonars, radars, assorted weapons, helicopters, next-generation corvettes, AWACS, tank engines, combat vehicles, fourth-generation anti-tank missile systems, medium-range surface-to-air missile system, artillery guns, including self-propelled guns.

Modi unfolded a major component of his military vision while addressing the Combined Commanders Conference at Kevadia in Gujarat in 2021. This conference was unique in the sense that it included the junior and non-commissioned officers for the first time. But the attendees were chosen with a purpose. Modi wanted his vision to flow right down to the rank and file. In his valedictory address, the Prime Minister stressed the importance of enhancing indigenisation



in the national security system, not just in equipment and other military hardware but also in the doctrines, procedures, and customs practiced in the armed forces.

Modi revealed his vision of “Indianisation” in front of a very carefully chosen audience. He also revealed another issue very close to his heart and very vital for India to transform from a “force” to a “power”. He emphasized the need to optimize manpower planning in both military and civilian parts of the National security architecture. He advised the Services to rid themselves of legacy systems and practices that have outlived their utility and relevance.

No self-respecting nation can claim to be a world power while carrying colonial baggage. The armed forces have begun the process. Though, many people particularly the opposition parties, which find fault with every action of the government, are questioning the government’s intent and terming it as the “saffronisation” of the armed forces. To my mind, such comments are the result of a myopic vision and an attempt at politicising the issues related to national security for electoral gains and appeasement.

Modi’s military vision is fructifying. PM himself acknowledged the same when he acclaimed the armed forces from the rampart of the Red Fort during his address to the nation on 15th August this year. He said, “For the first time after 75 years, the Made in India cannon has saluted the Tiranga. Will there be any Indian who will not be inspired by this sound?” He also lauded and saluted the armed forces for voluntarily embracing Atmanirbhar Bharat Mission. On September 2, 2022 PM Modi witnessed the two pillars of his military vision, Indigenisation and Indianisation being implemented when he presided over the commissioning ceremony of the first indigenously made aircraft carrier INS Vikrant and unveiled the new Naval Ensign removing the red coloured St. Georges Cross, a legacy of the colonial past.

<https://www.dailypioneer.com/2022/columnists/pm---s-military-vision-is-boosting-armed-forces.html>



*Mon, 19 Sept 2022*

## **Air Force and Army Day Parades to Move Out of Delhi**

*By Dinakar Peri*

In a first, both the Army and Air Force Day parades are set to move out of the national capital region. While Air Force Day parade on October 8 will be held in Chandigarh, the Army Day parade on January 15, 2023, is scheduled to be held in the Southern Command area, officials confirmed. “The next Army Day parade will be held in Southern Command. The Command will identify a location,” a defence official said on Monday. Talking of the Air Force Day parade, another defence official said the shift was due to two reasons. “One is Prime Minister Narendra Modi’s guidance that major events in national capital should be moved out to various places across the country to enable more people to witness and engage in them,” the official said.

The other reason is to give an opportunity to students from schools and colleges in other parts of the country to be part of it, the official explained. “It is also to showcase our prowess across the country.” So far, as it has been held at Hindon Air Force Station in the national capital region, it has been the same institutions that send students every year. This will now change, the official said while adding, “It will give institutions in various parts of the country chance to participate.”

An investiture ceremony is held along with Air Force Day parade and flypast which is now being segregated from the later, the official added. While the parade will be held at Air Force Station Chandigarh in the morning hours, the fly past and aerial display will be conducted on the banks of the Sukhna Lake in the afternoon. On similar lines, the Combined Commanders Conference (CCC) which is addressed by the Prime Minister, has long moved out of Delhi. In 2014, the CCC was held in Delhi but since it has been held at different venues across the country. It was held on board INS Vikramaditya in 2015 and at the Indian Military Academy at Dehradun in 2017. In 2018, the CCC was held at Air Force Station, Jodhpur.

