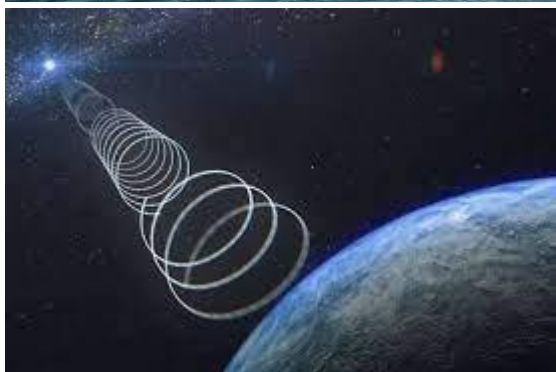


SARAS-3



- SARAS is a niche high-risk high-gain experimental effort of RRI initiated and led by Prof. Ravi Subrahmanyan, along with Prof. N. Udaya Shankar.
- SARAS aims to design, build and deploy in India a precision radio telescope to detect extremely faint radio wave signals from the depths of time, from our "Cosmic Dawn" when the first stars and galaxies formed in the early Universe.



- The signal from Cosmic Dawn is expected to arrive on Earth stretched in wavelength to meters and lowered in frequency by the expansion of the Universe to lie in the radio frequency band 50-200 MHz.
- The signal from Cosmic Dawn is expected to arrive on Earth stretched in wavelength to meters and lowered in frequency by the expansion of the Universe to lie in the radio frequency band 50-200 MHz.
- SARAS 3, a radio telescope designed and built at the Raman Research Institute (RRI) here, has provided clues to the nature of the universe's first stars and galaxies.
- Raman Research Institute, an autonomous institute of the Department of Science & Technology, Govt. of India refuted this claim.
- Using data from the telescope which has been deployed over the Dandiganahalli Lake and Sharavati backwaters (Karnataka) since 2020, astronomers and researchers have been able to determine the properties of radio luminous galaxies formed just 200 million years post the Big Bang.

Kolkali art

- Kolkali is a folk art performed in Malabar region of Kerala, India.
- The dance performers move in a circle, striking small sticks and keeping rhythm with special steps. The circle expands and contracts as the dance progress
- The accompanying music gradually rises in pitch and the dance reaches its climax.
- **THE HINDU**

DOMESTIC VIOLENCE ACT

Objectives of the Domestic Violence Act, 2005

- To identify and determine that every act of domestic violence is unlawful and punishable by law.
- To provide protection to victims of domestic violence in the cases such acts occur.
- To serve justice in a timely, cost-effective, and convenient manner to the aggrieved person.



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- To prevent the commission of domestic violence and to take

adequate steps if such violence occurs.

- To implement sufficient programmes and agendas for the victims of domestic violence and to guarantee the recovery of such victims.

Appointment of Protection Officers

- Protection Officers are appointed by the State Government.
- The number of Protection Officers may vary from district to district depending on the size and necessity.
- Section 10 of the Act, lays down the functions and duties of service providers.
- Service providers are defined under the Act as any voluntary association registered under the Societies Registration Act, 1860, or a company that is registered under the Companies Act, 1956 which aims to protect the rights of the women lawfully by providing legal aid, medical, financial, or other assistance.
- If any victim of domestic violence requires a shelter home then under Section 6 of the Act, the person in charge of a shelter home will provide suitable shelter to the victims of domestic violence in the shelter home.

SOAT



WHAT IS SEMI-AUTOMATED OFFSIDE TECHNOLOGY (SOAT)?

- AI-based semi-automated offside technology (SAOT) has been developed to help video and on-field officials make quicker and more accurate decisions on offside during a match.
- The new system makes use of 12 cameras that are positioned below the stadium's roof to track 29 data points on each player at a pace of 50 times per second, giving rise to a position that is almost perfect concerning the surface.
- There are two parts to the technology a sensor inside the match ball (Adidas's Al Rihla) that is held using suspension technology, and existing tracking tools that are part of the VAR system
- Video Assistant Referee (VAR), is a qualified referee who watches the match via a number of screens and can view slow-motion replays,

enabling them to advise the on-field referee

- The innovative system utilizes AI and ball-tracking data to automatically alert the video match officials in the video operation room whenever an attacker receives the ball in an offside position.
- The exact positional data points used to make the decision are generated into a 3D animation that precisely depicts the position of the player's limbs when the ball is played.



THE HINDU

Fine ON GOOGLE

- The story so far: On November 14, Google reached an agreement with the Attorney-Generals of 40 U.S. States to pay a historic \$391.5 million settlement, over its location tracking practices,

What is the lawsuit about?

- Google was found to violate state consumer protection laws by

misleading its users about its location-tracking practices since at least 2014.

