

DRDO CELEBRATES NATIONAL SPACE DAY -ANTARIKSH SHAKTI



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Contents

COVER STORY	4
TEST & TRIALS	6
DRDO LOGO: A BRAND IDENTITY & PRIDE	9
EVENTS	10
INFRA DEVELOPMENT	15



HRD ACTIVITIES	16
SPORTS ROUND-UP	28
VISITS	29

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DRDO CELEBRATES NATIONAL SPACE DAY- ANTARIKSH SHAKTI

On August 23, 2023, India became one of the few countries in the world to land on the moon, as well as the first to reach its southern polar region. To honour this landmark achievement, the Hon'ble Prime Minister announced August 23 as 'National Space Day'. India will celebrate its first National Space Day (NSD-2024) on August 23, 2024, with the theme 'Touching Lives while Touching the Moon: India's Space Saga'.

DRDO also celebrated National Space Day 'Antariksh Shakti' on August 9, 2024, with a series of events, exhibitions, and activities to honour India's advancements

in space technology and to inspire the next generation of scientists and engineers. The event, held at DRDO Bhawan, highlighted Indian scientists' significant contributions to the global space community and the importance of continued innovation in space exploration. Smt Nidhi Bansal, Director, TDF, and Dr Anupam Sharma, Director, DSP, meticulously coordinated and organised the entire event at DRDO Bhawan.

Dr Samir V Kamat, Secretary DD R&D & Chairman DRDO, delivered the welcome address to all the dignitaries, setting the stage for a day of insightful discussions and strategic planning. He

highlighted the importance of space technologies in the defence domain and also emphasized the need to attain 'Aatmanirbharta' in the space domain by engaging private industries for both civil as well as defence applications.

Dr VK Saraswat, Member, NITI Aayog, graced the occasion as the Chief Guest, and Dr PS Goel, Former Secretary of the Ministry of Earth Sciences (MoES), honoured the event as the Guest of Honour.

Dr Saraswat delivered the keynote address, 'Opportunities for Shaping India's Space Industry', highlighting the key areas of collaboration between defence and space technology.





This was followed by the popular talk on 'New Technology Waves and their Impact on Wars' by Dr Goel.

The event witnessed an overwhelming participation from DRDO officials, including Director Generals, Financial Authorities, DRDO laboratories Directors, Corporate Directors, and numerous other esteemed scientists. Their collective presence and active engagement significantly contributed to the event's success, fostering valuable discussions and collaborations in advancing space defence technology. Institutions such as PEC Chandigarh, Amity University, and GD Goenka, representing the academia, generously shared their research and ideas at the event. Various industry associations also witnessed the event.

During the event, the Chief Guest inaugurated an exhibition at DRDO Bhawan with a ceremonial ribbon-cutting. A large number of industry participants, including MSMEs and start-ups, showcased their cutting-edge technologies as exhibits. Various participants, such as Astrogate Labs Private Limited; Accord Softwares and Systems Ltd., GAETEC; Jisnu Communications Pvt. Ltd.; Azista Industries Private Limited; and Manastu, showcased their innovative space technology and products. Prof. Arindrajit Chowdhary of IIT Mumbai's Inspecity Space Laboratories Pvt.

Ltd. showcased their advanced robotic working model arm for the removal of space debris.

A plenary talk by Dr Anupam Sharma, Director DSP, highlighted the domain areas where DRDO is comprehensively working on the space defence technologies and also enumerated different prospective areas to be explored in the space domain.

Dr Chandrika Kaushik, OS & DG (PC & SI), delivered a talk on DRDO's initiatives for technology development. The event also featured a panel discussion on the future of space exploration, where the panel chairman, Dr Subrata Rakshit DS & DG (TM & SAM), along with experts like AVM Pavan Kumar VM, DG DSA, and other DRDO and research industry representatives in similar fields, discussed the challenges and opportunities in the domain of space technology. The panel underscored the importance of international collaboration and the fusion of civil and military

forces, under the motto 'Winning the Peace for Winning the War'.

A series of workshops and interactive sessions were organised to engage young minds and spark their interest in the space science domain. The day culminated with an impactful announcement by Smt Bansal, who unveiled three deep tech Challenges aimed at advancing space defence technology. Smt Bansal set these challenges to foster innovation and drive cutting-edge solutions, reflecting a strong commitment to enhancing national security through technological excellence. The initiative underscores the importance of collaboration, self-reliance, and ingenuity in tackling complex challenges in the realm of space defence.

The event for National Space Day, 'Antariksh Shakti', not only celebrated past achievements but also laid the groundwork for future advancements, inspiring participants to contribute to India's space journey.





DRDO SUCCESSFULLY FLIGHT-TESTED PHASE-II BALLISTIC MISSILE DEFENCE SYSTEM

Defence Research & Development Organisation (DRDO) successfully flight-tested Phase-II Ballistic Missile Defence System on 24 July 2024.

Weapon system radars deployed on land and sea detected the target missile, mimicking an adversary ballistic missile, and activated the AD interceptor system.

The Phase-II AD endo-atmospheric missile was launched from LC-III at Integrated Test Range (ITR), Chandipur. The flight test completed all of the trial objectives, validating a complete network-centric warfare weapon system consisting of long-range sensors, a low-latency

communication system, and MCC and advanced interceptor missiles.

The test has demonstrated the nation's indigenous capability to defend against 5000 km class ballistic missiles.

The missile's performance was monitored using flight data captured by range tracking instruments such as electro-optical systems, radar, and telemetry stations deployed by ITR, Chandipur at various locations, including onboard ships.

The Phase-II AD endo-atmospheric missile, an indigenously developed two-stage solid-propelled ground-launched missile system, aims to neutralize various enemy ballistic missile

threats in the altitude bracket of endo to low exo-atmospheric regions. The missile system incorporates a number of state-of-the-art indigenous technologies developed by various DRDO laboratories.

Hon'ble Raksha Mantri Shri Rajnath Singh complimented DRDO for successful flight test and stated that it has again demonstrated the Ballistic Missile Defence capability.

Dr Samir V Kamat, Secretary DD R&D & Chairman DRDO, congratulated the entire DRDO team for their unwavering effort and contribution, which culminated in a successful flight test.

SUCCESSFUL FLIGHT TESTING OF DRDO'S LASER GUIDED ATGM

On June 25, 2024, the MBT Arjun Mk I Tank at KK Ranges, ACC&S Ahmednagar, fired the indigenously developed laser-guided ATGM. In this test, the ATGM successfully defeated the target located at minimum range. The tank crew conducted the firing test from the final user configuration of MBT Arjun Mk I. This successfully imparted Missile Firing Capability (MFC) to MBT Arjun Mk I, achieving all the objectives of the ATGM project. India's first totally indigenous laser-guided ATGM will now be fielded for user evaluation.



Laser Guided ATGM

The Pune-based Armament R&D Establishment (ARDE) of DRDO, in collaboration with HEMRL, IRDE, and CVRDE, has developed this ATGM.

Teams from ACC&S Ahmednagar extended support for this test. ARDE is the nodal agency and system designer, while HEMRL has developed propellant and igniter charges, IRDE has developed the laser seeker and designator, and CVRDE carried out FCC and LTD integration with the MBT Arjun tank. The ATGM employs a tandem HEAT warhead to defeat ERA-protected moving

**Target Hit at 1.5 km**

armoured vehicles in ranges of 1.5 to 5 km. The ATGM system configuration has been evolved in such a way that it can be launched from multiple platforms like tank guns, tripod launchers, and BMPs with suitable modifications. This is the first laser-guided ATGM developed by DRDO.