<https://www.thehindu.com/news/national/air-force-and-army-day-parades-to-move-out-of-delhi/article65910482.ece>



*Tue, 20 sept 2022*

## **Army Day Parade Shifted to Pune**

The Indian Army will shift its annual Army Day Parade, held on January 15, from New Delhi to the Southern command area next year in an effort to showcase its prowess and capabilities to the people of other regions. Till now, the parade was held only in the national capital. The headquarters of the Southern Command is located in Pune. Incidentally, the Air Force Day annual parade also will take place this year outside the national capital for the first time, on October 8 in Chandigarh. The fly past and parade will be held there instead of Hindan airbase, Ghaziabad.

The annual high profile event, till now, used to take place at the Hindan airbase for the past few years after shifting from the Palam airbase in 2006. The Palam airbase hosted the annual event for many decades. As regards the decision to shift the annual Army Day parade, sources said here on Monday, the main reason is to reach out to more people and apprise them of the ethos of the force. It will be the 75th Army Day parade. On this day in 1949, the Indian Army got its first chief. Lieutenant General KM Cariappa took over as the reins of the armed force as first Commander-in-Chief of the Indian Army from General Sir Francis Butcher, the last British Commander-in-Chief of India. Holding the Army Day parade in different parts of the country will instill a sense of patriotism and encourage youth to join the Army, they said adding the venue will be decided shortly. On holding the annual Air Force Day event, sources said after gauging the response of this year’s parade and fly past, the IAF may hold the annual parade, in

other cities of the country in the coming years. The main objective of shifting the fly past from the national capital region is to expose the general masses to the IAF especially the thrilling aerobatics performed by front line fighter jets, they said. These demonstrations may also inspire youngsters to opt for a career in the IAF, sources said.

The fly past this year may take place in the backdrop of the Sukhna Lake in Chandigarh where a large number of people from nearby towns can also come and see the gala event. The IAF will showcase most of its frontline fighter jets including the newly inducted Rafales, SU-30, Mirage, Mig 29s and Jaguars. The Surya Kiran and Sarang teams will also perform hair raising aerobatic stunts. The decision to have the IAF fly past in Chandigarh comes at a time when the present NDA government has hosted several high profile events outside the national capital. Prime Minister Narendra Modi has hosted several foreign VIPs in different cities. Moreover, the prestigious defence exhibition Def Expo is also being held in different cities for the past few years after shifting from New Delhi, they said. Besides involving local people, the aim of holding these events in other cities is to promote tourism and the economy of that region, they said.

<https://www.dailypioneer.com/2022/india/army-day-parade-shifted-to-pune.html#:~:text=The%20Indian>



*Mon, 19 Sept 2022*

## **Over 2500 Patent Applications Filed in Defence Sector in Past 4 years**

More than 2500 number of patent applications have been filed since 2018 in comparison to 1700 number of cumulative applications filed from inception till then. The new Make in India in defence as part of Atmanirbhar (self-reliant) Bharat policy with a strong focus on design has given this a major push. Such efforts are likely to have huge impact on development of defence platforms to meet the growing and futuristic requirement of Armed Forces, reported TNIE.

Defence R&D has been opened up for industry, startups and academia with 25 per cent of defence R&D budget earmarked during the start of FY23. It is also likely that private industry will be encouraged to take up design and development of military platforms and equipment in collaboration with DRDO and other organisations through SPV (Special Purpose Vehicle) model. For meeting wide ranging testing and certification requirements an independent nodal umbrella body will be set up.

<https://knnindia.co.in/news/newsdetails/sectors/over-2500-patent-applications-filed-in-defence-sector-in-past-4-years>

# The Tribune

Mon, 19 Sept 2022

## MoS for Defence Visits Army cantonments

Union Minister of State for Defence, Government of India Ajay Bhatt, visited Dah Division and Rising Star Corps this afternoon. The Minister was received by Maj Gen M P Singh, General Officer Commanding (GOC) Dah Division, at Palampur military station.

The minister was briefed on the operational preparedness of the division and apprised about various innovations by the units of the division. He interacted with the troops and boosted their morale for maintaining highest standards of the professionalism. Ajay Bhatt accompanied by GOC Dah Division also visited the Blood Donation camp at Palampur Military Hospital.

