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# Textbook revision panel to recommend rewriting lessons

## Report likely to be submitted in mid-January 2024

BENGALURU, DHNS

tuted by the Congress government to revise the school textbooks will submit its report in mid-January 2024.

According to the sources from the committee, one of the main recommendations would be to rewrite school textbooks.

"The textbooks which we are teaching now are at least 10 years old and whenever a new government comes, the same get revised. The very first line in our revision report will be a recommendation to

rewrite textbooks immediately," said sources.

As explained by the sources, the textbooks need to be rewritten mainly because there are lots of changes in history and language in the last 10 years.

"There is no use in teaching existing textbooks. The text-books need to be rewritten, instead of revising them. We are going to suggest that the implementation of revised/rewritten curriculum must be on experimental basis," the sources said.

However, even in current revision exercise, the committee has not removed some of the



topics introduced by Rohith Chakratirtha, who was appointed by the previous BJP government. "Some contents we have decided to retain, but there is no glorification of anything in the revised books," the sources mentioned.

Talking about RSS founder K B Hedgewar, the sources from the committee said, while entrusting the revision, the government had removed some lessons which included one on Hedgewar.

"There is no question of removing Hedgewar. When it comes to Tipu, BJP had not removed the lesson on Tipu, but they removed glorification and we are also not for glorification of anyone in textbooks," the sources added.

These revised textbooks will be implemented from 2024-25 academic year.

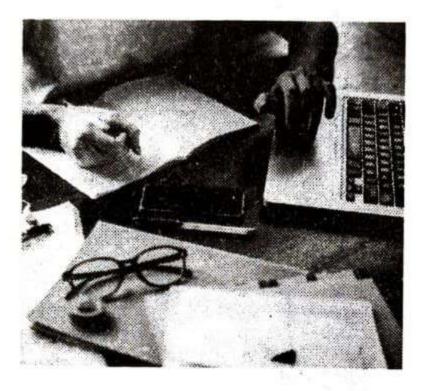
# Don't offer degrees in association with foreign varsities without approval: UGC

KAVITA BAJELI-DATT @ New Delhi

THE University Grants Commission (UGC) will take action against universities and edtech companies offering courses in online mode in association with foreign universities without its prior approval, officials said on Saturday.

In a public notice, the UGC has said that no foreign higher educational institution (HEI) can offer any programme in India without the prior approval of the commission, and such programmes will not receive recognition from the UGC.

Exercising its powers under the UGC Act, 1956 (as amended), the commission has notified two key regulations for foreign higher education institutions in India. The first, University Grants Commission (Academic Collaboration between Indian and Foreign Higher Education Institutions to offer Twinning Programme, Joint Degree, Dual Degree Programmes) Regulations, 2022; and second, Univer-



sity Grants Commission (Setting up and Operation of Campuses of Foreign Higher Educational Institutions in India) Regulations, 2023.

Warning edtech companies collaborating with foreign universities, the UGC said, "It has also come to the notice of UGC that some edtech companies are giving advertisements in newspapers, social media, television, etc, offering degree and diploma programmes in online mode in association with some foreign universities and institutions."

The regulations mandate

#### **Public notice**

In a public notice earlier this week, the University Grants Commission has said that no foreign higher educational institution can offer any programme in India without the prior approval of the commission, and such programmes will not receive recognition from the commission.

that no foreign HEI shall offer any programme in India without the prior approval of the UGC," the notice said.

The HEIs shall not offer programmes under any franchise arrangement, it added. "Such a franchisee arrangement is not permissible and any such programme or degree shall not have UGC recognition," it said.

"Therefore, students and general public are made aware that such courses, programmes and degrees do not have UGC recognition and that they would be doing so at their own risk," the notification said.

# 5th convocation of Sharnbasva varsity tomorrow, 3 to get honorary doctorates

Dist Minister Priyank Kharge, Medical Education Minister Sharanprakash Patil to be chief guests

EXPRESS NEWS SERVICE

@ Kalaburagi

THE fifth annual convocation of Sharnbasva University would be held on December 18 at Basavarajappa Appa Memorial Hall in Kalaburagi, said Mahadasoha Peetadhipathi of the Sharanabasaveshwar Samasthan Sharanabasavappa Appa who is also chancellor of Sharnbasava University and Dakshayani Avva who is the chairperson of Sharanabasaveshwara Vidya Vardhak Sangha here on Saturday.

Speaking in a joint press conference here, Appaji and Dakshayani Avvaji said that Director of the Innovation Centre for Education of the software major IBM in Bengaluru Vithal Madyalkar who is a senior technocrat has agreed to deliver the fifth convocation address. The convocation would be held in blended mode both offline and online. The live convocation would be available on the YouTube (www.youtube.







A S Patil

Chinnamma Gaddgi

Aravind Jatti

com/live). They said that District Minister Priyank Kharge and Medical Education Minister Dr Sharan Prakash Patil would grace the occasion as chief guests. 9th Mahadasoha Peethadhipati Poojya Chiranjeevi Doddappa Appaji would also grace the occasion.

Appaji said that the university has decided to confer honorary doctorates to three eminent personalities including president of the Basava Samithi Aravind Jatti, noted painter and fine art exponent A S Patil and educationist Chinamma Gaddgi in the 5th annual convocation of the university.

While Jatti had immensely

contributed in spreading the philosophy of 12th Century Social Reformer Mahatma Basaveshwara and translating the Vachanas of the 12th Century Sharanas into various Indian and foreign languages and publishing them, A S Patil is a distinguished painter whose realistic works adorn the walls of distinguished collectors of art works throughout the world as well reputed museums in the country and abroad.

His notable works are the paintings related to Aurobindo Ashram and Auroville in Puducherry and that of the Mother and Aurobindo speaks volumes about Patil's calibre.

Chinamma Gaddgi who has

been selected to receive the honorary doctorate of the university is a self made woman educationist.

Hailing from a deprived community, Gaddgi is a self made woman who had to undergo struggles and hurdles all the way throughout her life and achieved commendable success in establishing two nursing colleges and providing diploma, undergraduate and postgraduate courses in nursing in Bidar and Kalaburagi cities.

Appaji and Dakshayani Avvaji said that a total number of 156 students had secured ranks in their undergraduate and postgraduate courses and of them 43 students' secured gold medals and nine students would be provided cash awards instituted in the name of different personalities for their academic achievements.

Vice-chancellor Dr Niranjan V Nisty and secretary of the Sangha Basavaraj Deshmukh were present.

## ಎಜುಟೆಕ್ 'ವಿದೇಶಿ ವಿವಿ ಪ್ರಮಾಣಪತ್ರ'ಕ್ಲಿಲ್ಲ ಮಾನ್ಯತೆ

ನವದೆಹಲಿ: 'ಭಾರತದಲ್ಲೇ ವ್ಯಾಸಂಗ ಮಾಡಿ, ವಿದೇಶಿ ವಿವಿಗಳ ಪದವಿ ಪಡೆಯಿರಿ' ಎಂದು ಹೇಳಿಕೊಂಡು ಭಾರತದ ಸಾವಿರಾರು ವಿದ್ಯಾರ್ಥಿಗಳನ್ನು ವಂಚಿಸುವ ಎಜುಟೆಕ್ ಕಂಪನಿಗಳು ಹಾಗೂ ಕಾಲೇಜುಗಳ ಬಗ್ಗೆ ಎಚ್ಚರಿಕೆ ವಹಿಸುವಂತೆ ವಿವಿಯ ಧನಸಹಾಯ ಆಯೋಗ (ಯುಜಿಸಿ) ಸೂಚಿಸಿದೆ. ಜತೆಗೆ, ಇಂತಹ ಕಾಲೇಜುಗಳು ನೀಡುವ ವಿದೇಶಿ ಪದವಿ ಪ್ರಮಾಣಪತ್ರಗಳಿಗೆ ಯಾವುದೇ ಮಾನ್ಯತೆ



■ ಮೇಡ್ ಇನ್ ಇಂಡಿಯಾ ವಿದೇಶಿ ಪದವಿಗಳ ಬಗ್ಗೆ ಎಚ್ಚರ ಇರುವುದಿಲ್ಲ ಎಂದೂ ಸ್ಪಷ್ಟಪಡಿಸಿದೆ.

'ಮೇಡ್ ಇನ್ ಇಂಡಿಯಾ' ವಿದೇಶಿ ಪದವಿ ಹೆಸರಿನಲ್ಲಿ ಹಲವಾರು ವಿದ್ಯಾರ್ಥಿಗಳು ನಕಲಿ ಪದವಿಗಳನ್ನು ಪಡೆಯುತ್ತಿರುವುದರ ಬಗ್ಗೆ ಯುಜಿಸಿ

ಕಳವಳ ವ್ಯಕ್ತಪಡಿಸಿದೆ. ಒಂದು ಬಾರಿಯೂ ವಿಮಾನ ಹತ್ತದೇ, ಮನೆಯಿಂದಲೂ ಹೊರಬರದೇ, ವಿದೇಶಿ ಉಪನ್ಯಾಸಕರ ಪಾಠಗಳನ್ನೂ ಆಲಿಸದೇ, ಪ್ರಾಜೆಕ್ಟ್ ಗಳನ್ನು ಸಲ್ಲಿಸದೇ ಈ ವಿದ್ಯಾರ್ಥಿಗಳಿಗೆ 'ವಿದೇಶಿ

ವಿವಿಗಳ ಪದವಿ ಪ್ರಮಾಣಪತ್ರ' ಲಭ್ಯವಾಗುತ್ತಿವೆ. ಬೆಂಗಳೂರಿನ ಕೆಲವು

ಪ್ರಮಾಣಪತ್ರ ಕಲ್ಪಿಸಿಕೊಡುವ ಭರವಸೆ ನೀಡಿರುವ ಸಂಗತಿಗಳೂ ಬೆಳಕಿಗೆ ಬಂದಿವೆ. ವಿದ್ಯಾರ್ಥಿಗಳು ಇದನ್ನು ನಿಜವೆಂದೇ ನಂಬಿ ಮೋಸ ಹೋಗುತ್ತಿದ್ದಾರೆ. ಅವರು ಯುಪಿಎಸ್ಸ್ ಹಿಯಂತಹ ಸ್ಪರ್ಧಾತ್ಮಕ ಪರೀಕ್ಷೆಗಳನ್ನು ಬರೆಯಲು ಹೋಗುವಾಗಲೇ ಅವರಿಗೆ ಈ ನಕಲಿ ಪ್ರಮಾಣಪತ್ರಗಳ ಸತ್ಯ ಅರಿವಾಗುವುದು. ಭಾರತೀಯ ವಿದ್ಯಾರ್ಥಿಗಳು ಮಾತ್ರವಲ್ಲದೇ, ಭಾರತದಲ್ಲಿ ವ್ಯಾಸಂಗ ಮಾಡಿದ ನೇಪಾಳ, ಪೋಲೆಂಡ್ ಸೇರಿದಂತೆ ಬೇರೆ ಬೇರೆ ದೇಶಗಳ ವಿದ್ಯಾರ್ಥಿಗಳು ಕೂಡ ಈ ರೀತಿಯ ಮೋಸಕ್ಕೆ ಬಲಿಯಾಗಿದ್ದಾರೆ. ಈಗ ಈ ಕುರಿತು ಸ್ಪಷ್ಟನೆ ನೀಡಿರುವ ಯುಜಿಸಿ, ತನ್ನಿಂದ ಗುರುತಿಸಲ್ಪಡದೇ ಇರುವ ಸಂಸ್ಥೆಗಳು ವಿತರಿ ಸುವಂಥ ಪ್ರಮಾಣಪತ್ರಗಳು ಹಾಗೂ ಪದವಿಗಳಿಗೆ ಯಾವುದೇ ಮಾನ್ಯತೆ ಇರುವುದಿಲ್ಲ ಎಂದು ಹೇಳಿದೆ.

## ಲಿಂಗರಾಜಪ್ಪ ಅಪ್ಪ ಕಳವಳ ಸೇಡಂನಲ್ಲಿ ಸೀಗಿ ಪ್ರಶಸ್ತಿ ಪ್ರದಾನ ಸಮಾರಂಭ

## ಓದಿನಿಂದ ದೂರಾಗ್ತಿದೆ ಯುವ ಸಮೂಹ

■ ವಿಜಯವಾಣಿ ಸುದ್ದಿಜಾಲ ಸೇಡಂ ೫ ಯುವ ಸಮುದಾಯ ಅಧುನಿಕತೆಗೆ ಮಾರು ಹೋಗುತಿದ್ದು, ೫ ಮೊಬೈಲ್, ಟಿವಿ ಚಟದಿಂದಾಗಿ ಓದುವುದನ್ನೆ ಮರೆತಿದೆ ನಿ ಎಂದು ವಿಶ್ವ ಹಿಂದು ಪರಿಷತ್ ಉತ್ತರ ಪ್ರಾಂತ ಅಧ್ಯಕ್ಷ ೫ ಲಿಂಗರಾಜಪ್ನ ಅಪ್ಪ ಕೆಳವಳ ಪ್ರಕ್ಷಪಡಿಸಿದರು.

