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DRDO HANDS OVER AIR DEFENCE MISSILE MRSAM SYSTEM TO INDIAN AIR FORCE

SOUTH WESTERN AIR COMMAND
WELCOMES YOU TO
AIR FORCE STATION JAISALMER
FOR
MRSAM
INDUCTION CEREMONY



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DRDO HANDS OVER AIR DEFENCE MISSILE MRSAM SYSTEM TO INDIAN AIR FORCE

In a significant boost to India's defence capabilities, the first deliverable Firing Unit of Medium Range surface-to-air Missile (MRSAM) System was handed over to Indian Air Force (IAF) at Air Force Station, Jaisalmer in Rajasthan on 9 September 2021. Raksha Mantri Shri Rajnath Singh was also present on the occasion. The MRSAM (IAF) is an advanced network-centric combat air defence system developed jointly by DRDO and Israel Aerospace Industries (IAI) in collaboration with the Indian industry comprising of private and public sectors including MSMEs.

Secretary, Department of Defence R&D & Chairman DRDO Dr G Satheesh Reddy handed over the first deliverable Firing Unit to Chief of Air Staff Air Chief Marshal R K S Bhadauria in the presence of Shri Rajnath Singh. During the event, DRDO and IAI officials demonstrated the capabilities of the MRSAM system, as part of the On-Site Acceptance Test (OSAT).

In his address, Shri Rajnath Singh lauded the joint efforts of DRDO, IAI, various inspection agencies, public & private industry partners in developing, what he termed, one of the best state-of-the-art missile systems in the world. "With the handing over of MRSAM system to IAF, giant leap step has been taken towards achieving 'Aatmanirbhar Bharat' as envisioned by our Prime

Minister Shri Narendra Modi. It will prove to be a game-changer in the air-defence system," he said.

The Raksha Mantri reiterated the Government's resolve to strengthen the security infrastructure of the country to deal with any challenges arising out of the rapidly changing global strategic scenario. He stated that modernisation of the armed forces and building a self-reliant defence industry are being accorded top priority. Stressing on the need for a strong military, he said Government is leaving no stone unturned to ensure the security and overall development of the country. He listed out the measures taken by the Government, including setting up of Defence Industrials Corridors in Uttar Pradesh and Tamil Nadu; corporatisation of Ordnance Factory Board; notification of two positive indigenisation lists of over 200 items to increase exports and Transfer of Technology (ToT) by DRDO to the private sector. He expressed confidence that India will soon become self-reliant in defence manufacturing as well as a global manufacturing hub of defence systems.

Shri Rajnath Singh reaffirmed the Government's commitment to bolster the technological base through indigenous research, design and development, with a focus on 'Make in India, 'Make for the world'. He highlighted

that close cooperation between technology partners and friendly countries has led to rapid progress towards realising this vision and the development of MRSAM is a great example of such collaborative effort.

The Raksha Mantri described the development of MRSAM system as a shining example of the close partnership between India and Israel, adding that handing over the system to IAF has taken this decades-old friendship to greater heights. It has played an important role in strengthening the defence industrial base of India and Israel, he added. On the creation of new test facilities and infrastructure in the development of this programme, Shri Rajnath Singh said it will help produce quality products for both countries in the future. He termed the sub-systems being manufactured for this programme as a great example of synergy between Indian public and private sector companies.

On the occasion, the Raksha Mantri remembered former President Dr A P J Abdul Kalam, terming him a visionary who paved the way for self-reliance in defence sector, especially in the missile development programme.

The MRSAM system provides point and area air defence for ground assets against a wide range of threats including fighter aircraft, UAVs, helicopters, guided and unguided munitions, sub-

sonic & supersonic cruise missiles, etc. It is capable of engaging multiple targets at ranges up to 70 kms in severe saturation scenarios. The missile is powered by an indigenously developed rocket motor and control system for achieving high maneuverability during the terminal phase.

The firing unit comprises Missiles, Combat Management System (CMS), Mobile Launcher Systems (MLS), Advanced Long Range Radar, Mobile Power System (MPS), Radar Power System (RPS), Reloader Vehicle (RV) and Field Service Vehicle.

Speaking on the occasion, Chief Marshal R K S Bhadauria congratulated the efforts of the entire team of MRSAM (IAF) and stated that the system will bolster the air defence capabilities of the country. DRDO Chairman Dr G Satheesh Reddy complimented the teams involved in the development of the MRSAM system. Chief of Defence Staff General Bipin Rawat, AOC-in-C SWAC Air Marshal Sandeep Singh and President & IAI CEO Mr Boaz Levy and other senior civil & military officials were also present on the occasion.