**Launch Platform: MBT Arjun**

The system's development was the result of total indigenous efforts. The ATGM will greatly enhance the firepower of MBT Arjun.

PECHORA SUSTAINER HAZARD CLASSIFICATION TRIAL AT NAGPUR

The Super Large Scale Gap Test (SLSGT) can be performed as a substitute for the single package and stack test on a solid rocket motor propellant. The purpose of the test is to determine whether a propellant will maintain a stable shock front; if so, it is a HD 1.1 candidate; otherwise, it is HD 1.3 class. During 23-24 July 2024, the Blast Test Range, Borkhedi Nagpur, conducted a Pechora sustainer hazard classification trial based on SLSGT. Two Trials were conducted for hazard division on sustainer charge main component being ammonium perchlorate, aluminum powder, and hydroxy-terminated polybutadine as the main components. On 23 July 2024, the first trial took place, positioning the Pechora sustainer charge vertically on the MS witness





plate at a distance of 300 meters from the control room. Shorting pins were deployed for measuring the shock front velocity through the sustainer. Pencil probes were kept in two directions at a distance of 10 m, 21 m, and 32 m for measuring the overpressure data. Donor charge of 60 k Composition B was assembled over the propellant charge with a gap of 70 mm of Perspex transmitting a pressure of 70 kbar (incident pressure).

On 24 July 2024, a second trial was conducted using a similar setup. The confirmatory trial was conducted in the presence of Dr Subrato Rakshit, DG (SAM), representatives from the Air Force, and BDL Hyderabad.



AHSP TRANSFER OF NIPUN MUNITION FROM DRDO TO DGQA

NIPUN is a Soft Target Munition designed and developed by Armament Research & Development Establishment (ARDE), Pune, in association with High Energy Materials Research Laboratory (HEMRL), Pune. The Indian Army has inducted NIPUN Munition following the successful completion of the GSQR-based evaluation. Two Indian private industries, namely M/s EEL, Nagpur, and M/s PEL, Secunderabad, have absorbed the NIPUN technology from DRDO. Both of these industries are currently undertaking bulk production against a purchase order from the Indian Army. The Indian Army has received more than 20 tons of ammunition so far.

ARDE successfully completed the First Pre-Dispatch Inspection in April 2024, clearing more than



10 consecutive defect-free lots of NIPUN Munition for each PA. The Authority Holding Sealed Particulars (AHSP) transfer ceremony of Nipun Munition from DRDO to DGQA was organised on 6 August 2024 at ARDE.

Maj. Gen. J James, Controller CQA (A), Khadki, Pune, along with

his team, was present during the ceremony. On this occasion, Shri A Raju, Director ARDE, handed over NIPUN's sealed particulars to the Controller. This is a great achievement for DRDO, as these munitions will enhance the Indian Army's combat capabilities to a great extent.



DRDO LOGO: A BRAND IDENTITY AND PRIDE

DRDO's pursuit of self-reliance and successful indigenous development and production of strategic systems and platforms such as the Agni and Prithvi series of missiles; Light Combat Aircraft-Tejas; Multi-barrel Rocket Launcher-Pinaka; Air Defence System-Akash; a wide range of radars and electronic warfare systems; etc., have given quantum jump to India's military might, generating effective deterrence and providing crucial leverage.

"Balasya Mulam Vigyanam" is a Sanskrit phrase that means the source of strength is science, which drives the nation in peace and war. DRDO has a firm determination to make the nation strong and self-reliant in terms of science and technology, particularly in the field of military technologies.

Logo as Brand Identity

Brand identity is the collection of all elements that an organisation creates to portray the right image to its consumers. Brand is the perception of the company/organisation in the eyes of the world. The term branding refers to the marketing practice of actively shaping a distinctive brand.

Brand identity is what makes an organisation instantly recognizable to the stakeholders. The audience will

associate brand identity with product or service, and that identity is what forges the connection between organisation and stakeholders, builds stakeholder loyalty, and determines how they perceive your brand. A well-built brand identity will effectively communicate a company's personality and its product value to potential customers. A true brand identity for an organisation like DRDO encompasses the entirety from hopes and dreams, from attitudes and actions, from challenges faced and choices made. The world's perception of how these elements collectively work together to meet our national mandate measures the success of DRDO's brand identity.

The logo is a key element to the visual brand identity of an

organisation, so it should be designed with careful planning, research, and attention to detail. An organization's logo often serves as a visual representation of its vision and mission, and the DRDO logo aims to unifiedly communicate the organization's core values, goals, and aspirations towards fulfilling the technology requirements of our armed services and government.

DRDO Logo Symbolization

In 2019, the Directorate of Public Interface (DPI), DRDO Hqrs, under the guidance of the Department of Official Language, Ministry of Home Affairs, Govt. of India, redesigned the current DRDO logo. They made it bilingual and added the Hindi abbreviation DRDO on top of the logo. This presaged the directive for embracing Indian symbolism

in MoD. The DRDO logo symbolises the vision of DRDO to empower India with cutting-edge defence technologies and a mission to achieve self-reliance in critical defence technologies and systems while equipping our armed forces with state-of-the-art weapon systems and equipment in accordance with requirements laid down by the three Services.

The DRDO logo serves as a visual cornerstone of the organization's communication strategy, helping to build and promote its brand identity, with each design element carefully crafted to create





a cohesive and meaningful representation. The design elements in the DRDO logo and their potential significance are:

✧ The concentric circles represent the organization's continuous innovation, growth, and progress for the requirements of the Armed Forces. They signify the development and expansion of DRDO's influence from its humble beginnings, reflecting a sense of forward momentum and transformative leadership.

✧ The star present on the left side within the blue outer circular ring is a symbol of excellence and testament to the organisation's resolute strides and path-breaking contributions to the nation, whereas the star on the right side reflects the futuristic

aspirations for continuous excellence and innovation.

✧ The middle circle, with the organisation's name in both Hindi and English, represents the comprehensive 360-degree R&D efforts undertaken by DRDO to empower the Armed Forces and highlights the central role of DRDO in supporting and enhancing India's defence capabilities.

✧ The inner circle features the prime elements of the logos of the Indian Armed Forces, emphasising the close collaboration and synergistic efforts between DRDO and the Armed Forces.

✧ The light yellow shade filling the inner circle symbolises liveliness, positivity, DRDO values togetherness, the

dynamic nature of its R&D activities, and the collaborative spirit within the organisation.

✧ DRDO develops weapons for deterrence and peace, not for destruction. The blue colour signifies calmness, peacefulness, and constructive use of technologies.

The DRDO logo embodies the organisation's commitment to achieving new milestones, transcending the technological horizon, and further signifies DRDO's dedication to building a technologically strong and self-reliant India.

*Vipin Kumar Kaushik, Director, DPI
Amit Sharma, Sc 'D', DPI
Santosh Kumar Choudhury, Sc 'B',
DIPR*

DRDO CELEBRATES 78TH INDEPENDENCE DAY

DESIDOC, Delhi

Defence Scientific Information & Documentation Centre (DESIDOC), Delhi, celebrated the 78th Independence Day on 14 August 2024. Dr K Nageswara Rao, Director, DESIDOC hoisted the national flag in the premises of DESIDOC building.