ಸಜ್ಜನಶೆಟ್ಟಿ ಕಲ್ಯಾಣ ಮಂಟಪದಲ್ಲಿ ಸಂಸ್ಕೃತಿ ಪ್ರಕಾಶನ ಟ್ರಸ್ಟ್ ಸೆಂದ ಪುಕ್ರವಾರ ರಾತ್ರಿ ಅಯೋಜಿಸಿದ್ದ ಸಂಸ್ಕೃತಿ ಸಮ್ಮಾನ ಹಾಗೂ ಸೀಗೀ ಸಂಸ್ಕೃತಿ ಪ್ರಶಕ್ತಿ, ಪ್ರದಾನ ಸಮಾರಂಭದಲ್ಲಿ ಮಾತನಾಡಿ, ನಮ್ಮ ತಂದೆ ಸಾಹಿತ್ಯ ಒದುವುದರಿಂದ ಆಗುವ ಆ್ಯಾಭದ ಬಗ್ಗೆ ನಮಗೆಲ್ಲ ತಿಳಿಸಿದ್ದರು. ಅದರ ಫಲವಾಗಿ ನಾವು ಆಸಕ್ತಿ ಬೆಳಸಿಕೊಂಡು ಓದಿದ್ದೇವೆ ಎಂದು ತಿಳಿಸಿದರು.

ಸರ್ಕಾರಿ ಆಸ್ಪತ್ರೆ ಆಡಳಿತ ವೈದ್ಯಾಧಿಕಾರಿ ಡಾ.ನಾಗರಾಜ ಮನ್ನೆ ಮಾತನಾಡಿ, ನಾನು ವೃತ್ತಿಯಿಂದ ವೈದ್ಯನಾಗಿದ್ದರೂ ನನಗೆ ಸಾಹಿತ್ಯದ ಅಲ್ಪಸ್ವಲ್ಪ ನಂಟಿದೆ. ಸಾಹಿತಿ ಪ್ರಭಾಕರ ಜೋಶಿ ತಮ್ಮ ಪತ್ನಿಯ ನೆನಪಿಗಾಗಿ ಸೀಗೀ ಸಂಸ್ಕೃತಿ ಪ್ರಶಸ್ತಿ ನೀಡುತ್ತಿರುವುದು ಶ್ಲಾಘನೀಯ. ಮನೆಗಳಲ್ಲಿ ಪಾಲಕರು ಮಕ್ಕಳಲ್ಲಿ ಸಂಸ್ಕೃತಿ ಬಿತ್ತುವ ಕೆಲಸ ಮಾಡಬೇಕು. ಇಲ್ಲವಾದಲ್ಲಿ ಮುಂದೆ ಆಪತ್ತು ಎದುರಿಸಬೇಕಾಗುತ್ತದೆ ಎಂದರು.

ಗುಲ್ಬರ್ಗ ವಿಶ್ವವಿದ್ಯಾಲಯದ ಸಂಗೀತ ವಿಭಾಗದ ಮುಖ್ಯಸ್ಥೆ ಡಾ.ಲಕ್ಷ್ಮೀ ಶಂಕರ ಜೋಶಿ ಮಾತನಾಡಿ, ಒಬ್ಬ ಯಶಸ್ವಿ ಪುರುಷನ ಹಿಂದೆ ಮಹಿಳಿ ಇರುತ್ತಾಳೆ ಎನ್ನುವ



ಮಾತು ಗೀತಾ ಜೋಶಿ ಅವರು ಬದುಕಿನಲ್ಲಿ ಆಕ್ಷರಶೀ ನಿಜವಾಗಿದೆ. ಅಂತಹ ಸಾತ್ವಿಕ ಸ್ವಭಾವದ ಗೃಹಿಣಿಯನ್ನು ಪ್ರಶಸ್ತಿ ರೂಪದಲ್ಲಿ ಶ್ವಾಶತವಾಗಿ ನೆನಪಿಡುವ ಕೆಲಸ ಮಾಡುತ್ತಿರುವ ನಿಜಕ್ಕು ಅನುಕರಣೀಯ ಎಂದು ಹೇಳಿದರು.

ವಿದ್ವಾನ್ ಡಾ.ವಾ.ಮದೇವ ಅಗ್ನಿಹೋತ್ರಿ ಅವರಿಗೆ ಸಂಸ್ಕೃತಿ ಸಮ್ಮಾನ್ ಹಾಗ್ಲೂ ಪ್ರಸ್ತಕೋದ್ಯಮಿ ಬಸವರಾಜ ಕೋನಕ್ ಅವರಿಗೆ ಸೀಗಿ ಪ್ರಶಸ್ತಿ ನೀಡಿ ಗೌರವಿಸಲಾಯಿತು.

ಕರಳ್ಳಿ ಗುರುನಾಥರೆಡ್ಡಿ ಪ್ರತಿಷ್ಠಾನದ ಅಧ್ಯಕ್ಷ್ಮಸಿದ್ದತ್ತು ತಳ್ಳಳ್ಳಿ, ಸಂಸ್ಕೃತಿ ಪ್ರಕಾಶನ ಟ್ರಸ್ಟ್ ನ ಅಧ್ಯಕ್ಷ ಪ್ರಭಾಕರ ಜೋಶಿ ಮಾತನಾಡಿದರು. ಸಂಜೀವ ಸಿರನೂರಕರ್ ಪ್ರಶಸ್ತಿ ಪುರಸ್ಕೃತರ ಪರಿಚಯ ಮಾಡಿದರು. ಸೌಮ್ಯ ಜೋತಿ ಪ್ರಾರ್ಥಿಸಿದರು. ಟ್ರಸ್ಟ್ ಕಾರ್ಯದರ್ಶಿ ಆದಿತ್ಯ ಜೋತಿ ಸೇಡಂನಲ್ಲಿ ಶನಿವಾರ ಹಮ್ಮಿಕೊಂಡಿದ್ದ ಕಾರ್ಯಕ್ರಮದಲ್ಲಿ ಸಂಸ್ಕೃತಿ ಪ್ರಕಾಶನ ಟ್ರಸ್ಟ್ ನಿಂದ ವಿದ್ವಾನ್ ಡಾ.ವಾಸುದೇವ ಅಗ್ನಿಹೋತ್ರಿ ಅವರಿಗೆ ಸದ್ಯತ್ತ ತ್ರಿ ಸಮ್ಮಾನ ಪುಸ್ತಕೋದ್ಯಮಿ ಬಸವರಾಜ ತ್ರಿತಿಕ್ಕೆ ಪ್ರದಾನ ಅವರಿಗೆ ಹೀಗೀ ಸಂಸ್ಕೃತಿ ಕ್ರಿತಿಕ್ಕೆ ಪ್ರದಾನ ಮಾಡಲಾಯಿತು ಶ್ರೀ ಲಂಗಡಾಡುತ್ತ ಮಾಡಲಾಯಿತು ಶ್ರೀ ಲಂಗಡಾಡುತ್ತ ಪ್ರಾ. ನಾಗರಾಜ ಮನ್ನೆ, ಡಾ.ಲಕ್ಷ್ಮೀಶಂಕರ ಜೋತಿ, ಹಿದ್ದಪ್ಪ ತಳ್ಳಳ್ಳ, ಪ್ರಭಾಕರ ಜೋತಿ ಇದ್ದರು.

ವಿಂದು ಪುಸ್ತಕ, ಪತ್ರಿಕೆಗಳಿಂದ ಯುವ ಜನತೆ ದೂರವಾಗುತ್ತಿದ್ದಾರೆ. ಮನುಷ್ಯವಲ್ಲಿ ಜ್ಞಾನ ಹೆಚ್ಚಾಗಬೇಕಾದರೆ ಅಧ್ಯಯನದ ಅವಶ್ಯಕತೆ ಇದೆ. ಅದರಲ್ಲಿಯೂ ಪುಸ್ತಕ ಓದುವುದರಿಂದ ಹಿಗುವ ಜ್ಞಾನ ಇನ್ನೆಲ್ಲಿಯೂ ಸಿಗಲ್ಲ. ಹೀಗಾಗಿ ಇಂದಿನ ಹೀಳಿಗೆ ಪ್ರಸ್ತಕದತ್ತ ಮುಖ ಮಾಡಬೇಕು.

। ಲಿಂಗರಾಜಪ್ಪ ಅಪ್ಪ

ಉತ್ತರ ಪ್ರಾಂತ ಅಧ್ಯಕ್ಷ, ವಿಶ್ವ ಹಿಂದು ಪರಿಷತ್

ಸ್ವಾಗತಿಸಿದರು. ಪತ್ರಕರ್ತರ ಸಂಘದ ತಾಲೂಕು. ಅಧ್ಯಕ್ಷ ಶರಣು ಮಹಾಗಾಂವ ವಂದಿಸಿದರು. ಸಾಹಿತಿ ಜಗನ್ನಾಥ ತರನಳ್ಳಿ ನಿರೂಪಣೆ ಮಾಡಿದರು.



Most Important Topics For

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## The Problem With EVs

Riding tax cuts and eco-based sales pitches, electric vehicles are burning rubber on the world's roads. But they are not all that green or safe as advertised.

#### By MEDHA DUTTA YADAV

olda resident Ashish Mehrotra is mulling buying an electric car. It has obvious advantages-a smoother drive, lower running costs, tax benefits and is environment-friendly. "But, I'm skeptical, especially about charging the vehicle. I can do it at home from an AC socket, but it's a slow process; takes almost 24 hours. The company installs wall box chargers for free, which is a faster process. But it would still take up to six hours for the battery to reach 80 percent charge," says the 37-year-old entrepreneur, who runs a home medicare startup. As per the Indian government's vision, EV charging stations must be installed every three km in cities, and every 25 km on highways on both sides. "A mid-level Nexon EV will cost me around ₹16 lakh—more than what a high-end traditional petrol or diesel car (internal combustion engine, or ICE as they are called) of the same brand will cost. Even when I pay so much, long drives will be dicey, because the car-though officially claiming a mileage of 400-plus km on a single cycle of charge—will probably run a maximum of 250 km. That rules out inter-state travel," says Mehrotra, who wants to be part of the woke club riding the trend of green living. If only, he was in Detroit. The US city is trying out a novel way of charging EVs by placing a network of inductive-charging coils under the street surface-your car charges as it is being driven.

Historically, humans are obsessed with fads. Once. doctors prescribed mercury to patients who died agonising deaths. Victorian London laid lead pipes for drinking water, inadvertently poisoning thousands, including children. In the 1920s, cigarette companies featured doctors in their ads. The fear of pollution-led diseases and deaths, and eco-activists are the 21st century's champions of the movement against fossil fuels. As the electric vehicle gains popularity, makes Elon Musk richer and governments fall in love with it, the EV has become India's latest automotive craze. India Electric Vehicle Report 2023 notes that EVs could make up more than 40 percent of India's automotive market and generate over \$100 billion of revenue by 2030. They accounted for about 5 percent of total vehicle sales between October 2022 and September 2023; the

market is projected to reach more than 40 percent penetration by 2030, in both two-wheeler and three-wheeler categories. In the West, where it all began, however, the story is different. The EV bubble has burst. Between 2019 and 2021, the combined market capitalisation of Nikola, Fisker, Rivian Automotive, Lucid, NIO, XPeng, Polestar Automotive, Canoo, and Lordstown Motors was about \$470 billion. Now, it is just about \$59 billion-an 87 percent fall. The top profitable EV makers-Tesla, BYD and Li Auto-saw their peak market capitalisations dive from \$1.4 trillion in the same period to about \$900 billion. Musk's coffers will expand after the Indian government's lower taxation rate on EVs come into effect; a good break for his company's pricey models. US investors and fund managers think Tesla will export only about 2.2 million units in 2024;

a 5 percent fall from 2023a nose dive, considering its 50 percent average annual growth from 2020 to 2023. Tesla hasn't launched a new model since

#### WHAT IS WRONG WITH ELECTRIC VEHICLES?

- The Indian consumer is more cost-conscious than eco-conscious. The EV batteries don't last longer than eight years and are pricier than an ICE vehicle. For example, the cost of replacing a Tata Nexon EV's battery ranges between ₹5 lakh and ₹5.5 lakh.
- · EVs don't always get it right. The first batch is the worst with yet-to-be-expected glitches popping up along the way. To meet high customer expectation, companies have to constantly upgrade the vehicle, which is expensive. The cost will be passed on to the owner.
- Range anxiety is a widespread concern because of the

huge difference between the promised and real mileages. especially with cars loaded with luggage. An official from Mercedes-Benz Research and Development India says, "Range anxiety has been considered one of the biggest hindrances to EV adoption.

- EVs are environmentally unfriendly in the sense that electricity is generated by burning fossil fuels; which sort of defeats the purpose. The more their number, the more the pressure on the power grids.
- · Moreover, most charging stations are operated with a diesel generator.
- · Though the instant torque in EVs is quicker-it reaches 1-100 kmph faster than an

CRUNCHING THE NUMBERS

of owners use their EV

buyers are aged less

as a primary car

than 40 years

million registered EVs. Between January and July 2023, sales shot up by 131 percent. In contrast, ICE vehicles recorded a mere 5 percent growth. Approximately 7,500 electric cars are sold each month. "EVs last longer due to fewer moving parts and because their batteries can be charged for over 2,000-3,000 cycles, translating to an impressive driving distance of 3-9 lakh km on road. The longer life of an EV is also a positive for the environment. The government's clear roadmap and initiatives towards greening the power grid will lead to

reduc-

engineer. If experts are to be believed, studies and R&D will soon push out lithium-ion batteries. The evolving

"Batteries lose power over the

years, an EV, which can do 300

km on one charge, may go down

to 150 km per charge cycle. This

capacity will go on diminishing

which may push the owner back

until the battery is replaced.

by ₹5 lakh or more. The way

forward is to install public

charging stations equipped

a Delhi-based automobile

with recharged batteries that

can be exchanged with drained

ones," argues Kshitij Tandon,

years. So, say in a couple of

currently imports all its lithium from Australia and Argentina. Though the mineral is the third-most common element on earth after hydrogen and helium, it is not easily mined. The extraction process takes anywhere from 10 to 24 months. To pull out every tonne of lithium requires 5,00,000 litres each of fresh water, which is pumped into the mines to bubble up a mush, which is left in the open to evaporate. Unfortunately, most of these mines are located in droughtprone areas such as Argentina, Bolivia and Chile. The lithium mined after the evaporation leaves behind toxic fumes and waste, which will take centuries to clear on their own. It also

further technol-

are first-time car buyers

bookings come from outside of top 20 metros

are women buyers-this is twice the industry average

ICE-maintaining top speed is harder.