<https://www.tribuneindia.com/news/himachal/mos-for-defence-visits-army-cantonments-433445>



Mon, 19 Sept 2022

## Jaishankar's Meetings with CARICOM, BRICS and other Groupings at UNGA Significant

Keeping in line with India's commitment to reformed multilateralism, during the 77<sup>th</sup> session of United Nations General Assembly (UNGA), External affairs Minister Dr S Jaishankar is all set for several rounds of meetings with his counterparts from participating nations. During his 11 day visit, he will be hosting and participating in ministerial meetings with various groupings including the G4 (India, Brazil, Germany and Japan), G20 and UNSC member states, QUAD, IBSA (India, Brazil & South Africa), BRICS (Brazil, India, Russia, China & South Africa), CARICOM, India-France-Australia, India-France-UAE, India Indonesia Australia & India – Presidency Pro Tempore CELAC.

According to the Ministry of External Affairs the minister will also be participating in the High-Level Meeting of the L.69 Group on "Reinvigorating Multilateralism and Achieving Comprehensive Reform of the UN Security Council".

### India & UNSC

The two year tenure of India at the UN SC is going to end later this year in December when India will be the President of the Council, added MEA.

## **Why L69?**

A group of developing countries including Latin America and Caribbean, Africa, the Pacific and Asia form this grouping. And this important bloc has a common cause of staying united and that is to achieve comprehensive and lasting reform of the UN Security Council. There are 42 current members of this bloc. “The meeting with CARICOM should be seen in context of India’s attempt to be more involved and have a greater presence in the region. Given India’s Diaspora linkages with the Caribbean region as well as the recent discovery of oil and gas resources, it is in India’s favour to have better relations with the Caribbean. At the same time the Caribbean also benefits from India’s expertise in IT and ITES, agricultural products, pharmaceuticals, defense and technology etc.,” opines Dr Aparajita Pandey, PhD in Latin American Studies.

## **CARICOM Countries**

This group of countries in the developing world is considered to be one of the most advanced regional institutions. Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, Trinidad and Tobago, Suriname, Saint Lucia, Saint Vincent and the Grenadines, Antigua and Barbuda, the Bahamas, Saint Kitts and Nevis, together form CARICOM. Following the first India-CARICOM summit which was hosted by Prime Minister Narendra Modi on the sidelines of UNGA in September 2019, there have been various levels of visits and interactions with the countries in the region and India has been participating actively in development projects.

Dr Jasishankar will have a ministerial level meeting with the ministers of 15 countries of this region and the focus is expected to be on energy security, agriculture and economic as well as environmental issues. According to a 2011 Exim Bank report, India imports gold, scrap, metalliferous ores, and most importantly Crude petroleum, from these CARICOM countries. As has been reported earlier, India and the CARICOM Development Fund (CDF) in 2019 have signed a Contribution Agreement on January 19th, in Paramaribo Suriname. This fund provides for a grant allocation of US\$ 1 million to the CDF’s capital fund and India became the latest to become the International Development partner to have established formal ties with CDF.

These funds are used to support the implementation of the CDF’s mandate to provide financial and technical assistance to regions, disadvantaged countries and sectors in the CARICOM. The projects are categorized as: Concessional financing for SMEs; investment and resilience-building; Human Resource Development, Renewable Energy and Energy Efficiency; and Sector-specific physical infrastructure to facilitate private sector trade.

## **India-US**

From September 25-28 Dr Jaishankar will be in Washington DC where he will have bilateral meetings with his US counterpart Secretary of State Antony Blinken; business leaders, senior members of the US Administration and later interact with the Indian Diaspora. The focus of these meetings will be on reviewing the multifaceted bilateral agenda and also to discuss global and regional issues and to further consolidate the India-US Strategic partnership.

## **IBSA**

In view of the Chinese presence growing across global waters when the IBSA meets the talks focus on naval cooperation, maritime security, energy and food security. These member countries have together agreed to cooperate in fighting cross border terrorism, ensuring security of sea lines of communication, sustainable exploitation of marine resources, including fishing.

### **Significance of the meetings**

“The Indian External Affairs Minister, Dr S Jaishankar is on a 10-day long visit and his schedule is packed with meetings that hold significance for India and its foreign policy going forward,” Dr Aparajita Pandey, Asst Prof in Dept of Defense and Strategic Studies, Amity University, NOIDA. According to her, “It might be unnerving at first glance but upon quieter reflection one can realise that these meetings require closer inspection. While the dialogue between India and China was quite limited and did not match the expectations that some might have had at the SCO, Jaishankar would once again come face to face with the Chinese counterpart during the upcoming meeting of the BRICS nations.”

