Prelim Bits 30-04-2018

CFTRI

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- Central Food Technological Research Institute (CFTRI) has announced a program for training life science graduates to work in food and allied industries.
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- The Mysore based institute is a constituent laboratory of Council of Scientific and Industrial Research, New Delhi.
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- It came into existence during 1950.
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- The Research focus of CSIR-CFTRI has been revolved around broadly into the following areas:
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1. Engineering Sciences
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2. Technology Development
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3. Translational Research
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4. Food Protection and Safety
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Swachh Bharat Summer Internship

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- Ministry of Human Resource Development in association with the Ministry of Drinking Water and Sanitation has launched the 'Swachh Bharat Summer Internship – 100 Hours of Swachhata'.
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- The program is to engage youth across the country and develop their skill

and orientation for sanitation related work and village level development.
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- The program aims to:
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1. Develop the skill and orientation of youth for sanitation related work
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2. Bring youth across the country an opportunity to make a significant contribution to the swachhata revolution
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3. Integrate youth in the community service in rural areas in the run up to the 150th birth anniversary of Mahatma Gandhi
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Space Missions to study Asteroids

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- In 2001, the NEAR (Near Earth Asteroid Rendezvous) Shoemaker spacecraft by NASA landed on Eros, an asteroid near Earth.
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- In 2011, the Dawn spacecraft entered Vesta's orbit which successfully completed a 14-month survey of the large asteroid.
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- NASA researchers announced plans for a spacecraft called HAMMER that would collide and knock incoming asteroids in another direction or simply blow them up into tiny pieces.
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- In 2016, NASA launched the OSIRIS-REx spacecraft to study a near-Earth asteroid, Bennu.
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- In 2005, the Japanese spacecraft Hayabusa landed on the near-Earth asteroid Itokawa and in 2010, it successfully returned to Earth.
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- The Japan Aerospace Exploration Agency (JAXA) launched the Hayabusa 2 probe in December 2014, and plans to return samples from Ryugu in December 2020.
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Colistin-resistance bacteria in food

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- An investigation was led by an expert to look for evidence for strains of bacteria that are resistant to the most powerful antibiotics in everyday food.
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- The investigation discovered a mutation called mgrB that makes the bacteria Klebsiella pneumoniae resistant to colistin and helps them make their way into people.
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- Colistin is a last-resort antibiotic, a life-saver for humans.
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- Even if the food is cooked, thereby killing the bacteria, storage and handling of the food products are processes by which it is passed on to people.
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- It renders them helpless if they should ever need the colistin antibiotic to save their lives.
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- It also revealed colistin-resistance in humans is not so much because of indiscriminate use of the antibiotic in hospitals, as it is because of its use in veterinary feed.
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- China has banned the use of colistin in veterinary use and similarly the use of antibiotic growth promoters in animals is banned in the European Union since 2006.
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Transparent eel-like robot

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- Scientists have developed an innovative, transparent eel-like robot that can swim silently in salt water without an electric motor.
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- The robot created by engineers and marine biologists used artificial muscles filled with water to propel itself.
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- The foot-long robot, which is connected to an electronics board that remains on the surface, is also virtually transparent.
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- The robot is an important step towards a future when soft robots can swim in the ocean alongside fish and invertebrates without disturbing or harming them.

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- At present, most underwater vehicles designed to observe marine life are rigid and submarine-like and powered by electric motors with noisy propellers.
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- Soft robotics is a growing field which relies on mimicking locomotion mechanisms of soft bodies existing in nature to achieve smooth and complex motion.
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World Press Freedom Index 2018

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- India’s ranking in the Press Freedom Index has fallen two places to 138.
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- In the annual report RSF blamed “physical violence” against journalists like Gauri Lankesh as the key reason behind the country’s low ranking.
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- The report also warned that hate crime is another issue plaguing India.
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- Norway topped the list of having the world’s freest press for the second year in a row.
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- North Korea remained the most repressive country followed by Eritrea, Turkmenistan, Syria and then China.
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- The index is compiled by Reporters without Borders (RSF) which reflects growing animosity towards journalists.
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- It is published annually by RSF since 2002.
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- The Index measures the level of media freedom in 180 countries, including the level of pluralism, media independence, the environment and self-censorship, the legal framework, transparency, and the quality of the infrastructure that supports the production of news and information.
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- It does not evaluate government policy.
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Source: PIB, The Hindu, Business Standard

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