- Since EVs are still at a nascent stage in India, there are fewer trained and dedicated personnel for the maintenance of the vehicle. Servicing and spare parts costs are higher for EVs. Mechanical and breakdown infrastructure for EVs are largely nonexistent.
- · India's varying temperatures across regions affect battery performance.

#### POWERING THROUGH

India is in love with EVs. The industry is projected to become a \$266-billion market by 2030. It currently boasts around three

of CO2 emissions while using an EV." says a Tata Motors spokesperson. But the downside of the electric battery is being played down. A recently published study led by an Australian scientist labels lithium an "emerging environmental contaminant". They have found increasing levels of lithium pollution in plants and organisms; the side-effects are unknown till now. There is no effective process to reverse the cobalt-contamination of soil. which is dangerous to humans.

#### THE GREEN PARADOX

The EV isn't really the magic bullet to turn driving green. The biggest cause of concern is the heart of the EV-the lithium-ion (Li-ion) battery. Its problems are two-pronged: high carbon footprint during manufacturing, and disposal at the end of life. Since its introduction in 1991 by Sony Corporation, Li-ion batteries power everything from smartphones to cars. India

ogy may

emerge as

a better and

greener option.

seeps into the earth contaminating ground water and ecosystems. The process of mining, refining and transportation adds to a rise in greenhouse gases. Its limited availability adds to the overall price of the EV. Musk recently tweeted about this problem: "Price of lithium has gone to insane levels! Tesla might actually have to get into the mining and refining directly at scale, unless costs improve. Meanwhile, a Maruti spokesperson has a different take. He explains that when a battery reaches its end of useful life, it

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## ಚಾಟ್ಜ್ ಜಿಪಿಟಿಗೆ ಪ್ರತಿಸ್ಪರ್ಧಿ ಕೃತಿಮ್

ದೆಂಗಳೂರು: ಇದೇ ಮೊದಲ ಬಾರಿ ಭಾರತೀಯ ಭಾಷೆಗಳು ಮತ್ತು ಸಂಸ್ಕೃತಿಗೆ ಹೊಂದಿಕೊಂಡ ಕೃತಕ ಬುದ್ಧಿಮತ್ತೆ ತಂತ್ರಜ್ಞಾನ ಹೊಂದಿದ ಸಂವಾದ ಉಪಕರಣ ಮಾರುಕಟ್ಟೆಗೆ ಬಂದಿದೆ. ಓಲಾ ಕಂಪನಿಯ ಸಂಸ್ಥಾಪಕ ಅಗರ್ವಾಲ್ ಮತ್ತು ಕೃಷ್ಣಮೂರ್ತಿ ವೇಣುಗೋಪಾಲ್



ಕೆಲಸ ಮಾಡಬಹುದು. ಕಂಪ್ಯೂಟರ್ ಮೂಲಕ ಇಡೀ ಜಗತ್ತಿನ ಜ್ಞಾನದ ಕಿಟಕಿಯನ್ನು ನಮ್ಮದೇ ಭಾಷೆಯಲ್ಲಿ ತೆರೆದುಕೊಳ್ಳಬಹುದು. ಮುಂದಿನ ವರ್ಷ ಕೃತ್ರಿಮ್ ಉತ್ತಮ ಅವತರಣಿಗೆ ಬರಲಿದೆ ಎಂದು ಅಗರವಾಲ್ ತಿಳಿಸಿದ್ದಾರೆ.

ತೆನ್ನೇಟಿ ಇದನ್ನು ಸಿದ್ಧಪಡಿಸಿದ್ದು ಈಗ ಮೂಲ ಕೃತ್ರಿಮ್ ಸಂವಾದ ವಾಹಕವನ್ನು ಮಾರುಕಟ್ಟೆಗೆ ಬಿಡುಗಡೆ ಮಾಡಿದ್ದಾರೆ. ಈಗ ಮಾರುಕಟ್ಟೆಯಲ್ಲಿರುವ ಸಂವಾದ ಉಪಕರಣಗಳು ಭಾರತೀಯ ಭಾಷೆ ಮತ್ತು ಸಂಸ್ಕೃತಿಗೆ ಹೊಂದಿಕೊಂಡಿಲ್ಲ.

#### ಕೃತ್ರಿಮ್ ಎಂದರೇನು?

ಹೆಸರೇ ಸೂಚಿಸುವಂತೆ ಇದು ಕೃತ್ರಿಮಸೃಷ್ಟಿ ನೈಸರ್ಗಿಕವಾಗಿ ಬಂದುದ್ದಲ್ಲ. 2 ಶತಕೋಟಿ ವಿಷಯಕೋಶಗಳನ್ನು ಹೊಂದಿದೆ. ಇದರಲ್ಲಿ 20 ಭಾರತೀಯ ಭಾಷೆಗಳ ಜ್ಞಾನ ಸಂಪತ್ತು ಅಡಗಿದೆ. ಈಗ ಕನ್ನಡವೂ ಸೇರಿದಂತೆ ಹಿಂದಿ, ಮರಾಠಿ, ಒಡಿಯ, ತೆಲುಗು ಭಾಷೆಗಳಲ್ಲಿ ಸಂವಾದ ನಡೆಸುವ ಸಾಮರ್ಥ್ಯ ಪಡೆದಿದೆ. ಗ್ರಾಹಕರ ಅಗತ್ಯ ತಕ್ಕಂತೆ ವಿವಿಧ ಭಾಷೆಗಳಲ್ಲಿ ವ್ಯವಹರಿಸುವ ಸಾಮರ್ಥ್ಯ ಪಡೆದಿದೆ. ಭಾರತೀಯ ಸಂಸ್ಕೃತಿಯ ವಿವರಗಳನ್ನೂ ಇದು ಹೊಂದಿದೆ. ಇದರಲ್ಲಿ ಧ್ವನಿ ಮತ್ತು ಬರಹ ಎರಡನ್ನೂ ಏಕಕಾಲಕ್ಕೆ ಬಳಸಬಹುದು. ಪ್ರತಿಯೊಬ್ಬ ಭಾರತೀಯನಿಗೆ ತನ್ನ ಭಾಷೆಯಲ್ಲಿ ಜ್ಞಾನ ಸಂಪತ್ತು ಹೆಚ್ಚಿಸಿಕೊಳ್ಳಲು ಮನೆಯಲ್ಲಿ ಕುಳಿತು

#### ಜಾಗತಿಕ ಸಮಾವೇಶ

ನವದೆಹಲಿ: ಗಣನೀಯವಾಗಿ ಬೆಳೆಯುತ್ತಿರುವ ಕೃತಕ ಬುದ್ಧಿಮತ್ತೆ ಉದ್ಯಮವನ್ನು ಜಾಗತಿಕವಾಗಿ ವ್ಯಾಪಕಗೊಳಿಸಲು ಕೇಂದ್ರ ಸರ್ಕಾರ ಬದ್ಧವಾಗಿದೆ ಎಂದು ಕೇಂದ್ರ ಕೌಶಲ್ಯಾಭಿವೃದ್ಧಿ ಮತ್ತು ಉದ್ಯಮಶೀಲತೆ ಸಚಿವ ರಾಜೀವ್ ಚಂದ್ರಶೇಖರ್ ಹೇಳಿದ್ದಾರೆ.



ಮಾಧ್ಯಮಕ್ಕೆ ನೀಡಿದ ಸಂದರ್ಶನದಲ್ಲಿ ಸಚಿವರು, ಭಾರತದಲ್ಲಿ ಕೃತಕ ಬುದ್ಧಿಮತ್ತೆ ಕ್ಷೇತ್ರ ವ್ಯಾಪಕವಾಗಿ ಬೆಳೆಯುತ್ತಿದೆ. ಅದನ್ನು ಯಶಸ್ವಿಯಾಗಿಸುವುದೆಂದು ಕೇಂದ್ರ ಸರ್ಕಾರಕ್ಕೆ ಗೊತ್ತಿದೆ ಎಂದರು. ಭಾರತದಲ್ಲಿ ಶೀಘ್ರವೇ ಕೃತ್ರಿಮ ಬುದ್ಧಿಮತ್ತೆಗೆ ಸಂಬಂಧಿಸಿದ ಜಾಗತಿಕ

ಶೃಂಗಸಭೆ ಏರ್ಪಡಿಸಲೂ ಚಿಂತನೆ ನಡೆಸಲಾಗಿದೆ ಎಂದ ಅವರು, ನಿಜಕ್ಕೂ ಭವಿಷ್ಯದಲ್ಲಿ ಇದೊಂದು ಪ್ರಭಾವಿ ಕ್ಷೇತ್ರವಾಗಿ ಬೆಳೆಯಬಲ್ಲದು ಎಂದರು.

### ಪ್ರತಿರೂಪ ಒಲ್ಲದ ಮಟಿನ್

ಮಾಸ್ಕೋ: ರಷ್ಯಾ ಅಧ್ಯಕ್ಷ ವ್ಲಾದಿಮೀರ್ ಮಟಿನ್ ಪ್ರತಿವರ್ಷವೂ ತಮ್ಮ ದೇಶದ ನಾಗರಿಕರ ಜೊತೆ ದೂರವಾಣಿ ಮುಖಾಂತರ ಮಾತನಾಡುವುದರಲ್ಲಿ ಪ್ರಖ್ಯಾತರು. ಆದರೆ ಈ ಬಾರಿ ತಮ್ಮದೇ ರೂಪ ಹೊಂದಿರುವ ಡೀಪ್ಫ್ರ್



ತಮಗೇ ಪ್ರಶ್ನೆ ಹಾಕಿರುವುದು ಮಟಿನ್ ಗೆ ಅಚ್ಚರಿಯುಂಟು ಮಾಡಿದೆ. ಕೃತಕ ಬುದ್ಧಿಮತ್ತೆ ಬಳಸಿ ಮಟಿನ್ ಅವರನ್ನು ಹೋಲುವ ರೀತಿಯಲ್ಲಿ ಈ ಡೀಪ್ ಫೇಕ್ ಸೃಷ್ಟಿಸಲಾಗಿದೆ. "ಅಧ್ಯಕ್ಷ ಮಹೋದಯರೇ,

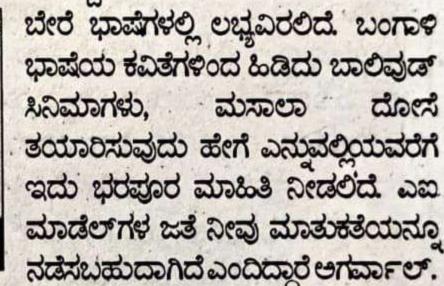
ಸಂಜೆಯ ಹಾರ್ದಿಕ ಸ್ವಾಗತ, ನಾನು ಸೈಂಟ್ ಪೀಟ್ಸ್ ಬರ್ಗ್ ಸಂಸ್ಥೆಯ ವಿದ್ಯಾರ್ಥಿ. ನೀವೇನಾದರೂ ಸಾಕಷ್ಟು ಸಂಖ್ಯೆಯ ಅವಳಿಗಳನ್ನು ಹೊಂದಿದ್ದೀರಾ? ಇದಲ್ಲದೆ, ನಿರ್ಲಿಪ್ತ ಕಾರ್ಯಜಾಲ ಹಾಗೂ ಕೃತಕ ಬುದ್ಧಿಮತ್ತೆಗೆ ಸಂಬಂಧಿಸಿದ ಅಪಾಯಗಳ ಕುರಿತಾಗಿ ನಿಮ್ಮ ಧೋರಣೆ ಏನು? ಎಂದು ಡೀಪ್ಫ್ ನಿಜರೂಪದ ಪುಟಿನ್ ಅವರಿಗೇ ಪ್ರಶ್ನೆ ಮಾಡಿದೆ.

