

Thu, 17 Oct 2019

## 'India's tech progress to safeguard national interest'

New Delhi: India's pursuit of advancement in critical technologies is to safeguard its national interest and not to dominate others, said P K Mishra, the principal secretary to the prime minister, on Wednesday.

Addressing the 41st Defence Research and Development Organisation (DRDO) here, he said scientists should not just be content with developing technologies and their applications but must aspire to make India a global leader and an important stakeholder in the new international protocols.

He also suggested three Rs -- requirement, resources, and relevance -- as key factors in determining the country's quest for advancement in emerging technologies.

"Our requirement is to seek advancement in key technologies of the future to safeguard our national interest in a constantly evolving geopolitical arena and ensure socio-economic progress through application of such technologies. Our pursuit of technological advancement is not for exerting influence or dominating others but to make it a level-playing field," he said.

The top bureaucrat emphasized the need to develop a strong understanding as well as insight in technological changes and anticipate focus areas in order to first gain, and then maintain, a competitive edge.

This is critical not just for geopolitical and national security reasons, but also to ensure that the country sits at the high table in global dialogues and initiatives in the field of innovation as well as trade and commerce, Mishra said.

He said the availability of key resources could be a limiting factor in the quest for key technologies. But this could, on the other hand, offer an opportunity to innovate, he pointed out.

Using such initiatives in emerging technologies, the DRDO must hone its skills so as to become a net producer of value-added resources, he said.

Emerging technologies, he observed, must be relevant to development efforts, and spin-offs from them would support in various spheres.

He also cited the example of space technologies developed by the ISRO to help farmers in different ways.

"Similarly, innovative use of artificial intelligence in agriculture, manufacturing industry, and even use of smart materials could be of immense relevance to various sectors of the economy," Mishra said.

Referring to the young scientists laboratories, Mishra said they should not work in silos.

In 2015, the government sanctioned establishment of seven young scientists centres headed by the younger lot in the DRDO.

Mishra said the scientists should keep abreast with associated researchers in related fields and the requirements of the industry.

"This logic extends to the cross-platform integration of focus areas in these five labs, because the focus areas are interdependent in their technological premise as well as applications. Hence, they need to talk to each other," he said.

<https://www.deccanherald.com/national/indias-tech-progress-to-safeguard-national-interest-768973.html>

**Success of DRDO's young scientists' labs essential for India: Top PMO official**

ANI | Updated: **Oct 16, 2019 21:17 IST**

New Delhi [India], Oct 16 (ANI): In line with Prime Minister Narendra Modi's views, the DRDO has set up five laboratories under young scientists below the age of 35 who would be working in fields including artificial intelligence and smart materials, Principal Advisor to Prime Minister PK Sinha said on Wednesday.

"He (Prime Minister Modi) suggested that young scientists below the age of 35 years be given an opportunity to innovate and explore frontier areas. With this in view, DRDO has taken the momentous step of setting up five Young Scientists' Laboratories working in five niche technology areas such as artificial intelligence, quantum technologies, cognitive technologies, asymmetric technologies and smart materials," Sinha said.

He made the comments while addressing the 41st DRDO Directors' Conference.

Mishra said the five labs will offer a useful template of research and development in the field of emerging technologies in the country.

"Their success is essential for our country gaining pole position in this global race, where shelf-life of products as well as technologies is getting increasingly shorter. This is a bus we cannot afford to miss, if we want to achieve a decent quality of life for our citizens," he said.

Urging the young scientist labs to not work in silos, the top official in the PMO said that these labs "should be kept abreast with associated researchers in related fields and the requirements of the industry."

Mishra suggested the success mantra of three R's – Requirement, Resources and Relevance – to the young DRDO scientists as key factors in determining the country's quest for advancement in emerging technologies.

He said that a mechanism also needs to be evolved to monitor the progress against the stated objectives, and constantly update with international developments in related fields. "We do not wish to end up in a scenario where we are found to be reinventing the wheel," Mishra outlined.

"We must aspire to become global leaders and important stakeholders in new international protocols, which are bound to be formulated and reformulated as the world sees a constant transformation in technological and innovation landscape," he said.

"I look forward to seeing our share in patent applications from these focus areas rise manifolds in the years to come," Mishra added.

The top PMO official underlined that the innovative use of artificial intelligence in agriculture, manufacturing industry, and even use of smart materials could be of immense relevance to various sectors of the economy.

He expressed confidence that the young scientists will be capable of making desired advances in the next-generation technology and innovation, provided they are supported by an ecosystem which allows them the freedom to think and execute.

Mishra said that the labs should be linked to the indigenous development of 'supporting the hardware in chips, materials and so on, asserting that it will truly be in line with the Prime Minister's flagship 'Make in India' initiative. (ANI)

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## **DRDO complimented by PM's principal secretary for fulfilling vision**

*PK Mishra complimented the DRDO for fulfilling the Prime Minister's vision of having at least five labs run by scientists under the age of 35 years*

*By Devarshi Mankad*

Mumbai: The Defence Research and Development Organisation (DRDO), on Wednesday, stated that Dr P.K. Mishra, the Principal Secretary to the Prime Minister complimented the organization for attaining the PM's vision of creating a Young Scientists Labs. The Principal Secretary praised DRDO for providing technology leadership for defence systems.

