

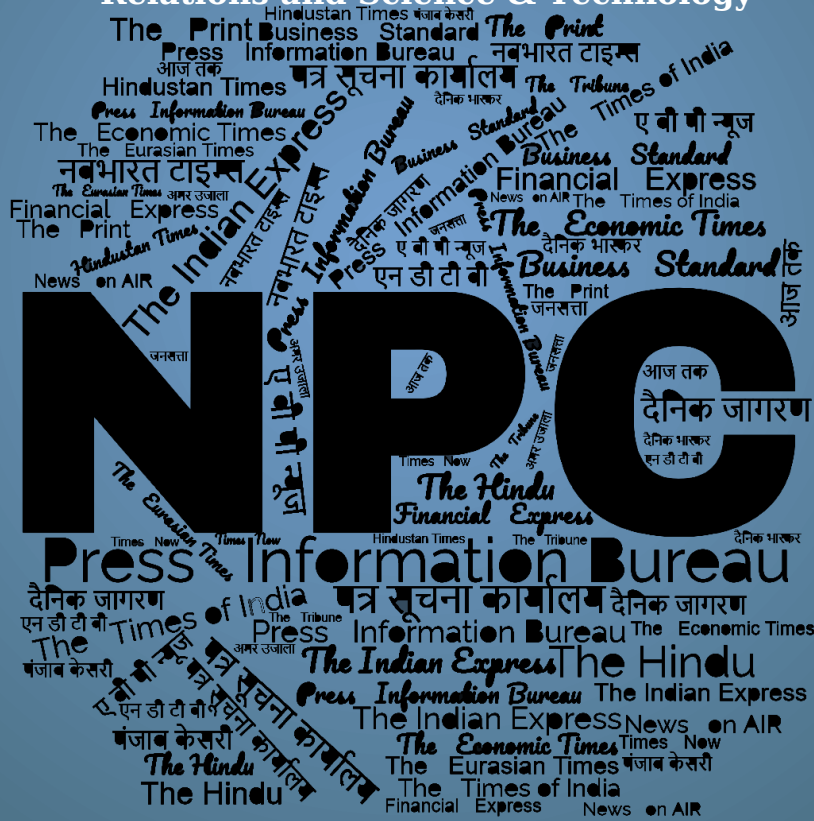
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समाचार पत्रों से चयित अंश Newspapers Clippings

डीआरडीओ समुदाय को डीआरडीओ प्रौद्योगिकियों, रक्षा प्रौद्योगिकियों, रक्षा नीतियों, अंतर्राष्ट्रीय संबंधों और विज्ञान एवं प्रौद्योगिकी की नूतन जानकारी से अवगत कराने हेतु दैनिक सेवा

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पत्र सूचना कार्यालय
भारत सरकार

रक्षा मंत्रालय

Tue, 27 Jun 2023

डीआरडीओ ने उद्योग और शैक्षणिक क्षेत्र में रक्षा अनुसंधान एवं विकास को प्रोत्साहित करने हेतु 'अनुसंधान चिंतन शिविर' का आयोजन किया

संगठन ने 75 प्रौद्योगिकी से संबंधित प्राथमिकता वाले क्षेत्रों की सूची जारी की

रक्षा अनुसंधान एवं विकास संगठन (डीआरडीओ) ने उद्योग और शिक्षा जगत के भीतर रक्षा अनुसंधान एवं विकास को प्रोत्साहित करने के उद्देश्य से 27 जून, 2023 को नई दिल्ली में एक 'अनुसंधान चिंतन शिविर' का आयोजन किया। इस कार्यक्रम में चीफ ऑफ डिफेंस स्टाफ जनरल अनिल चौहान मुख्य अतिथि थे।

इस अवसर पर 75 प्रौद्योगिकी से संबंधित प्राथमिकता वाले क्षेत्रों की सूची जारी की गई। डीआरडीओ द्वारा पहचान की गई इस सूची को 403 तकनीकी श्रेणियों में विभाजित किया गया है, जिनका विस्तार 1,295 वर्तमान और भविष्य के प्रौद्योगिकी विकास कार्यों तक है। डीआरडीओ टेक्नोलॉजी फोरसाइट 2023 में सूचीबद्ध प्रौद्योगिकी से संबंधित प्राथमिकता वाले क्षेत्र इस प्रकार हैं:

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60	रेस्पिरेटरी मैनेजमेंट
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62	सेंसर्स / डिटेक्टर्स
63	सोलजर सपोर्ट
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इन 75 प्रौद्योगिकी से संबंधित प्राथमिकता वाले क्षेत्रों को खोलने से भारत को आत्मनिर्भरता के पथ अग्रसर करने हेतु रक्षा प्रौद्योगिकियों के स्वदेशीकरण और उनमें नवाचार करने के लिए उद्योग जगत को प्रोत्साहित करते हुए रक्षा विनिर्माण क्षेत्र को एक बड़ा बढ़ावा मिलेगा। इस प्रकार, उद्योग और शिक्षा जगत के साथ जुड़ाव के माध्यम से देश में सैन्य प्रौद्योगिकी डिजाइन और विकास को बढ़ावा मिलेगा।

सभी क्षेत्रों, श्रेणियों और प्रौद्योगिकी के विकास से जुड़ी गतिविधियों को सूचीबद्ध करने वाली डीआरडीओ टेक्नोलॉजी फोरसाइट 2023 के बारे में भी जानकारी दी गई। यह दस्तावेज उन प्रौद्योगिकी क्षेत्रों की पहचान करता है जिन पर डीआरडीओ की विभिन्न प्रयोगशालाएं वर्तमान में काम कर रही हैं। यह दस्तावेज www.drdo.gov.in पर उपलब्ध है। गतिविधियों की सूची भविष्य के उन प्रौद्योगिकी क्षेत्रों की पहचान करती है जो राष्ट्र की सुरक्षा को मजबूत करने के लिए रक्षा प्रणालियों के विकास और रक्षा अनुसंधान एवं विकास की दृष्टि से आवश्यक हैं। यह वेबपेज निकट भविष्य में रक्षा अनुसंधान एवं विकास संबंधी जरूरतों के लिए परिकल्पित प्रमुख प्रौद्योगिकी कार्यों को सूचीबद्ध करेगा। उद्योग और शिक्षा जगत को संबंधित क्षेत्रों में काम करने वाले डीआरडीओ के विभिन्न प्रतिष्ठानों की सूची दी जाती है, जिससे विभिन्न हितधारकों के बीच समझ का एक सहज चैनल स्थापित होता है।

इस अवसर पर बोलते हुए, चीफ ऑफ डिफेंस स्टाफ ने 'अनुसंधान चिंतन शिविर' के आयोजन के लिए डीआरडीओ की सराहना की और सशस्त्र बलों के लिए स्वदेशी रक्षा प्रौद्योगिकियों के महत्व पर जोर दिया।