## ಬರಲಿದೆ ಒಲಾ ಚಾಟ್ ಜಿಪಿಟಿ

ನವದೆಹಲಿ: ಕೃತಕ ಬುದ್ಧಿಮತ್ತೆ ತಂತ್ರಜ್ಞಾನವು ಕಂಪನಿಗಳ ನಡುವೆ ಪೈಪೋಟಿ ಹುಟ್ಟುಹಾಕಿರುವಂತೆಯೇ ಈಗ ಓಲಾ

ಕಂಪನಿಯು 'ಮೇಡ್ ಫಾರ್ ಇಂಡಿಯಾ' ಚಾಟ್ ಜಿಪಿಟಿಯನ್ನು ಪರಿಚಯಿಸಲು ಮುಂದಾಗಿದೆ. ಭಾರತಕ್ಕಾಗಿಯೇ ವಿಶೇಷವಾಗಿ ಇದನ್ನು ಅಭಿವೃದ್ಧಿ ಪಡಿಸಲಾಗುತ್ತಿದ್ದು ಭಾರತದ 10 ಭಾಷೆಗಳಲ್ಲಿ ಇದು ಅಭ್ಯವಿರಲಿದೆ ಎಂದು ಓಲಾ ಸ್ಥಾಪಕ ಭವಿಶ್ ಅಗ ರ್ವಾಲ್ ಹೇಳಿದ್ದಾರೆ. ಅಗರ್ವಾಲ್ ಅವರ ಎಐ ಕಂಪನಿಗೆ 'ಕೃತ್ರಿಮ್'(ಸಂಸ್ಕೃತ ಭಾಷೆಯಲ್ಲಿ ಕೃತಕ

ಎಂದರ್ಥ) ಎಂದು ಹೆಸೆರಿಡಲಾಗಿದೆ. ಕಳೆದ ಏಪ್ರಿಲ್ ನಿಂದಲೇ ಕೃತ್ರಿಮ್ ಎಸ್ಐ ಡಿಸೈನ್ಸ್ ಸಂಸ್ಥೆ ಅಸ್ತಿತ್ವಕ್ಕೆ ಬಂದಿದ್ದು ಬೆಂಗಳೂರು ಮತ್ತು ಸ್ಯಾನ್ಫ್ರಾನ್ಸಿಸ್ಕೋದಲ್ಲಿ ಕಚೇರಿಗಳನ್ನು ಹೊಂದಿದೆ. ಜನವರಿಯಲ್ಲೇ ಚಾಟ್ ಜಿಪಿಟಿಯ ಬೇಟಾ ಆವೃತ್ತಿಯನ್ನು ಬಿಡುಗಡೆ ಮಾಡಲಾಗುತ್ತದೆ ಎಂದೂ ಆಗರ್ವಾಲ್ ತಿಳಿಸಿದ್ದಾರೆ. ಓಲಾ ಚಾಟ್ ಜಿಪಿಟಿಯು ಬೇರೆ



ಈಗಾಗಲೇ ಭಾರತದಲ್ಲಿ ಸರ್ಕಾರದ ಭಾಷಿಣಿ ಯೋಜನೆ ಯನ್ನು ಆಧರಿಸಿ ಹಲವು ಸಂಸ್ಥೆಗಳು ಭಾರತೀಯ ಭಾಷಾ ಡೇಟಾಬೇಸ್ ರೂಪಿಸುವ ಮತ್ತು ಅದನ್ನು ಬಳಸಿಕೊಂಡು ಎಐ ಮಾಡೆಲ್ ಗಳಿಗೆ ತರಬೇತಿ ನೀಡುವ ಕೆಲಸ ಮಾಡುತ್ತಿವೆ.

### ಆಂಕೈಲೋಸಿಂಗ್ ಸ್ಸಾಂಡಿಲೈಟಿಸ್ ಚಿಕಿತ್ಸೆಯಲ್ಲಿ ಪ್ರಗತಿ

## ರೊಬೊಟಿಕ್ ಹಿಪ್ ಬದಲಿಕೆ ರೋಗಿಗಳಿಗೆ ಆಶಾಕಿರಣ

ರುಚ್ಚಿಯ 63 ವರ್ಷದ ಶ್ರೀ ರಾಮಕೃಷ್ಣ ಅವರಿಗೆ 2 ನ ವರ್ಷಗಳ ಹಿಂದೆ ಸೊಂಟದ ಕೀಯಗಳಲ್ಲಿ ನೋವು ಹೆಚ್ಚಾಗಿ, ಸೊಂಟ ಮತ್ತು ಬೆನ್ನುಮೂಳೆಯಲ್ಲಿ ಬಿಗಿತ ಪ್ರಾರಂಭವಾಯಿತು. ಕಳೆದ 6 ತಿಂಗಳ ಅವಧಿಯಲ್ಲಿ ನೋವು ಎಷ್ಟರ ಮಟ್ಟಗೆ ಹೆಚ್ಚಾಯಿತು ಎಂದರೆ, ಅವರಿಗೆ ಕೆಲವು ಹೆಚ್ಚೆ ನಡೆಯಲು ಕೂಡಾ ಸಾಧ್ಯವಾಗಲಿಲ್ಲ. ಬಾಗಿದ ಬೆನ್ನುಮೂಳೆಯ ಕಾರಣದಿಂದ ಅವರ ಭಂಗಿಯು ಬಾಗಿತು ಮತ್ತು ಜನರನ್ನು ಭೇಟಯಾದಾಗ ಅವರಿಗೆ ನಮಸ್ಕಾರ ಮಾಡಲು ತಲೆಯಕ್ಕಿ ನೋಡುವುದು ಕೂಡಾ ಕಷ್ಟಕರವಾಗಿತ್ತು. ಅವರು ಕೀಲುಗಳನ್ನು ಒಳಗೊಂಡಿರುವ ಸೋರಿಯಾಸಿಸ್ ಎಂಬ ಚರ್ಮದ ರೋಗದಿಂದ ಕೂಡ ಬಳಲುತ್ತಿದ್ದರು.

ರಕ್ರಪರೀಕ್ಷೆಗಳು ಮತ್ತು ರೇಡಿಯೋಗ್ಯಾಫ್ ಗಳನ್ನು ಮಾಡಿದಾಗ ಅವರಿಗೆ ಅಂಕೈಲೋಟಿಂಗ್ ಸಾಂಡಿಲೈಟ್ (AS) ಎಂಬ ಅಪರೂಪದ ಸ್ವಯಂ ನಿರೋಧಕ ಸಿತಿಯಿರುವುದು ದೃಢವಾಯಿತು, ಇದು ಪ್ರಾಥಮಿಕವಾಗಿ ಸೊಂಟ ಮತ್ತು ಬೆನ್ನುಮೂಳೆಯ ಮೇಲೆ ಪರಿಣಾಮ ಬೀರುವ ದೀರ್ಘಕಾಲದ ಉರಿಯೂತದ ಕಾಯಿಲೆಯಾಗಿದ್ದು, ಮತ್ತು ಇದು ಭಾರತದಲ್ಲಿ ಪ್ರತಿ 100 ಯುವಕರಲ್ಲಿ ಒಬ್ಬರಿಗೆ ಪರಿಣಾಮ ಬೀರುತ್ತದೆ.

ಈ ಸ್ಥಿತಿಯು ಮಹಿಳೆಯರಿಗಿಂತಲೂ ಪುರುಷರ ಮೇಲೆ ಹೆಚ್ಚಿನ ಪರಿಣಾಮವನ್ನು ಬೀರುವ ಸಾಧ್ಯತೆ 2-3 ಪಟ್ಟು ಹೆಚ್ಚು ಎಂದು ಸಂಶೋಧನಾ ಅಧ್ಯಯನಗಳು ತೋರಿಸುತ್ತವೆ ಮತ್ತು 40 ವರ್ಷಕ್ಕಿಂತ ಕಡಿಮೆ ವಯಸಿನವರಲ್ಲಿ ಕಾಣಿಸಿಕೊಳ್ಳುತ್ತದೆ ಹಾಗೂ ಸಾಮಾನ್ಯವಾಗಿ 20 ಮತ್ತು 30 ವರ್ಷ ವಯಸಿನ ನಡುವೆ ರೋಗಲಕ್ಷಣಗಳು ಶುರುವಾಗಲು ಪ್ರಾರಂಭವಾ-ಗುತ್ತದೆ. AS ಬಗ್ಗೆ ಜನರಲ್ಲಿ ಕಡಿಮೆ ಅರಿವಿನ ಕಾರಣ, ಭಾರತದಲ್ಲಿ ಅತ್ಯಂತ ಕಡಿಮೆ ರೋಗನಿರ್ಣಯ ಮಾಡುವ ಪರಿಸ್ಥಿತಿಗಳಲ್ಲಿ ಒಂದಾಗಿದೆ ಮತ್ತು ಇದನ್ನು ಹೆಚ್ಚಾಗಿ 'ಸಾಧಾರಣ ಬೆನ್ನುನೋವು' ಎಂದು ತಪಾಗಿ ಗ್ರಹಿಸಲಾಗುತ್ತದೆ.

ಈ ಸ್ಥಿತಿಯು ನೋವು ಮತ್ತು ಬಿಗಿತದಿಂದ ಪ್ರಾರಂಭ-ವಾಗುತ್ತದೆ ಮತ್ತು ಅಂತಿಮವಾಗಿ ಫ್ಯೂಕನ್ ಗೆ ಒಳಗಾಗುವ ಮೊದಲು ಸೊಂಟ ಮತ್ತು ಬೆನ್ನುಮೂಳೆಯ ಚಲನೆಗಳು ನಿಧಾನವಾಗಿ ಕಡಿಮೆಯಾಗುತ್ತವೆ. ಆರಂಭಿಕ ಚಿಕಿತ್ರೆಯನ್ನು ನೀಡುವ ಮೂಲಕ AS ನಿಂದ ಉಂಟಾಗುವ ರಚನಾತ್ಮಕ ಹಾನಿಯನ್ನು ಕಡೆಯಬಹುದು / ನಿಧಾನಗೊಳಿಸಬಹುದು, ಇದು ಮೂಳೆಗಳನ್ನು ಒಂದಾಗಿಸುವ ಶಸ್ತ್ರಚಿಕಿತ್ತೆ ಮಾಡುವ ಆಗತ್ಯವನ್ನು ತಡೆಯುತ್ತದೆ ಮತ್ತು ಅನೇಕ ಸಂದರ್ಭಗಳಲ್ಲಿ ಹೊಸ ಮೂಳೆ ರಚನೆಯನ್ನು ತಡೆಯುತ್ತದೆ. ಒಮ್ಮೆ ಕೀಲುಗಳು ಹಾನಿಗೊಳಗಾದರೆ ಅವುಗಳಿಗೆ ಕೀಲು ಬದಲಿ ಶಸ್ತ್ರಚಿಕಿತೆಯ



ಆಗತ್ತವಿದೆ ಎನ್ನುತ್ತಾರೆ ಹಳೆ ಏರ್ಪೋರ್ಟ್ ರಸೆಯ ಮಣಿಪಾಲ್ ಆಸತೆಗಳ ಹಿರಿಯ ಕನಲ್ಲೆಂಟ್ ಆದ ಆರ್ಥೋಪಡಿಕ್ ಮತ್ತು ರೊಬೊಟಕ್ ಜಾಯಿಂಟ್ ರಿಪೇಸ್ಮೆಯಿಂಟ್ ಸರ್ಜನ್ ಡಾ. ಸುನಿಲ್ ಕಿಣಿ.

ಹಾಗೆಯ ಡಾ ಕಿಣೆ ಅವರು. 'ತಿರುಗಾಡುವ ನೋವುರಹಿತ ಸೊಂಟವನ್ನು ಪಡೆಯಲು ಹಿಪ್ ರಿಪೇಸ್ ಮೆಂಟ್ ಕಸ್ತ ಚಿಕಿ-ತೆಯೊಂದೇ ದಾರಿ ಎಂದು ನಾವು ಶ್ರೀ ರಾಮಕೃಷ್ಣ ಆವರಿಗೆ ವಿವರಿಸಿದವು' ಎಂದು ಹೇಳುತ್ತಾ, ಕಪ್ ಸ್ಥಾನವು ಸ್ತಿರವಾಗಿರುವ ಸಾಮಾನ್ಯವಾದ ಹಿಚ್ ರಿಪ್ಲೇಸ್ಮೆಯಾಗಿಗೆ ವೃತಿರಿಕ್ಕವಾಗಿ, ಸಮ್ಮಿಲನಗೊಂಡ ಹಿಚ್ ಹೊಂದಿರುವ ರೋಗಿಗಳಲ್ಲಿ, ಬೆಮ್ಮಮೂಳೆಯ ನಿಯತಾಂಕಗಳನ್ನು ಒಳಗೊಂಡಂತೆ ಹಲವಾರು ಇತರ ಅಂಶಗಳನ್ನು ಅವಲಂಬಿಸಿ

ಕಚ್ ಪ್ಲೇಸ್ಮೆಂಟ್ ಹೆಚ್ಚು ನಿಖರವಾಗಿ ಮತ್ತು ವೈಯಕ್ತಿಕವಾಗಿರಬೇಕು ಎಂದು ಅನುಮೋದಿಸಿದರು.