Dr Pandey says, “This trend continues when India meets with IBSA and would be meeting the Brazilian foreign minister once again after the meeting with BRICS. While both BRICS and IBSA have a commonality of some members who are also members of the UNGA; it is important to notice that BRICS and IBSA do not have the same function. While BRICS is coming up as an alternative to established norms of global economics from the global south, IBSA is now being revived as a forum for three nations spread across three continents with an aim for greater South – South cooperation.”

<https://www.financialexpress.com/defence/jaishankars-meetings-with-caricom-brics-and-other-groupings-at-unga-significant-expert/2674053/>

# **The Tribune**

*Mon, 19 Sept 2022*

## **Indian Navy Holds Anti-Piracy Operations in Africa**

Indian Navy warship INS Tarkash deployed in the Gulf of Guinea on the west coast of Africa participated in a joint maritime exercise with Nigerian Navy patrol ships NNS Kano, Osun, Sokoto and Nguru. Indian Navy has been continuously deployed in Gulf of Aden (near the east coast of Africa) in anti-piracy operations since 2008.

This was the first joint operational deployment by India and Nigeria in support of anti-piracy operations in the Gulf of Guinea. INS Tarkash arrived at Port Lagos, Nigeria, on September 8. The ship was welcomed by officials of the Nigerian Navy, the High Commission of India and children of the Indian Language School.

<https://www.tribuneindia.com/news/nation/navy-holds-anti-piracy-op-in-africa-433368>



*Tue, 20 Sept 2022*

## **US Military Gets ‘Most Powerful Laser Weapon Till Date’; Lockheed Delivers 300 KW DEW Under HELSI Program**

In July this year, U.S. lawmakers asked the armed services to expedite efforts toward developing Directed Energy Weapons (DEWs). The U.S. defense industrial complex has been testing High beam laser weapons in conjunction with the military at an unprecedented speed. demonstrations. It is the highest-powered laser U.S. Defense giant Lockheed Martin recently revealed that it had delivered a 300-kilowatt laser to the Defense Department for use in future Army high-energy laser to date for the U.S. Department Of Defense. Lockheed Martin developed the laser as part of the Pentagon’s High Energy Laser Scaling Initiative (HELSI), which aims to expand the directed energy industrial base and enhance the caliber of laser beams.

According to the press release, Lockheed was chosen by the Pentagon in 2019 to scale its spectrum beam combined high energy laser architecture to the 300 kW-class level as part of the HELSI project. The task was done ahead of schedule, according to the announcement. Given its accuracy, quick response, and high “hit probability” against fast-moving missiles, DEWs are becoming more popular as non-kinetic hard and soft kill defenses against ballistic missile threats. Lockheed Martin vice president of advanced product solutions Rick Cordaro stated that the laser uses “spectral beam combination architecture.”

Spectral beam combining (SBC), also referred to as wavelength beam combining, is the process of superimposing several laser emitter outputs at distinct wavelengths to create a single beam. The laser will partake in and assist U.S. Army’s Indirect Fires Protection Capability-High Energy Laser (IFPC-HEL) scheduled for lab and field testing this year. IFPC-HEL program is one of the 35 key modernization goals for the Army. While it is run by the Rapid Capabilities and Critical Technologies (RCCTC) Office, the program is part of the service’s priority area for air and missile defense. Previously, RCCTC coordinated the development of the Directed Energy Maneuver-Short Range Air Defense (DEM-SHORAD) prototype, which was tested against drones and mortars last year with limited success.

By 2022, the U.S. Army intends to have two different types of laser weapons systems for air defense, including weapons of the 50 kilowatts and 300-kilowatt types installed on General Dynamics’ Stryker armored vehicles. Laser-based air defense has become a focus among advanced militaries, including the United States. It is pertinent to mention here that the iron brother of the United States, Israel, recently became the first-ever country to successfully shoot down drones with a laser-based interceptor known as the ‘Iron Beam.’

