Expert urges scientists to develop green propellants

Reporter

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PUNE: The scientific fraternity must consider building green propellants, considering the growing public awareness and concern about pollution, said scientific advisor to union defence minister, Dr VK Saraswat.

He was delivering the inaugural address as chief guest at the biannual 7th International High Energy Materials Conference & Exhibit (HEMCE-2009), which began here on Thursday. The three-day event is being organised by city-based Defence Research and Development Organisation (DRDO)'s High Energy Materials Research Laboratory (HEMRL).

VS Saraswat (right), scientific advisor to defence minister, lighting the lamp at the inauguration of HEMCE -09 at Abdul Kalam Golden Jubilee auditorium at Pashan on Wednesday

Saraswat told the scientific community, which included foreign delegates, that the general population in the coming days would not allow pollution of toxic gases for the sake of technology. Hence it was vital to build green propellants, which would help in developing and creating friendly technologies.

Urging the fraternity to develop thermobaric weapon technologies and systems, he said, "Most of the European nations have thermobaric weapon systems in place and even China has now managed to place the technology in its arsenal, while India is yet to develop the technique."

He said another major challenge for scientists would be manufacturing small-sized rockets in larger quantity as miniaturisation of the systems was the need of the hour. He also urged the fraternity to deliberate why Indian bombs and missiles are large in size, weight and less effective compared to similar weapons in the possession of other countries.

"The way we do research is not just the way we utilise the material part in our innovations," he said. Hence it was important for the fraternity to ponder what the country had archived and what needed to be achieved for the future, added Saraswat.

Speaking on the occasion, guest of honour and National Chemical Laboratory (NCL) director Dr S Sivaram said that over the last decade, the definition of an enemy had undergone major change. The people likely to cause damage to a nation are usually perceived outside, but in the last 10 years the scenario had changed and the next door neighbour could be a potential security threat, he said.

There was a need for a different strategy as well as different technologies and tools to protect the people. In view of the their fast diffusion, it was necessary to bring in technologies that cannot be duplicated and manufactured easily. Almost all chemical processes are easy to duplicate and involve low investment and do not require complex processes, he said.

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HEMRL director Dr A Subhananda Rao, in his welcome address, said that synthesis of high density energetic materials and development of explosive and propellants based on them to realise high power potential systems were the need of the hour.

Five eminent scientists, two from India PG. Shrotri and Dr KN. Ninan and three from abroad Dr C Rao Surapaneni, USA, Moshe Gill, Israel and Dr G Tolmachev, Russia were honoured by conferring on them honorary fellowship of the society for outstanding contribution to the field of HEMs.

Prof SR Chakravarty from IIT, Chennai and Dr AK Sikder, Scientist 'F' from HEMRL, Pune were awarded the Dalmia-ACRHEM-HEMSI awards for their significant contributions in the field of high energy materials. The HEMRL centenary award was conferred on Dr Radhakrishnan Nair, Scientist 'G' of Vikram Sarabhai Space Centre, Thiruvananthapuram for his contributions.