- ♦ *MRSAM provides air defence against aerial threats like fighter aircraft, UAVs, guided and unguided munitions & cruise missiles*
- ♦ *Capable of engaging multiple targets at ranges up to 70 kilometres*
- ♦ *Indigenously developed rocket motor & control system for achieving high manoeuvrability*
- ♦ *State-of-the-art missile system.*



DRDO DEVELOPS ADVANCED CHAFF TECHNOLOGY FOR INDIAN AIR FORCE

Defence Research & Development Organisation has developed an Advanced Chaff Technology to safeguard fighter aircraft of the Indian Air Force against hostile radar threats. Defence Laboratory Jodhpur, a DRDO laboratory developed the advanced Chaff material and chaff cartridge-118/I in collaboration with High Energy Materials Research Laboratory (HEMRL), a Pune based laboratory of DRDO, meeting qualitative requirements of IAF. The IAF has started the process of induction of this technology after completion of successful user trials.

In today's electronic warfare, survivability of fighter aircraft is of prime concern because of advancement in modern radar threats. To ensure survivability of aircraft, Counter Measure Dispensing System (CMD) is used which provides passive jamming against infra-red and radar threats. Chaff is a critical defence technology used to protect fighter aircraft from hostile radar threats. The importance of this technology lies in the fact that very less quantity of chaff material deployed

in the air acts as decoy to deflect enemy's missiles for ensuring safety of the fighter aircraft. The technology has been given to the industry for production in large quantities to meet the annual rolling requirement of the IAF.

Raksha Mantri Shri Rajnath Singh has lauded DRDO, IAF and the industry for indigenous development of this critical

technology, terming it as one more step of DRDO towards 'AatmaNirbhar Bharat' in strategic defence technologies. Secretary Department of Defence R&D and Chairman DRDO Dr G Satheesh Reddy congratulated the teams associated with the successful development of this advanced technology that will further strengthen the Indian Air Force.





HIGH-LEVEL MEETING OF NIGERIAN DELEGATION WITH CHAIRMAN DRDO

A high-level Nigerian delegation from Defence Research and Development Bureau (DRDB), MoD Nigeria had called on Secretary DDR&D and Chairman DRDO, Dr G Satheesh Reddy to consolidate the existing relationship and partnership in Defence Technology Cooperation between DRDO and DRDB on 18 August 2021.

The Defence Technology Cooperation between DRDO and DRDB is being pursued under a MoU on Defence Research and Development Cooperation signed in November 2018.



INDEPENDENCE DAY CELEBRATIONS

DMRL, HYDERABAD

Defence Metallurgical Research Laboratory (DMRL) celebrated 75th Independence Day on 15 August 2021 at the main building lawn. Dr G Madhusudhan Reddy, OS & Director, DMRL hoisted the national flag followed by the national anthem. Dr Reddy, in his address traced the progress of the laboratory during the year and highlighted the achievements in various projects and other R&D activities. He also outlined the various events conducted and welfare measures including Covid-19 vaccination programme



undertaken during the year. He urged the employees to strive harder for delivering material solutions for the defence of the country. The function was attended by the officers and staff of DMRL.

IRDE, DEHRADUN

Instruments Research & Development Establishments (IRDE), Dehradun celebrated 75th Independence Day on 15 August 2021 with patriotic fervour. Dr B.K. Das, OS & Director, IRDE hoisted the national flag followed by the national anthem. Dr Das briefed about the progress of the laboratory during the year and the achievements in various work areas and projects. He also outlined the various events conducted and the number of welfare measures undertaken during the year.

To mark the celebration of 'Azadi Ka Amrit Mahotsav', IRDE organised events for the wards of its officers and staff. Drawing competition, art & craft exhibition and cultural programme were conducted during the celebration. Children participated in these events with great zeal and enthusiasm. Director, IRDE awarded the winners. In his address, Dr Das emphasised the relevance of 'Azadi Ka Amrit Mahotsav' and requested all to participate with full dedication.

Dr Das also released the latest issue of IRDE newsletter 'DRISHTI' (Detection Recognition Identification Search Homing and Tracking with Innovation). DRISHTI, a biannual publication of IRDE which comprises all the news related to IRDE's new developed products, trials, important events, visits, retirements, etc.