अपने संबोधन में, रक्षा अनुसंधान एवं विकास विभाग के सचिव और डीआरडीओ के अध्यक्ष डॉ. समीर वी. कामत ने कहा कि डीआरडीओ, उद्योग और शिक्षा जगत को प्रौद्योगिकियों को निचले स्तर से उठाकर उन्नत स्तर तक ले जाने के लिए आपस में तालमेल के साथ काम करना चाहिए, जहां इसका उपयोग व्यापक पैमाने पर उत्पादन के लिए किया जा सके। महानिदेशक (प्रौद्योगिकी प्रबंधन) डॉ. सुब्रत रक्षित, आईआईटी दिल्ली के निदेशक प्रो. रंगन बनर्जी और एलएंडटी के कार्यकारी उपाध्यक्ष श्री अरुण रामचंदानी ने इस शिविर के दौरान रक्षा अनुसंधान एवं विकास के बारे में डीआरडीओ, शिक्षा जगत और उद्योग जगत के दृष्टिकोण को सामने रखा।

चीफ ऑफ इंटीग्रेटेड डिफेंस स्टाफ के चेयरमैन, चीफ ऑफ स्टाफ कमेटी (सीआईएससी) लेफ्टिनेंट जनरल जॉनसन पी मैथ्यू, डीजी (एडमिन) वायुसेना मुख्यालय एयर मार्शल पी.के. घोष, रक्षा मंत्रालय के वरिष्ठ अधिकारी, डीआरडीओ के वैज्ञानिक, उद्योग जगत के प्रमुख और शिक्षा विशेषज्ञ भी उपस्थित थे।

डीआरडीओ अपने प्रयोगशालाओं और केंद्रों के नेटवर्क के साथ एयरोनॉटिक्स, आयुध, इलेक्ट्रॉनिक्स, लड़ाकू वाहन, इंजीनियरिंग सिस्टम, इंस्ट्रूमेंटेशन, मिसाइल, एडवांस्ड कंप्यूटिंग सिमुलेशन, विशेष सामग्री, नौसेना प्रणाली, जीवन विज्ञान, प्रशिक्षण सूचना प्रणाली और आधुनिक कृषि प्रौद्योगिकी जैसे विभिन्न विषयों को कवर करने वाली रक्षा प्रौद्योगिकियों के विकास में गंभीरतापूर्वक जुटा हुआ है। अत्याधुनिक हथियार प्रणालियों और उपकरणों के विकास के

माध्यम से महत्वपूर्ण रक्षा प्रौद्योगिकियों और प्रणालियों के मामले में आत्मनिर्भरता हासिल करना डीआरडीओ की मुख्य गतिविधियों में से एक है। डीआरडीओ नई प्रौद्योगिकियों को विकसित करने हेतु उद्योग और अकादमिक जगत के साथ सहयोग को बढ़ावा देने के लिए रक्षा इकोसिस्टम के विभिन्न हितधारकों के साथ बातचीत कर रहा है।

<https://pib.gov.in/PressReleasePage.aspx?PRID=1935785>



Press Information Bureau
Government of India

Ministry of Defence

Tue, 27 Jun 2023

DRDO Organises ‘Anusandhaan Chintan Shivir’ to Encourage Defence R&D in Industry & Academia

Releases list of 75 Technology Priority Areas

Defence Research and Development Organisation (DRDO) organised an ‘Anusandhaan Chintan Shivir’ in New Delhi on June 27, 2023, with the aim to encourage Defence R&D within the industry and academia. Chief of Defence Staff General Anil Chauhan was the Chief Guest at the event. A list of 75 technology priority areas were released on the occasion. The list identified by the DRDO is further divided into 403 technological categories, which further spread out to 1,295 current & future technology development tasks. The technology priority areas, as listed in DRDO Technology Foresight 2023, are as follows:

S No	Technology Area
1	Additive Manufacturing
2	Aero Structures
3	Aerodynamics
4	Aeromechanical Systems
5	Agro Technology for Military Support in High Altitude Areas
6	AI/ML Technology
7	Alternative Power Plant
8	Antennas

9	Armoured & Combat Vehicles
10	Autonomous Systems and Robotics
11	Behavioural Analysis for Soldiers
12	Bio Defence
13	Bio Remediation
14	Biomedical Engineering & Technologies
15	C4ISR
16	Camouflage Technology
17	CBRN Defence
18	Communication
19	Control Systems
20	Counter Swarm Technology
21	Cyber, Information & Communication Security
22	Decoys
23	Detonics & Mechanisms
24	Diesel Engine
25	Directed Energy

26	Electric Power Technology
27	Electro Optics
28	Electronic Devices
29	Electronic Warfare
30	EM Rail Gun
31	Embedded Systems
32	Energy
33	Environment Protection
34	Environmental Testing
35	Fire Fighting
36	Guidance & Navigation
37	Guided Artillery
38	Gun Technology
39	Hardware In Loop Simulation
40	High Performance Computing
41	Hydro Structures

42	Hypersonic Technologies
43	Life Support
44	Materials
45	Military Food Technology
46	Mines & Mines Detection
47	Missile Systems
48	Multi-Barrel Rockets
49	Munition/Ammunition
50	Natural Hazard Management
51	Non Destructive Evaluation
52	Ocean Profiling
53	Parachute Technology
54	Passive Countermeasures
55	Propulsion Technologies
56	Protective Clothing & Gears
57	Quantum Technologies

58	Radar Technologies
59	Radome Technologies
60	Respiratory Management
61	Seeker Technologies
62	Sensors/Detectors
63	Soldier Support
64	Sonar Technologies
65	Space Situational Awareness
66	Space Technologies
67	Surveillance and Tracking
68	Swarm Technology
69	Terahertz
70	UAV
71	UGV
72	Underwater Defence Technologies
73	Wargaming

74	Warhead/Explosive & Ballistic Protection
75	Waste Management

Unveiling the 75 technology priority areas will provide a major fillip to the defence manufacturing sector by encouraging the industry to indigenise and innovate on defence technologies in order to place India on the self-reliance trajectory; thereby, promoting military technology design & development in the country through engagement with industry and academia.

The DRDO Technology Foresight 2023 listing all areas, categories and technology development activities was also unveiled. The document identifies the technology areas on which various laboratories of DRDO are currently working. It is available on www.drdo.gov.in. The list of activities identifies future technology areas that are required for development of defence systems and defence R&D for strengthening the security of the nation. The webpage will list major technology tasks envisaged in the near future for the defence R&D needs. Industry and academia is given the listing of various establishments of DRDO working in the respective areas, thereby establishing a seamless channel of understanding between various stakeholders.

Speaking on the occasion, the Chief of Defence Staff complimented the DRDO for organising the ‘Anusandhaan Chintan Shivir’ and stressed on the importance of indigenous defence technologies for the Armed Forces. In his address, Secretary Department of Defence R&D and Chairman DRDO Dr Samir V Kamat stated that the DRDO, Industry and Academia should work in synergy to take the technologies from low to advance level where it can be taken up for bulk production.