ಈ ಸಂದರ್ಭಗಳಲ್ ರೊಬೊಟಕ್ ತಂತ್ರಜ್ಞಾನವು ಹೆಚ್ಚು ಉಪಯುಕ್ತವಾಗುತ್ತದೆ. ಇದು ಶಸ್ತ್ರಚಿಕಿತಗೆ ಮುನ್ನ ರೋಗಿಯ

ಸ್ಕ್ರಾನ್ ಗಳ ಆದಾರದ ಮೇಲೆ ಸೂಕ್ತವಾದ ಕಪ್ ಸ್ಥಾನವನ್ನು ನಿಖರವಾಗಿ ಲೆಕ್ಕ ಹಾಕುತ್ತದೆ. ಇದು ಕಪ್ ನ ಅಸಮರ್ಪಕ ಸ್ಥಾನದಿಂದ ಉಂಟಾಗುವ ಅಡಚಣೆ ಮತ್ತು ಡಿಸ್ಕೊಕೇಶನ್ ಗಳಂತಹ ತೊಡಕುಗಳನ್ನು ತಡೆಯುತ್ತದೆ. ಸೊಂಟ ಬದಲಿ ಶಸ್ತ್ರಚಿಕಿತೆಯ ನಂತರ ರೋಗಿಯು ಮರುದಿನವೇ ನಡೆಯಬಹುದು ಮತ್ತು ಶಸ್ತ್ರಚಿಕಿತೆಯ 6 ವಾರಗಳ ನಂತರ ಯಾವುದೇ ಹಾಯವಿಲ್ಲದೆ ಆರಾಮವಾಗಿ 🎨

ಕಾರ್ಯವಿಧಾನಗಳ ಬಗೆಗಿನ ಮೂಡನಂಬಿಕೆಗಳು ಮತ್ತು ಸತ್ಯ

#### ರೊಬೊಟಿಕ್ ಜಾಯಿಂಟ್ ರೀಪ್ಪೇಸ್ ಮೆಂಟ್

ಮೂರ್ಥನಿಂದಿಕೆ 1:ಶಸ್ತ್ರಚಿಕಿತ್ರೆಯನ್ನು ಸಂಪೂರ್ಣವಾಗಿ ಆರ್ಟಿಫಿಕಿಯಲ್ ಇಂಟೆಲಿಜಿನ್ (AI) ಮೂಲಕ ನಡೆಸಲಾಗುತ್ತದೆ. 🎫 ಶಸ್ತ್ರಚಿಕಿತೆಯನ್ನು ಕೇವಲ AI ಮೂಲಕ ನಡೆಸಲಾಗು-ವುದಿಲ್ಲ. ಪ್ರತಿಯೊಬ್ಬ ರೋಗಿಗೆ ಸೂಕ್ರವಾದ ಇಂಪ್ಲಾಂಟ್ ಗಳ ನಿಖರವಾದ ಪ್ರೇಸ್ ಮೆಂಟ್ ಅನ್ನು ಖಚಿತಪಡಿಸಿಕೊಳ್ಳಲು ಶಸ್ತ್ರಚಿ-ಕಿತ್ರಕರು ರೊಬೊಟಕ್ ಕೈಗೆ ಮಾರ್ಗದರ್ಶನ ನೀಡುತ್ತಾರೆ. ಮೂಧನಂಬಿಕೆ 2: ರೊಬೊಟ್ ನೆರವಿನಿಂದ ಮಾಡುವ ಶಸ್ತ್ರಚಿಕಿತ್ರೆಗಿಂತ ಸಾಂಪ್ರದಾಯಿಕ ಕೀಲು ಬದಲಿ ಚಿಕಿತ ಸುರಕ್ಷಿತವಾಗಿದೆ.

🍱: ಆಧುನಿಕ ರೊಬೊಟಕ್ ಕಾರ್ಯವಿಧಾನಗಳು ಆರೋಗ್ಯಕರ ಅಂಗಾಂಶಗಳಿಗೆ ಯಾವುದೇ ಹಾನಿಯನ್ನು ಉಂಟುಮಾಡುವುದಿಲ್ಲ, ಆಗತ್ಯವಿರುವ ಕಡೆ ಮಾತ್ರ ಶಸ್ತ್ರಚಿಕಿತ್ರಗೆ ಬೇಕಾಗುವ ಕಟ್ ಅನ್ನು ಮಾಡುತ್ತವೆ, ಇದು ತ್ವರಿತಗತಿಯಲ್ಲಿ ಚೇತರಿಸಿಕೊಳ್ಳಲು ಅನುಕೂಲ ಮಾಡಿಕೊಡುತ್ತದೆ ಮತ್ತು ರಕ್ತದ ಕನಿಷ್ಠ ನಷ್ಟಕ್ಕೆ ಕಾರಣವಾಗುತ್ತವೆ. ಆಧುನಿಕ ಕಾರ್ಯವಿಧಾನವು ಸಾಂಪ್ರದಾಯಿಕ ವಿಧಾನಕ್ಕಿಂತ ಹೆಚ್ಚಲ್ಪದಿದ್ದರೂ ಆದರಷ್ಟೇ ಸುರಕ್ಷಿತವಾಗಿದೆ.

ಮೂಧನಂದಿಕೆ 3: ರೊಬೊಟಿಕ್ ಶಸ್ತ್ರಚಿಕಿತ್ತೆ ಸಾಂಪ್ರದಾಯಿಕ ಶಸ್ತ್ರಚಿಕಿತೆಗಿಂತಲೂ ಹೆಚ್ಚು ಸಂಕೀರ್ಣವಾಗಿದೆ. 🚟 : ರೊಬೊಟಿಕ್ ಕೀಲು ಬದಲಿ ಶಸ್ತ್ರ ಚಿಕಿತೆಯು ಸಾಂಪ್ರದಾಯಿಕ ಶಸ್ತ್ರಚಿಕಿತ್ರೆಗಿಂತ ಸರಳವಾಗಿದೆ. ಗಮನವು ಕೀಲು ಸವದ ಭಾಗದ ಮೇಲೆ ಮಾತ್ರ ಇರುತ್ತದೆ, ಮತ್ತು ಆರೋಗ್ಯಕರ ಭಾಗವನ್ನು ಮುಟ್ಟುವುದಿಲ್ಲ. ಈ ವಿಧಾನವು ಕಸ್ಕಚಿಕಿತ್ಸಕರಿಗೆ ಶಸ್ತ್ರಚಿಕಿತೆಯ ಪೂರ್ವ-ಯೋಜನೆಯನ್ನು ಮಾಡಲು ಸಹಾಯ ಮಾಡುತ್ತದೆ, ಆ ಮೂಲಕ ಆಪರೇಟಿಂಗ್ ಟೇಬಲ್ ಮೇಲೆ ಪರಿಸ್ಥಿತಿಯನ್ನು ವಿಶೇಷಿಸುವ ಅಗತ್ಯವನ್ನು ತೆಗೆದುಹಾಕುತ್ತದೆ.

ಮೂಧನಂಬಿಕೆ 4: ಎಲ್ಲಾ ರೋಗಿಗಳಿಗೆ ರೂಬೊಟಕ್ ಕೀಲಾ ಬದಲಿ ಕಸ್ತಚಿಕಿತ ಸೂಕ್ರವಾಗುವುದಿಲ್ಲ.

🜃 : ಸಾಂಪ್ರದಾಯಿಕ ಶಸ್ತ್ರಚಿಕಿತ್ತಾ ವಿಧಾನಕ್ಕೆ ಅರ್ಹರಾಗಿರುವ ಬಹುತೇಕ ಎಲ್ಲಾ ರೋಗಿಗಳು ಆಧುನಿಕ ರೊಬೊಟಕ್ ವಿಧಾನಕ್ಕೆ ಒಳಗಾಗಲು ಅರ್ಹರಾಗಿರುತ್ತಾರೆ. ಈ ಕಾರ್ಯವಿಧಾನದ ಹೆಚ್ಚಿನ ಯಶಸ್ತಿನ ಪ್ರಮಾಣವು ವಯಸ್ಸಾದ ರೋಗಿಗಳಿಗೆ ಸೂಕ್ತವಾದ ಪರಿಣಾಮಕಾರಿ ಆಯ್ಕೆಗಳಲ್ಲಿ ಉತ್ತಮ ಪ್ರಯೋಜನವನ್ನು



ನ್ಯಾಂಡಿಲ್ಲೆ ಚಿತ್ರಕ್ಕೆ ಚಿತ್ರಕ್ಕೆಗೆ ಬಳಸುವ ಪರಿಕರ

#### ಮುಂದುವರಿದ ಸ್ಥಿತಿಯ ಸಂಧಿವಾತಕ್ಕಾಗಿ ರೊಬೊಟಿಕ್ ಕೀಲು ಬದಲಿ ಪ್ರಯೋಜನಗಳು

ಮಣಿಪಾಲ್ ಆಸತೆಗಳು, ಹಳೆಯ ವಿಮಾನ ನಿಲ್ದಾಣ ರಸ್ತೆ, ಬೆಂಗಳೂರು

ಪ್ರಸ್ತುಕಿ:

**పి.**చి.

ಬ್ಯಾಂಡ್ ಸ್ಟಾಟ್

ಹೆಚ್ಚಿನ ಮಾಹಿತಿಗಾಗಿ:

1800 203 2999



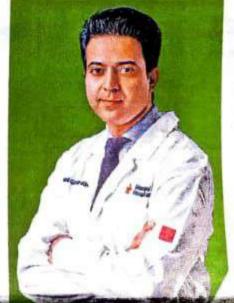
ತ್ರದೆ: ರೊಬೊಟಕ್ ಶಸ್ತ್ರಚಿಕಿತ್ತೆಯ ನಿಖರವಾದ ಕಾರ್ಯವು ಕೀಲಿನ ಸುತ್ತಲಿನ ಅಂಗಾಂಶಗಳಿಗೆ ಹಾನಿಯನ್ನು ಕಡಿಮೆ ಮಾಡುತ್ತದೆ, ಮತ್ತು ಇದರ ಪರಿಣಾಮವಾಗಿ ಶಸ್ತ್ರಚಿಕಿತ್ತೆಯ ನಂತರದ ನೋವು ಕಡಿಮೆಯಾಗುತ್ತದೆ.

ಹೆಚ್ಚಿನ ನಿಖರತೆ: ರೊಬೊಟಕ್ ಸಹಾಯವು ಹೆಚ್ಚಿನ ಮಟ್ಟದ ನಿಖರತೆಯನ್ನು ಖಾತ್ರಿಗೊಳಿಸುವ ಮೂಲಕ ರೋಗಿಗಳು ಹೆಚ್ಚು ವೇಗವಾಗಿ ಚಲನಶೀಲತೆಯನ್ನು ಮರಳಿ ಪಡೆಯಲು ಅನುವು ಮಾಡಿಕೊಡುತ್ತದೆ. ಇದು ಶಸ್ತ್ರಚಿಕಿತ್ತೆಯ ನಂತರ ಆಸ್ಪತ್ರೆಯಲ್ಲಿ ಕಳೆಯುವ ಸಮಯವನ್ನು ಕಡಿಮೆ ಮಾಡುತ್ತದೆ.

ಕಡಿಮೆ ತೊಡಕುಗಳು: ರೊಬೊಟಕ್ ತಂತ್ರಜ್ಞಾನದ ಸಹಾಯದಿಂದ, ಶಸ್ತ್ರಚಿಕಿತ್ತೆಯ ಸಮಯದಲ್ಲಿ ಉಂಟಾಗುವ ಮತ್ತು ನಂತರದ ತೊಡಕುಗಳ ಅಪಾಯವನ್ನು ರಕ್ತದ ಕಡಿಮೆ ನಷ್ಟ, ಕಡಿಮೆ ಎಂಬೋಲಿಸಮ್ ನ ಸಾಧ್ಯತೆಗಳು, ಕಡಿಮೆ ನೋವು ಮತ್ತು ಆರಂಭಿಕ ಚೇತರಿಕೆಯೊಂದಿಗೆ ಕಡಿಮೆ

<u> ಬೀರ್ಘಕಾಲೀಗ ಕಾರ್ಯಗಿರ್ವಹಣೆಯನು ಬದಾರಿಸುತ್ತದೆ:</u>

ಸೂಕ್ತವಾದ ಇಂಪ್ಲಾಂಟ್ ಜೋಡಣೆ ಮತ್ತು ಸ್ಥಿರತೆಯನ್ನು ಸಾಧಿಸುವ ಮೂಲಕ್ಕೆ ರೋಬೇಟರ್ ಜಾಯಿಂಟ್



ರಿಪ್ರೇಸ್ ಮೆಂಟ್ ಬದಲಿ ಕೀಲಿನ ದೀರ್ಘಕಾಲೀನ ಕ್ರಿಯಾತ್ಮಕ ಚಟುವಟಕೆಯನ್ನು ಹೆಚ್ಚಿಸುತ್ತದೆ.

daenoo edaen apranavojad:

ಸುಧಾರಿತ ನಿಖರತೆ, ವೇಗವಾಗಿ ಚೇತರಿಕೆ ಮತ್ತು ಕಡಿಮೆ ತೊಡಕುಗಳಂತಹ ರೊಬೊಟಕ್ ಕೀಲು ಬದಲಾವಣೆಯ ಪ್ರಯೋಜನಗಳು ಹೆಚ್ಚಿನ ರೋಗಿಗಳಿಗೆ ತೃಪ್ತಿಕರ ಅನುಭವ ನೀಡಬಹುದು. ಅಲ್ಲದೆ, ರೂಬೊಟಕ್ ಕ್ರಿಯಾವಿಧಾನಗಳಿಗೆ ಒಳಗಾಗುವ ರೋಗಿಗಳು ಹೆಚ್ಚು ವೈಸರ್ಗಿಕ ಕೀಲಿನ ಅನುಭವ ನೀಡುತ್ತದೆ ಎಂಬ ಪ್ರತಿಕ್ರಿಯೆಯನ್ನು ನೀಡುತ್ತಾರೆ.

