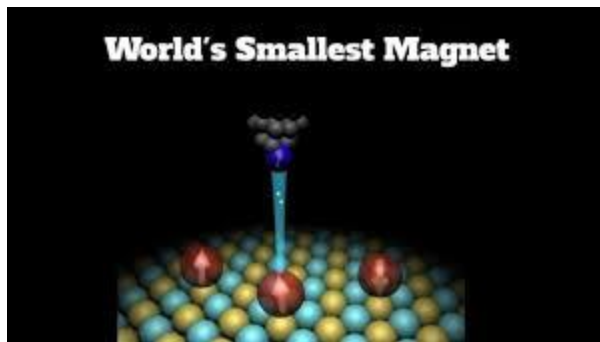


IBM creates world's smallest magnet with a single atom



IBM scientists built a single-bit hard drive using just one holmium atom (pictured). Their success could one day lead to hard drives capable of holding hundreds of petabytes of data.

- It would take 223,000 DVDs (4.7Gb each) or 746

million 3.5-inch high-density floppy discs (1.44Mb each) to hold one petabyte.

- This many disks would weigh 13,422 tonnes, about the size of two Type 45 destroyers, like the HMS Duncan.
- There are around 100 trillion cells in the human body, so if one bit is equivalent to a cell, you would get enough cells in a petabyte for 90 people.
- The breakthrough builds on 35 years of nanotechnology history at IBM, including the invention of the Nobel prize-winning scanning tunnelling microscope (STM) which was used to create the atomic hard drive.
- The IBM scientists used the STM, an IBM invention that won the 1986 Nobel Prize for Physics, to view and move holmium atoms.
- The data storage system uses a single atom of holmium, supported by magnesium oxide to help keep the magnetic poles of the atom stable.

Parliament passes bill to raise maternity leaves to 26 weeks



Women working in the organised sector will now be entitled to paid maternity leave of 26 weeks, up from 12 weeks, as Parliament today passed a bill in this regard that will benefit about 1.8 million women.

- The new law will apply to all establishments employing

10 or more people and the entitlement will be for only up to first two children.

- For third child, the entitlement will be for only 12 weeks.

**SCIENCE &
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- The Maternity Benefit (Amendment) Bill, 2016 was passed by the Lok Sabha today, months after the Rajya Sabha approved the measure that takes India to the third position in terms of the number of weeks for maternity leave after Canada and Norway where it is 50 weeks and 44 weeks, respectively.
- Piloting amendments to the old law, Labour Minister Bandaru Dattatreya said while framing the rules, he would try to ensure that maximum benefits reach the pregnant women.

Indian Women's Ice Hockey team registers 1st ever international win



The Indian women's ice hockey team created history on Thursday as they registered their first ever win in international competitions.

- The team showed tremendous resilience to defeat Philippines 4-3 in the Challenge Cup of Asia which is being held in Bangkok.
- India took the lead in the second period and had a 1-0 advantage at the half-time mark.
- The match did not produce much goals in the first three quarters, but it all changed in the last period.
- Both teams produced brilliant attacking play as they scored 3 goals each, but it was India who emerged victorious.
- The Indian women's ice hockey team went to the tournament at the back of a crowd-funding campaign where they received the help of 3000 donors and that money was used for their training, accommodation, airfares, visa, team jersey, and equipment.

SPORTS

Gravitation waves pioneer Ronald Drever passes away



Scottish physicist Ronald Drever passed away on March 7.

- He was 85.
- He was one of the co-founders of the Laser Interferometer Gravitational wave Observatory (LIGO) detectors that detect the gravitational waves set off by the merger of a

binary black hole pair eighteen months ago.

- Ronald Drever's engagement with the detection of gravitational waves goes back into the 1970s, when he was at Glasgow, working on prototype interferometric gravitational wave detectors.
- At the invitation of Kip Thorne, who had set up a group to study gravitational waves, Mr. Drever joined Caltech, in the U.S., in the late 1970s.
- He and Stan Whitcomb led the experimental group at Caltech and were responsible for designing the first 40-metre prototype detector.