Shri Ram Singh, Havaldar, DSC, O/o MHSU, senior scientists, officers, and staff were also present on the occasion. National flag badges and DRDO badges were also distributed during the event. 30 saplings were planted by Director, DESIDOC and by the officers of DESIDOC to support the campaign 'Ek Ped Maa Ke Naam' of Govt of India. Works division of DESIDOC coordinated the event.



DGRE, Chandigarh

On August 15, 2024, the Defence Geoinformatics Research Establishment (DGRE), Chandigarh, and its RDCs and MMCs located at Manali, Lachung, Srinagar, Sasoma, and Auli celebrated the 78th Independence Day with great zeal and patriotic fervor. Reminiscing about the great sacrifices of our freedom fighters, Dr PK Satyawali, OS & Director, DGRE, hoisted the national flag at DGRE HQrs, Chandigarh, in the presence of senior scientists and officers from the Armed Forces.

During his address, Director, DGRE, highlighted DGRE's achievements of the last year, thanked all for their immense contributions, and urged all to re-dedicate themselves to the service of the country by focusing themselves on their assigned duties and goals for effective hazard mitigation management over Indian Himalaya.

The laboratory and its forward locations also celebrated the 'Har Ghar Tiranga' Campaign during 13-15 August 2024. DGRE, RDC Manali, MMC Srinagar, and MMC Jammu also organized the 'Ek Ped Maa Ke Naam' campaign to encourage DGRE officials to plant a tree as a tribute to our mother to mark the 78th Independence Day.

DIPR, Delhi

Defence Institute of Psychological Research (DIPR), Delhi, celebrated 78th Independence Day with enthusiasm and patriotic fervor on 15 August 2024. Dr Arunima Gupta, Director, DIPR, hoisted the national flag in the presence of senior scientists, Armed



Forces officers, and laboratory employees, reminiscing about the great sacrifices of our freedom fighters, followed by the rendition of the national anthem.

The DIPR family enthusiastically celebrated the 'Har Ghar Tiranga' campaign and 'Ek Ped Maa Ke Naam' initiative to commemorate this significant occasion, ignite a sense of patriotism among citizens, and celebrate the nation's achievements.

Director, DIPR, extended heartfelt greetings to all and urged every officer and staff member to reaffirm their commitment to serving the nation with renewed dedication and passion.

While initiating the plantation drive, she encouraged employees to plant a tree as a tribute to the mothers and also emphasized the imminent need for enhancing green cover and embracing environmental responsibility for protecting nature.





EMU, Hyderabad

Estate Management Unit (R&D), Hyderabad, celebrated 78th Independence Day on 15 August 2024. Following the hoisting of the flag and the playing of the National Anthem, the security guards led the parade. Two girls from Defence Laboratories School, Kanchanbagh and Vignyanakancha, who secured the highest marks in the CBSE SSC 2024 examinations, received cash awards and certificates.

Following celebrations, Sri U Raja Babu, DS & DG (MSS), inaugurated the renovated community hall, 'Saptapadi Convention Hall'. Sri GA Srinivasa



Murthy, Director, DRDL, Convention Hall, in the presence of Dr Anil Khurana, CCE (R&D) inaugurated 'Saptaswar', an open-air theater, adjacent to the Estates South.

RAISING DAY CELEBRATION AT ACEM

Advanced Centre for Energetic Materials (ACEM), Nasik, celebrated its 13th Raising Day on 14 August 2024. Dr Samir V Kamat, Secretary, DD R&D & Chairman DRDO graced the occasion as the Chief Guest and Prof. Prateek Kishore, OS & DG (ACE), was the Guest of Honour.

Dr AP Dash, OS & Director, HEMRL, Pune; Dr Makarand Joshi, OS & Director, R&DE (E), Pune; Shri PK Gupta, CCE (R&D) West, Pune and other dignitaries attended the event.

During the inaugural event, Shri TV Jagadeeswar Rao, GM, ACEM, briefed about work carried out at ACEM, augmentation, strengthening of safety & quality and welfare activities. He also elaborated various futuristic activities undertaken in the upcoming years. Prof. Kishore in his address appreciated the work carried out at ACEM and



emphasised the need to take up R&D activities with stress on safety and quality during solid rocket motor processing.

Dr Kamat, Secretary DD R&D

& Chairman DRDO in his keynote address stressed on the need to adapt with the changing times and focus on R&D, process efficiency, and process improvement.

RAISING DAY CELEBRATION AT DMSRDE

On July 29, 2024, the Defence Materials and Stores Research & Development Establishment (DMSRDE), Kanpur, celebrated its 48 Raising Day. The event was graced by Dr Y Sreenivas Rao, DS & DG (NS&M), as the Chief Guest. Dr Mayank Dwivedi, OS & Director, DMSRDE, highlighted in his address various achievements, milestones achieved, and progress of ongoing project activities. In his address, the Chief Guest expressed his appreciation for the work that DMSRDE is doing.

He emphasized that DMSRDE should become a global leader in the non-metallic field. Cultural performances added a vibrant touch to the celebration.

On this occasion, the Chief Guest felicitated 18 officers and staff with Commendation



Certificates. DMSRDE employees participated in various sports competitions prior to the event, fostering a culture of team spirit and enthusiastic competitiveness. The Chief Guest also carried out

the inauguration of the 26th edition of DMSRDE GrahPatrika 'Navchintan' and distributed the sports awards. The vote of thanks was proposed by Dr Kingsuk Mukhopadhyay, Sc 'G'.

ARDE CELEBRATES LIBRARY WEEK 2024

The Information Centre for Armament Technology (ICAT), a library of Armament Research & Development Establishment (ARDE), Pune, celebrated Library Week during 5-9 August 2024, in honor of the birth anniversary of Padmashri Dr SR Ranganathan, the Father of Library Science in India. This year's theme, 'Nari Shakti,' was chosen to align with the Government of India's 2024 initiative, 'Nari Shakti: From Women Development to Women-led Development.'

The inaugural event was held on 6 August 2024, where Shri A Raju, OS & Director, ARDE, officially inaugurated Library Week and graced the occasion.





Shri AK Pandey, Sc 'E' & Group Head, ICAT, welcomed the dignitaries and presented the day-wise schedule of events for the celebrations. Dr BB Padhy, Sc 'G' & Group Director, emphasised the crucial role of librarians within the organisation and demonstrated the effective implementation of the Five Laws of Library Science at ICAT. Mrs VS Tamhankar, Sc 'G,' highlighted the importance of reading in fostering intellectual growth and sparking new ideas. She noted how influential leaders like Bill Gates and Elon Musk read extensively to gain a deeper

understanding of the world, as well as how science fiction often predicts future realities.

In his keynote address, Shri A Raju highlighted that reading is fundamental to research and essential for keeping the mind engaged. He explained the strong connection between reading, informed decision-making, and project success. The 'Meet the Reader' experience-sharing program and the inauguration of a weapon exhibition took place on 8 August 2024. Shri MV Ramesh Kumar, OS, remarked that reading books is akin to worshipping

God. Shri Pandey and his team organized the event, where he emphasized the unique services provided by ICAT and encouraged all officers and staff to take full advantage of these resources. The Library Week program was well-received by participants and attendees for promoting a culture of reading within the ARDE community. The dignitaries distributed prizes to the event winners. About 50 winners and awardees received books as prizes. Shri AR Sarode, Technical Officer 'B,' concluded the event with a Vote of Thanks.

