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{ INTERVIEW } JITENDRA SINGH, UNION MINISTER

'Not just India, world waiting for Chandrayaan-3 success'

The success of India's Chandrayaan-3 lunar mission is important not just to India but also the entire world, as crucial information from the mission will help future space missions globally, science minister Jitendra Singh said. Chandrayaan-3, India's third lunar mission, will be launched by the Indian Space Research Organisation (Isro) from the Satish Dhawan Space Centre, Sriharikota, on July 14. Ahead of the launch, Singh spoke in an interview to **Soumya Pillai** on the significance of Chandrayaan-3 for space programmes globally, future space missions and the government's focus on space programmes in the future. **Edited excerpts:**

How significant is the success of Chandrayaan-3 for India's space aspirations?

Not just for India, the world is waiting for the success of Chandrayaan-3 because the mission will ensure some very significant findings from the moon, which will be valuable for space agencies globally. There is a lot of excitement and enthusiasm for this mission, even though Isro is known to successfully conduct such missions back-to-back. Chandrayaan-3 has garnered a lot of interest. The recent visit of Prime Minister Narendra Modi to the US added to the enthusiasm around this mission. Through this visit, it was reiterated to the world that as far as space technology is concerned, India has come of age, and we are a force to reckon with.

Our enthusiasm around Chandrayaan-3 is also loaded with the confidence that we can achieve this feat successfully. We also need to recall that US might be the first nation to land a



human on the surface of the moon, it was who Chandrayaan-1 mission that first picked up images of water on the surface of the moon. These pictures were also provided to NASA for their future explorations. This mission series placed us at par with global leaders when it comes to our R&D capabilities.

We will be the fourth country to land on surface of moon. So the world will be closely watching our success in this mission. If everything goes well, which we are confident it will, other countries will also be looking forward to the findings of this mission for their own benefit.

Chandrayaan-2 mission did not go as planned. How far has our preparations come since then?

For a patriotic Indian, Chandrayaan-2 might come across as a disappointment, but if you look at it scientifically and objectively, it would be unfair to call this mission a failure. If the mission had gone as we had envisaged, it would have immediately placed us in front of all other countries. We are hoping that this will happen now with Chandrayaan-3.

The Chandrayaan-2 mission fell slightly short of the outcome that we were expecting because the descent happened about 12 km away from the desired spot. There were some miscalculation that did not give us the results

we wanted. We live and learn, and the faults have been rectified in Chandrayaan-3.

There are some big-ticket missions lined up in the coming months, including Aditya-L1 (the solar mission) and Gaganyaan (India's human space flight). What is the update on these missions?

Gaganyaan was delayed because of Covid-19. Our astronauts were undergoing training in Russia, but they had to be called back because of the pandemic. We have three missions under Gaganyaan before the manned mission happens. The first mission will be unmanned, the second one would carry a robot on-board and, finally, we will have the manned mission. The most important aspect of the mission is to ensure the safety of our astronauts.

How far has India reached in its space journey and what are the government's plans for the space sector in the coming years?

When we started our space journey in the early 1960s, the US and the then USSR were way ahead of us. We were just struggling with limited resources. The political leadership at the time also did not give much attention to the space sector. The kind of quantum jump that the space sector has seen over the last few years would not have been possible without the personal involvement of PM Modi.

We were always equal to, maybe even superior to others when it came to human resources. Even today, in NASA, most of the expert hands hail from India. Now India is being recognised as an equal partner.

Isro completes Chandrayaan-3 rehearsal; launch set for Friday

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NEW DELHI: The Indian Space Research Organisation (Isro) has completed the launch rehearsal lasting 24 hours for Chandrayaan-3, the country's third lunar mission, the space agency said on Tuesday.

Chandrayaan-3 will be launched on July 14 at 2:35pm on Launch Vehicle Mark-3 rocket from the Satish Dhawan Space Centre in Sriharikota.

The propulsion module will carry the lander and rover till 100km lunar orbit. Chandrayaan-3 consists of an indigenous lander module, a propulsion module and a rover.

Its objectives include develop-



Chandrayaan-3 will be launched from Satish Dhawan Space Centre on July 14. **ANI**

ing and demonstrating new technologies required for interplanetary missions. The lander will have the capability to land at a specified lunar site and deploy the rover, which will carry out

chemical analysis of the lunar surface during the course of its mobility. The lander and rover will have scientific payloads to carry out experiments on the moon's surface.

The Chandrayaan programme, also known as the Indian lunar exploration programme, is an ongoing series of outer space mission by Isro. The first moon rocket, Chandrayaan-1 was launched in 2008, and was successfully inserted into lunar orbit. Chandrayaan-2 was successfully launched and inserted into lunar orbit in 2019, but its lander crash-landed on the moon's surface when it deviated from its trajectory while attempting to land on September 6, 2019, due to a software glitch.