Director General (Technology Management) Dr Subrata Rakshit, Director IIT Delhi Prof. Rangan Banerjee and Executive VP L&T Shri Arun Ramchandani provided DRDO, Academia and Industry perspectives on Defence R&D during the Shivir.

Chief of Integrated Defence Staff to the Chairman, Chiefs of Staff Committee (CISC) Lt General Johnson P Mathew, DG (Admin) Air Headquarters Air Marshal PK Ghosh, senior officers of Ministry of Defence, scientists from DRDO, industry leaders and academia experts were also present. The DRDO with its network of laboratories and centres is deeply engaged in development of defence technologies covering various disciplines, like aeronautics, armaments, electronics, combat vehicles, engineering systems, instrumentation, missiles, advanced computing simulation, special materials, naval systems, life sciences, training information systems and modern agriculture technologies. Achieving self-reliance in critical defence technologies and systems through development of state-of-the-art weapon systems and equipment is one of the core activities of DRDO. DRDO has been interacting with various Defence ecosystem stakeholders to foster the Industry & Academia cooperation to develop new technologies.

<https://pib.gov.in/PressReleasePage.aspx?PRID=1935686>



Wed, 28 Jun 2023

Missile Systems, UAVs in DRDO’s Tech Priority Areas

The Defence Research and Development Organisation (DRDO) on Tuesday released a list of 75 technology priority areas including missile systems, aero structures, armoured and combat vehicles,

autonomous systems, electronic warfare, guidance and navigation, surveillance and tracking, guided artillery and multi-barrel rockets.

“The list identified by the DRDO is further divided into 403 technological categories, which spread out to 1,295 current and future technology development tasks,” the defence ministry said in a statement. The list was announced at the DRDO’s ‘Anusandhaan Chintan Shivir’ held in the national capital to encourage defence R&D in industry and academia.

India has taken several measures over the past 4-5 years to boost self-reliance in defence. These steps include a series of phased import bans, creating a separate budget for buying locally made military hardware, increasing foreign direct investment (FDI) from 49% to 74% and improving ease of doing business. The DRDO Technology Foresight 2023, which lists all technology development activities, was unveiled at the event. “The list of activities identifies future technology areas that are required for the development of defence systems and defence R&D for strengthening the security of the nation,” the statement said.

The other priority areas include hypersonic technologies, cyber, information and communication security, directed energy, electro optics, diesel engine, electronic devices, firefighting, hydro structures, mines and mines detection, parachute technology, propulsion technologies and unmanned aerial vehicles. Unveiling the technology priority areas will provide a major fillip to the defence manufacturing sector by encouraging the industry to indigenise defence technologies to place India on the self-reliance trajectory, the statement added.

The DRDO, industry and academia should work in synergy to take the technologies from a low to an advanced level so that these can be taken up for mass production, DRDO chairperson Samir V Kamat said. India has employed a two-pronged approach to achieve indigenisation through import bans. One approach relates to banning the import of platforms such as fighter jets, warships, helicopters and artillery guns, while the other covers subsystems, spares and components.

As part of the former, India has published four lists that have imposed a phased import ban on 411 different types of weapons and platforms including light weight tanks, naval utility helicopters, artillery guns, missiles, destroyers, ship-borne cruise missiles, light combat aircraft, light transport aircraft, long-range land attack cruise missiles, basic trainer aircraft, and airborne early warning and control systems. These platforms are expected to be indigenised in the next 5-6 years.

As part of the other approach, India has imposed a phased import ban on 4,666 items, including replacement units, subsystems, spares and components. Of these, 2,736 items have been indigenised so far in a fresh push for self-reliance and the remaining will be manufactured in India in line with the prescribed timelines between December 2023 and December 2029. These items are used in a raft of military platforms including fighter planes, helicopters, trainer aircraft, warships, tanks, infantry combat vehicles, high-mobility trucks, defence electronics and different types of ammunition.

<https://www.hindustantimes.com/india-news/missile-systems-uavs-in-drdo-s-tech-priority-areas-101687893604126.html>

THE TIMES OF INDIA

Wed, 28 Jun 2023

Tejas Mk 2 to be Ready for First Flight by 2025

The much-delayed, India-made Tejas Mk 2 light combat aircraft (LCA) could be ready for its maiden flight by 2025 with an American engine, according to Prabhulla Chandran VK, director of

avionics and weapons systems at the Aeronautical Development Agency (ADA), the nodal agency for the design of the indigenous fighter.

The Central Scientific Instrumentation Organisation, which had designed the head-up display (HUD) for Tejas Mk 1, is also involved in the manufacture of the HUD for the Tejas Mk 2. Prior to the US collaboration, India was looking at France and Rolls Royce for the engine manufacture.

<https://timesofindia.indiatimes.com/city/chandigarh/tejas-mk-2-to-be-ready-for-first-flight-by-2025/articleshow/101324595.cms>

DRDO on Twitter



DRDO

@DRDO_India

200th flight of TAPAS UAV was demonstrated to the Tri services team for the first time at ATR chitradurga on 27th June 2023. Tri services team appreciated the indigenous efforts for development of UAV. TAPAS is now ready for user evaluation trials

@SpokespersonMoD



10:15 pm · 27 Jun 2023 · 102.6K Views



DRDO ✓

@DRDO_India



DRDO organised 'Anusandhaan Chintan Shivir' to encourage Defence R&D in Industry & Academia today at DRDO Bhawan. General Anil Chauhan, CDS was the Chief Guest of the event. On this occasion DRDO Technology Foresight 2023 was released

@DefenceMinIndia

@SpokespersonMoD



8:00 pm · 27 Jun 2023 · **11.9K** Views

58 Retweets **1** Quote **373** Likes



DRDO ✓ @DRDO_India · 13h



A panel discussion on Catalysing Defence R&D within Industry and Academia chaired by Dr Subrata Rakshit DG TM was also organised where in participants from Industry and Academia deliberated upon the challenges and requirements for robust defence R&D in the country



10



59



4,393





Tue, 27 Jun 2023

India Targets Defence Exports of Rs 35K Crore by FY25

Exports of defence materials, including equipment, is likely to more than double to Rs 35,000 crore by 2024-25 from Rs 15,920 crore recorded in the financial year ended March 2023, a senior official in the Ministry of Defence has said.

“Our target is to increase exports to Rs 35,000 crore in the next two years,” T Natarajan, Additional Secretary, Department of Defence Production, said on Tuesday at an event organised by the Confederation of Indian Industry (CII).

Natarajan said defence exports have surged by around 10 times in the past seven years due to enabling government policy.