Rainer Weiss led efforts to build a 1.5 metre prototype at MIT; he was called upon to do a feasibility study by the National Science Foundation in 1980.

NIO finds new canyon system close to Kovada coast



Scientists of CSIR-National Institute of Oceanography (NIO) in Visakhapatnam are an ecstatic lot.

- They have found three new canyons forming a major canyon system in the depths of Bay of Bengal close to Kovada in Srikakulam district.

- The finding has been evading them since the last 50 years, and for

the first time they have clearly mapped the ocean floor between Visakhapatnam and Srikakulam by sending over 32 high density beams to the depths of the sea.

- Canyon systems are generally formed by flow of river water into the sea and they could be as old as the river system, which is close to 23 million years.

OBITUARY

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- The last canyon systems off the Visakhapatnam coast were discovered in 1963 by American geologist E.C. LaFond of U.S. Navy Electronics Laboratory, who was carrying out marine studies at Andhra University.
- The data was collected on board research ship Anton Bruun.

Sports Ministry to set up grievances panel for women athletes.

Sports Minister Vijay Goel on Wednesday announced that a high level committee will be constituted to address the grievances and complaints of women sports persons under the chairmanship of Joint Secretary (Sports).



to address the grievances and complaints of women sports persons under the chairmanship of Joint Secretary (Sports).

- Addressing a conference on 'Women and Sports in India', on the occasion of International Women's Day, Goel said the other members of the high level panel will include athletes, advocates and senior officials of the ministry apart from a woman sports journalist.
- "The ministry follows a zero-tolerance policy on sexual harassment," Goel said adding that his ministry provides equal assistance and incentives to both male and female athletes and there is no gender discrimination for training.
- He further said that the Sports Authority of India (SAI) in its Special Area Game Scheme has provided training to 807 women sports persons out of a total 1862 sports persons.

Narendra Kumar takes over as Chairman Central Water Commission



Shri Narendra Kumar, an officer of Central Water Engineering Service (1979 batch) has assumed the charge of Chairman, Central Water Commission (CWC).

- Born on October 11, 1957, Shri Kumar obtained his BE degree in Civil Engineering from IIT Roorkee and M Tech from IIT Delhi in Structural Engineering.

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APPOINTMENTS

- He has served in various capacities in CWC as Assistant Director in Design Organisation, Deputy Director in Project Appraisal Directorate and Director in Dam Safety Organisation and Project Monitoring Directorate.
- He has also served as Senior Joint Commissioner in Command Area Development wing of Ministry of Water Resources, River Development and Ganga Rejuvenation from 2002 to 2005.
- From 2009 to 2011, he served as Chief Engineer, Brahmaputra and Barak Basin, Shillong. He has also worked as Commissioner of B&B wing of Ministry of Water Resources, River Development and Ganga Rejuvenation during 2011 to 2014.

India and Belgium sign Protocol amending the India-Belgium Double Taxation Avoidance Agreement and Protocol



India and Belgium have signed a Protocol amending the existing Agreement and Protocol between the two countries for Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income today in New Delhi.

- The Protocol was signed by Shri Sushil Chandra, Chairman Central Board of Direct Taxes (CBDT) on behalf of India and Mr. Jan Luykx, Ambassador of Belgium to India, on behalf of Belgium.
- The Protocol will broaden the scope of the existing framework of exchange of tax related information.
- This in turn will help curb tax evasion and tax avoidance between the two countries and will also enable mutual assistance in collection of taxes.
- Fighting the menace of Black Money stashed in offshore accounts has been a key priority area for the Government.
- To further this goal, India has either signed or amended international agreements, declarations or conventions for the Avoidance of Double Taxation & Prevention of Fiscal Evasion with respect to Taxes on Income and for the Exchange of Information with Switzerland, Mauritius, Cyprus, Japan, Republic of Korea, Kazakhstan, Singapore and Austria during the financial year 2016-17.

INTERNATIONAL RELATIONS