- The company misled consumers into thinking they had turned off location tracking, when, in fact, the company continued to collect their location information and use that for advertising.

Will Google make any changes?

- The company is creating a single, comprehensive information hub to highlight key location settings and help people make informed choices about their data.

THE HINDU

LGBTQ Rights

- In India, marriages solemnised under personal laws such as the Hindu Marriage Act, of 1955, the Indian Christian Marriage Act, 1872, the Muslim Personal Law (Shariat) Application Act, 1937, and so on. At present, though same-sex and queer marriages are not clearly recognised in India, we are not bereft of judicial guidance.
- The judgment of the Madras High Court builds on the tenets laid down by the Supreme Court of India in *Shafin Jahan vs Ashokan K.M. and Others* AIR 2018 SC 1933 (Hadiya case), wherein the right to choose

and marry a partner was considered to be a constitutionally guaranteed freedom.

- The Supreme Court held that the “intimacies of marriage lie within a core zone of privacy, which is inviolable” and that “society has no role to play in determining our choice of partners”
- The only logical interpretation from reading these cases together, it is apparent that any legal or statutory bar to same-sex and queer marriages must necessarily be held to be unconstitutional and specifically violative of Articles 14, 15, and 21 of the Constitution of India.

THE HINDU

GM Crops

- Bt cotton is the only genetically modified (GM) crop that has been approved for commercial cultivation in 2002 by the Government of India. Long-term studies were conducted by ICAR on the impact of Bt cotton which did not show any adverse effect on soil, microflora, and animal health.
- However, the Parliamentary Standing Committee on Science and Technology, Environment and Forests, in its report on ‘Genetically modified crops and its impact on

environment, submitted to parliament on August 25, 2017, recommended that GM crops should be introduced in the country only after critical scientific evaluation of its benefit and safety, and also recommended restructuring of regulatory framework for unbiased assessment of GM crops.

- In 2002 approval for the commercial release of Bt cotton hybrids/ varieties resistant to cotton bollworms were given.
- Bt Brinjal resistant to brinjal shoot fly developed by M/S Mahyco in collaboration with University of Agricultural Sciences, Dharwad; Tamil Nadu Agricultural University, Coimbatore and ICAR-Indian Institute of Vegetable Research, Varanasi was approved by GEAC in 2009 but due to 10 years moratorium imposed on GM crops by the Technical Expert Committee (TEC) appointed by the Hon'ble Supreme Court of India, no further action on commercialization has been taken.
- GM mustard Dhara Mustard Hybrid 11 (DMH 11) developed by Delhi University is pending for commercial release as GEAC has advised generating complete safety assessment data on environmental bio-safety, especially effects on

beneficial insect species. No such request is pending in the matter.

- ICAR always promotes science-based innovative technology including research on GM crops. 'Network Project on Transgenic in Crops' (presently Network Project on Functional Genomics and Genetic Modification in Crops) was launched by ICAR in 2005 for the development of GM crops in case of pigeonpea, chickpea, sorghum, potato, brinjal, tomato, and banana for different traits and the material is in different stages of development.
- The Government of India has very strict guidelines to test and evaluate the agronomic value of the GM crops so as to protect the interests of the farmers.
- These guidelines address all concerns with regard to the safety of GM seeds.
- The regulatory system for GM crops as operative in the Department of Biotechnology, Ministry of Science and Technology (Review Committee on Genetic Manipulation; RCGM), and Ministry of Environment and Forests (Genetic Engineering Appraisal Committee; GEAC) has guidelines to consider the GM crops on case-by-case basis towards testing.

FIRST-EVER LAUNCHPAD

- Agnikul, the Chennai headquartered space tech Startup, has established India's first-ever Launchpad for a private launch vehicle at Sriharikota.
- It was inaugurated recently by S. Somanath, Chairman of the Indian Space Research Organisation (ISRO) and Secretary of the Department of Space. “



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- The first exclusive Launchpad for a private launch vehicle has come up at the Satish Dhawan Space Center. Now, India can travel to space from one more platform.

THE HINDU

Global shield schemes

- Germany will provide €170 million (\$172 million) to a "Global Shield" insurance initiative to help low-income and vulnerable countries to rebound in the event of climate calamities.
- It aims to strengthen social protection schemes and climate risk insurance, so that when an extreme weather event like flooding strikes, communities can access aid quickly
- Germany, G7 launch 'Global Shield' climate finance at COP27
- A protection scheme that "kicks in automatically in the case of a crisis" frees up money for new seeds immediately, limiting the damage, the statement continued.
- Countries like Canada, Ireland, and Denmark have so far pledged a further €40 million to the initiative.
- Scheme towards LOSS AND DAMAGE.

THE HINDU