HOMAGE TO DR APJ ABDUL KALAM

DMSRDE, Kanpur

Defence Materials and Stores Research & Development Establishment (DMSRDE), Kanpur, observed the 9th Death Anniversary of the 'Missile Man of India', Dr APJ Abdul Kalam, on 27 July 2024. The brass statue of Dr APJ Abdul Kalam at DMSRDE Main Gate was garlanded by Dr Mayank Dwivedi, OS & Director, DMSRDE. Senior officers, employees, and DSC personnel of DMSRDE followed this with a floral tribute.

ITR, Chandipur

Chandipur's Integrated Test Range (ITR) observed the 9th Death Anniversary of Bharat Ratna Late Dr APJ Abdul Kalam with due solemnity across all strata of the ITR fraternity.

The death anniversary observance was held on 27 July 2024 by flower garlanding on the statue of Dr Kalam by Shri K



Suchendar, Director ITR, followed by scientists, officers, and staff.

Shri Suchendar, in his ode to the icon, recalled the contributions of the multi-faceted genius to the causes of ITR, DRDO, and the nation.

He described the pioneering roles played by Dr Kalam during his epoch-making stints as the first Director of ITR, SA to RM & DG DRDO, PSA to PM, and President of India. Dr Kalam's virtues par excellence

as a human being, as a scientist, as a technologist, as a manager, as a mentor, as a leader, as a motivator, and as the People's President who goaded innumerable blooming citizens to weave dreams into reality were articulated by the director in his speech.

Many officers and staff of ITR expressed their profound admiration for Dr APJ Abdul Kalam's wisdom and enlightenment in their address to the gathering.



MIXER BUILDING FOUNDATION STONE LAYING CEREMONY AT ACEM

Foundation stone for MY 300 Mixer building was laid by Dr Samir V Kamat, Secretary DD R&D & Chairman, DRDO on 14 August 2024 at ACEM, Nasik, in the presence of Prof. Prateek Kishore, DG (ACE); Dr AP Dash, Director HEMRL; Dr Makarand Joshi, Director R&DE (E); Shri Pradeep Kumar Gupta, CCE (R&D) West Pune; and Shri TV Jagadeeswar Rao, General Manager, ACEM.

MY 300 Mixer building will house 3000 L Vertical Planetary Mixer for composite propellant mixing with crane capacity of 40 T. This facility consists of Processing building complex having mixer room, feeding room, and utility room and control block outside the traverse having mixer control room, MCC room, engineers room and tool room, an AC plant



building. The facility is designed such that entire mixing operation

can be carried out remotely under stringent RH/RT control.



COURSE ON SCHOLARLY COMMUNICATION AND WRITING AT DESIDOC

Defence Scientific Information & Documentation Centre (DESIDOC), Delhi, organised a Continuing Education Programme (CEP) on 'Scholarly Communication and Writing' during 24-26 July 2024. The course's objective was to raise awareness among the DRDO fraternity about the importance of research writing and the ways and means to achieve it. Some of the topics covered during the course were scholarly communication and scientific writing; ethical conduct for publication and detecting plagiarism; an overview of DRDO publications, writing high-quality manuscripts; research metrics; understanding research literature through Scopus.

Dr K Nageswara Rao, Director, DESIDOC, inaugurated the course and briefed about the importance of scholarly communication



and scientific writing. Mrs Alka Bansal, Sc 'F' & Course Director, welcomed all the participants and emphasised the importance of writing good-quality research papers.

Shri Yogesh Modi, Sc 'E' & Dy. Course Director, gave a brief introduction of the course contents. Over 35 participants from various DRDO laboratories attended the course.

SPECIAL DMC CONVENES AT CFEES, SKILL DEVELOPMENT CENTRE PILKHUWA

The Center for Fire Explosives and Environment Safety (CFEES), Delhi, hosted a Special DRDO Management Committee (DMC) meeting on 29-30 June 2024 at its Skill Development Centre (SDC) in Pilkhuwa. The event provided a unique platform for showcasing the cutting-edge capabilities of CFEES and fostering valuable exchanges between experts. SDC Pilkhuwa, the training wing of

CFEES, specialises in fire safety education for Ministry of Defence (MoD) personnel. The center boasts state-of-the-art facilities, viz.,

- Fire training simulators provide hands-on fire-fighting experience
- A smoke chamber serves as a practical tool for navigation training
- High-rise rescue simulations

include escape chutes

- A model fire station equipped with specialized vehicles (HAZMAT, Emergency Rescue Tender, Hydraulic Platform, Air Crash Fire Tender)
- Advanced testing facilities, including the Fire Test Mannequin System, a 100 m³ instrumented chamber for fire test evaluation, a bus fire-fighting system, etc.



Throughout the year, SDC Pilkhuwa conducts specialized courses tailored to various MoD cadres, ensuring personnel are prepared for diverse fire-related challenges. During the break from the intensive DMC session, committee members toured CFEES facilities, gaining firsthand insight into the wide-ranging activities of the organisation. This interaction proved mutually beneficial, with CFEES scientists receiving valuable feedback and suggestions from the esteemed DMC members. The event highlighted the commitment of CFEES to advancing fire safety technology and training while strengthening collaborative efforts within the defence sector.



WORKSHOP FOR HEADS OF TIRCS AND LOCAL CORRESPONDENTS OF DRDO NL-TF AT NSTL

Defence Information & Documentation Centre (DESIDOC), Delhi, in collaboration with Naval Science & Technological Laboratory (NSTL), Visakhapatnam, organised a two-day workshop for heads of TICs/TIRCS/KCs and local correspondents of the *DRDO Newsletter* and *Technology Focus* and Familiarisation program during 1-2 August 2024 at NSTL, Visakhapatnam.

Dr Y Sreenivas Rao, DS & DG (NS&M), the Chief Guest of the occasion, inaugurated the workshop in the presence of Dr Abraham Varughese, Director, NSTL, the Guest of Honor, and Dr K Nageswara Rao, Director, DESIDOC.

During the inaugural session, Dr Nageswara Rao delivered the inaugural address, Dr Varughese delivered the welcome address, and Dr Sreenivas Rao delivered the keynote address.

The workshop focused on developing Digital Library Software and Library Automation Software for the benefit of the DRDO scientific community on the DRDO Internet network; enhancing the use of digital resources via the DRDO e-Library platform on the Internet; assessing the status of DRDO e-Resources Consortia for the subscription of e-Journals, Standards, Databases, and eBooks; providing guidelines for local correspondents of the *DRDO Newsletter* and *Technology*

Focus; and enhancing the Impact Factor of DRDO Journal papers to increase their global visibility; The significance of plagiarism and ethical publication; the need to utilise DRDO Knowledge Repositories to gather and transform implicit knowledge into explicit knowledge through technical papers, technical reports, theses, and dissertations; the publication of monographs by renowned scientists within DRDO in the field of defence technologies; and familiarizing oneself with the use of subscribed Jane's and Scopus databases.

Six sessions were held, covering topics such as the library and e-resource services provided by DESIDOC, writing tips for



correspondents when forwarding articles for magazines and DRDO publications, plagiarism, writing high-quality papers, and demonstrating how to use Jane's and Scopus databases.

While delivering his keynote address, Dr Sreenivas Rao referred to the workshop as a knowledge exchange and networking platform and extended his gratitude to Dr Nageswara Rao, Dr Varughese, and all the participants. He said DRDO would be focusing on deep-tech fundamental research and will also be expanding its fundamental research areas.

