

NEWSPAPER HIGHLIGHT

Indian author Geetanjali Shree has won the prestigious International Booker Prize for her Hindi novel *Ret Samadhi*, translated into English as *Tomb of Sand* by Daisy Rockwell. The Mainpuriborn, 65 year old Ms. Shree follows in the footsteps of Indian origin author Salman Rushdie, Kiran Desai, Arundhati Roy and Arvind Adiga to win the international honour.

The Nuclear Power Corporation of India Limited, which is assisting unemployed youth living in 16 village panchayats near the Tarapur Atomic Power Station (TAPS) through its Advanced Knowledge and Rural Technology Implementation (AKRUTI) programme, is all set to launch a similar initiative in the villages surrounding Kudankulam Nuclear Power Project (KKNPP). The Bhabha Atomic Research Centre, the country's premier multidisciplinary research and development centre under the Department of Atomic Energy, besides identifying newer nuclear power generation techniques, is devising new, user-friendly and cost effective technologies in the fields of nuclear science, radioisotopes, industry, health and agriculture. These technologies are being taught to the younger generation and the unemployed youth to make them entrepreneurs.

A team at the Department of Electrical Communication Engineering (ECE), Indian Institute of Science (IISc) has developed a true random number generator (TRNG), which, the team says, can improve data encryption and provide improved security for sensitive digital data such as credit card details, passwords and other personal information. The study describing the device has been published in the journal *ACS Nano*.

Google is in talks with the Indian government to integrate its shopping services with the country's open ecommerce network ONDC, two sources familiar with the matter told Reuters. India soft launched its Open Network for Digital Commerce (ONDC) last month as the Centre tries to end the dominance of U.S. firms Amazon.com and Walmart in the fast growing ecommerce market.

The Reserve Bank of India (RBI) has cautioned lenders to be wary of the risk of increased 'slippages' on advances that were restructured

PUSA SOFT WHEAT 1

1.The Indian Agricultural Research Institute (IARI) has developed a soft wheat variety named Pusa Soft Wheat 1 (HD 3443). An earlier experiment of soft wheat named HS 490, developed in 2008-09 by IARI scientists, did not succeed as the yield level was lower and suitable only for growing in the foothills of the Himalayas.

2.**Pusa Soft Wheat 1 (HD 3443) is India's first soft wheat variety. It is registered with the Protection of Plant Varieties and Farmers' Rights Authority. It is suitable for growing in all producing States.** It has a productivity of over 5 tonnes per hectare with protein content of 11.5% and gluten level of 8.9%.

3.Requirements - Soft wheat requires less grinding force as its flour has smaller particle size and absorbs less water when kneaded into dough. Soft wheat products like cake and biscuits, even noodles, need less water to be absorbed by the flour for the best quality. So, molecular marker technology was used to identify lines with grain softness and gluten strength.

FIRST MOVERS COALITION

1.India, along with Japan and Sweden, has joined the steering board of the First Movers Coalition to decarbonise carbon-heavy sectors. The First Movers Coalition is a global initiative launched by the US and the World Economic Forum (WEF) at COP26 (Glasgow).

2.**It is launched as a flagship public-private partnership to clean up these most carbon-intensive sectors; along with innovative Carbon Removal technologies. It aims to harness the purchasing power of companies to decarbonize the seven carbon-heavy industries** and long-distance transport sectors responsible for 30% of global emissions. [The industrial sectors that account for 30% of global emissions are Aluminum, Aviation, Chemicals, Concrete, Shipping, Steel, and Trucking.]

3.This Coalition aims to create early markets for clean technologies through policy measures and private sector engagements. Working - The coalition's members have committed to purchasing a percentage from suppliers using near-zero or zero-carbon solutions, despite the premium cost. This purchase would be done by the members out of their total industrial materials and long-distance transport spending.

