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Indigenous solutions needed to deal with Cyberspace threats says Niti Aayog

"Cyberspace is becoming more complex and we need continuous innovation to keep the space secure and resilient to threats."

For dealing with cyberspace threats, indigenous solutions, in-house expertise and start-up eco-system needs to be created to reduce dependence on foreign products and solutions for securing our critical infrastructure and defence installations, says government.

Speaking at the inauguration of Conference on Cyber Security-Challenges and Innovations at DRDO, Member, Niti Aayog Dr V K Saraswat emphasised to convert a challenge into an opportunity through innovation. Adding further, "Cyberspace is becoming more complex and we need continuous innovation to keep the space secure and resilient to threats."

National Cyber Security Coordinator Dr Gulshan Rai stressed upon the areas of strategic importance including Artificial Intelligence, Robotics, Virtual reality & augmented reality, Internet of things (IOT) which would be the backbone of the country in future.

Speaking on the occasion, Dr G Satheesh Reddy, Secretary DDR&D and Chairman DRDO said that cyber security is one of the biggest challenges and emphasised on bringing the academia, industries and DRDO together for indigenous and innovative solutions.

The conference focused on the current trends, need and future requirements of innovation in the field of cyber security for a secured cyber space and to help in understanding the challenges and the way ahead for the country through home grown technological research and innovation.

The conference brought the stakeholders working in the area to showcase their innovations, current challenges and future aspects.

Director General, Air (OPS) Air Marshal Amit Dev was also present at the conference. More than 100 academia and 70 start-ups participated in the conference. On this occasion, many start-ups showcased various indigenous innovations in cyber security.

https://www.financialexpress.com/defence/indigenous-solutions-needed-to-deal-with-cyberspace-threats-says-niti-aayog/1365762/

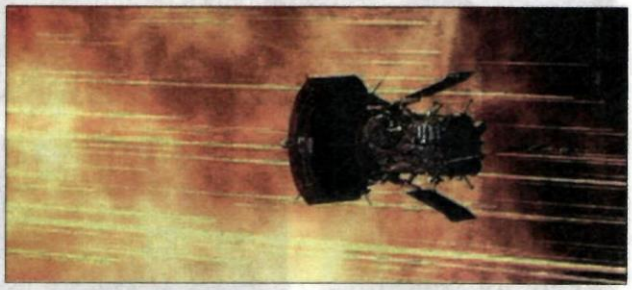
Closest approach: NASA's Parker probe aims for sun

NASA's Parker Solar Probe has clinched the record for closest approach to the Sun by a man-made object, the US space agency said.

The spacecraft passed the current record of 26.55 million miles from the Sun's surface on October 29 as calculated by the Parker Solar Probe team, NASA said in a statement. The previous record for closest solar approach was set by the German-American Helios 2 spacecraft in April 1976, it said. As the Parker Solar Probe mission progresses, the spacecraft will repeatedly break its own records, with a final close approach of 3.83 million miles from the Sun's surface expected in 2024, it said. "It's been just 78 days since Parker Solar Probe launched, and we've now come closer to our star than any other spacecraft in history," said Project Manager Andy Driesman, from the Johns Hopkins Applied Physics Laboratory in the US.

"It's a proud moment for the team, though we remain focussed on our first solar encounter, which begins on October 31," Driesman said. Parker Solar Probe is also expected to break the record for fastest spacecraft travelling relative to the Sun. The current record for heliocentric speed is 153,454 miles per hour, set by Helios 2 in April 1976, according to NASA.

The Parker Solar Probe team periodically measures the spacecraft's precise speed and position using NASA's Deep Space Network, or DSN. The DSN sends a signal to the spacecraft, which then retransmits it back to the DSN, allowing the team to determine the spacecraft's speed and position based on the timing and characteristics of the signal. Parker Solar Probe's speed and position were calculated using DSN measurements made on October 24, and the team used that information to calculate the spacecraft's speed and position from that point on. —PTI



Spacecraft passed current record of 26.55 mn miles from the Sun's surface on Oct 29 as calculated by the Parker Solar Probe teams —YOUTUBE

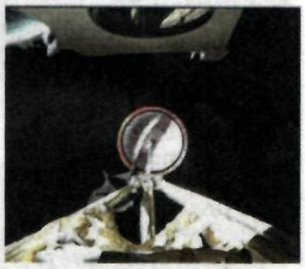
NASA sets record with 'supersonic' parachute

NASA's "supersonic parachute" that will play a key role in landing its state-of-the-art Mars 2020 rover has created a world record by deploying in just four-tenths of a second and surviving 37,000 kilogramme load, the US space agency said.

Less than two minutes after the launch of a 17.7-metre Black Brant IX sounding rocket, a payload separated and began its dive back through Earth's atmosphere, NASA said in a statement. When onboard sensors determined the payload had reached the appropriate height (38 kilometre altitude) and Mach number 1.8, the payload deployed a parachute, it said. Within four-tenths of a second, the 180-pound parachute billowed out from being a solid cylinder to being fully inflated. According to NASA, it was the fastest inflation in the history of a parachute this size and created a peak load of almost 70,000 pounds of force. The mass of nylon, Technora and Kevlar fibre that make up the parachute will play an integral part in landing NASA's state-of-the-art Mars 2020 rover on the Red Planet in February 2021.

The Jet Propulsion Laboratory's (JPL) Advanced Supersonic Parachute Inflation Research Experiment (ASPIRE) project conducted a series of sounding rocket tests to help decide which parachute design to use on the Mars 2020 mission.

The first test flight carried almost an exact copy of the parachute used to land NASA's Mars Science Laboratory successfully on the red planet in the year 2012. The second and third tests carried chutes of similar dimensions but reinforced with stronger materials and stitching. —PTI



The parachute is made up of nylon, technora and kevlar fibre —NASA

RARE FEAT

- NASA's "supersonic parachute" will play a key role in landing its state-of-the-art Mars 2020 rover
- **The parachute created a world record by deploying in just four-tenths of a second & surviving 37K kg load**