He remarked that libraries have always been his second home because he is such a voracious reader; he still frequents books to be abreast of current events, new books, and creative ideas. His speech centered on the significance of DRDO publications, particularly the *Technology Focus*, in establishing the DRDO brand.

A total of 54 participants, including TIRC heads of various DRDO laboratories and correspondents of *DRDO Newsletter* and *Technology Focus*, attended the workshop.



COURSES AND WORKSHOPS BY DGRE

Course on Planning and Designing of Rigid Formation Zone Avalanche Control Structures at Manali

Defence Geoinformatics Research Establishment (DGRE), Chandigarh, organised five-day Continuing Education Program (CEP) during 10-14 June 2024 on 'Planning and Designing of Rigid Formation Zone Avalanche Control Structures'. The objective

of the course was to enhance knowledge about mitigation of avalanches through structural means, calculation of snow load on different engineering rigid structures, and planning & designing of formation zone avalanche control structures

in the Indian Himalayas. The course was attended by a total of 17 participants from DGRE's Chandigarh and RDC DGRE Manali, as well as participants from GTRE, Bengaluru. Dr Amod Kumar, Sc 'G', DGRE, inaugurated the course, emphasizing the need



for systematic knowledge of various techniques for protection from avalanches and for all-time highway connectivity in the Himalayan region. The participants also visited the Advance Field Research Station Dhundi (alt. 3050 m) for familiarisation with avalanche-prone terrain and field instrumentation. Dr Sunil Bhardwaj, Sc 'F' was the course director.



Avalanche Awareness Training for Army Personnel

MMC Sasoma, DGRE, conducted snow-meteorological data collection and avalanche awareness training during 7 May 2024 to 25 June 2024 for Officers, JCOs, and ORs of various units undergoing training before induction at Siachen Battle School. They were told by Capt. Sumit Ojha, a meteorologist, and Nb Sub Anil Kumar about the dangers of snow and avalanches in snow-covered parts of the Indian Himalaya. Training was provided about snow-meteorological data instruments, their working, recording data, interpreting avalanche forecasts, and the role that different snow-meteorological parameters play in the avalanching process.



Session on Meditation-a Key to Stress Free Living

In coordination with the Gurutattva Organization, DGRE organized a session on 'Meditation: A Key to Stress-Free Living' on 9 August 2024 at DGRE Chandigarh. The session aimed to enhance the overall development of scientists and technical staff by promoting stress-free living, which in turn can positively impact

organisational performance. Shri Milind Kumar Singh, Manager North India, Gurutattva Organization, conducted the session on 'Meditation: a Key to Stress-Free Living' and introduced simple ideas and methods of yogic science and its day-to-day application in the life of an individual.





CONFERENCES AND WORKSHOPS AT DIPR

Course on Mindshift: Break through Obstacles to Learning and Discover your Hidden Potential

On August 6-8, 2024, the Defence Institute of Psychological Research (DIPR), Delhi, conducted a three-day course on 'Mindshift: Break through obstacles to learning and discover your hidden potential'. The course focused on the process of acquiring new knowledge and transitioning from a state of stagnation to achievement.

Dr Arunima Gupta, Director, DIPR, warmly welcomed the participants, urging them to actively engage in discussions with the experienced faculty members. She encouraged everyone to take advantage of the CEP's personally and professionally beneficial insights and learnings.



A two-day Platinum Jubilee Conference

A two-day Platinum Jubilee Conference on Personnel Selection: Methodological and Technological Advancements was organised by DIPR during 1-2 August 2024. Chief Guest Prof Manas K Mandal, Distinguished Visiting Professor, IIT Kharagpur, Guest of Honour Lt. Gen. Vinod G Khandare (Retd), PVSM, AVSM, SM, Principal Adviser, MoD, Dr UK Singh, DS & DG (LS), senior officials from tri-services, Indian Coast Guard, Central Armed Police Forces (CAPF), scientists and service officers from DIPR and selection boards, eminent academicians, and industry partners graced the event.





The insightful technical sessions aimed to gather diverse perspectives on psychologically driven and technologically enabled futuristic R&D solutions by integrating the capabilities of academia and industry to empower the human behind the machine and strengthen the Armed Forces.

Dr Arunima Gupta, highlighted that DIPR's success is built on invaluable guidance and collective efforts. What we received from academia, R&D organizations, armed forces, and industry partners, and the perspectives shared in this forum would further enrich and help DIPR chart new

horizons for a bright future to emerge and sustain as a global leader in military psychology. A DIPR-Industry Synergy Meet was organized after the conclusion of the panel discussions for exploring opportunities for collaboration and for developing innovative solutions.

Course on 'Enhancing Organisational Effectiveness of DRTC Personnel'

A course on 'Enhancing Organisational Effectiveness of DRTC Personnel' was organised by DIPR during 22-26 July 2024. Over the five days, DIPR endeavored to provide psychological inputs and means to enhance one's functioning at an individual, interpersonal, and organisational level with a range of topics including self-awareness, managing stress, enhancing positive emotions, motivation, time management, and effective communication.

Twenty-eight (28) participants from various DRDO clusters



actively engaged with faculty members and shared their experiences.

Workshop for Senior Dental Officers from Armed Forces

Defence Institute of Psychological Research (DIPR), Delhi, organised a one-day interactive meet and workshop for senior dental officers from the Armed Forces on the topic 'Nuances of Personality Assessment during Interviews' on 8 July 2024.

Lt Gen Vineet Sharma, VSM, Director General Dental Services (DGDS), and Col Comdt AD Corps graced the workshop, which attracted 21 senior dental officers, including 03 Major Generals.

The DGDS initiated the interaction and emphasised

the importance of improving the candidates' behavioral assessments.

Welcoming the participants, Dr Arunima Gupta, Director, DIPR, highlighted the charter and spectrum of R&D activities spearheaded by the laboratory and also provided a broad overview of the existing Officer Selection System for Selection of Commissioned Officers for Indian Armed Forces.

Senior Scientists and Service Officers from DIPR engaged with the participants, sharing the psychological underpinnings of

personality assessment, explaining the core qualities, and mapping them with the markers used for candidate assessment.

The participants were introduced to interview technique, including key behavioral cues and their associated nuances, and they were fully engaging with the topics presented.

The officers shared their experiences, sought clarifications, and collaborated with one another throughout the sessions, and the workshop concluded with key takeaways and summary points.



WORKSHOP ON ELEMENTARY FIRE PROTECTION AND PREVENTION AT PILKHUWA

The DRDO Skill Development Centre Pilkhuwa, Hapur, UP, hosted a one-day workshop on 'Introduction to Elementary Fire Protection and Prevention' on 22 July 2024 at the Indian Air Force's request.

The workshop was tailor-made for Commissioned Officers of the Indian Air Force looking after the responsibilities of station fire officers in respective units spread across the length and breadth of the country.

A total of 83 Air Force personnel (80 Commissioned Officers' and 03 ORs) attended the subject workshop.

The faculty and speakers during the workshop informed the participants about the Fire service



administration, fire fighting arrangements, explosive fire safety, electrical fire safety, and the latest developments in fire fighting technologies, in accordance with the Air Force's requirements.

Participants and higher echelons of the Indian Air Force greatly appreciated the workshop. Air Cmde G Ananth PD (Air HQ) attended the valedictory function with the words of appreciation.