Total value of defence exports stood at Rs 1,521 crore in the financial year 2016-17. It surged to Rs 4,682 crore in 2017-18 and surged further to Rs 10,745 crore in 2018-19. However, there was a downward trend in defence exports in the next two years.

Exports regained momentum again in 2021-22 rising to Rs 12,814 crore from Rs 8,434 crore recorded in 2020-21, the year which was severely impacted by Covid-19 pandemic. India’s defence exports hit a record high of Rs 15,920 crore in the financial year 2022-23.

Natarajan said the private sector, especially the micro, small and medium enterprises (MSMEs) are playing an increasingly important role in defence manufacturing and exports in the country.

“In the past, we have been highly dependent on imports of various defence equipment for various reasons. Maybe, our technological development was still not enough to take care of our requirements,” said Natarajan, adding India has now become an important player in defence exports.

Defence exports from India include aircraft like the Dornier-228, artillery guns, Brahmos Missiles, PINAKA rockets & launchers, radars, simulators and armoured vehicles. There are also growing demands for India’s indigenous products, such as the LCA-Tejas, Light Combat Helicopters, Aircraft Carriers, and MRO activities, in the global markets.

According to data released by the Ministry of Defence last month, India exported defence equipment to 85 countries during the financial year 2022-23.

<https://www.deccanherald.com/business/business-news/india-targets-defence-exports-of-rs-35k-crore-by-fy25-1231784.html>

IIT Mandi Combines Academia, DRDOs, DPSUs, and Armed Forces to Foster Technology for Defence

On Day 4 of the Indian Institute of Technology Mandi's ongoing mega G20 – S20 Meet Academia, Defence Research and Development Organisation (DRDO), DPSUs, and Armed Forces came together to discuss and highlight the enhancement of technological development through collaborative approach. The theme of this event was 'Technology for Defence.'

Speaking during his welcome address, Professor Laxmidhar Behera, Director, IIT Mandi, said,

"There is a need of engaging Academia, R&D Institutions, Industries, Startups and Armed Forces to come in active dialogue mode - where free and frank exchange of innovative ideas can germinate. I acknowledge my heartfelt gratitude to all the guests and participants."

"We look forward to a vibrant stimulating session on technology for defence and IIT Mandi aims to contribute to the cause of defence which is paramount for our great nation," adds Professor Laxmidhar Behera.

Air Vice Marshal PKH Sinha (Retd), the Strategic Advisor of IIT Mandi coordinated the event along with Dr Rajnish Sharma and emphasised creating an ecosystem that fosters innovation and encourages the development of technologies for Defence usage.

Speaking during the event, Air Vice Marshal PKH Sinha (Retd), Chief Coordinator of Technology for Defence event, said, "The four pillars of the Defence sector are: 'Academia', that researches in the niche and critical emerging technologies; 'Defence Research and Development Organisation (DRDO)', that customise these technologies and hands it over to the industry for mass production, 'Industry', that makes it robust for the use of our troops, air warriors and sailors, and the 'Defence Forces' that finally use these innovations and technologies."

In addition to this, the event included multiple guest talks from DRDO and the public sector unit on the importance of technology for defence. Key highlights included:

Along with this, during a discussion session at the conclave, it was informed by AVM Sinha that the improvement proposed by Dr Gajendra Singh, Faculty at IIT Mandi, in the rope release mechanism of Indian Airforce helicopters was appreciated by the Commander of Base Repair Depot, Chandigarh. This improvement will improve the load-carrying capacity and delivery of supplies.

OTHER KEY TALKS INCLUDED:

Detonics, Shock, Blast & Impact: Research Opportunities in Terminal Ballistics Towards Atmanirbharta by Dr Prateek Kishore, Director, TBRL

Mountain Hazard Management in Indian Himalaya, An Overview, Challenges and Technological Requirements by Dr Pramod K. Satyawali, Director, DGRE

Chem-Biodefence and DRDE by Dr BN Acharya, Head Tech Cord, DRDE

Roles and Responsibilities of Bharat Electronics Limited by Smt. Deepa Bajpayee, AGM, BEL - Panchkula

IIT Mandi is working actively in the field of Defence research and innovation. Recently, a team from the institute have developed an artificial material to make stealth vehicles and establishments less visible to radar. This technology can be used on window or glass panels of stealth vehicles and covert establishments due to its optical transparent nature.

It has potential applications for RCS reduction and absorption of unwanted radiation leakages. Apart from this, IIT Mandi in collaboration with IAF's Headquarters Maintenance Command (HQ MC) Nagpur has signed a Memorandum of Understanding (MoU) for collaboration for research projects, and technology development, in the areas of artificial intelligence, machine learning, human-computer interaction, and decision support systems.

With its continuous efforts, IIT Mandi aims to support the Government of India's goal to make India 'Atmanirbhar' in this Amritkal.

<https://www.indiatoday.in/education-today/news/story/iit-mandi-combines-academia-drdos-dpsus-and-armed-forces-to-foster-technology-for-defence-2398609-2023-06-27>

THE ECONOMIC TIMES

Tue, 27 Jun 2023

Members of India Caucus Introduce Bipartisan Legislation to Fast-Track Weapons Sales to India

Members of the powerful India Caucus have introduced bipartisan legislation aimed at providing India access to the weapons it needs to defend itself and boost its security goals with the US in the strategic Indo-Pacific region.

Indian-American Democratic Congressmen Raja Krishnamoorthi, Ro Khanna and Marc Veasey joined Republican Congressmen Andy Barr and Mike Waltz in introducing the legislation that will allow weapon sales to India from the US to be fast-tracked and deepen the US-India defence ties.

Companion legislation has also been introduced by Democratic Senator Mark Warner and Republican Senator John Cornyn in the US Senate, a statement issued by Krishnamoorthi's office said. Barr's office said in a statement that this legislation would "place India on equal footing with other U.S. partners and allies by streamlining and accelerating the review and sales process for Foreign Military Sales (FMS) and exports under the Arms Export Control Act."

It subjects Indian FMS to the same threshold for oversight and accountability as other key US partners and allies, ensuring that India has streamlined access to the high-end capabilities necessary to defend itself.

"By deepening the U.S.-India defence partnership, this legislation will buttress India's role as a key provider of security in Asia," the statement said.

The move came days after the historic state visit to the US by Prime Minister Narendra Modi. During the visit, India and the US signed a host of defence and commercial pacts, including joint production of jet engines in India to power military aircraft and a deal on the sale of armed drones.

Krishnamoorthi said that under the Arms Export Controls Act, the review and sales process for weapons to American partners and allies is streamlined and accelerated.

By adding India to this list, FMS will not only be approved faster but they will also be required to clear the same threshold for oversight and accountability as all other American allies.

"This will ensure India has access to the weapons it needs to defend itself and further US-India security goals in the Indo-Pacific region," it said.

Krishnamoorthi said strengthening the U.S.-India strategic partnership is vital to the prosperity and security of not only both nations but also other democracies around the world.