Earlier this year, the U.S. House Armed Services Committee (HASC) sought more information from the Pentagon about integrating directed energy weapons (DEW) into its air defenses. It also recommended that the U.S. collaborate with allies like Israel in the field. The alacrity to develop laser-based defense systems, thus, is not a secret.

#### U.S. Military Deploying Laser As Top Priority

The U.S. Defense Department is keen on directed energy systems, such as high-energy lasers and high-power microwaves, to defend troops and military installations against aerial threats, such as short-range air defense and drones, rockets, mortars, and artillery. Since there is no 'deployment time' with lasers, they are an excellent instrument for aerial interception, which makes them ideal for missile defense systems. To that end, the 2023 National Defense Authorization Act calls for bolstering the U.S. and allied air defenses against unmanned aerial systems (UAS/UAV), rockets, and artillery, as conflicts in Europe, the Middle East, and a possible war in the Western Pacific.

The delivery of a 300kW laser weapon by Lockheed Martin comes almost a month after it delivered the High Energy Laser with Integrated Optical-Dazzler and Surveillance (HELIOS), a 60+ kW-class laser, to the U.S. Navy. HELIOS was mounted on the Arleigh Burke-class destroyer USS Preble (DDG-88).

LANCE is a pod weapon that may be installed on an aircraft, along with the primary laser weapon provided by Lockheed Martin and the pod-carrying LANCE built by Boeing. Northrop Grumman also supplies the beam control system that directs the laser toward its target. The rapid testing and deployment of laser weapons and laser-based defense systems are significant for the United States with the threat posed by the missile development by its adversaries – China, Russia, and North Korea. All the countries have demonstrated their long-range ballistic and cruise missile capabilities to the detriment of the U.S. Not just the United States, its adversaries are also relentlessly working on inducting DEWs, including lasers, into their military. Reports had earlier suggested that Russia has become the 'first country' to field laser weapons in combat.

In 2018, Putin unveiled the laser weapon 'Peresvet' for the first time, whereas another advanced laser system called Kalina is under construction at a Russian space facility. It is reportedly being designed to blind enemy satellites. On its part, China is also set to field high-energy laser weapons. In January this year, the Chinese military experts claimed that the J-20 fifth-generation stealth fighter could be equipped with Directed Energy Weapons (DEWs). Chinese state television CCTV announced in early 2020 that the country was working on an airborne laser attack pod. Chinese defense companies have also displayed laser defense weapon systems at demonstrations, such as the LW-30, which might be used to intercept aerial targets.

<https://eurasianimes.com/us-military-gets-most-powerful-laser-weapon-till-date-lockheed/>

Mon, 19 Sept 2022

## Russia and China Agree to Deepen Defence Cooperation, Joint Exercises

Russia and China have agreed deepen cooperation on defence issues with a focus on holding joint exercises, Moscow's powerful Security Council said on Monday. "The sides agreed on further military cooperation with a focus on joint exercises and patrols, as well as on strengthening contacts between the General Staffs," it said. The statement comes as Russian Security Council Secretary Nikolai Patrushev visits China to hold security consultations and meetings with officials.

Russia and China have deepened cooperation in recent years, hailing s "no limits" partnership though Russian President Vladimir Putin acknowledged China's "concerns" over the situation in Ukraine at a summit in Uzbekistan last week.

<https://www.moneycontrol.com/news/world/russia-and-china-agree-to-deepen-defence-cooperation-joint-exercises-9199011.html>

## Science & Technology News



Press Information Bureau  
Government of India

Ministry of Science & Technology

Mon, 19 Sep 2022 1:35 PM

### Union Minister Dr Jitendra Says, Global Clean Energy Action Forum Meet at USA Offers India an Opportunity to Present Prime Minister Narendra Modi's Vision before the World

**Before leaving on a 5-day visit to USA as the head of a high -level Joint Ministerial official delegation, Dr Jitendra Singh told the media, he is looking forward to very close engagements at the Plenary and Roundtables of Global Clean Energy Action Forum**

Union Minister of State (Independent Charge) Ministry of Science and Technology; Minister of State (Independent Charge) Ministry of Earth Science; MoS PMO, Ministry of Personnel, Public Grievances, Pensions, Space and Atomic Energy, Dr Jitendra Singh said that Global Clean Energy Action Forum meet offers India an opportunity to present Prime Minister Narendra

Modi's vision before the world. Before leaving on a 5-day visit to USA as the head of a high - level Joint Ministerial official delegation, Dr Jitendra Singh told the media, since the forum will bring together all the stakeholders including at least 30 Ministers from different countries, hundreds of CEOs and business leaders, scientists and academicians, it is also an acknowledgement of the leading role assumed by India under PM Modi in issues related to Clean Energy concerns.