TRAINING PROGRAM ON CBRN EMERGENCY MANAGEMENT FOR IB OFFICERS

The Institute of Nuclear Medicine and Allied Sciences (INMAS), Delhi, conducted a specialised training program on 'CBRN Emergency Management' for the Intelligence Bureau (IB) during 3-7 June 2024.

The event was inaugurated by Dr Sudhir Chandna, Director, INMAS. He emphasized the role of CBRN forensics and intelligence in CBRN emergency management.

Shri Vinod Kaushik, Sc 'F', welcomed the participants and presented the course overview, along with course coordinator





Dr Himanshu Ojha, Sc 'F'. A total of 50 participants from IB attended the training course at INMAS. Resource persons were invited from the National Disaster Management Authority, O/o Director General of the Centre

for Land Warfare Studies (DG-CLAWS), Defence Institute of Psychological Research (DIPR), and O/o IG CID Assam.

The topics covered different related aspects of CBRN emergency management. Participants were

trained in the management of dirty bomb scenarios, human patient simulator, radiation biodosimetry, mobile whole body counter, ROV-DAKSHA for remotely handling the sample collection, Netra for air surveillance, etc.

COURSE ON CBRN EMERGENCY MANAGEMENT AT INMAS FOR SPECIAL PROTECTION GROUP

Institute of Nuclear Medicine and Allied Sciences (INMAS), Delhi, organised a specialised training course on CBRN emergency management for the responders from Special Protection Group (SPG) during 22-26 July 2024.

The course's goal was to improve technical skills by providing first-hand training on how to mitigate CBRN emergencies and handle radioactive elements during VIP and VVIP protection. The SPG responders were sensitized about protection, detection, response/mitigation, decontamination, and medical management of emergencies created by CBRN agents. Experts from INMAS and outside agencies demonstrated



the Whole Body Counter (WBC), Unmanned Aerial Vehicle (UAV), Remotely Operated Vehicle (ROV), Remocon Wipes, Shudhika Protection, Human Patient Simulation System, and other essential equipment. The

respiratory protection drill, radiation source search exercise (live agent training), triage exercise, and communication protocol exercise were conducted to enhance the expertise of SPG responders.

JCM-III LEVEL COUNCIL MAIN MEETING AT GTRE

Joint Consultative Machinery (JCM)-III Level (DRDO) Council main meeting was held on 16 July 2024 at Gas Turbine Research Establishment (GTRE), Bengaluru, under the chairmanship of Dr Samir V Kamat, Secretary DD R&D & Chairman, DRDO. The official side of JCM-III was represented by DG (HR), DG (R&M), DMS, DHRD, DOP,

Director CEPTAM, and Under Secretary (R&D). The meeting was attended by DG (Aero), Director, GTRE, and DCW&E as special guests. From the staff side, Shri RN Nagaraj, Leader Staff Side, Shri UC Lenka, Secretary Staff Side, and 15 other members participated in the meeting.

In his opening remarks, Dr Kamat stated that the JCM-III

Council will continue to play its prominent role in resolving various issues related to employee welfare. He assured unstinting support to staff side from the management side. The discussions were held in a parliamentary manner with adequate attention accorded to all the issues. All JCM members expressed their gratitude to the Director, GTRE, and his team for



generously hosting the meeting and meticulously making all the arrangements for its smooth

conduct. In his closing remarks, Dr Kamat appreciated staff side for their constructive ideas and spirit

of togetherness. He stated that all must continue to work together to keep the organisation on top.

CLUSTER COUNCIL MEETING AT DMSRDE

On 29 July 2024, the Defence Materials and Stores Research & Development Establishment (DMSRDE), Kanpur, hosted the 64th Cluster Council Meeting (CCM) of the Naval Systems & Materials (NS&M) cluster. Before the meeting, Dr Y Sreenivas Rao, DS & DG (NS&M), and all the Directors of cluster laboratories garlanded the Dr APJ Abdul Kalam statue at the DMSRDE main gate. Dr Sreenivas Rao, chaired the meeting. The welcome address was given by Dr Mayank Dwivedi, OS & Director, DMSRDE.

Shri RV Hara Prasad, OS & Director, DLJ; Dr R Balamuralikrishnan, OS & Director, DMRL; Dr Duvvuri Seshagiri, OS & Director, NPOL; Dr Abraham Varghese, OS & Director, NSTL; Ms K Sangeeta,



IDAS, IFA(R&D), Vizag; Shri Tabish Shams, Dy. IFA, Kanpur; and other senior scientists from

the cluster laboratories attended the meeting.



VIGILANCE AND SECURITY SENSITIZATION AWARENESS PROGRAMME AT NSTL

The Naval Science & Technological Laboratory (NSTL), Visakhapatnam, conducted a two-day vigilance and security sensitization awareness training programme for all employees during July 22-23, 2024. Shri IL Narasimha Rao, renowned cyber security expert, was the Guest Speaker, and Dr Abraham Varughese, OS & Director, NSTL, was the Chief Guest. Shri T Ramu, Sc 'E', NSTL, delivered the welcome address. Shri Rao highlighted the increase of cyber frauds and reported incidents in recent times and advised to exercise utmost caution with regard to cyber security. He also covered all cyber



security protocols to be followed by defence establishments. 735 personnel participated in the program, actively engaged with the speaker and the ITCS team, and gained valuable insights.

Talks on cyber security and cyber security espionage, smart phone security, social media aspects and case studies, preventive measures against phishing and espionage were conducted. Also, dos and don'ts in the latest cyber threat landscape, and trends were delivered by Lt Col BP Acharya, Chief Security Officer, and Shri Abhisekh Kumar Singh, Security Officer, during the program.

DLIC OUTREACH TO TELANGANA STATE POLICE

The Directorate of Low Intensity Conflicts (DLIC) of the PC&SI cluster has been working hard with MHA (Police Modernisation) as part of the MHA-DRDO collaboration to get DRDO-made products and systems into the CAPFs and CPOs. Over the years, DLIC has successfully inducted products and systems worth Rs 6,000 crore into the CAPFs/CPOs. Taking the collaboration further, DLIC is now reaching out to the various state police forces in the country to assist in their modernisation. As part of the outreach, Director, DLIC, Shri Sangita Rao Achary Addanki, visited Telangana State Police HQrs and interacted with Addl. DGP (Octopus), Telangana



State Police, and his team. The Telangana Police team received a presentation on various LIC

products and systems developed by DRDO, followed by a display of LIC products. Specialised divisions of



Telangana Police, i.e., Greyhounds and Octopus, expressed keen interest in procuring various products. Some of the products inducted for procurement are Anti-Terrorist Vehicle, Grenade

with SD Mechanism, Passive Night Vision Sight, Corner Shot Weapon System, Ground Penetration Radar, Plastic Bullets, Bullet Proof Jacket, Optical Target Locator, UGRAM Assault Rifle, ASMI

Pistol, etc.

Shri Vijay Kumar, IPS, ADC (Octopus and Greyhounds), appreciated the conversation and directed his team to take further action.

NATIONAL WORKSHOP ON IRSA

A national workshop on Indian Radio Software Architecture (IRSA) was conducted by DEAL at DRDO HQrs, New Delhi during 6-7 August 2024. The objective of the workshop was to bring together key stakeholders including government, Armed Forces, industry, and academia working in the field of defence communications in India to apprise and discuss the efforts in standardisation of military radio software through IRSA towards indigenous development of SDR technologies/products to create a viable ecosystem in the country. The workshop was inaugurated by Dr BK Das, DS & DG (ECS) as Chief Guest with keynote talk by Dr Subrata Rakshit, DS & DG (TM). More than 120 participants attended the workshop with 50+ participants from industries.