"That is why I am proud to join my colleagues in introducing this legislation to expand security cooperation between the United States and India by adding India to the list of partners included in the Arms Export Control Act," he said.

Krishnamoorthi added that on the Select Committee on the Strategic Competition between the US and the Chinese Communist Party, where he serves as the Ranking Member, "we passed this legislative recommendation with overwhelming bipartisan support. Now we must pass this bipartisan measure into law."

Congressman Waltz said the US and India are bonded by shared national security interests and democratic values. "Which is why it's so important we continue to strengthen our global partnership to address the threats of today," he said.

"As our militaries continue to conduct joint military exercises and coordinate through the Quadrilateral Security Dialogue, streamlining military sales will help our two nations bolster security in the Indo-Pacific region," he said.

India, the US and several other world powers have been talking about the need to ensure a free, open and thriving Indo-Pacific in the backdrop of China's rising military manoeuvring in the strategically vital region.

China claims nearly all of the disputed South China Sea, through which more than USD 5 trillion of trade passes annually.

The Philippines, Vietnam, Malaysia, Brunei and Taiwan have counterclaims over some of the areas claimed by China.

Beijing has built artificial islands and military installations in the South China Sea.

Congressman Barr added that by removing the red tape around military sales, "we are recognising India as the key partner it is."

"Together, the United States and India will continue to cooperate and safeguard our shared national security interests and promote stability in the Indo-Pacific region," he said.

Barr said as the world's largest democracies, strengthening "our global partnership is paramount in addressing the challenges of today and securing a safer future for all."

<https://economictimes.indiatimes.com/news/defence/members-of-india-caucus-introduce-bipartisan-legislation-to-fast-track-weapons-sales-to-india/articleshow/101296302.cms>



Tue, 27 Jun 2023

Eye on China, Australian Envoy Says Partnership with India is Deterrent to Coercion

India and Australia are looking to finalise a comprehensive economic cooperation agreement (CECA) and arrangements for cooperation in critical minerals by the end of the year, Australia's

outgoing high commissioner Barry O'Farrell, has said. In his final interview before completing his term at the end of the month, O'Farrell said Australia's pension funds and banks are keen to invest in India, especially in areas such as infrastructure. In the field of defence and security, the burgeoning partnership between India and Australia "can be and is a deterrent" to all acts of coercion or attempted coercion, he said. Edited excerpts:

How would you look back at your stint in New Delhi and what were the high points in bilateral ties during this time?

I arrived and spoke to HT before we knew what was going to happen in the world. Strategic competition had already grown but the economic disruption was huge. If I was to characterise what I see as the growth in the relationship, it is the fact that just how frank, frequent and trusting the interactions are across the breadth of the relationship – prime ministerial, ministerial, [in] education, defence and commerce. The good news is we have gone through a process of reappraisal, we both understand we share similar views, we have shared interests strategically in our neighbourhood, and that working together, we can help shape the region for the good. The highlight for me was the fact that nine weeks after the lockdown [for Covid-19], we had the Indian prime minister's first virtual leadership summit, which elevated our relationship to a comprehensive strategic partnership with almost a dozen agreements alongside, but importantly, a commitment to reengage on economic cooperation.

In May 2020 [finance minister] Nirmala Sitharaman [spoke of] reform and I don't think the Indian government has stopped reforming since then. In September 2021, we had the first 2+2 meeting of the foreign and defence ministers. That was the first ministerial visit to India in my tenure and it was very productive. We then had the Economic Cooperation and Trade Agreement (ECTA) in April 2022, followed by the release of our updated Indian Economic Strategy which wasn't just a booklet, wasn't just words, but that my government put ₹1,100 crore behind it and that's when you know governments are serious. In 2023, we had visits in both directions by the prime ministers. In August-September 2020, we were back in [the] Malabar [naval exercise] and that is a symbol of what has continued to be increased - cooperation at a strategic level.

So, all the signs were there – the comprehensive strategic partnership, the economic agreement, the Mutual Logistics Support Arrangement which helped with military exercises, the start of broadening of interactions across common areas like cyber and critical technology.

What, in your opinion, are the reasons for the strengthening of the relationship?

From my perspective and from the perspectives of both countries, it's been a period of achievement and it is in no small part due to the political will of both governments.

Prime Minister Modi's political will was critical for the delivery of India's first major trade deal with a developed country in a decade. On our side, we're seeing back-to-back prime ministers[and] different parties demonstrating the same political will to engage with India. In the past, we've had prime ministers that had a start, but of course for a while, we had a revolving door of prime ministers, but we've now got prime ministers who are deeply committed to the relationship for all the right reasons, who are buttressed in that support, certainly in Australia, by the [Indian] diaspora that delivers the mortar that builds strength in the relationship. The diaspora is almost a million strong, it's enterprising, ambitious and influential. It engages in politics in Australia as people do in India. It joins political parties. When I first came to India in 2010, I don't think many political leaders in Australia understood the growing significance of the diaspora politically in Australia and its desire to seize opportunities in that country, and to participate in its electoral system, where it now is represented in state assemblies and in our national parliament. No prime minister and no premier or chief minister in Australia will be able to ignore India ever again, even if they wanted to.

In education, [the number of Indian students] studying in Australia...is back to pre-Covid levels. We demonstrated through Covid that when students were stuck in Australia, even when there were free flights home, 80% decided to stay in Australia. The debate a few decades ago as to whether it was safe for Indians to study in Australia is now well and truly over. The diaspora is a great strength for both of us, it's telling Australians about tourist and business opportunities in India, it's telling India and their relatives and their friends about the quality of Australian schools, universities and opportunities that exist there. I think by and large, it's going well and part of that ₹1,100 crore that is being invested in the relationship, in addition to opening up our post in Bengaluru and you're going to have one in Brisbane. The Centre for Australia-India Relations (CAIR), in addition to doing scholarships, will also start to work on cultural links. You have Indian Council for Cultural Relations (ICCR) here, we've never had a partner organisation and CAIR will be that part of that.

During Prime Minister Modi's visit, there was a renewed commitment to convert ECTA into a comprehensive economic cooperation agreement (CECA) by the end of the year. Do you think that's doable and do you see any hurdles, such as agriculture, which is a touchy issue in India?

Agriculture is a sensitive issue in every democracy. French farmers riot, British farmers complain, Australian and Indian farmers exercise their political rights. Firstly, in terms of timing, both prime ministers reiterated during their meeting in Sydney, as they did earlier in Delhi, that they're looking for it to be rapidly resolved by the end of this year. I think it's more likely the last quarter, and of course, the Indian system wants it done before we move into 2024 and the elections that brings with it. We'll be looking to build on the market access we achieved in the ECTA, we'll look to move into newer areas where we're cooperating in – electronics, renewables, digital trade. As the country that has some of the largest pension funds in Asia, we're keen to assist in India's infrastructure mission. [There's] US\$184 million being invested in infrastructure this year, we see the enormous growth of roads. We see other capital works going on and pension funds and banks like Macquarie Bank, that's already got investments, continue to be interested in not only India's rate of growth but in the practical application of Australian funds to assist it.

