

ZHURONG ROVER

China's Zhurong rover has peered under the surface of Mars and has found evidence of two huge floods that shaped the landscape.



About:

- Since May 2021, Zhurong has been exploring Utopia Planitia, in Mars's northern hemisphere.
 - Images from the rover's ground-penetrating radar found layered patterns under the surface, which are made of sedimentary rocks carried in by two major floods around 1.6 billion years ago.
 - China's Zhurong rover landed in the Utopia Planitia, a 2,000-miles-wide (3,300 kilometers) basin in the Northern Hemisphere of Mars, in May 2021.
 - Since then, the rover has been studying local geology, chemical composition of rocks, and local weather conditions using its six scientific instruments.
 - Zhurong has already completed its primary mission of 90 sols. But the rover is continuing its way to the south of its landing site, collecting data as it goes.
-

BETTER THAN THE BEST? NAAC'S SCORES UNDER LENS

In News:

- Recently, a deemed-university in Bhubaneswar outperformed the distinguished Indian Institute of Science (IISc) Bengaluru, in terms of its NAAC score.
- However, according to the National Institute of Ranking Framework (NIRF) score, IISc Bengaluru is the best university in India.
- This puts the accreditation and the ranking system in contradiction with one-another.

National Assessment and Accreditation Council (NAAC):

- NAAC is an autonomous body established by the University Grants Commission (UGC).

- It was established in **1994** on the basis of recommendations made under the National Education Policy (1986).

- Headquarters: Bengaluru

Objectives of NAAC:

- To arrange for periodic assessment and accreditation of institutions of higher education or units thereof, or specific academic programmes or projects;
- To stimulate the academic environment for promotion of quality of teaching-learning and research in higher education institutions;
- To encourage self-evaluation, accountability, autonomy and innovations in higher education;
- To undertake quality-related research studies, consultancy and training programmes, and

What is Assessment & Accreditation?

- **Assessment** is the performance evaluation of an institution or its units based on certain established criteria.
- **Accreditation** is the certification of quality for a fixed period, which in the case of NAAC is five years.
- The University Grants Commission (UGC) through a gazette notification in January 2013, has made it mandatory for Higher Educational Institutions (HEIs) to undergo accreditation.

Benefits of Being NAAC-Accredited:

- Through a multi-layered process steered by the NAAC, a higher education institution gets to know whether it meets certain standards of quality set by the evaluator in terms of curriculum, faculty, infrastructure, research and financial well-being among others.
- Based on these parameters, the NAAC gives institutions grades ranging from A++ to C. If an institution is graded D, it means it is not accredited.
- Apart from recognition, being accredited also helps institutions attract capital as funding agencies look for objective data for performance funding.
- It helps an institution know its strengths, weaknesses, and opportunities through an informed review process.

- NAAC accreditation helps students going for higher education abroad as many global higher education authorities insist on recognition and accreditation of the institution where the student has studied.

What is National Institute Ranking Framework (NIRF)?

- The National Institutional Ranking Framework is a methodology adopted by the **Ministry of Education**, to rank institutions of higher education in India.
- In July 2022, the Ministry released the 7th edition of NIRF.
- The ranking framework judges the educational institutions under five broad generic groups of parameters of –
 - Teaching, Learning and Resources (TLR),
 - Research and Professional Practice (RP),
 - Graduation Outcomes (GO),
 - Outreach and Inclusivity (OI) and
 - Perception (PR).

NAC Accreditation vs NIRF Rankings:

- Accreditation is a comprehensive assessment that takes place as a one-time (5 year) event.
- Ranking on the other hand is a yearly event that occurs every year without fail (since 2015).
- Despite both being an assessor of educational institutes, both have considerable differences in terms of specific criteria, metrics used to prepare the qualitative and quantitative reports.
- Chairman of the NAAC's executive committee has said that there are some discrepancies in the scores and current system needs to be reviewed and improved upon.

INTERNATIONAL DAY OF OLDER PERSONS

October 1 is observed as the International Day of Older Persons across the globe.

About:



- This year, the theme for the International Day of Older Persons is “Resilience of Older Persons in a Changing World”
- The day was introduced by the United Nations General Assembly with an aim of honouring the contribution of older persons and looking into the problems that they face.
- The United Nations General Assembly passed a resolution on December 14, 1990, to establish October 1 as the International Day of Older Persons.
- The day came into being after the Vienna International Plan of Action on Ageing initiative, which was adopted by the World Assembly on Ageing in 1982.
- The UN General Assembly in 1991 approved the United Nations Principles for Older Persons. Later in 2002, the Second World Assembly on Ageing embraced the Madrid International Plan of Action on Ageing.
- It was done to address and understand the opportunities and challenges faced by the older generation in the 21st century and to promote the development of a society for all ages.

SWACHH SURVEKSHAN 2022

President Droupadi Murmu presents awards as part of Azadi@75 Swachh Survekshan 2022.



About:

- Indore has been adjudged the cleanest city of India for the sixth year in a row, while Madhya Pradesh is the cleanest state in the country.
- Surat is the second cleanest city and Navi Mumbai comes a close third in the category of cities with a population more than a lakh.
- Visakhapatnam was adjudged the fourth cleanest city in the country (In over 10 lakh population category).
- In the population category of less than one lakh, Panchgani and Karad from Maharashtra bagged the first and third positions respectively, while Patan from Chhattisgarh bagged the second position.