The workshop included technical session on all facets of IRSA, user session, industry session and panel discussion on 'Way Forward for Realization of IRSA'.

IRSA is an indigenous effort towards standardisation of software for SDRs. The main objective of the IRSA is to enhance



waveform portability across various SDRs (from different OEMs, different configurations, different form-factors, etc.) within the hardware resource constraints. IRSA enables waveform portability by providing standardised interfaces to the waveform for abstracting the underlying hardware and software platform.

Enhanced waveform portability will enable interoperability

between different types of SDRs across tri-services. The IRSA has been designed incorporating features of SCA 4.1 and SCA 2.2.2 duly considering the user requirements with India specific customisations for security. It is truly a national effort with participation of Govt., DPSUs, industry and academia via a 17 member strong management committee and a 23 member strong drafting committee.

Grant of Design Registration No. to DGRE

The Indian Patent Office granted design registration number No. 365178-001 dated 26 June 2024, to Defence Geoinformatics Research Establishment's (DGRE) Design document for 'Terrain Investigative Drone' to Dr Manoj Kalra, Dinesh Yadav, and Upika Mittal.



TALK ON CYBER SECURITY & SOCIAL MEDIA SENSITIZATION AT NPOL

Naval Physical and Oceanographic Laboratory (NPOL), Kochi organised an invited talk on cyber security and social media sensitisation by Shri Rathod Jagan Mohan Naik, Intelligence Bureau, Kochi. The talk was organised on 10 July 2024, and the event was presided over by Dr Duvvuri Seshagiri, Sc 'H' & Director, NPOL.

Shri Jose Kurian, Sc 'F' & Group Director, V&S, introduced the speaker. The opening remarks were given by Shri K Mohanan, Sc 'G' & Director (Management).

Shri Naik provided a detailed



explanation of various types of cyber threats, supported by relevant examples. He briefed about the document security

and discussed about cyber security measures to be followed in sensitive organisations and regulations against violations.

COURSE ON ADVANCED MOBILITY SOLUTIONS FOR STRATEGIC APPLICATIONS

The Vehicle Research and Development Establishment (VRDE), Ahmednagar, conducted a five-day course on Advanced Mobility Solutions for Strategic Applications during 8-12 July 2024. Prof. Prateek Kishore, DS & DG (ACE), was the Chief Guest and the keynote address was delivered by Mr Valentik Jiri (M/s Tatra Trucks a.s., Czech Republic).

In the inaugural address, DG (ACE) spoke about the importance of learning and acquiring knowledge to meet immediate and future requirements through courses.

He also stated that conduct of course in the area of mobility for strategic applications is apt, as VRDE is involved in the design and development of ground support



systems and weapon platforms for strategic applications. Shri GRM Rao, Director, VRDE, emphasised innovation in the area of mobility solutions for strategic applications.

Dr BHVS Narayana Murthy, Vice Chancellor—DIAT, was the

Chief Guest for the valedictory function. Dr Murthy appreciated VRDE's efforts in organising the course, as it will impart quality training that will benefit the participants' knowledge base in the field of mobility.



COURSE ON FOOD TECHNOLOGY AT DFRL

Defence Food Research Laboratory (DFRL), Mysuru, organised a 4-day course on Advance Supply Chain Management & Food Technology (ASMAFT-19) during 8-11 July 2024. Twenty senior Army ASC officers and the Chief Instructor from ASC Centre and College, Bengaluru, attended the course.

Senior army officers received hands-on trainings on state-of-the-art and novel food technologies to gain comprehensive knowledge in food processing, frozen and chilled meat/chicken, quality control, and management. The course arranged a visit to Karnataka Milk Federation (KMF) Dairy, Mysore, CFTRI, Mysore, and ITC Foods Pvt Ltd., Nanjangud, to gain insight



into the various technological aspects of milk processing, grain milling, and the processing and production of RTE foods and potato chips.

Dr R Kumar, Ass. Dir., distributed the certificates to the participants. The program ended with a vote of thanks from Course Director Dr V Vasudevan, Sc 'E'.

DRDO'S CENTRAL ZONE TT TOURNAMENT

Naval Science & Technological Laboratory (NSTL), Visakhapatnam, organised DRDO Central Zone Table Tennis Tournament during 7-9 August 2024. Dr Y Sreenivas Rao, DS & DG (NS&M), inaugurated the event as a Chief Guest along with Dr Abraham Varughese, OS & Director, NSTL, as a Guest of Honour.

DG (NS&M) highlighted the importance of fitness among DRDO personnel, aside from their technical activities, and emphasised that the tournament serves as a bonding tool between various DRDO laboratories.

The Director, NSTL mentioned in his address the passion and dedication of the players representing India in the Olympics 2024 in Paris, and he



extended his best wishes to all the participants. Shri T Ramu, SC 'E', organising chairman, presented the tournament details, viz., participating laboratories (08), including NSTL, with a total of 104 players in this three-day tournament. The events included

Team Championship, Men Singles & Doubles, Women Singles & Doubles, Veteran Singles & Doubles, and Mixed Doubles.

RCI Hyderabad emerged victorious in the tournament, with NSTL, Visakhapatnam as the runner-up.

VISITORS TO DRDO LABORATORIES

CAIR, Bengaluru

* Vice Admiral Tarun Sobti, AVSM, VSM, Deputy Chief of Naval Staff (DCNS), and Rear Admiral Kunal Singh Rajkumar, VSM, Flag Officer Doctrines and Concepts, visited CAIR, Bengaluru, on 20 June 2024.

* On July 23, 2024, Vice Admiral RB Pandit, PVSM, AVSM (Retd), OSD Secretary, NSCS, and Vice Admiral Suraj Berry, AVSM, NM, VSM, C-IN-C SFC visited CAIR. There was a briefing by Dr Rituraj Kumar, OS & Director, CAIR, followed by discussion and demonstration of various technologies developed by CAIR.



Vice Admiral Tarun Sobti, AVSM, VSM, DCNS, at CAIR, Bengaluru

DRDO HQrs, Delhi

Shri Sanjiv Jindal, Additional Secretary (Police Modernisation & Disaster Management), MHA, visited DRDO HQrs on 9 July 2024 and interacted with Dr (Mrs) Chandrika Kaushik, DG (PC&SI), and the Directorate of Low Intensity Conflicts (DLIC). During his interaction, Shri Sangita Rao Achary Addanki, Director DLIC, provided a detailed presentation on the collaboration between DRDO and MHA. Shri Sanjiv Jindal also holds the position of

Additional Secretary (Disaster Management) at MHA. Director, DLIC informed him of more than fifty products developed by various DRDO laboratories for disaster management applications.

Shri Jindal believed that the equipment would be useful for disaster management forces, and he advised to forward it to DG NDRF.

DIHAR, Leh

Prof. Ajay Kumar Sood, Principal Scientific Advisor to GOI, visited Defence Institute of High Altitude Research (DIHAR), Leh, on 4 July 2024. Dr OP

Chaurasia, Director DIHAR, briefed him about the R&D activities undertaken by DIHAR. He visited the experimental fields of DIHAR and took interest in greenhouse technology, double-humped camels, and solar thermal technology. He appreciated DIHAR for the wonderful work being done covering many novel pathways in high altitude agriculture and the contribution to the local farmers ecosystem and soldiers.