When you're a democracy, the trade deals...have to be saleable to the electorate. That was the approach we took with the ECTA. That was the discussion that was held very early with Prime Minister Modi about that trade deal, and I think that's the path on which a future trade deal will be concluded.

Don't underestimate the significance of the migration and mobility partnership agreement (MMPA) that was agreed on because that puts us at almost the leading edge of access by Indians to Australia. It's because Covid revealed to Australia that we do not have all the skilled people required to do all the jobs that exist in Australia, and so that agreement is good for India, good for Australia and reflects what's going on.

You have been upbeat on cooperation in critical minerals and renewables. How much further away are we from seeing something tangible?

I think we will see practical outcomes by the end of the year. KABIL (Khanij Bidesh India Ltd) has got a mandate to invest in the securing of offtake agreements for critical minerals in Western Australia. I've met at least one Indian company that is there themselves, looking at offtakes and also doing the processing of critical metals in Australia. I think one of the things that helps make it easier for Australia and India to engage in trade deals is because we don't compete, or we compete in few areas. We have elements to assist India's growth objectives and we rely on India for our economy, because we're now largely a services economy in Australia. We do very little manufacturing. I'm happy that Mahindra tractors have been sold in Australia for more than a decade. I have friends who have a Mahindra tractor. Mahindra has recently announced they'll be selling electric vehicles into the Australian market at a very competitive level and we know it's just

one of many car producers in India, but it's a further sign that for a country whose wage levels aren't conducive to [anything] other than advanced manufacturing, and although we're only 25.5 million people, it's still a country that India can find markets in.

You spoke about the Malabar naval exercise in terms of defence and security cooperation and the Mutual Logistics Support Agreement. What could be the next steps that could take defence ties to a higher level?

We're seeing more complex and frequent engagements by all of our forces across multiple exercises, we're seeing visits in both directions by our chiefs of the respective defence forces. But we are seeing things that a decade ago were unheard of. You had P-8 maritime patrols operating out of Darwin and I had the pleasure to accompany my defence minister on [an Indian] P-8 flight from Goa to Delhi when he visited here in July 2022. What we will see is more complexity occurring, I think trust becomes a habit and [leads to] instinctive collaboration. Even for things like humanitarian disasters – and we forget at times that Quad was formed off the back of the 2004 tsunami – being able and understanding the operating systems of close partners, who have a shared vision for the Indo-Pacific, makes those things easier as do.

In 1963, Exercise Shiksha saw aviators from the air forces of the US, Britain and Australia working with the Indian Air Force, cooperating as we're doing in peace times these days, but during a difficult time. Simply to send a message to the region that when you know coercion or attempted coercion happens, that working together can be and is a deterrent and it just reinforces the message, whether it's what we're doing bilaterally or trilaterally...France has a footprint in the Indian and the Pacific Oceans. We've seen a British carrier group visit last year...The Quad's vision for the region is not exclusive [and] it's built on an adherence to international rules and norms.

Both countries have common concerns on China but some media reports have suggested Australia is looking to rebalance ties with China. Where do you see that going and is that going to be a factor in India-Australia relations?

I think the India-Australia relationship isn't defined by our relations with any other country. It is a genuine understanding that we have similarities, we have shared visions, we share values and we want to strengthen those. What we're seeking to do with China, which engaged in some economic coercion against Australia during Covid-19, is to stabilise our relationship. That's precisely what India's been doing after [several rounds] of talks about incursions on the Indian border. It's better to do that, as the US defence secretary said at the Shangrila Dialogue, it's always the best time to talk. But we're seeking to stabilise, not normalise, relationships. We will continue to agree where we can. We will disagree where we must. As India has, and as India now knows, Australia's interactions with that country and all countries will be guided by what's in Australia's national interest. I think that's something that India respects and what we respect about India is that ultimately, we're countries that are looking out for firstly, our citizens' interests, and as countries that share what your prime minister said in June 2020 was a "sacred vision" for the Indo-Pacific, we know that working together delivers better outcomes.

Through the Quad and trilateral frameworks such as the one with France, India and Australia have done a lot of work on setting standards for critical technologies and assisting the Pacific Islands. What's new on those fronts?

None of it's going to be always new, although the Quad does have a track record of adding critical work to its agenda. But whether it's infrastructure across the Pacific, whether it's cyber and critical technology challenges, whether it's health security – those things continue and we're getting better at dealing with them. In any operation, there are baby steps and there are bigger steps. What we're seeing are deeper steps. Last year, the Pacific was threatened by a change of ownership of its communication system. That concerned us all. Australia was one of those that assisted in ensuring

that that communication system remains as we want the region to remain – free, open and sovereign. We will always respond to those things. What is great is, since I’ve been here, from the very first meeting I had with the external affairs minister, India’s wanted to do more with Australia in the Pacific. Clearly that is now happening – sharing the load to get relief to countries which suffer from volcanic explosions and the like, but also by your prime minister’s visit to Papua New Guinea, where the Forum for India-Pacific Islands Cooperation (FIPIC) was an important opportunity for Prime Minister Modi, one of the Quad members but also a significant country in our region, to reassure them of India’s support.

You were among the first to speak out against the activities of pro-Khalistani elements though India has reiterated its concerns about their activities in Australia, the UK and Canada. Is this something that continues to be an irritant in bilateral ties?

It’s an issue that is just as disturbing to the Australian government as it is to the Indian government. We have laws around graffiti and a programme that now extends to Hindu temples in Australia, for the protection and security of places of worship. But it’s an irritant to us because we are a successful multicultural, multi-faith community that has been devoid of this sort of activity. We’re just as keen as India to see an end of it. In Melbourne and Sydney, we had so-called referenda, so-called because they have no legal standing in Australia and here. The numbers that they cite are enormous and I think I would have seen film footage of it if that were true. People have a right in Australia to express their views, they have a right to peaceful protest. In Melbourne, they demonstrated a lack of peaceful protest and a number were arrested and others were being sought. Those arrested as such will be fined. In Sydney, I think there was some police intervention to ensure that we didn’t have any assaults. We’re a country that upholds the values of freedom of speech and freedom of worship. We will continue to use all of our enforcement agencies, as my prime minister has said, to ensure that this movement does not contravene our rules about that and in Australia we have hate speech laws where people have and will continue to be prosecuted if they engage in the sort of language that in my country is unacceptable and that reflects the values that has made Australia one of the most successful multicultural, multi-faith countries in the world.