PARAM PORUL

1.PARAM PORUL supercomputing facility is established at NIT Tiruchirappalli under Phase 2 of the National Supercomputing Mission (NSM). The PARAM PORUL is 838 TeraFlops Supercomputing Facility. Majority of the components used to build this system have been manufactured and assembled within the country, along with an indigenous software stack developed by C-DAC.

2.The system is equipped with a mix of CPU nodes, GPU nodes, High Memory nodes, High throughput storage and high performance Infiniband interconnect. PARAM PORUL system is based on Direct Contact Liquid Cooling Technology to obtain a high power usage effectiveness. This Cooling Technology also reduces the operational cost.

3.In 2029, the first Supercomputer "PARAM Shivay" was designed and built under the Build approach of the National Supercomputing Mission (NSM) by C-DAC at the Indian Institute of Technology (BHU), Varanasi.

GSLV-F10/EOS-03 MISSION

1.The upper stage of the GSLV-Mk II rocket malfunctioned, forcing the Indian Space Research Organisation to abort the GSLV-F10/EOS-03 Mission. A leak in a Vent and Relief Valve (VRV) had led to a lower build-up of pressure in the Liquid Hydrogen (LH2) propellant tank, leading to a failed mission. So, the GSLV with improvements added to its cryogenic upper stage (CUS) is expected to be ready in the second half of 2022.

2.The Geosynchronous Satellite Launch Vehicle (GSLV-F10) was designed in 2021 to launch the Earth Observation Satellite (EOS-

during the COVID19 pandemic, especially as the economy recovers from the public health crisis's impact. "The banking sector has witnessed improved financial parameters despite the COVID19 pandemic," the RBI observed in its annual report released on Friday. "There is, however, a need to be watchful of the credit behaviour of the restructured advances and possibility of increased slippages arising from sectors that were relatively more exposed to the pandemic," the RBI warned.

The Brazil Russia India China South Africa (BRICS) grouping may for the first time begin an expansion process to include new developing country members, the Chinese government said on Friday. China, which is the BRICS chair for this year, said the recently held meeting of BRICS Foreign Ministers "reached consensus on the BRICS expansion process". "China will work on BRICS-related parties to continue to have in depth discussions on BRICS expansion and determine the standards and procedures for that on the basis of consensus.

Russian troops were moving in on the strategic city of Severodonetsk Friday in a relentless offensive to control Ukraine's eastern Donbas region, bombing residential areas and claiming the capture of a key town.

A new species of old world monkey recorded from Arunachal Pradesh has been named after a strategic mountain pass at 13,700 ft above sea level. Sela macaque (*Macaca selai*), the new to science primate was identified and analysed by a team of experts from the Zoological Survey of India (ZSI) and the University of Calcutta. Their study has been published in the latest edition of *Molecular Phylogenetics and Evolution*. Phylogenetics relate to the evolutionary development and diversification of a species or group of organisms.

To tap the growing freight sector in the country, the Railways is aiming to introduce the country's first semi high speed freight train by December 2022. Based on the Vande Bharat platform, the 16coach 'Gati Shakti' train will be able to run at 160 km/hour, and will be manufactured at the Integral Coach Factory (ICF) in Chennai.

Afghanistan must ensure education for girls, National Security Adviser (NSA) Ajit Doval said at the 4th Regional Dialogue on Security being

03) in a geosynchronous transfer orbit (GTO). EOS-03 is the first state-of-the-art agile Earth observation satellite which will be placed in a Geosynchronous Transfer Orbit by GSLV-F10.

3.Objectives of EOS-03 - To provide near real time imaging of large area region of interest at frequent intervals. For quick monitoring of natural disasters, episodic events and any short term events. To obtain spectral signatures for agriculture, forestry, water bodies as well as for disaster warning, cyclone monitoring, cloud burst monitoring etc.