### **'Fulfilled PM's vision'**

The DRDO tweeted, "Dr. PK Mishra PS to PM complimented DRDO on fulfilling Prime Minister's vision of creating 5 Young Scientists Labs manned by scientists of age less than 35. This will allow young scientists to innovate independently. He added that technology leadership will be determined by who drives it and the chosen areas. He appreciated DRDO's role in providing technology leadership for defence systems."

The Principal Secretary was attending the 41st DRDO Directors' Conference, where he said, "DRDO has taken the momentous step of setting up five Young Scientists' Laboratories working in five niche technology areas such as Artificial intelligence, Quantum Technologies, Cognitive Technologies, Asymmetric Technologies, and Smart Materials."

The Prime Minister, in his first term, had advised the DRDO to have at least five laboratories of defence research agency to be headed by scientists younger than 35 years of age. The DRDO, soon after PM's nudge set up a new lab within the Electronics and Communications Systems (ECS) department for young scientists. In 2014, at a DRDO event, Prime Minister had asked the scientists and the authorities to bring in some fresh, young faces and also to complete the projects on time. In a speech, he said, "The big challenge is how do we complete our work before time. If the world brings out a weapon in 2020, can we do it by 2018? Can you select five laboratories where everybody will be below 35 years in age? Even the decision-makers are below 35 years? You need to take a risk and bring some fresh air".

## Need for innovation

The Prime Minister had highlighted the need to be fast and lead the way in Defence Research and innovation. "That is why the challenge before India is that how do we complete work before time. If the world is coming up with some products in 2020, can we come in the field prepared with products in 2018. DRDO has to decide whether it has to respond to the situation or it has to be proactive and set agenda for the world and we have to set agenda for the global committee. We can be the world leader by not following but by showing the way," the Prime Minister had said.

<https://www.republicworld.com/india-news/general-news/drdo-complimented-by-pms-principal-secretary-for-fulfilling-vision.html>



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# Aim for technology that remains contemporary for 10-15 years, Rajnath Singh tells DRDO

*Rajnath Singh lauded DRDO for achieving the 100 days' target and identifying milestones to commemorate 75 years of Independence and the roadmap for 5 years*

New Delhi: Defence Minister Rajnath Singh on Tuesday asked DRDO to aim for the systems with technologies that remain contemporary for next 10-15 years so that the armed forces maintain technological superiority. Addressing the 41st DRDO Directors' conference here, he called upon DRDO fraternity to imbibe the working ethos of former President Bharat Ratna Dr A P J Abdul Kalam. He stated that defence research and development and manufacturing has the potential to provide highest employment, direct or indirect. According to a Defence Ministry release, the minister said technology also has its limitations and development of products have a gestation period. "For such complex systems, the technical requirements keep evolving during the development cycle. Spiral development of these systems should be preferred option," he said.

He lauded DRDO for achieving the 100 days' target and identifying milestones to commemorate 75 years of Independence and the roadmap for 5 years. National Security Advisor Ajit Doval said DRDO has a seminal role in making India technologically strong. He mentioned that in modern war, technology and finance would decide the outcome. Noting that need-based technology will enable India to have an edge over its adversaries, he said critical technologies should be developed indigenously. The DRDO is the only organisation which can take up system integration and should further strengthen it, he said. Army Chief General Bipin Rawat expressed confidence that future wars will be won with indigenous systems.

He said DRDO has made major strides to ensure that needs of the services are met by providing various weapon systems. Chief of Naval Staff Admiral Karambir Singh in his address stated that Indian Navy is efficiently using Varunastra, Maareech, Ushus, TAL and various other DRDO-developed systems Air Chief Marshal RKS Bhadauria lauded the capabilities of Light Combat Aircraft Tejas and asked DRDO to develop next generation aircraft Advanced Medium Combat Aircraft (AMCA), harnessing the technologies and experience of LCA. He said DRDO has been able to achieve the objectives of self-reliance to a great extent in the past seven decades. Bhadauria appreciated the organisation's role in electronic warfare technologies, radars, composite materials for LCA, astra and other systems.

DRDO chief G Satheesh Reddy spoke of various technologies developed by DRDO. He said the theme of the conference - Technology leadership for empowering India- was in line with the

requirement to develop indigenous systems with advanced technologies. Singh also released two compendia - 'DRDO-Industry Partnership: Synergy' and 'Growth and DRDO Products with Potential for Export'. DRDO Policy and Procedures for Transfer of Technology to support industry was also released by him. He also launched the new website of DRDO. Chitra Rajagopal, DG (SAM) said modernisation of armed forces was a continuous process based on threat perception, operational challenges and technological changes and DRDO was committed to equip our armed forces with Internationally competitive systems, giving them a decisive edge in the battlefield. A conference is an annual event where a number of brainstorming sessions are planned over two days.

<https://www.mid-day.com/articles/aim-for-technology-that-remains-contemporary-for-10-15-years-rajnath-singh-tells-drdo/21916156>