<https://www.hindustantimes.com/india-news/eye-on-china-australian-envoy-says-partnership-with-india-is-deterrent-to-coercion-101687876264217.html>



Tue, 27 Jun 2023

Would not Allow Sri Lanka to be Used as Base for Threats against India: President Wickremesinghe

Sri Lanka would not be allowed to be used as a base for any threats against India, President Ranil Wickremesinghe has said, asserting that the island nation remains “neutral”, having no military agreements with China.

Wickremesinghe, who was on an official visit to the UK and France, made the comments during an interview with France’s state media on Monday.

In an interview with France24, Wickremesinghe said, “We are a neutral country, but we also emphasise the fact that we cannot allow Sri Lanka to be used as a base for any threats against India.” Responding to a question about China’s perceived military presence in Sri Lanka, the

president said that the Chinese have been in the country for about “1500 years and, so far, there has been no military base”.

Wickremesinghe asserted that the island nation has no military agreement with China and said, “There won’t be any military agreements. I don’t think China will enter into one.” The president said there were no issues of military use by the Chinese of the southern port of Hambantota, which Beijing took over on a 99-year lease as a debt swap in 2017.

He assured that even though the Hambantota harbour has been given out to China’s Merchants, its security is controlled by the Sri Lankan government.

“The Southern Naval Command will be shifted to Hambantota, and we have got one brigade stationed in Hambantota in the nearby areas,” he added.

Last year, Sri Lanka allowed the Chinese ballistic missile and satellite tracking ship Yuan Wang 5 to dock at the Hambantota port, raising fears in India and the US about China’s increasing maritime presence in the strategic Indian Ocean region.

There were apprehensions in New Delhi about the possibility of the vessel’s tracking systems attempting to snoop on Indian installations while being on its way to the Sri Lankan port.

The ties between India and Sri Lanka had come under strain after Colombo gave permission to a Chinese nuclear-powered submarine to dock in one of its ports in 2014.

Wickremesinghe, 74, was elected president last year following the resignation of former President Mahinda Rajapaksa, who fled the country amid the turmoil caused by Sri Lanka’s economic crisis, its worst since its independence from Britain in 1948, triggered by forex shortages.

<https://www.financialexpress.com/business/defence-would-not-allow-sri-lanka-to-be-used-as-base-for-threats-against-india-president-wickremesinghe-3145289/>



Wed, 28 Jun 2023

US Announces \$500 mn in Armour, Air Defence for Ukraine to Bolster Counteroffensive against Russia

In order to bolster Ukraine's counteroffensive against Russian forces, the United States on Tuesday announced a fresh set of arms for Kyiv which included armoured vehicles, precision munitions and mine-clearing equipment.

The package of \$500 million came days after a mutiny by the mercenary group Wagner impacted Russia's war-making capacity.

The Pentagon released a statement saying that the weaponry included 30 Bradley fighting vehicles and 25 Stryker personnel carriers, more rockets for Patriot air defence and Himars precision attack systems; small arms and over 22 millions small arms rounds and grenades.

The package "includes key capabilities to support Ukraine's counteroffensive operations, strengthen its air defences to help Ukraine protect its people... and other equipment to help Ukraine push back on Russia's war of aggression."

The fresh set of arms is aimed at backing the Ukrainian military's push to break through the front lines in the south of the country in hopes of driving occupying Russian troops out.

Earlier on Tuesday, Russian President Vladimir Putin said that despite the short-lived Wagner revolt led by his longtime crony Yevgeny Prigozhin, Moscow did not need to redeploy any troops from fighting in Ukraine.

"We did not have to take combat units from the special military operation zone," Putin said, adding that "all military formations continued to wage a heroic fight at the front."

Putin accuses West of wanting Russians to "kill each other"

The Russian president on Monday accused Ukraine and its Western allies of wanting Russians to "kill each other". During a Monday night address, he also claimed that Prigozhin's uprising was "doomed to fail". He made a special mention to the civilians for showing "unity" in the face of a "treacherous" rebellion.

The Kremlin on Tuesday said that Putin's authority had not been weakened by the armed mutiny. Meanwhile, Putin said that the group of Wagner mercenaries failed to win the support of the Russian people or its army.

In a televised address to law enforcement agencies outside the Kremlin, he said, "People who were drawn into the rebellion saw that the army and the people were not with them."

Putin told troops from the defence ministry, National Guard, FSB security service and interior ministry, "You de facto stopped a civil war."

"In the confrontation with rebels, our comrades-in-arms, pilots, were killed. They did not flinch and honourably fulfilled their orders and their military duty," he said, before holding a minute's silence in their memory, without saying how many died.

<https://www.wionews.com/world/us-announces-500-mn-in-armour-air-defence-for-ukraine-to-bolster-counteroffensive-against-russia-609434>



Tue, 27 Jun 2023

Russia and China Hold Talks Anti-Missile Defence, Russian Foreign Ministry Says

Russia and China's foreign ministries on Tuesday held a round of consultations on anti-missile defence, the Russian Foreign Ministry said.

"A thorough exchange of views took place on various aspects of this issue, including its global and regional dimensions," the ministry said in a statement on its website.

"The intention was reaffirmed to hold such consultations on a regular basis in the future."

Since invading Ukraine in February 2022 in what it calls a "special military operation", Russia has increasingly courted China for trade and diplomatic support.

China has not condemned the invasion, and Washington and other Western allies said earlier this year that China was considering providing weapons to Russia, something Beijing denies.

<https://www.reuters.com/world/russia-china-hold-talks-anti-missile-defence-russian-foreign-ministry-2023-06-27/>

Tue, 27 Jun 2023

Upgraded JASDF E-767s to have EW, Enhanced Capabilities

An upgrade of Japan's Boeing E-767 Airborne Warning and Control System (AWACS) aircraft will give the fleet electronic warfare (EW) capabilities and the ability to track a large number of airborne and sea-level contacts.

The Japan Air Self-Defense Force (JASDF) operates four E-767s, which were first acquired in 1998. Japan's Acquisition, Technology and Logistics Agency (ATLA) told Janes that the enhancements include the Mission Computer Upgrade (MCU) and “necessary” aircraft modifications.

The modifications “improve the air warning and control capabilities of the current E-767”, an ATLA spokesperson said. “In addition, as part of this project, electronic warfare support measures equipment and related devices are also installed.”

According to the spokesperson, the MCU updates the E-767's data processing capabilities. This “improved tracking capability will enable appropriate responses even in situations where a large number of aircraft and naval vessels, etc are expected to be intermingled”, the spokesperson said.

“The installation of electronic warfare support measures equipment makes it possible to detect and identify between various threats,” the spokesperson added. “It also enables upgraded E-767 to respond to threats proactively and to provide threat information to friendly aircraft, thereby ensuring superiority in contingency.”

The US Air Force (USAF) Life Cycle Management Center, Hanscom Air Force Base (AFB), is the contracting activity for the upgrades, according to the Department of Defense (DoD).

The USAF said on 8 June that the Hanscom AFB team had returned the first upgraded.