ಹಳೆ ಏರ್ ಪೋರ್ಟ್ ರಸ್ತೆಯಲ್ಲಿರುವ ಮಣಿಪಾಲ್ ಆಸತ್ತ-ಗಳಲಿ ಬಳಸಲಾಗುತ್ತಿರುವ MAKO ರೊಬೊಟ್ ಭಾರತದಲಿ ಈ ಸಮಯದಲ್ಲಿ ಲಭ್ಯವಿರುವ ಏಕೈಕ ರೊಬೊಟ್ ಆಗಿದೆ. ಇದನ್ನು ಪೂರ್ತಿ ಮೊಣಕಾಲು ಮತ್ತು ಭಾಗಕಃ ಮೊಣಕಾಲು ಬದಲಿಗಳ ಜೊತೆಗೆ ಹಿಚ್ ಬದಲಿ ಮಾಡಲು ಬಳಸಬಹುದಾ-

ಈಗಿನ ಸಂದರ್ಭದಲ್ಲಿ ಸೊಂಟ ಮತ್ತು ಮೊಣಕಾಲು ಬದಲಿ ಕಸ್ತಚಿಕಿತ್ರೆಗಳನ್ನು ರೊಬೊಟಕ್ ತಂತ್ರಜ್ಞಾನದಿಂದ ಮಾಡಬಹುದು. ಭವಿಷ್ಯದಲ್ಲಿ, ಈ ತಂತ್ರಜ್ಞಾನವನ್ನು ಇತರ ಕೀಲುಗಳಿಗೆ ಕೂಡ ಉಪಯೋಗಿಸಬಹುದು ಎಂಬ ನಿರೀಕ್ಷೆ

ಡಾ.ಸುನೀಲ್ ಗುರ್ಪುರ್ ಕಿಣಿ

MBBS, MS(Orth), DNB(Orth), MCH(Orth). MRCS(Glasg), MRCS(Edin), MNAMS, Dip.

್ಷ ಕ್ಷಾಹಿರಿಯ ಕನ್ನಲ್ಲೆಂತ್ : ಅರ್ಡಾಪಡಿಕ್ ಮತ್ತು ರೋರ್ಡಿಕ್



Fully Editable Text Free Fonts Used



### WELLNESS

laucoma is a group of progressive eye diseases and a leading cause of irreversible blindness worldwide. In India, glaucoma is a prevalent eye condition that poses a significant public health challenge. The chronic eye condition affects approximately 1.2 million individuals and is responsible for 5.5% of all cases of blindness. This places it among the primary causes of permanent vision loss in the country. The high burden of glaucoma in India can be attributed to factors such as the large population, genetic predisposition, increasing life expectancy, and a lack of awareness and access to proper eye care services in certain regions.



Glaucoma causes damage to the optic nerve and loss of side vision. It's often linked to high pressure in the eyes. But apart from high pressure, other things also play a role in how glaucoma starts and gets worse.

Age: Glaucoma can happen at any age, from a newborn to a teenager to an adult to a geriatric person. Age is a significant risk factor for glaucoma, particularly for primary open-angle glaucoma (POAG) which is also known as a 'Silent Thief of Vision'. The incidence of glaucoma rises with advancing age, with individuals over 60 years old at a higher risk. As the population continues to age, the prevalence of glaucoma is expected to increase, emphasising the importance of early detection and management.

Family history and genetics: Glaucoma frequently demonstrates a hereditary aspect, indicating a genetic inclination towards the condition. In a specific instance, a patient

# Don't turn a blind eye to glaucoma

Glaucoma affects approximately 1.2 million individuals and is responsible for 5.5% of all cases of blindness, writes Dr Arvind Morya

suffering from glaucoma while delving into their family's medical history, discovered that one of their parents had been diagnosed with glaucoma in their later years. If someone in your close family (like a parent, brother, sister, or child) has glaucoma, your chances of getting it yourself go up. Diverse gene mutations and variations have been linked to distinct types of glaucoma, providing an understanding of the fundamental biological

processes involved. Elevated Intraocular Pressure (IOP): In an eye checkup, the intraocular pressure inside the eye is measured. Even if it's in the normal range. consistent check-ups are suggested as higher intraocular pressure could eventually result in glaucoma. Elevated IOP is the most well-established risk factor for glaucoma. The aqueous humour, fluid within the eye, normally circulates and maintains healthy eye pressure. When this balance is disrupted, increased IOP can damage the optic nerve over time. However, it is important to note that not all individuals with elevated IOP develop glaucoma, and some may develop glaucoma even with normal IOP levels and it is known as Normotensive Glaucoma. In short axial-length, high hypermetrop-ic and deep-seated eyeballs, Angle Closure Glaucoma can occur along with sudden painful loss of vision. Angle Closure Glaucoma happens when aqueous

humour fails to move out of the eye as there is a blockage due to angle closure.

Ethnicity: Certain ethnic groups have a higher prevalence of glaucoma compared to others. For instance, individuals of African, Hispanic, or Asian descent have an increased risk of developing certain types of glaucoma, such as primary open-angle glaucoma or normal-tension glaucoma. The reasons for these ethnic disparities are not fully understood but may involve genetic, anatomical, and environmental factors.

Other medical conditions: Certain health conditions have been connected to a higher chance of getting glaucoma. Things like diabetes, high blood pressure, heart problems, Type-A personality and migraines might make someone more at risk. People with these conditions should make sure to have regular eye check-ups to catch glaucoma early if it shows up.

Medications and eve injuries: Certain medications. such as long-term use of steroids, can raise the risk of glaucoma. Additionally, eye injuries, particularly those involving blunttrauma, may lead to the onset of angle recession glaucoma. Individuals with a history of eye trauma or long-term corticosteroid use should be vigilant. Age, family history, elevated IOP, race and ethnicity, other medical conditions, and eye anatomy all contribute to an individual's risk of developing glaucoma. By understanding these risk factors, we can improve the chances of early diagnosis and the implementation of appropriate treatment strategies to preserve vision and enhance the quality of life for those affected by glaucoma. Everyone above the age of 40 must undergo a regular eye checkup once a year.

Medical and surgical
management: At present, intraocular pressure is the only
treatable factor in glaucoma.
First, medications are instilled to
control the intraocular pressure
and if it is still not controlled then
various surgical procedures are
available to make artificial pathways for the enhanced flow of
aqueous humour from the eye.

(The author is head and additional professor at AIIMS, Bibinagar, Hyderabad.)



### How snoring can cause brain fog

#### DR PRASHANTH R REDDY

e've all experienced those nights when snoring keeps us awake or leaves us feeling foggy in the morning. Did you know that this common problem could affect our thinking and memory too? Let's dive into how snoring, nasal troubles, and brain fog are connected, and what you can do about it.

Snoring is more than just noise

Snoring is noisy, and it can be annoying for both the snorer and their partner. However recent research suggests it may be causing more trouble than just disrupted sleep. Some snorers may notice that they experience brain fog during the day.

Brain fog means feeling forgetful, easily confused, or having trouble concentrating. It's like a mental haze that

clouds your thoughts.

#### The role of nasal issues

Now, you might wonder, why does snoring happen in the first place? Well, often it's because the flow of air through our nose and throat is blocked. Imagine trying to breathe through a straw. That's what it can feel like for someone with a stuffy nose due to problems like a deviated septum or sinusitis. When your nose is congested, you're more likely to breathe through your mouth while you sleep. This mouth breathing can lead to snoring and make brain fog

The connection to oxygen levels

But there's more to the story. When you snore and struggle to breathe comfortably through your nose, your body might not get enough oxygen during the night. This condition, called hypoxia, means there's a shortage of oxygen in your body.

Unfortunately, low oxygen levels can

interfere with your brain's ability to work properly, resulting in brain fog. Imagine your brain as a supercomputer. It needs a constant supply of oxygen to function at its best.

When oxygen levels drop, it's like powering down part of that supercomputer. You might find it harder to remember things, focus on tasks, or solve problems.

#### Breaking the chain

Understanding the connection between snoring, nasal problems, hypoxia, and brain fog is the first step. It's like putting together pieces of a puzzle. Here are some solutions to address these issues:

Consult an ENT specialist: Reach out to an ENT (Ear Nose Throat) specialist who can recommend treatments to relieve nasal congestion. They may suggest saline sprays, nasal sprays, or medications to help you breathe better.

Lifestyle changes: Simple changes like sleeping on your side instead of your back or avoiding alcohol before bedtime can also help reduce snoring. It's like finding the right combination to unlock a treasure chest of better sleep.

Surgical solutions: An ENT surgeon can recommend treatments like zero scar Endoscopic nasal and oral surgeries to reduce the snoring via the correction of the nasal septum, sinusitis, nasal polyps, hypertrophied turbinates, adenoids and oral issues.

Snoring, nasal problems, hypoxia, and brain fog are all connected. By addressing nasal issues and snoring, you can improve your sleep quality and reduce the risk of brain fog. A good night's sleep is not only refreshing but also essential for keeping your mind sharp during the day. Don't let snoring cloud your thoughts

(The author is an endoscopic skull base surgeon.)

Kalaburagi

## Measure of Fitness

happy testimonial by a follower of dietician Courtney Kassis's 90-30-50' four-week-long diet programme reads, "By the fourth day, I felt so much better, and had more energy. The recipes are easy to follow. This is my second week, and I have lost five pounds (2.2 kg). All my bloating is gone and I sleep much better." The woman, going through menopause, discovered Kassis's videos, promising sustained weight loss, on TikTok. She had gained 15 pounds (roughly 7 kg) while navigating the perils of changing hormones and the stress of being a working mother to four. Further, she suffered from Sjogrens (an immune system disorder), fibromyalgia (chronic disorder that causes pain), arthritis, irritable bowel syndrome and insomnia.

This is one of the many success stories that Kassis-who goes by @ dietiticianwithtwins on Instagram and has a following of 145k-shares on her page, apart from snippets of her own journey of weight loss, through which she supposedly cured her autoimmune disorder, Hashimoto's thyroiditis. Her 90-30-50 diet programme advocates consuming a minimum of 90 grams of protein, 30 grams of fibre and 50 grams of healthy fats per day. According to Kassis, if you follow this principle, you can lose weight, reduce the symptoms of chronic disease, correct hormonal imbalances, control blood sugar levels and increase lean muscle mass.

It sounds miraculous,

The 90-30-50 diet plan has taken social media by storm. But does it actually deliver on its many health promises?

By NOOR ANAND CHAWLA



but is this new-fangled dieting trend actually healthy? Experts are divided. Aman Puri, founder of Steadfast Nutrition, a sports nutrition and wellness brand from Delhi, is wary of the fact that no study has been conducted to corroborate the results of the 90-30-50 concept. "It's just a trending diet based on the personal experiences of a few people," he says, adding that some people may not be able to gauge the right kind of healthy fats they need to consume daily. "Excess of even healthy fats can harm an individual's health, especially those with high cholesterol levels," he cautions.

The fact that this one-size-fits-all scheme does not address everyone's fitness levels and personal concerns is clear from another user's observation on one of Kassis's videos. This person increased their protein intake to reach the goal of 90 gm per day and ended up gaining weight. "I obviously am overeating. How can I get to 90 grams of protein without overeating?" was the comment.

Goa-based nutrition and wellness consultant Sheela Krishnaswamy puts this down to the needs of individuals being different. She also feels that rapid fluctuations in dietary intake could impact one's energy levels, micronutrient intake and level of satiety, which makes the diet a challenge to sustain. "In my opinion, this diet is more applicable to the western population whose requirements and eating habits are quite different from the Indians. Although it's good to include

adequate protein, fibre and healthy fats in our daily diet, by Indian standards, the protein quantity suggested in the 90-30-50 diet is quite high. It's best to go with individual recommendations that are



any nutritional programme. To be fair, the advocates of the 90-30-50 diet also prescribe individual programmes to clients based on their needs, in exchange for a fee. Kochi-based blogger and holistic wellness coach focussing on nutrition and fitness, Rakhi Jayashankar, highlights the positive side of the fad, "Fortunately, it breaks the eons-old false notion that fats are bad. It encourages us to consume

tailor-made by a qualified

Being aware of what

essential to the success of

dietitian," she says.

one's body needs is

"The diet breaks the eons-old notion that fats only are bad, and encourages us to consume unsaturated fat and fibre, which is a prerequisite for your gut health and facilitates smooth digestion." RAKHI JAYASHANKAR, Blogger and holistic wellness coach

WHAT WORKS

 Acknowledges the significance of essential nutrients for muscle maintenance and satiety

 Focuses on a higher protein percentage, which yields energy

 Recognises the role of healthy fats in supporting brain function and good gut health

Enhances satisfy and reflects a holistic approach to mutrition

THE DOWNSIDE

 People trying it on their own won't be able to assess the correct quantities of carbs and micronutrients

 The same formula will not work for every individual. It must be customised.

 Constant measuring of food may become cumbersome

 There is potential for nutrient deficiencies

unsaturated fat and fibre, which is a prerequisite for your gut health and facilitates smooth digestion." She adds that the followers of the programme will be high on energy as it concentrates on the consumption of macronutrients, and that the components of the diet may lead to quick weight loss as they help to curb cravings.

Dietary fads will come and go. For sustained and healthy weight loss and wellness goals, however, one must make holistic lifestyle changes. Dr. Rohini Somnath Patil, a doctor and nutritionist from Pune, summarises what this entails: "The only way to lose weight in the healthiest way possible is to look at your overall wellbeing, which includes physical, mental, social and emotional health."

"It's a trending diet based on a few personal experiences. Excess of even healthy fats can harm an individual's health, especially those with high cholesterol levels."

AMAN PURI, Founder, Steadfast Nutrition

## First case of JN.1, new Covid variant, found in Kerala

Covid, from Page 3

"The continued growth of JN.1 suggests that it is either more transmissible or better at evading our immune systems. At this time, there is no evidence that JN.1 presents an increased risk to public health relative to other currently circulating variants," the Centre for Disease Control, Atlanta, said in an analysis.

The JN.1 variant is the fastest-growing one in the US at the moment, with both CDC and World Health Organisation keeping a close watch on this variant.

According to the Union Health Ministry, there has been an increasing trend of Covid-19 cases from Kerala since the last few weeks.

This has been attributed to an increase in the number of samples from ILI cases being referred for testing. A majority of these cases are clinically mild and recovering on their own at their homes without any treatment.

