

## **Prelim Bits 10-04-2017**

### **Cyber Physical System (CPS) Programme**

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- Department of Science and Technology has initiated a Cyber Physical Systems (CPS) Programme.

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- CPS is an interdisciplinary field that deals with the deployment of computer-based systems that do things in the physical world.

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- Smart grids, where electricity is optimally distributed on the basis of calculations in real time by micro-processors as well as autonomous unmanned vehicles and aircraft navigation systems qualify as 'cyber physical systems.'

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- The thrust of the programme is to encourage greater synergy between the university scientists and industry by setting up centres of excellence in IITs and universities and dedicated courses on cyber physical systems.

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### **DNA banks for wild animals**

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- North India is all set to get its first DNA bank for wild animals.

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- Indian Veterinary Research Institute (IVRI), located in Uttar Pradesh's Bareilly district, is only the second institution in the country to house such a bank for wildlife DNA records.

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- The Laboratory for the Conservation of Endangered Species (LaCONES) in Hyderabad has the only other DNA bank in India.

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- The collected samples in DNA banks would enable scientists and conservation groups to identify species accurately and DNA testing can

also identify whether the animal belonged to an endangered species and animals may have suffered from any diseases.

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- The new DNA bank in UP is also expected to keep poaching in check and also control the cost of sending specimen to the facility in Hyderabad for testing.

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## **Tupilov aircraft Tu-142M**

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- Indian Navy's iconic Tupolev-142M anti-submarine warfare aircraft will be decommissioned soon.
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- It was inducted into Indian navy from erstwhile USSR in 1988.
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- It is a long range maritime patrol aircraft inducted in INS Rajali and it is the fastest turboprop aircraft in the world.
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- The aircraft has been mainly used for long range maritime reconnaissance and anti-submarine warfare operations.
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- The aircraft was nicknamed the "Bear" by NATO and it was one among the heaviest aircraft fully loaded.
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- The aircraft will soon be given to Andhra Pradesh government to be converted into Museum.
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- It was deployed in operations like Operation Cactus in Maldives, Operation Vijay and Operation Parakram in 2002 and anti-piracy operations from 2011 to till date.
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- The aircraft will be replaced by the newly inducted Boeing P-8I aircraft.

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## **India's first Community Radio**

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- Sangam Radio, the first community radio in India, was launched in 2008.

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- It continues its operation in Telangana and broadcast in Telugu language.

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- The radio station was first established by an NGO - Deccan Development Society (DDS) and its transmission radius is about 30Km.

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