LRDE, BANGALURU

75th Independence Day was celebrated at Electronics & Radar Development Establishment (LRDE) with great enthusiasm on 15 August 2021. Shri P Radhakrishna, OS & Director (LRDE) hoisted the national flag and addressed the gathering. Director and senior officers planted saplings in the campus.



NMRL, AMBERNATH

75th Independence Day was celebrated at Naval Materials Research Laboratory (NMRL), Ambernath on 15 August 2021 with a patriotic spirit. NMRL employees participated in singing the national anthem and uploaded the videos online. Due to Covid-19 pandemic guidelines, limited employees attended the celebration. The celebration commenced with hoisting the national flag by Shri PT Rojatkar, Director, NMRL. He wished the august gathering. Apart from this, NMRL also provided articles written in regional languages related to domain expertise and its work areas for publishing in the public domain for Azadi Ka Amrit Mahotsav celebration.



The celebration ended with a plantation of 150 saplings by the employees at various locations of the campus.



NPOL, KOCHI

Naval Physical and Oceanographic Laboratory (NPOL) celebrated 75th Independence Day on 15 August 2021 with great enthusiasm. Shri

S. Vijayan Pillai, OS & Director, NPOL hoisted the National Flag at the technical complex. He inspected the DSC Parade,

received the ceremonial salute and addressed the gathering. The event was followed by felicitation of the DSC personnel.

Furthermore, he inaugurated the 'Sagar Sports Complex' in the sagar residential area which was followed by flag hoisting ceremony

at the residential campus. Saplings were planted by employees on the same day and code was tagged onto all the saplings before planting

for identification and nurturing. The programme was organised by the works committee and estates division.

AZADI KA AMRIT MAHOTSAV CELEBRATION

CASDIC, BANGALURU

In commemoration of 75 years of Indian Independence, Azadi Ka Amrit Mahotsav Celebration, Dr K Maheswara Reddy, DS & Director and Shri Ch Durga Prasad, Sc 'G', Centre Head, planted saplings at Combat Aircraft Systems Development and Integration Centre (CASDIC) campus, Bangaluru on 21 June 2021.

The Officers and staff also planted variety of saplings at the



campus. As a part of this drive, the dress code followed by certain divisions was Indian flag theme.

The sapling plantation drive created a pleasant ambience in the campus.

DMRL, HYDERABAD

Defence Metallurgical Research Laboratory (DMRL), Hyderabad is celebrating Azadi Ka Amrut Mahotsav to commemorate 75 years of India's independence. Activities focusing on nation building, self-reliance, scientific innovations and developing human resources will be organised till 15 August 2022. The various activities organised during the month include tree plantation, rendering of national anthem and an invited lecture by a DMRL Scientist. The efforts of DMRL primarily focus on the theme 'Aatma Nirbhar Bharat'. As a part of the celebration, a tree plantation programme was initiated on 15 August 2021 in which scientists and other officers participated enthusiastically.



DMRL organised "Rendering of Rashtragaan" on 13 and 16 August 2021- an initiative by the Ministry of Culture to mark Azadi Ka Amrut Mahotsav. A total of 116 DMRL employees successfully participated in the event.

Dr Manish Roy, Sc 'G' presented an invited lecture on "Elevated Temperature Erosion of Thermal Barrier Coating System" at the University of Hyderabad on 27 August 2021.



NSTL, VISHAKHAPATNAM

Naval Science & Technological Laboratory (NSTL) celebrated 75th Independence Day with enthusiasm. The national flag was hoisted by the Director of the laboratory, Dr Y Sreenivas Rao, OS, in the presence of officers and staff of NSTL, Naval officers, DSC Platoons, students and invited guests. Rendition of the national anthem was performed by the students of Ramnath Secondary School. Director in his address recalled the contributions made by the laboratory from its inception towards strengthening the naval capacity of the nation by developing modern torpedoes,



mines, decoys, AUVs, etc and also encourage to face evolving challenges in the field of naval defence technologies. Director in his speech reposed faith in the capacity of the laboratory in delivering cutting edge weapons to the Indian navy. 'Azadi Ka

Amrit Mahotsav' and various programmes were organised in the laboratory. Director and all senior scientist planted saplings. NSTL is committed to its social responsibility and as part of CSR commitment, Director distributed financial aids to 20 needy students.