Following the discovery of the new SARS-CoV2 variant, a mock drill has been undertaken in all health facilities in Kerala to assess their public health and hospital preparedness measures.

The drill, which started on December 13, is being carried out under the overall supervision of the district collectors and is likely to be completed by December 18, the ministry said.

As per the revised surveillance guidelines for Covid-19, patients of ILI and SARI are tested for Covid-19 and positive cases referred for whole genome sequencing.

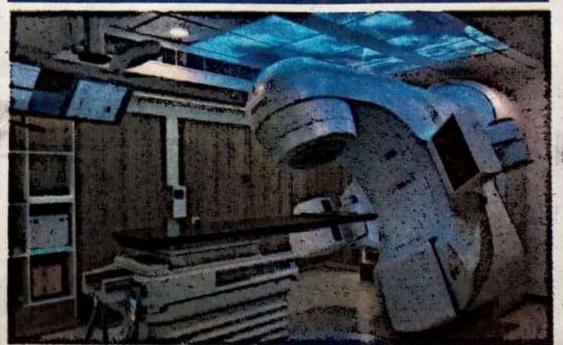


ಡಾ। ಅಭಿಷೇಕ್ ಕೃಷ್ಣ ರೇಡಿಯೇಶನ್ ಆಂಕಾಲಜಿಸ್ಟ್ ಕೆಎಂಸಿ ಆಸ್ಪತೆ, ಮಂಗಳೂರು

ನಿಖರ ಚಿಕಿತ್ಸಾ ವಿಧಾನಗಳ ಹೊಸ ಜಗತ್ತಿನಲ್ಲಿ ಹೆಚ್ಚೆ ಹಾಕುತ್ತಿರುವಾಗ ಕ್ಯಾನ್ಸರ್ ಚಿಕಿತ್ಸೆ ಆರೈಕೆಯ ವಿಧಾನಗಳು ಕೂಡ ಕ್ರಾಂತಿಕಾರಕ ಬದಲಾವಣೆಯ ಕಾಲಘಟ್ಟದಲ್ಲಿ ಇರುವುದು ಅರಿವಾಗುತ್ತದೆ. ಕ್ಯಾನ್ಸರ್ ಗೆ ಚಿಕಿತ್ಸೆಗಳು ಅತ್ಯಂತ ನಿಖರವಾಗಿರುವಂತೆ ರೂಪುಗೊಂಡು ಹೆಚ್ಚು ಪರಿಣಾಮಕಾರಿಯಾಗುವ ಚಿತ್ರಣವನ್ನು ಕಲ್ಪಿಸಿಕೊಳ್ಳ ಕ್ಯಾನ್ಸರ್ ಮುಂದಿಡುವ ಸವಾಲುಗಳನ್ನು ಅತ್ಯಂತ ಶಕ್ತಿಶಾಲಿ ಮತ್ತು ಖಚಿತ ಪರಿಹಾರಗಳೊಂದಿಗೆ ಎದುರಿಸುವ ಮೂಲಕ ಆಶಾಕಿರಣವೊಂದನ್ನು ತೆರೆದಿಡುವ ಮತ್ತು ಈ ಕಾಯಿಲೆಯ ವಿರುದ್ಧ ಹೋರಾಟದಲ್ಲಿ ಪ್ರಗತಿ ಕಾಣುವ ಚಿತ್ರಣವಿದು.

2000ನೇ ಇಸವಿಯ ಆರಂಭಕ ಕಾಲಘಟ್ಟದಲ್ಲಿ ಸ್ತನ ಕ್ಯಾನ್ಸರ್ ಇರುವುದು ಪತ್ತೆಯಾಯಿತು ಎಂದರೆ 5ರಿಂದ 6 ವಾರಗಳ ರೇಡಿಯೇಶನ್ ಚಿಕಿತ್ಸೆಗೆ ಒಳಗಾಗಬೇಕಾಗುವುದು ಅನಿವಾರ್ಯ ಎಂಬ ಪರಿಸ್ಥಿತಿ ಇತ್ತು. ಪ್ರತೀ ರೇಡಿಯೇಶನ್ ಚಿಕಿತ್ಸೆ 10ರಿಂದ 15 ನಿಮಿಷಗಳ ಅವಧಿಯದ್ದಾಗಿರುತ್ತಿತ್ತು, ಇದರಿಂದ ಗಮನಾರ್ಹ ಅಡ್ಡ ಪರಿಣಾಮಗಳು ಉಂಟಾಗುತ್ತಿದ್ದವಲ್ಲದೆ ಗುಣ ಹೊಂದುವುದು ಬಹಳ ದೀರ್ಘಾವಧಿಯ ವಿಷಯವಾಗಿತ್ತು. ಈಗ 2023ಕ್ಕೆ ಬರೋಣ. ಅದೇ ಸ್ತನ ಕ್ಯಾನ್ಸರ್ ವಿಚಾರವನ್ನೇ ತೆಗೆದುಕೊಂಡರೆ ಪರಿಸ್ಥಿತಿ ಬಹಳ ಕ್ರಾಂತಿಕಾರಿಯಾಗಿ ಬದಲಾಗಿರುವುದು ಗಮನಕ್ಕೆ ಬರುತ್ತದೆ – ಅತ್ಯಂತ ನಿಖರವಾಗಿ

### ಆಂಕಾಲಜಿಯಲ್ಲಿ ಕ್ರಾಂತಿ



ನಿಖರ ಕ್ಯಾನ್ಸರ್ ಚಿಕಿತ್ಸಾ ವಿಧಾನಗಳೊಂದಿಗೆ ಭವಿಷ್ಯದತ್ತ ಯಾನ

ಚಿಕಿತ್ಸೆ ನೀಡಬಲ್ಲ ರೇಡಿಯೇಶನ್ ಆಂಕಾಲಜಿ ಗಮನ ಸೆಳೆಯುತ್ತದೆ. ಅತ್ಯಂತ ಕಡಿಮೆ ಅಡ್ಡ ಪರಿಣಾಮಗಳನ್ನು ಬೀರುವ ಅಥವಾ ಅಡ್ಡ ಪರಿಣಾಮಗಳೇ ಇಲ್ಲದ ತಲಾ 2ರಿಂದ 3 ನಿಮಿಷಗಳ ಅವಧಿಯ ರೇಡಿಯೇಶನ್ ಆಂಕಾಲಜಿ ಸಹಿತ ಇಡೀ ಚಿಕಿತ್ಸೆಗೆ ಇಂದು 3 ವಾರಗಳಿಗಿಂತ ಕಡಿಮೆ ಅವಧಿ ಸಾಕು,

ಇದು ಚಮತ್ಕಾರವಲ್ಲ, ರೇಡಿಯೇಶನ್ ಆಂಕಾಲಜಿ ಕ್ಷೇತ್ರದಲ್ಲಿ ಆಗಿರುವ ಪ್ರಗತಿಯ ವಿವರಣೆ. ಇದು ಗಡ್ಡೆಯನ್ನು ನಿಯಂತ್ರಿಸುವ ವಿಷಯ ಮಾತ್ರ ಅಲ್ಲ, ಇದು ಜೀವನ ಗುಣಮಟ್ಟಕ್ಕೆ ಸಂಬಂಧಿಸಿದ್ದೂ ಆಗಿದೆ. ಪ್ರತೀ ರೋಗಿಗೆ ಅತ್ಯಂತ ಉತ್ಕೃಷ್ಟ ಫಲಿತಾಂಶವನ್ನು ಒದಗಿಸುವ ತಂತ್ರಜ್ಞಾನಗಳ ಗುಚ್ಛ ಈಗ ನಮ್ಮಲ್ಲಿ ಲಭ್ಯವಿದೆ. ಸಮಯವೇ ನಮ್ಮ ಸ್ನೇಹಿತನಾಗಿರುವ, ಚಿಕಿತ್ಸೆಯ ಪ್ರತೀ ಅವಧಿಯು ಯಶಸ್ಸಿನ ಕಡೆಗೆ ಮತ್ತೊಂದು ಹೆಜ್ಜೆಯಾಗಿರುವ ಕ್ರಾಂತಿಯ ಜಗತ್ತಿಗೆ ಸ್ವಾಗತ.

ಆಂಕಾಲಜಿಸ್ಟ್ ಗಳು ಪ್ರತೀ ದಿನ ಎದುರಿಸುವ, ಆಗಾಗ ಕೇಳಲಾಗುವ ಕೆಲವು ಪ್ರಶ್ನೆಗಳನ್ನು ಗಮನಿಸೋಣ. ಕ್ಯಾನ್ಸರ್ ಚಿಕಿತ್ಸೆಗಾಗಿ ರೇಡಿಯೇಶನ್ ಆಂಕಾಲಜಿಯಲ್ಲಿ ಪ್ರಸ್ತುತ ಲಭ್ಯವಿರುವ ಅತ್ಯಾಧುನಿಕ ಚಿಕಿತ್ಸಾ ವಿಧಾನಗಳು ಯಾವುವು?

ಕಳೆದ ಕೆಲವು ದಶಕಗಳಲ್ಲಿ ರೇಡಿಯೇಶನ್ ಆಂಕಾಲಜಿ ಚಿಕಿತ್ಸೆಯ ಜಗತ್ತು ಗಮನಾರ್ಹ ಪರಿವರ್ತನೆಗೆ ಒಳಗಾಗಿದೆ. ಆರಂಭದಲ್ಲಿ 2 ಆಯಾಮದ (2ಡಿ) ಮತ್ತು 3 ಆಯಾಮದ (3ಡಿ)ರೇಡಿಯೇಶನ್ ನಂತಹ ತಂತ್ರಜ್ಞಾನಗಳನ್ನು ಉಪಯೋಗಿಸುವ ಪ್ರಾಥಮಿಕ ಮಟ್ಟದ ಉಪಕರಣಗಳನ್ನು ಉಪಯೋಗಿಸಲಾಗುತ್ತಿತ್ತು. ಆದರೆ ಪ್ರಸ್ತುತ ಇಂಟಿನ್ಸಿಟಿ ಮಾಡ್ಯುಲೇಟೆಡ್ ಥೆರಪಿ (ಐಎಂಆರ್ಟಿ), ಆರ್ಕ್ ಥೆರಪಿ, ಸ್ಟೀರಿಯೊಟ್ಯಾಕ್ಟಿಕ್ ರೇಡಿಯೋಥೆರಪಿ ಮತ್ತಿತರ ಅನೇಕ ಅತ್ಯಾಧುನಿಕವಾದ ಹಲವು ತಂತ್ರಜ್ಞಾನಗಳು ನಮಗೆ ಲಭ್ಯವಿವೆ. ಈ ಅತ್ಯಾಧುನಿಕ ತಂತ್ರಜ್ಞಾನಗಳನ್ನು ವಿಶಿಷ್ಟವಾಗಿ, ಪ್ರತ್ಯೇಕವಾಗಿಸುವುದು ಎಂದರೆ ಅವುಗಳ ಸಾಟಿಯಿಲ್ಲದ ಅತ್ಯುಚ್ಚ ನಿಖರತೆ. ಆಂಕಾಲಜಿ

ತಮ್ಮ ಹಿಂದಿನ ಪೀಳಿಗೆಯ ಯಂತ್ರಗಳಿಗಿಂತ ಬಹಳ ಅತ್ಯಾಧುನಿಕ ಮತ್ತು ಮುಂದುವರಿದಿರುವ ಈ ಯಂತ್ರಗಳು ರೇಡಿಯೇಶನ್ ಬೀಮ್ ಗಳನ್ನು ಕ್ಯಾನ್ಸರ್ ಪೀಡಿತ ಕೋಶಗಳನ್ನು ನಿಖರವಾಗಿ ಗುರಿಪಡಿಸಿ ಸಂಕೀರ್ಣ ಸಂಯೋಜನೆಯಲ್ಲಿ ಹಾಯಿಸುವುದನ್ನು ಸಾಧ್ಯವಾಗಿಸುತ್ತವೆ; ಇದರಿಂದಾಗಿ ಕ್ಯಾನ್ಸರ್ ಕೋಶಗಳು ಗರಿಷ್ಠ ಪ್ರಮಾಣದಲ್ಲಿ ನಿರ್ಮೂಲಗೊಂಡು ಆಸುಪಾಸಿನ ಆರೋಗ್ಯವಂತ ಅಂಗಾಂಶಗಳಿಗೆ ಹಾನಿ ಕನಿಷ್ಠ ಮಟ್ಟದಲ್ಲಿ ಇರುತ್ತದೆ.

#### ಮೆಡಿಕಲ್ ಲೀನಿಯರ್ ಆ್ಯಕ್ತಿಲರೇಟರ್ ಎಂದರೇನು?

ಮೆಡಿಕಲ್ ಲೀನಿಯರ್ ಆ್ಯಕ್ತಿಲರೇಟರ್ (ಲಿವ್ಯಾಕ್) ಎಂಬುದು ಕ್ಯಾನ್ಸರ್ ಚಿಕಿತ್ಸೆಗೆ ಬಳಕೆಯಾಗುವ ಅತ್ಯಾಧುನಿಕ ಯಂತ್ರ. ಕ್ಯಾನ್ಸರ್ ಗಡ್ಡೆಗಳನ್ನು ನಾಶ ಪಡಿಸುವುದಕ್ಕಾಗಿ ಅಥವಾ ಹಾನಿಗೊಳಿಸುವುದಕ್ಕಾಗಿ ಅವುಗಳತ್ತ ಎಕ್ಸ್-ರೇ ಅಥವಾ ಎಲೆಕ್ಟ್ರಾನ್ ಗಳ ಶಕ್ತಿಶಾಲಿ ಪ್ರವಾಹವನ್ನು ಉತ್ಪಾದಿಸಿ ಹಾಯಿಸುವ ಮೂಲಕ ಇದು ಕೆಲಸ ಮಾಡುತ್ತದೆ.