<https://www.janes.com/defence-news/news-detail/upgraded-jasdf-e-767s-to-have-ew-enhanced-capabilities>

Science & Technology News

Wed, 28 Jun 2023

ICHR Collaboration: ISRO to Use Scientific Tools to ‘Monitor Heritage Sites’

Months after the Indian Space Research Organisation (Isro) and Indian Council of Historical Research (ICHR) agreed to collaborate to trace the history of India's contribution in science and technology using evidence from ancient scriptures, raising questions about the scientific rigour of

the exercise, officials from the space body said the project will instead use scientific tools such as space-based imaging and satellite monitoring of heritage sites.

A memorandum of understanding (MoU) has been signed between Isro and ICHR to conduct a detailed study titled “History of Indian Science and Technology,” said Isro chairman S Somanath. The aim of the partnership is to trace and establish India’s contributions in science and technology in each historical era by following the scientific method.

“The study is not using ancient scriptures, but space-based imaging of heritage sites and palaeo-channels and other geographical observations. The work is yet to start,” Somanath said. A palaeo - channel is the area where a river once flowed.

HT reported last year that ICHR and Isro planned to initiate a ₹1.5 crore project to produce six volumes of a book, two each dedicated to the ancient, medieval and modern periods, tracing the “history of India’s contribution in the field of science and technology using evidence from ancient scriptures.”

That report cited former ICHR member secretary Umesh Kumar Kadam to explain that the project would use evidence from ancient scriptures to trace India’s contribution in the field of science and technology.

“There is a huge amount of information available in our ancient dharam granthas (religious scriptures) about India’s rich history of science and technology but, unfortunately, that has not been tapped by historians as yet who refute it and call it myth. We will read the texts properly and understand their historical and scientific content,” Kadam said then.

Officials at ICHR have now said their work with Isro will majorly be in the field of archaeology and excavation using scientific technology, even as they said that the council is yet to finalize the modalities.

Isro scientists said that sites of historical significance across India will be identified, then studied using satellite imaging and other space-based monitoring systems. The images generated by Isro’s technology will be used by ICHR experts to trace significant civilisations, incorporating palaeontological (related to the study of fossils) and other evidence of science and technology related contributions that could have gone unrecognised in modern records.

“For instance, rivers are known to change their paths. Our satellite technology can track the paths that our rivers followed several years ago, and then trace civilisations around these tracks. This is just one aspect, there will be many areas where evidence-based scientific tools will be able to help,” an Isro official said, asking not to be named.

Vasant Shinde, an archaeologist and member of ICHR, said that the council would collaborate with Isro to discover, document and reconstruct India’s cultural wealth and trace the scientific evolution of India over the ages.

“There are thousands of archaeological sites and monuments that are yet to be discovered properly because of their limited access, and it is not possible to explore them physically. Isro’s technology can be used in exploring such sites. For instance, in the Saraswati region archaeological site and Isro has already managed to reconstruct a trail of this river that has dried up now. There are archaeological sites in the thick forests of the northeastern region that can be explored through Lidar drone technology,” he said. Lidar stands for Light Detection and Ranging, is a well-known remote sensing technology that uses laser to measure distances. A Lidar drone is simply a drone carrying a Lidar sensor. The Saraswati river, believed to flow underground, is mentioned in the vedas but is yet to be discovered.

Shinde said that the collaboration will also explore the scientific technologies used in India in the past. “Both archaeologists and scientists are working on traditional knowledge systems in the field

of science and technology. We might explore the technologies used in the past in the field of water harvesting, irrigation, and climate change, and how they can be used in the present context.”

KK Muhammed, archaeologist and a member of ICHR, said there are several technologies including remote sensing and ground-penetrating radar through which Isro can help ICHR in accessing unexplored archaeological sites.

<https://www.hindustantimes.com/india-news/ichr-collaboration-isro-to-use-scientific-tools-to-monitor-heritage-sites-101687891324509.html>



Wed, 28 Jun 2023

India, France Launch Strategic Space Dialogue

India and France have launched the Strategic Space Dialogue, seeking to further deepen their nearly-six-decade-old partnership in the sector.

The Ministry of External Affairs (MEA) said the inaugural India-France Strategic Space Dialogue was held in Paris on Monday.

Foreign Secretary Vinay Mohan Kwatra led the Indian delegation for the talks with French Secretary-General, Ministry for Europe and Foreign Affairs Anne-Marie Descotes.

The nearly-six-decade-old Indo-French space partnership spans collaborations in technologies for satellite launches, research, operational applications, innovation and NewSpace partnerships for deep space exploration.

The Indian Space Research Organisation (ISRO) and the French National Centre for Space Studies (CNES) have been partnering in the fields of space medicine, astronaut health monitoring, life support, radiation protection, space debris protection and personal hygiene systems.

Earlier this month, CNES President Philippe Baptiste travelled to the ISRO headquarters in Bengaluru to explore potential areas of collaboration, share knowledge and foster innovation in the field of space science and technology.

In his talks with ISRO Chairman S Somanath, Baptiste recollected the six decades of collaboration between the two space agencies and emphasised their deep commitment to carrying it forward and addressing the challenges and opportunities in the present space ecosystem.

India and France are planning to develop eight to 10 satellites as part of a "constellation" for maritime surveillance to monitor sea-traffic management in the Indian Ocean.

The Indo-French space partnership dates back to 1964 when India's space programme was in its nascent stage as it was experimenting with sounding rockets from Thumba in Kerala.

Somanath had briefed Baptiste on the outcomes emerging from the space sector reforms launched by India and the call for increased participation of industries in France.

<https://www.republicworld.com/world-news/rest-of-the-world-news/india-france-launch-strategic-space-dialogue-articleshow.html>

Europe to Open AI 'Crash Test' Centres to Ensure Safety

The Europe Union is introducing "crash test" systems for artificial intelligence to ensure new innovations are safe before they hit the market.

The trade bloc launched four permanent testing and experimental facilities across Europe on Tuesday, having injected ₹220 million (\$240 million) into the project. The centers, which are virtual and physical, will from next year give technology providers a space to test AI and robotics in real-life settings within manufacturing, health care, agriculture and food, and cities.

Innovators are expected to bring "trustworthy artificial intelligence" to the market, and can use the facilities to test and validate their applications, said Lucilla Sioli, director for artificial intelligence and digital industry at the European Commission, at a launch event in Copenhagen on Tuesday. She highlighted disinformation as one of the key risks introduced by artificial intelligence.

The facilities, which will complement regulation such as the EU's AI Act, are a digital version of the European crash test system for new cars, the Technical University of Denmark, which will lead one of the centers, said in a statement. They will act as a "safety filter" between technology providers and users in Europe and also help inform public policy, the university said.

<https://economictimes.indiatimes.com/news/international/world-news/europe-to-open-ai-crash-test-centres-to-ensure-safety/articleshow/101318834.cms>