LIBRARY WEEK CELEBRATION

National Librarian's Day is observed on 12 August every year to commemorate the Birth Anniversary of Padma Shri awardee, Dr S. R. Ranganathan, who is also known as the 'Father of Library Science' in India. Information Centre for Armament Technology (ICAT), Armament Research & Development Establishment (ARDE), Pune had a week-long programme on this occasion in the name of 'Library Week' since 2016. Various programmes such as launch events, lectures, quiz and essay competitions were held as part of the celebration.

Library week programme was inaugurated on 9 August 2021. Dr (Mrs.) Alka Suri, former Director,

DESIDOC and Dr V Venkateswara Rao, OS & Director, ARDE graced the occasion on the inauguration day. Dr K Nageswara Rao, Sc 'G' virtually joined the event from DRDL, Hyderabad and addressed the gathering.

Following products and services designed and developed by ICAT were launched during the inaugural session:

- ArmaLOFT (Armament Library On Finger Tips): An ICAT Mobile App
- ArmaGyan (Discovery Service designed and developed by ARDE)

Online Book Exhibition for accepting recommendation for procurement by ICAT.

Dr Suri emphasised on the importance of library and urged all professionals to design many such innovative services to meet modern day user's requirement. She praised the work of Team ICAT in bringing out ArmaLOFT and ArmaGyan for ARDE fraternity. Dr Rao emphasised the importance of reading habit. He also highlighted the work of ICAT in content creation in the name of ArmaPedia and ArmaGloss.

Dr Rao in his address highlighted the challenging work of keeping the library relevant for all users and expressed his support in the innovative work done by DRDO libraries. Dr Rao has also contributed as Chairman

of the implementation committee of ArmaGyan.

Dr (Mrs.) S D Naik, Sc 'G' & Group Director (TM, HR & ICAT) gave the Welcome Address.

On 12 August 2021, a webinar was organised on "Research/Publication Metrics- The other side of the Story". Dr R Sevukan, Associate Professor, DLIS, Pondicherry Central University was the Guest Speaker for the occasion. Various aspects of research metrics and research paper writing were covered. The webinar was well attended by scientists from ARDE and library professionals from other DRDO labs. The webinar was fruitful and well appreciated by the participants.



Quiz and essay competitions were organised as a part of the celebration. Questions for the quiz covered areas like DRDO products and facilities, ARDE products, DESIDOC services and ICAT services. It was made comprehensive to celebrate 'Azadi

Ka Amrut Mahotsav' along with ICAT Library Week programme.

Programme of Library Week- designed and coordinated by Team ICAT- were well appreciated by ARDE fraternity and other DRDO labs. Shri Ajay Kumar Pandey, Sc 'D' & Head (ICAT) presented the vote of thanks.

CELEBRATION OF HINDI DIWAS AND HINDI PAKHWADA

Hindi Pakhwada was celebrated from 16 to 31 August 2021 at DRDO Hqrs. The programme was inaugurated by Dr Ravinder Singh, Director, Directorate of Parliamentary Affairs, Rajbhasha and O&M along with Shri Babu Lal, Joint Director (OL), Shri Sujit Kumar Mehta, Assistant Director (OL) and Shri Jaibir, Assistant Director (Typing/Stenography) on 16 August 2021. During Hindi Pakhwada, 16 competitions were organised along with a quiz for drivers.

Hindi Diwas and Hindi Pakhwada Award distribution ceremony was organised on 14 September 2021, inaugurated by the Chief Guest Dr K.S. Varaprasad, DG (HR) along with Shri Sangam Sinha DG (R&M), Dr Ravinder Singh. Chief Guest, Dr Varaprasad, in his address appealed to all the officers/employees of the Hqrs to fulfil their constitutional obligation by doing maximum official work in the official language Hindi. Shri Sinha also encouraged the personnel present over there to

work in Hindi. He said that Hindi Diwas should be celebrated like a festival and the same enthusiasm should be maintained throughout the year. Dr Singh, talked about linking the language with employment. The Joint Director (OL) appreciated the meaningful efforts being made to promote the progressive use of the official language Hindi in the Hqrs and subordinate laboratories/establishments/centres.

On this occasion, the messages of Hon'ble Home Minister, Defence Minister and Shri G

Satheesh Reddy, Secretary, Department of Defence Research and Development and Chairman DRDO were readout. Certificates were distributed to 80 winners of different competitions organized during Hindi Pakhwada and 10 personnel were also awarded, who did maximum work in Hindi during the year. The Official Language Shield was given to the Directorate of Planning and Coordination.