LEAN DIABETES

1.A new study has found that the diabetics who have a low Body Mass Index (BMI) have a unique metabolic profile compared to other groups of diabetics, and could be a distinct entity warranting further investigation. Lean Diabetes (LD) may be a kind of "hybrid" of type 1 and type 2 diabetes.

2.They may not make enough insulin or respond to it very well. Diabetes among individuals with low BMI has been recognized for over 60 years as an entity in low and middle income countries (LMIC). But, this has been classified as malnutrition-related diabetes mellitus, by the World Health Organization (WHO). People with lean diabetes have a history of malnutrition in utero (in the uterus) and continue to have a low BMI into adulthood.

3.Two cases - The thrifty phenotype theory in diabetes posits that the phenotype adapts in the womb to poor nutrition. [The phenotype is the observable physical characteristics of an organism, which basically includes the genes, and the impact on them by environmental factors.] When nutrition improves after birth, this thrifty phenotype becomes disadvantageous to the individual.

4.In individuals whose nutritional status improves after birth, it is likely they might seem thin by Western standards. But, in reality, because of the programming in utero, they have actually accumulated more fat than planned for by the gene, leading to the 'thin-fat' phenomenon. However, LD individuals never catch up with nutritional requirements, continuing to remain nutritionally challenged as adults, so the thrifty gene never comes into play.

5.The cardinal feature of LD is a defect in insulin secretion capacity versus insulin resistance. Symptoms - They will be grossly malnourished, the sugar control will be poor and their sense of well-being will be poor.

6.Treatment - If diagnosed wrongly as Type 1 diabetes, physicians might recommend insulin therapy, which may help, but 75 % of the cases could be managed with oral drugs. In addition, targeting better maternal nutrition would be the way ahead, as it would help avoid several related health and developmental sequelae later in the life of the foetus.

TOMAR KING ANANGPAL II

1.The National Monuments Authority (NMA) (set up for the protection and preservation of monuments under the Ministry of Culture) has planned to erect a statue of Anangpal Tomar II somewhere in central Delhi and develop it into a tourist spot. Many believe he was the founder-king of Delhi.

2.Belonged to the Tomar dynasty that ruled parts of present-day Delhi and Haryana between the 8th and 12th centuries. He was succeeded by his grandson Prithviraj Chauhan, who was defeated by the Ghurid forces in the Battle of Tarain (present-day Haryana) after which the Delhi Sultanate was established in 1192.

3.The Tomar dynasty shifted its capital in the 8th century, to Dhillikapuri (Delhi) during the reign of Anangpal II. The Vishnu Garud Dhvaj (iron pillar) in the Qutub complex was also brought by King Anangpal Tomar II.

4.Tomara dynasty is one of the minor early medieval ruling houses of northern India. According to bardic tradition, the dynasty was one of the 36 Rajput tribes. The history of the family spans the period between the reign of Anangpal, who founded the city of Delhi in the 11th century CE, and the incorporation of Delhi within the Chauhan (Chahamanas) kingdom in 1164.

5.Although Delhi subsequently became decisively a part of the Chauhan kingdom, numismatic and comparatively late literary evidence indicates that Tomara kings such as Anangapala and Madanapala continued to rule as feudatories, presumably until the final conquest of Delhi by the Muslims in 1192-93.

BONGOSAGAR

1.It is a naval exercise between India and Bangladesh. The third

held in Tajikistan capital Dushanbe. Emphasising India's decision to help Afghanistan with humanitarian aid even though it doesn't have relations with the Taliban regime, he asserted that India remained an "important stakeholder". "The special relationship with the people of Afghanistan over centuries will guide India's approach.

India and the European Union (EU) were working on the first texts of the Free Trade Agreement (FTA) and "Putin's war" in Ukraine had put "some urgency" to it, German envoy to India Walter J. Lindner has said.

edition of the exercise was recently held at Port Mongla, Bangladesh.

2.Aim: To develop a high level of interoperability as well as joint operational skills through conducting various maritime operations and exercises between both navies.