



Daily current affairs

Posted at: 09/07/2018

Reconstituting Asteroids into Mechanical Automata

- The objective of this study is for Made In Space (MIS) to establish the concept feasibility of using the age-old technique of analog computers and mechanisms to convert entire asteroids into enormous autonomous mechanical spacecraft.
 - Project RAMA, Reconstituting Asteroids into Mechanical Automata, has been designed to leverage the advancing trends of additive manufacturing (AM) and in-situ resource utilization (ISRU) to enable asteroid rendezvous missions in which a set of technically simple robotic processes convert asteroid elements into very basic versions of spacecraft subsystems (GNC, Propulsion, Avionics).
 - Upon completion, the asteroid will be a programmed mechanical automata carrying out a given mission objective; such as relocation to an Earth-Moon libration point for human rendezvous.
 - This technique could some day create an affordable and scalable way for NASA to achieve future roadmap items for exploring the solar system. These techniques could be beneficial to scientific goals for understanding the solar system and its formation
-

Currency derivatives

- Currency derivatives are exchange-based futures and options contracts that allow one to hedge against currency movements.
 - Simply put, one can use a currency future contract to exchange one currency for another at a future date at a price decided on the day of the purchase of the contract. In India, one can use such derivative contracts to hedge against currencies like dollar, euro, U.K. pound and yen.
 - Corporates, especially those with a significant exposure to imports or exports, use these contracts to hedge against their exposure to a certain currency.
 - While all such currency contracts are cash-settled in rupees, the Securities and Exchange Board of India (SEBI), early this year, gave a go-ahead to start cross currency contracts as well on euro-dollar, pound-dollar and dollar-yen.
-