DIPAS, Delhi

Maj. Gen. Dharmesh, ADGAFMS (MR&H), visited



Dr (Mrs) Chandrika Kaushik felicitating Shri Sanjiv Jindal



Prof. Ajay Kumar Sood during his visit at DIHAR, Leh

DIPAS on 26 July 2024. He was welcomed by Dr Rajeev Varshney, Director DIPAS, and briefed about different achievements and ongoing studies under environmental extremes in collaboration with DGAFMS. After that, he visited different laboratories and discussed with scientists and appreciated the ongoing cutting-edge research and contributions in areas of high-altitude physiology, human factor research, military nutrition, and different products developed for armed and paramilitary forces.

DMSRDE, Kanpur

✳ Dr UK Singh, DS & DG (LS), visited Defence Materials and Stores Research & Development Establishment (DMSRDE), Kanpur, on 2 August 2024. He was accompanied by Dr DT Selvam, Sc 'G' & Director (PM) O/o DG (LS), and Shri G Sripathy, Sc 'F', DEBEL. Dr Mayank Dwivedi, OS & Director, DMSRDE, welcomed DG (LS) and demonstrated the products and technologies developed by DMSRDE.

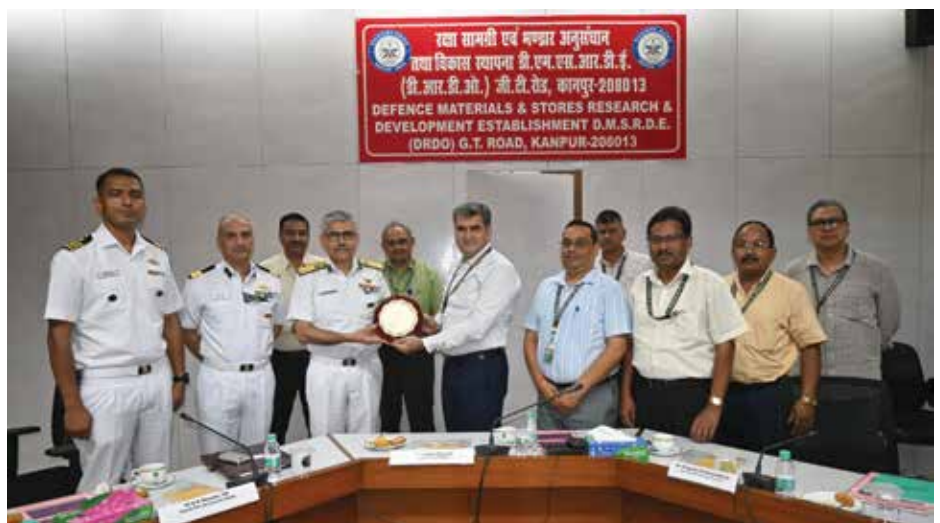
✳ On July 18, 2024, IG HK Sharma, TM, Dy DG (M&M) of the Indian Coast Guard visited the DMSRDE. He was accompanied by DIG Manoj Pande, Principal Director (Indg); Comdt (JG) Vikas Mehra Dy Director (Indg); and Sh Ashish Singh, Jt. Director, DISB, DRDO HQrs. Dr Mayank Dwivedi, OS & Director, DMSRDE, briefed them about DMSRDE technical activities and ongoing R&D activities. The officers appreciated the products and technologies developed by DMSRDE.



Maj. Gen. Dharmesh at DIPAS, Delhi



Dr UK Singh during his visit at DMSRDE, Kanpur



Dr Mayank Dwivedi felicitating IG HK Sharma at DMSRDE, Kanpur

INMAS, Delhi

On July 25, 2024, Maj. Gen. Dharmesh, ADGAFMS (MR&H), visited the Institute of Nuclear Medicine and Allied Sciences (INMAS), Delhi, and observed the R&D activities carried out in the field of preparedness for nuclear emergencies. Dr Sudhir Chandna, Director, INMAS gave an overview of INMAS and briefed about the activities, thrust areas, and research facilities available at INMAS. Addl DGAFMS (MR&H) was taken around to the Biodosimetry Lab, Drug Development Lab, NMR Facility, Cyclotron and PET Imaging Facility, and Nuclear Medicine Department. Addl DGAFMS (MR&H) expressed keen interest in the Mobile Radiation Biodosimetry Lab, CBRNe Medical and Response Management advanced training, and biomarker analysis approach for predictive modeling of medical ailments faced by the soldiers.

LRDE, Bengaluru

* On 15 July 2024, Electronics & Radar Development Establishment (LRDE), Bengaluru, had the distinct honour of welcoming Shri Sanjay Seth, Hon'ble Raksha Rajya Mantri. The visit was aimed at showcasing the cutting edge research and developments at LRDE in the field of radars. Upon arrival, the Hon'ble Raksha Rajya Mantri was warmly welcomed by Dr BK Das, DG (ECS) and Shri Gampala Viswam, Director and other key members of the establishment.

The highlight of the visit was an extensive tour of an exhibition displaying various products and models of technologies developed



Dr Sudhir Chandna briefing about the INMAS products to Maj. Gen. Dharmesh



Dr BK Das and Shri Gampala Viswam with Hon'ble RRM Shri Sanjay Seth

and being developed by LRDE. Later, the Hon'ble Raksha Rajya Mantri addressed the gathering and appreciated the progress made by LRDE over the years and conveyed his best wishes for the successful execution of all the projects/programmes of LRDE for the needs of defence of the country. He also conveyed full support of the government in meeting the Aatmanirbharta goals

of Government of India.

* Dr Samir V Kamat, Secretary DD (R&D) & Chairman DRDO and Smt U Jeya Santhi, OS & DG (HR), visited LRDE on 16 July 2024. Dr BK Das, DG (ECS) and Shri Gampala Viswam, Director, LRDE warmly welcomed the dignitaries.

Dr Kamat graced the occasion as Chief Guest for celebration of May Day recall at LRDE. On this



Dr Samir V Kamat and Smt U Jeya Santhi, with Dr BK Das, Dr Gampala Viswam and LRDE team during the May Day Recall celebration at LRDE, Bengaluru

occasion, he was felicitated by Director, LRDE. The visit for the May Day celebration served as a morale booster for the LRDE staff.

It was recognition of their hard work and dedication, reinforcing the importance of their contribution to national security.

During the visit, the chairman was given a comprehensive overview of the current projects, future technologies, HR activities and expenditure and Infrastructure. Dr Das, and Shri Viswam, and other senior officers were present in the meeting.

Later, the Dr Kamat visited the display area where various products and technologies developed by LRDE were displayed.

Dr Kamat addressed the LRDE gathering and mentioned that LRDE is one of the highly performing laboratories of DRDO. He appreciated the efforts put in by LRDE employees for the successful delivery of various

radars to the Armed Forces.

NPOL, Kochi

On July 20, 2024, VAdm Krishna Swaminathan, AVSM, VSM, Vice Chief of Naval Staff, visited the Naval Physical and Oceanographic Laboratory (NPOL), Kochi. Dr Duvvuri Seshagiri, Sc 'H' & Director,

NPOL, welcomed VAdm Krishna Swaminathan and presented him the NPOL memento.

The respective project teams provided a brief overview of the ongoing projects. The Chief Guest visited the exhibition area, where NPOL explained the various products and technologies on display.



Dr Duvvuri Seshagiri, presenting memento to Vice Chief of Naval Staff