Dr Jitendra Singh recalled that only last month, the Union Cabinet chaired by the Prime Minister Narendra Modi, had approved India's updated Nationally Determined Contribution (NDC) to be communicated to the United Nations Framework Convention on Climate Change (UNFCCC). India at the 26<sup>th</sup> session of the Conference of the Parties (COP26) to the United Nations Framework Convention on Climate Change (UNFCCC) held in Glasgow, United Kingdom in November, 2021 expressed to intensify its climate action by presenting to the world five nectar elements (Panchamrit) of India's climate action. Dr Jitendra Singh said, on August 15, 2021, Prime Minister Modi launched the National Hydrogen Mission on India's 75th Independence Day. He said, the Mission aims to aid the government in meeting its climate targets and making India a green hydrogen hub and this will help in meeting the target of production of 5 million tonnes of green hydrogen by 2030 and the related development of renewable energy capacity.

Dr Jitendra Singh said, since no single ministry is responsible for moving India towards net zero, the Environment, Forest and Climate Change (MoEFCC), Ministry of New and Renewable energy (MNRE), and Ministry of Heavy Industries (which implements the Faster Adoption and Manufacturing of Hybrid & Electric Vehicles in India (FAME INDIA) scheme to promote electric vehicles), have largely been the driving force behind India's effort in this direction. Dr Jitendra Singh said, he is looking forward to very close engagements at the Plenary and Roundtables of Global Clean Energy Action Forum, especially in the light of recent breakthroughs in the areas of Clean Energy Technologies both at home and abroad.

<https://www.pib.gov.in/PressReleasePage.aspx?PRID=1860529>



*Mon, 19 Sep 2022*

## **James Webb Space Telescope Takes its First Images and Spectra of Mars**

The European Space Agency (ESA) released the James Webb Space Telescope's (JWST) first images and infrared spectrum of Mars. The Webb telescope captured its first images and spectra of the red planet on September 5, 2022. Webb is situated approximately 1.5 million kilometres away from our planet at the second Sun-Earth Lagrange point (L2). From the telescope's vantage point, it gets a view of Mars' observable disk, which is the portion of the sunlit side facing the telescope. This allows JWST to capture images and spectra with the specific resolution needed to

study short-term phenomena. These phenomena include dust storms, weather patterns, and seasonal changes.

While this may not sound impressive for a telescope that is designed to detect distant faint objects, it actually is. Mars is very close to the Earth and it is one of the brightest objects in the night sky, in both visible and infrared light. But since Webb's instruments are so sensitive, the bright infrared light from Mars is almost blinding, causing something known as "detector saturation." Scientists need to use special detection techniques in order to overcome this, including using very short exposures and measuring only some of the light that hits the detectors. They then used special data analysis techniques to arrive at the image.

JWST's first images of Mars were captured by the Near-Infrared Camera (NIRCam) and shows a part of the planet's eastern hemisphere at two different wavelengths. The image above contains a surface reference map taken by NASA's Mars Global Surveyor on the left and two Webb NIRCam instrument fields overlaid on the right.

The Webb images of Mars show differences in brightness over a large number of wavelengths from place to place across the planet at a particular date and time. But the spectrum illustrates the subtle variations in brightness between hundreds of different wavelengths that represent the planet as a whole. Astronomers will analyse features of the spectrum to gather additional information about the surface and atmosphere of the planet.