- Tirupati received the best city award in Safai Mitra Suraksha category, while Haridwar in Uttarakhand received the award for the best Ganga town in more than one lakh population cities.
 - Bijnor ranked first among Ganga towns with less than one lakh population, followed by Kannauj and Garhmukhteshwar.
 - Maharashtra's Deolali was adjudged the country's cleanest Cantonment Board.
 - Shivamogga in Karnataka received the fast mover city award.
 - Tripura got the cleanest State award in the "less than 100 urban local bodies category".
-

M777 ULTRA LIGHT HOWITZER

The Indian Army is inducting the M777 Ultra Light Howitzer on the northern borders.



About:

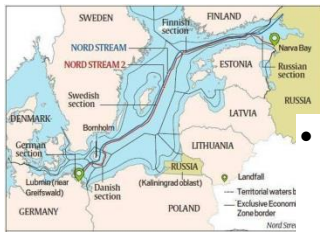
- In the next five years, the Army's Regiment of Artillery will see major force accretion with the induction of several guns, including indigenous ones.
- It includes the Dhanush, Sharang, M777 Ultra Light Howitzer (ULH), additional K9-Vajra howitzers and the Advanced Towed Artillery Gun System (ATAGS).

M777 Ultra Light Howitzer

- The M777s are a key component of the army's field artillery rationalisation plan (FARP), cleared in 1999.
 - The 155 mm/39-caliber M777 howitzers have a range of up to 30km, but it is capable of striking targets at ranges of more than 40 km in some areas where the geography allows the shells to fly in rarefied air.
 - Built with titanium and aluminum alloys, the howitzers weigh 4,218 kg.
 - In contrast, 155mm towed guns weigh twice as much.
 - The Indian Air Force's CH-47F Chinook helicopters can carry the howitzers as underslung load for swift deployment in high-altitude areas.
-

NORD STREAM PIPELINES

Recently it has been discovered the fourth leak in the two damaged offshore pipelines that comprise the crucial Nord Stream pipelines (Nord Stream 1 and Nord Stream 2).



About:

- Nord Stream 1 is a 1,224 km underwater gas pipeline running from Vyborg in northwest Russia to Lubmin in northeastern Germany via the Baltic Sea.
- The majority owned by the Russian energy giant Gazprom, it is the primary network through which gas reaches Germany.
- Most of the gas goes directly to Germany, while the rest travels west and southwards through onshore links to other countries and into storage caverns.
- The 1,200-km Nord Stream 2 pipeline was to run from Ust-Luga in Russia to Greifswald in Germany through the Baltic Sea and carry 55 billion cubic metres of gas per year.
- It was meant to run along with the Nord Stream 1 system. Germany is Russia's biggest European gas consumer, and most of it comes through the Nord Stream.

PROFESSORS OF PRACTICE

The higher education regulator University Grants Commission (UGC) has issued new guidelines under which higher education institutes can create a new teaching position called Professor of Practice to hire experts from various sectors, in line with provisions that already exist in the Indian Institutes of Technology (IITs).



About:

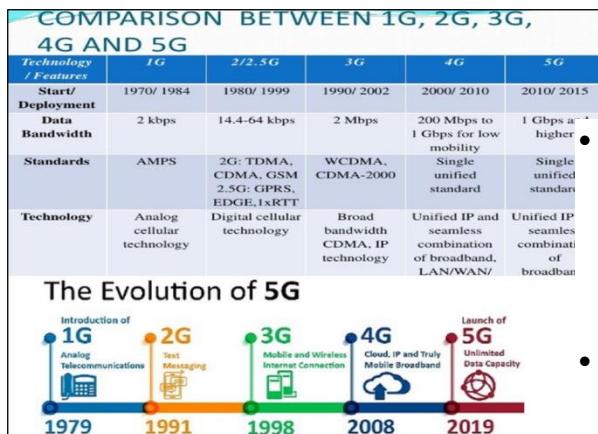
- No formal educational qualification such as a PhD is needed to apply

for a position.

- To be eligible for appointment, an individual will have to be a “distinguished expert” who has “made remarkable contributions in their professions”, and has at least 15 years of service or experience.
- The idea is to bring practical experience into classroom teaching.
- It is open to the institutions themselves to decide the sector from which they want to rope in professionals.
- A professor of practice can be anyone with a background in a diverse range of areas from technology, science, social sciences, media, literature, armed forces, law, fine arts, etc.
- However, the position is not open for those in the teaching profession — either serving or retired.
- Currently, under the UGC’s minimum qualifications for appointment of teachers and other academic staff, an individual needs a PhD to be recruited as a professor or associate professor, and also needs to have cleared the National Eligibility Test (NET).
- It can be either a full-time or a part-time engagement for at least four years. Initially, the hiring will be for one year. Based on performance, extensions may be given.
- The remuneration will be decided at the level of the institutes and the experts being hired.

5 G SERVICES LAUNCHED BY PRIME MINISTER

Prime Minister Narendra Modi recently launched 5G services in India at the India Mobile Congress in Delhi.



About:

- 5G is the next generation of mobile communication networks, which is supposed to offer much faster speeds and wider use cases than 4G.
- It is believed that the rollout of 5G will accelerate the adoption of cloud gaming, AR/VR



CROSS & CLIMB ROHTAK



technology, Internet of Things, etc. 5G also has several enterprise use cases.

- It enables a new kind of network that is designed to connect virtually everyone and everything together including machines, objects, and devices.
- 5G wireless technology is meant to deliver higher multi-Gbps peak data speeds, ultra-low latency, more reliability, massive network capacity, increased availability, and a more uniform user experience to more users.
- In 5G the latency will be ten times less than in 4G, being able to perform remote actions in real time.

