



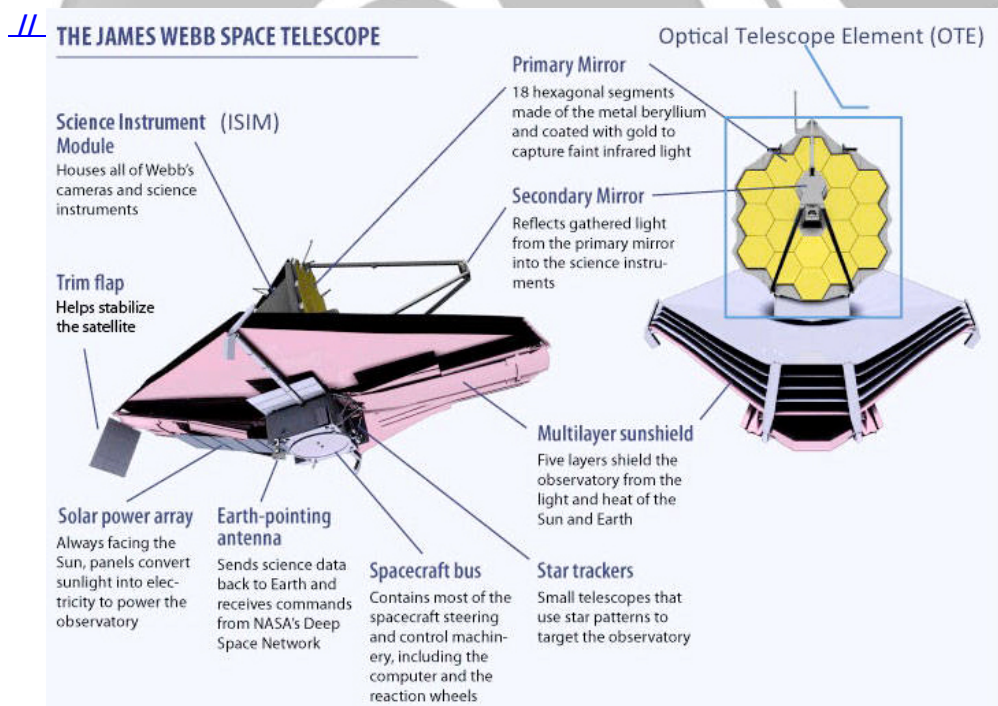
IIT-Kanpur Professor Discovered Exoplanet

Why in News?

An **international team of astronomers**, including an **assistant professor in the Department of Space, Planetary & Astronomical Sciences & Engineering (SPASE) at IIT-Kanpur**, has **discovered a large exoplanet** revolving around a nearby star that is similar to our Sun.

Key Points

- According to the **scientific journal Nature**, the extrasolar planet known as **Epsilon Indi Ab, or Eps Ind Ab**, is classified as a '**super-Jupiter**' due to its **mass being at least six times greater than that of Jupiter**.
 - Eps Ind Ab is the **first mature exoplanet** (a planet outside our solar system) to be discovered using the direct imaging technique.
- Using the **James Webb Space Telescope's Mid-Infrared Instrument**, the international team of astronomers has **directly imaged a new exoplanet orbiting the K5V-type star Epsilon Indi A** (also known as HD 209100 or HI).
 - The direct imaging of a nearby mature exoplanet represents a significant milestone in the field of space exploration.
- The recently identified **planet is situated 12 light-years from the Earth and is frigid, with a temperature around -1°C (30°F)**.
 - Its **orbit** is also tremendous, revolving around its star at a distance **28 times greater than the distance between the Earth and the Sun**.



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