<https://indianexpress.com/article/technology/science/james-webb-space-telescope-first-mars-image-spectra-data-8160586/lite/>



*Mon, 19 Sep 2022*

## **Artemis 1: NASA to Conduct Cryogenic Test to See if Hydrogen Leak Repair Worked**

NASA is planning to perform a cryogenic demonstration test for the Artemis mission at 7.15 AM EDT (4.45 PM IST) on September 21. Two previous attempts at launching the mission had to be aborted due to technical issues. The second attempt was aborted because of a hydrogen fuel leak that was found while the Space Launch System's (SLS) core stage was being fueled. NASA is now targeting a September 27 launch date for the mission. During the test, NASA teams will load supercold liquid hydrogen and liquid oxygen into the SLS rocket. The cryogenic demonstration test will help NASA teams confirm that the hydrogen leak has been repaired properly. Apart from that, engineers will also evaluate updated propellant loading procedures and conduct additional evaluations.

The cryogenic demonstration will be aired live on NASA Television, the space agency's app and its website. The live stream will be interrupted when the Soyuz MS-22 spacecraft carrying American astronaut Frank Rubio to the International Space Station launches, docks and opens its

hatch. There will also be a teleconference to preview the test at 11.30 AM EDT (9 PM IST) on Monday, September 9. The participants of the call will include the following people:

**Tom Whitmeyer:** Deputy associate administrator for Common Exploration Systems Development, NASA Headquarters

**Mike Sarafin:** Artemis mission manager, NASA Headquarters

**Jeremy Parsons:** Deputy manager, Exploration Ground Systems Program, NASA's Kennedy Space Center

**John Blevins:** Chief engineer, Space Launch System Program, NASA's Marshall Space Flight Center.

But even if this cryogenic demonstration test goes as planned, there is another obstacle standing in the way of the planned Artemis 1 launch on September 27. The rocket's Flight Termination System's (FTS) certification has expired. NASA has sent in a request for the certification to be extended but that is still pending. If the space agency doesn't receive certification, the SLS rocket and Orion spacecraft might have to be rolled back into the Vehicle Assembly Building (VAB). Of course, the stack will have to be rolled back into the building either way if the cryogenic demonstration test is not successful.

<https://indianexpress.com/article/technology/science/nasa-artemis-1-cryogenic-test-liquid-hydrogen-leak-repaired-8159537/lite/>



*Tue, 20 Sept 2022*

## **62nd Annual International Conference of AMI on Microbes and Society: Current Trends and Future Prospects (MSCTFP-2022) at JSS-AHER**

JSS Academy of Higher Education & Research, Mysuru in association with the University of Mysore (UOM), CSIR-Central Food Technological Research Institute (CSIR-CFTRI), DRDO-Defence Food Research Laboratory (DRDO-DFRL), Karnataka Science and Technology Academy (KSTA) and Association of Microbiologists of India (AMI) jointly organised the pre-conference workshops inaugural ceremony as a part of 62nd Annual International Conference of AMI on Microbes and Society: Current Trends and Future Prospects (MSCTFP-2022) on September 19 at JSS Sri Rajendra Centenary Auditorium, JSS Hospital, Mysuru.





The workshops are organized for two days i.e., on September 19 and 20 for students and researchers actively involved in research across various institutions in the country. The main aims of these workshops were to have hands-on sessions and to know their applications. The themes of the 4 pre-conference workshops are Diagnostic

Virology- Basics to Advanced, Bioinformatics & Metagenomics, Fermentation Technology – Downstream & Upstream Process, Diagnosis of Food and Agriculturally Important Pathogens. Dr Prakash M Halami – Chief Scientist & Professor AcSIR, Secretary AMI Mysore local Chapter from CFTRI welcome the gathering. The event was inaugurated by Chief Guest, Dr Surinder Singh, Vice Chancellor, JSS Academy of Higher Education & Research, Mysuru.

Dr Surinder Singh addressed the gathering by inspiring young minds and emphasized the importance and future of Microbiology & Life Science subjects to improve the society. He motivated the students on how the industry and academia can connect and shape their career to advance in the field of Microbiology. He shared his immense experience and his services in different Government setups and advised how the network can be established through these workshops and promote Research & Development. Later Dr Tejashree, HoD Microbiology, JSS Medical College briefed about the preconference workshop on Diagnostic Virology- Basics to Advanced.