A Kavi Sammelan was also organized on the occasion. All the poets were honoured with mementoes by the director. Shri Sujit Kumar Mehta, Assistant Director (OL) gave a vote of thanks.



INFRA DEVELOPMENT

INAUGURATION OF NEW TRANSIT FACILITY

Dr B.K. Das, OS & Director, IRDE inaugurated the new transit facility named 'Gangotri' on 15 August 2021 at Instruments Research & Development Establishment (IRDE) campus, Dehradun. The facility will provide a comfortable stay to DRDO officers during their visit to IRDE. Dr Das appreciated the efforts of officers and staff of EMU and Works in the construction of the facility.



Dr B.K. Das, OS & Director inaugurating the new transit facility 'GANGOTRI'

WORKSHOP ON FILE NUMBERING SYSTEM

Directorate of Parliamentary Affairs, Rajbhasha and Organisation & Methods (DPAROM) organised a one-day workshop on “File Numbering System” through video conferencing on 5 August 2021. Fifty-one labs/estt./units participated in the workshop through Video Conferencing. The

workshop was formally inaugurated by Dr Ravindra Singh, Director and Smt. Asha Tripathi, Sc ‘G’ & Associate Director, DPAROM with inaugural address and introductory remarks. Expert faculties were Mrs. Namita MaliK, Dy Director and Shri. Satish Kumar Tegta, Asst. Director from Defence Headquarter Training Institute

(DHTI), New Delhi who delivered lectures on “File Numbering System” and “E-Office”, respectively. It was an interactive event and was well taken by all the participants. Around 500 DRDO employees attended the workshop. The workshop was ended with a vote of thanks by Shri C P Meena, Sc ‘E’, DPAROM.

COURSE ON SOFT SKILLS FOR INTERPERSONAL EFFECTIVENESS

A five-day online course on ‘Soft Skills for Interpersonal Effectiveness’ was successfully conducted by Institute of Technology Management (ITM), Mussoorie from 21–25 June 2021 for Centre for Military Airworthiness & Certification (CEMILAC), Bengaluru. A total of 40 scientists from CEMILAC, Bengaluru and 9 RCMA Centres participated in the course. Presentations by ITM faculty were delivered via online platform.

Smt Anita Mohindra, Sc ‘F’, Gp Head Training, ITM inaugurated and briefed all the participants about the course. Shri APVS Prasad, Chief Executive CEMILAC addressed the participants and deliberated upon the importance of the course. Shri Jitender Singh, Sc ‘F’, ITM was the Course Director.

Numerous sessions were conducted to provide an overview of organisational behaviour. Following sessions were delivered in the course:

- Importance of Soft Skills

- Work Ethics and Work place Etiquettes
- Emotional Intelligence
- Developing Decision Making Skills
- Communication Skills
- Time Management
- Conflict Management
- Problem Solving Skills
- Building Interpersonal Skills
- Building Leadership Skills

During the valedictory ceremony, Shri Kamesh Goyal, Head HR, CEMILAC appreciated the efforts put in by ITM for conducting the course. The feedback from the participants was quite overwhelming and some valuable suggestions were also received. Finally, Director, ITM delivered the valedictory address. The Course Director thanked all the participants for their active participation and suggestions.





APPOINTMENT

Director, DESIDOC



Dr K Nageswara Rao, Sc 'G' has assumed charge as Director, Defence Scientific Information & Documentation

Centre (DESIDOC), Delhi with effect from 31 August 2021. Dr Rao has obtained M.Sc in Physics from Sri Venkateswara University, Tirupati in 1988; PG Diploma in Computer Applications from Jawaharlal Nehru Technological University, Hyderabad in 1991; MLISc from Annamalai University, Annamalai Nagar in 1992 and PhD from University of Mysore, Mysore in 2009.

