



---

## Jharkhand's Dr Shrikant Pal Makes Smallest Antenna | Jharkhand | 28 Oct 2022

### Why in News?

- On October 26, 2022, 'Ultra-Wideband Antenna' of Prof. Dr. Shrikant Pal, Department of Electronics and Communication Engineering, BIT Mesra Ranchi located in Jharkhand has got approval from the Government of India and for this he has also been sent a patent certificate from the Government of India.

### Key Points

- The prototype of the antenna was filed on July 9, 2013 and took eight years to get recognition. This antenna is developed as the smallest antenna in the country ever built for communication medium.
- Dr. Srikanth said that the **size of this antenna is 14 x 11 mm** and bandwidth capacity is 10:1 and it will work on the 'Twisted Helical Web' theory. The waves emanating from it are helpful in moving quickly from one place to another, like a spring, spring-like spiral web front and this will make it easier to send heavy data in a few seconds. Apart from this, its use will eliminate the problem of buffering.
- He said that this antenna has commercial value and given its specialty, Samsung Global Research team, head of research and development of South Korea has expressed interest in buying it. Research scholar Mrunmay Chakraborty has collaborated in preparing it.
- He said that this antenna is capable of doing the work of hundreds of antennas installed in a certain area alone. It does not require any connecting cable and can be used in civil communication, army database communication, satellite data transmission.
- It is known that Dr. Srikanth has achieved many successes at the international level. He designed a special bandstop filter for better operation of the Green Bank Telescope installed in West Virginia, US in 2009, which increased GBT's observation range, while also producing a super conducting device for the Jodrell Bank Telescope installed in Manchester in 2011.