During the event, the workshop manual, and a campaign poster with slogan “SAVE ANTIBIOTICS and SAVE LIVES” were released by the dignitaries. Lastly, the vote of thanks was delivered by Dr Prashant M Vishwanath. Prof Raveesha K A – HoD, School of Life Sciences, JSS AHER, Mysuru, Organizing chairpersons of AMI Dr Chandra Nayak S, Coordinator, Vijnana Bhavana & Prof S Satish Chairman of Microbiology, University of Mysore, and the organizing Secretary of AMI Dr Prashant M Vishwanath – Research Director, JSS AHER, Dr Manjunath GV, HoD Pathology, Dr Tejashree- HoD Microbiology and Dr Sumana MN Dept. of Microbiology of JSS Medical College & Hospital, Mysuru were present.

More than 100 participants gathered for the success of the event.

<https://www.mysoorunews.com/62nd-annual-international-conference-of-ami-on-microbes-and-society-current-trends-and-future-prospects-msctfp-2022-at-jss-aher/>



*Wed, 14 Sept 2022*

### **Techno India University Launches Two New Courses InDefence and EV Technology**

Eastern India's premier university for education, research and technology, Techno India University, recently launched 2 new courses that are aimed to drive business through innovation and research. Modern skill development demands that students have access to the highest quality of contemporary education that is measurable and scalable and will make youth future ready. Techno India University has been spearheading the movement of introducing such courses in Eastern India.

#### **DRDO Programme (Defence Technology)**

The course is aimed at working towards strengthening the safety of the nation. Speaking on the same, Dr. Madhumita Chakraborty, Director, CMSDS, DRDO Kolkata, said, "Techno India University, West Bengal is on its way to creating a workforce for futuristic defence technology through students undergoing this programme. This is a leap towards Atmanirbhar Bharat." This is a full-time course with a duration of 2 years (Full-time PG programme) and the course fees are as per university norms and regulations. Internships and R&D opportunities would be provided at various DRDO facilities across the country through exclusive partnerships. During the internship, specialists and scientists would be mentoring the interns.

For Admission details, interested students may contact: 9836544417/18/19

#### **EV Programme**

EV (Electric Vehicles) are poised to take over the world, owing to the distinct benefits that they have over traditional combustion engines of vehicles in terms of efficiency. Moreover, electricity is renewable, so they are eco-friendly. This programme is aimed at preparing students professionally to work and contribute to the huge demand in the nation and globally, as it is estimated that the market for EVs will grow significantly by 2025. Speaking on the launch of this course, Rajanvir Singh Kapur, Managing Director, West Bengal Transport Corporation, Govt of West Bengal, said, "The future is Electric. WBTC is planning to go electric in the next few years.

Within the next few years, the automotive industry will offer highly paid jobs to skilled individuals in the EV domain. We could sign an MoU with the EV Technology Course of

Techno India University to offer internships to top performers. In addition, we would identify synergies and work together for a better tomorrow.” The Course duration is 2 years(Full-time PG programme) and fees are as per university norms and regulations. Internships and placement opportunities are available at various public and private organisations through industry academia partnerships. In addition, incubation, mentoring and funding assistance would be provided to start-up enthusiasts.

Interested students may please contact the following numbers for Admission details: 9836544417/18/19

**Prof. Manoshi Roychowdhury**, Co Chairperson of Techno India Group & Co- Chancellor of Techno India University said : TIG has become the forerunner in accepting every innovative challenge and identified itself as a leader in the field of unique creation. We are always looking ahead for introducing such courses in a way where our students can benefit and can also contribute to society. These programs have been crafted which will enable the creation of a large pool of talented workforce and offer opportunities to the students. We feel that every sector of the society has opportunities in learning and we contribute to the quality of education for our students , identifying the challenges ahead and their mitigation graph where TIG as a whole can contribute to the cause of the nation.The career graph prospects from these courses are much in demand as the students can reap their benefits in various DRDO facilities across the country, through exclusive partnerships , in various incubation, mentoring , funding assistance to start-up enthusiasts. We look ahead for courses which embrace strong challenges in the generation of research and technology and make our student future ready

<https://indiaeducationdiary.in/techno-india-university-launches-two-new-courses-indefence-and-ev-technology/>