Dr Rao joined Naval Physical & Oceanographic Laboratory (NPOL), Kochi as Sc 'B' in 1995 and implemented barcode technology for library applications. Later he was transferred to Defence Research & Development Laboratory (DRDL), Hyderabad in 1999 and implemented barcode technology for library applications, ported bibliographic data of 75000 books from Libris to LibSys library automation software, implemented various indexing and abstracting services to scientific community of missile complex. He took initiatives in a big way to establish new Knowledge Centre Building, strengthening of IT infrastructure, design and development of Digital

Library Software using JSP and Oracle on Linux platform to serve missile complex scientific community on 24x7 basis. He has established huge collection of eBooks, technical reports, standards, journal articles and conference papers and provided seamless access to information. He developed software to capture usage statistics of digital content accessed by scientists on Intranet, tools to capture MARXML data from Internet, established procedures to preserve and archive digital documents.

Dr Rao got promoted as Sc 'G' in 2017 and led the team of Knowledge Centre, Budgeting Division, Planning Division, Finance Division, Exhibition Cell of DRDL as Technology Director, Planning & Resources (DP&R); Human Resource Division, Technology Management Division, Hall of Missile Technology as Technology Director, Human Resources & Technology Management (DHRTM) and Technical Advisor & Director Programme Analysis (TA&DPA) to Director DRDL during his tenure in DRDL.

He has coordinated many high profile visits, organised several national and international conferences, scientific expositions, technical workshops and significantly contributed in the popularisation and promotion of Defence R&D.

Dr Rao is well known for his significant contributions and expertise in designing Information

Retrieval Systems & Information Filtering Systems and designing Content-Based Document Recommender Systems. He has to his credit around 20 national/international journal/conference papers and is a member of Society for Information Science (SIS), New Delhi.

HIGHER QUALIFICATION ACQUIRED



Shri K Anil Kumar, Sc 'E', Naval Physical and Oceanographic Laboratory, Kochi has been awarded PhD under the

faculty of Marine Sciences from Cochin University of Science and Technology, in the area of Physical Oceanography, for the thesis titled, "Internal Waves: Their Characteristics, Dynamics and Application with Special Emphasis on Indian Waters".

COURSE CERTIFICATION



Shri Srinivasa Rao Nandam, Sc 'E' of DMRL Hyderabad has completed certificate course in R&D Management conducted by

Indian Institute of Management (IIM), Visakhapatnam during December 2020-March 2021 in collaboration with the Institute of Technology Management, DRDO.

DMRL, HYDERABAD

Lt Gen T S A Narayanan, AVSM, Commandant MCEME & Col Commandant Corps of EME visited Defence Metallurgical Research Laboratory (DMRL) on 28 July 2021. Dr G Madhusudhan Reddy, OS & Director DMRL highlighted the ongoing R&D activities as well as the past achievements of the laboratory. Lt Gen Narayanan showed keen interest in the rare earth permanent magnet activity. He was briefed about the technology of rare earth permanent magnet synthesis and different grades of magnets developed at DMRL. He appreciated the role of DMRL in providing material solutions to the strategic sectors and expressed his desire to have future collaborations with them in the field of magnetics.



Lt Gen T S A Narayanan, AVSM, Commandant MCEME & Col Commandant Corps of EME during his visit to DMRL

NPOL, KOCHI

* Shri P Rajeev, Minister for Industries, Government of Kerala, visited Naval Physical and Oceanographic Laboratory (NPOL) on 8 August 2021. During the minister's visit, Shri S Vijayan Pillai, OS & Director, NPOL briefed him about the various R&D activities undertaken by the laboratory in the field of underwater surveillance systems and technologies. Shri Rajeev was also apprised of the substantial number of collaborations NPOL has with various industries in the state for the development of highly successful systems and products.

The technological initiatives and products championed by NPOL towards fighting the COVID pandemic were also demonstrated to the minister.



Shri P Rajeev, Minister for Industries, Government of Kerala, Shri S Vijayan Pillai, OS & Director, NPOL and Shri N Narayana Murthy, Chairman & Managing Director, M/s Keltron during signing of Licensing agreements

Licensing agreements between NPOL and the state Public Sector Undertaking- M/s Keltron for three systems were signed—U SHUS Simulator; UWACS Triton; and AIDSS. The LAToT documents were handed over to Shri N Narayana Murthy, Chairman & Managing Director, M/s Keltron by Director NPOL.

* VADM Sreekumar Nair, AVSM, NM, Director General

Naval Project (DGNP) visited NPOL on 29 July and 30 July 2021. Shri S Vijayan Pillai, OS & Director, NPOL welcomed the guest and briefed him on the ongoing research activities being carried out at NPOL. After interaction, Chief Guest visited Integration facility and acoustic tank of NPOL and shown keen interest in NPOL products and technologies.