#### ಇಂಟೆನ್ಸಿಟಿ ಮಾಡ್ಯುಲೇಟೆಡ್ (ಐಎಂಆರ್ಟೆ) ಮತ್ತು ವ್ಯಾಲ್ಯುಮೆಟ್ರಿಕ್ ಮಾಡ್ಯುಲೇಟೆಡ್ (ವಿಎಂಎಟೆ) ರೇಡಿಯೋಥೆರಪಿ ಎಂದರೇನು?

ರೇಡಿಯೇಶನ್ ಬೀಮ್ ಗಳ ತೀವ್ರತೆಯನ್ನು ಚಿಕಿತ್ಸೆಯ ವೇಳೆ ಕ್ರಿಯಾತ್ಮಕವಾಗಿ ಸಂಯೋಜಿಸುವ ತಂತ್ರಜ್ಞಾನವೇ ಐಎಂಆರ್ಟಿ. ಚಿಕಿತ್ಸೆಗೆ ಒಳಗಾಗಬೇಕಿರುವ ಗಡ್ಡೆಯ ನಿರ್ದಿಷ್ಟ ಅಗತ್ಯಗಳಿಗೆ ಅನುಸಾರವಾಗಿ ಹಲವು ರೇಡಿಯೇಶನ್ ಕಿರಣಗುಚ್ಛಗಳನ್ನು ಪ್ರತ್ಯೇಕ ಪ್ರತ್ಯೇಕವಾಗಿ ಸರಿಹೊಂದಿಸಿ ಇದರಲ್ಲಿ ಬಳಸಲಾಗುತ್ತದೆ.

ಮುಂದಿನ ಪುಟಕ್ಕೆ

ಈ ಲೇಖನದಲ್ಲಿರುವ ವಿಚಾರಗಳ ಬಗ್ಗೆ ಹೆಚ್ಚಿನ ಮಾಹಿತಿಗಳಿಗಾಗಿ ಸಂಪರ್ಕಿಸಿ:

ಮುಖ್ಯಸ್ಥರು,

ರೇಡಿಯೇಶನ್ ಆಂಕಾಲಜಿ ವಿಭಾಗ, ಕೆಎಂಸಿ ಮಾಹೆ, ಮಣಿಪಾಲ

## ಕೊರೋನಾ ನಿಗ್ರಹ ಸಿದ್ದತೆ ಪತ್ರೆಗೆ ರಾಜ್ಯದಲ್ಲಿ ಅಣಕು ಕಾರ್ಯಾಚರಣೆ

#### • ಕನ್ನಡಪ್ರಭ ವಾರ್ತೆ ಬೆಂಗಳೂರು

ರಾಜ್ಯದಲ್ಲಿ ಕೊರೋನಾ ವೈದ್ಯಕೀಯ ಸೇವೆ ಒದಗಿಸುವ ಸರ್ಕಾರಿ ಹಾಗೂ ಖಾಸಗಿ ಆಸ್ಪತ್ರೆಗಳಲ್ಲಿ ಡಿ.18 ವರೆಗೆ



ನಡೆಯಲಿರುವ ಅಣಕು ಪ್ರದ ರ್ಶನ (ಮಾಕ್ ಡ್ರಿಲ್) ವೇಳೆ ಅನುಸರಿಸಬೇಕಾದ ಕ್ರಮಗಳ ಕುರಿತು ಆರೋಗ್ಯ ಇಲಾಖೆ ಮಾರ್ಗಸೂಚಿ ಬಿಡುಗಡೆ ಮಾಡಿದೆ. ಇಲಾಖೆ ಪ್ರಕಾರ ಆಸತ್ರೆಗಳಲ್ಲಿ ಡಿ.14 ರಿಂದಲೇ

ಸರ್ಕಾರಿಹಾಗೂಖಾಸಗಿಆಸ್ಪತ್ರೆಗಳಲ್ಲಿ ಅಣಕುಪ್ರದರ್ಶನ ಶುರುವಾಗಿದೆ. ಈ ವೇಳೆ ಎಷ್ಟು ಭೌಗೋಳಿಕ ವ್ಯಾಪ್ತಿಗೆ ಒಂದು ಆಸ್ಪತ್ರೆ ಇದೆ. ಹಾಸಿಗೆಗಳ ಸಾಮರ್ಥ್ಯ, ಮಾನವ ಸಂಪನ್ನೂಲ ಸಾಮರ್ಥ್ಯ ಹಾಗೂ ಲಭ್ಯತೆ, ರಫರಲ್ ಸೇವೆಗಳು, ಕೊರೋನಾ ಸೋಂಕು ಪರೀಕ್ಷಾ ಸಾಮರ್ಥ್ಯ, ಟೆಸ್ಟ್ ಕಿಟ್ ಗಳಲಭ್ಯತೆ, ಇತರೆಲಾಜಿಸ್ಟಿಕ್ಸ್ ಲಭ್ಯತೆ, ಆಕ್ಸಿಜನ್ ವ್ಯವಸ್ಥೆ ಹಾಗೂ ಟೆಲಿಮಿಡಿಸನ್ ಸೇವೆಗಳನ್ನು ಅಧ್ಯಯನ ನಡೆಸಬೇಕುಎಂದುಹೇಳಲಾಗಿದೆ. ಮಾಕ್ ಡ್ರಿಲ್ ಡಿ.18ಕ್ಕೆ

## ಸಿಟಿ ವ್ಯಾಲ್ಯೂ ಪ್ರಮಾಣ 25ಕ್ಕಿಂತ ಕಡಿಮೆ ಇದ್ದರೆ ಜಿನೋಮಿಕ್ ಪರೀಕ್ಸ್ಟ್ರೆ

ಕೊರೋನಾ ಸೋಂಕಿತರಲ್ಲಿ ಉಸಿರಾಟ ಸಮಸ್ಥೆ ಕಂಡು ಬಂದು ಸಿಟಿ ಸ್ಕ್ಯಾನ್ ವೇಳೆ ಸಿಟಿ-ವ್ಯಾ ಲ್ಯೂ 25ಕ್ಕಿಂತ ಕಡಿಮೆಯಿದ್ದರೆ ಅಂಥವರ ಮಾದರಿಗಳನ್ನು ಬೆಂಗಳೂರು ವೈದ್ಯಕೀಯ ಸಂಶೋಧನಾ ಸಂಸ್ಥೆಗೆ ಜಿನೋಮಿಕ್ ಸೀಕ್ವೆನ್ಸ್ (ವೈರಾಣು ವಂಶವಾಹಿ ಸಂರಚನಾ ವಿಶ್ಲೇಷಣೆಗೆ) ಕಳುಹಿಸಬೇಕು ಎಂದು ಅಧಿಕಾರಿಗಳಿಗೆ ಸೂಚನೆ ನೀಡಲಾಗಿದೆ.

ಮುಗಿಯಲಿದ್ದು, ಡಿ.19 ರಂದು ದತ್ತಾಂಶ ವಿಶ್ಲೇಷಣೆ ಮಾಡಿ ನ್ಯೂನತೆ ಸರಿಪಡಿಸಿಕೊಳ್ಳಬೇಕು ಎಂದು ಸೂಚಿಸಲಾಗಿದೆ.



#### Rise, Reconnect, Rejuvenate

The moment we wake up sets the tone for the entire day. For many, the immediate reaction is to reach for their phones, immersing themselves in a flurry of notifications, emails and social media updates. The impact of this digital flood, however, on our mental wellbeing and overall health is often underestimated.

Waking up to disturbing news or a disagreement, and immediately turning to our phones can result in frustration or anger that trickles down to the rest of the day. This choice can disrupt our body's remarkable response upon waking up—a spike in cortisol, the energising hormone. Excessive screen exposure, especially in the morning, can interfere with the natural surge of cortisol and disrupt the production of melatonin, the hormone responsible for regulating sleep patterns.

Scientific studies confirm that screen exposure in the morning can disturb our circadian rhythm, leading to sleep disturbances and mood swings throughout the day. Information overload primes our brains for stress, affecting our ability to handle daily challenges effectively.

The solution lies in reconnecting with nature during the early hours. Engaging with natural elements like sunlight or greenery can realign our internal clocks and positively impact our mental state. Research highlights the benefits of morning natural light exposure, linking it to increased alertness, reduced stress and improved mental health compared to artificial light exposure.



To craft a morning ritual prioritising nature over digital immersion, consider reclaiming the sacred morning hour:

- Take a moment for gratitude for a new day
- Engage in mindfulness exercises like pranayama and yoga
- Take a walk or stroll in your neighbourhood or garden
- Bask in the morning sunlight
  Spend time with

your garden or indoor plants

Set intentions for the day

Practice prayer or simply sit in silence

These actions align with nature's rhythm, promoting mental clarity and emotional balance

Mindfulness practices also play a pivotal role in setting the right tone for the day. Studies consistently demonstrate the positive impact of mindfulness on mental health. A few minutes of intentional breathing, meditation or prayer can significantly reduce stress levels, improve focus and set a positive mindset for the day.

By creating a morning sanctuary, which celebrates nature, mindfulness and self-care, individuals can transform their mental landscape. Unplugging from digital noise in favour of reconnecting with oneself and the natural world can significantly elevate mental wellbeing.

The first hour after waking up is precious, offering an opportunity to recalibrate and set a positive trajectory for the day. Unplugging from technology during this critical time is not just about disconnecting; it is about reconnecting with what truly nourishes our minds and souls.

As the morning light peeks through your window, consider stepping outside, breathing in the fresh air, and allowing nature's embrace to guide you towards a day filled with clarity, balance and a sense of purpose.

In a world saturated with digital distractions, an unplugged morning offers a chance to connect with ourselves and nature, fostering a brighter, more balanced mental landscape.

Coutinho is an integrative lifestyle expert



### 'TRANSITIONING AWAY' FROM FOSSIL FUELS AND WHAT IT MEANS FOR INDIA

**SURBIR SINSH** 

T first seemed the world climate change conference at Dubai - Cop28 was doomed to failure. It had all the elements of a non-starter. The environment summit was being hosted by a petrostate, the United Arab Emirates (UAE). For a conference of 200 countries seeking a reversal of global warming, the presidency was in the hands of Sultan Al-Jaber, head of the Abu Dhabi National Oil Company (Adnoc).

In the run-up to the conference, Al Jaber stirred the pot by claiming there is there is "no science" indicating that a phase-out of fossil fuels is needed to restrict global heating to 1.5C. Then the stink got worse. At the peak of the two-week conference letters from the cartel of oil-producing countries, OPEC, revealed member countries had been told to lobby hard against any resolution to 'phase-out' fossil fuels.

#### Two big wins

Given all this baggage, it was remarkable that the conference ended on a high note. Al-Jaber and the Saudis did not want a failed conference, and some back-channelnegotiations by the Chinese and US delegates turned around a hopeless first draft.

President Sultan Al Jabber struck the gravel, hugged the UN climate chief Simon Steil and announced the passage of a consensus resolution calling upon member countries to 'transition-away from fossil fuels - oil, gas and coal. It was a historic first time that winding down of fossil fuels had been linked to reversing global

The second big win for Cop28 was the setting up of the longdebated 'Loss and Damages Fund demanded by the developing countries as a fallback to climate disasters like floods. Compared to the estimated \$400 billion climate-related damage caused each year, the initial commitment of the developed world of \$700 million may seem like a drop in the ocean. But it is a start to institutionalizing the principle of 'polluters-

must-pay'.

Expectedly, the environmentalists aren't happy. The oil and gas producing countries had nixed any direct reference to 'phasing out' or 'phasing down' of fossil fuels in the text. There was also confusion in the plenary session where the Alli-ance of Small Island States - a coalition of 39 countries worst impacted by flooding and climate changes - said they were excluded from the final resolution.

Despite the shortcomings, Dubai marked a qualitative shift. It underlined the need to exit from fossil fuels to reduce carbon dioxide emissions, that accounts for 90% of the global warming. UN climate chief, Si-



mon Steill, summed it well: "Cop28 needed to signal a hard stop to fossil fuels and their planet-burning pollution. We didn't turn the page on the fossil fuel era, but this is clearly the beginning of the end."

#### Phasing out coal

What does the new anti-fossil fuel language mean for India? Like China and other large developing economies, she is caught in a bind. India's resolution to become a 'green' economy has not been lacking. She has pledged a 50% transition to renewable energy by 2030, and net zero carbon emission by 2070.

India has no oil or gas. But the Achilles Heel is coal. India is today hopelessly dependent to the extent of over 75% - on coal-generated energy. We are also far from 'transitioning away' from coal. In fact, another 17 gigawatts (GW) of coal capacity expansion is planned over the next 16 months. This year saw an increase in coalbased electricity to make up for a poor monsoon that created a shortfall in hydropower.

India hashad an astonishingly fast growth of renewables wind, solar, hydropower. From a negligible 35GW in 2014, we are today generating 175 GW from renewable sources. But things have now hit a plateau with energy demands spiking. In the absence of a rapid growth of renewable energy, the state is turning to increasing capacity from coal generation.

In international negotiations, while oil and gas have strong lobbies, coal producers and users have been isolated. The CopP26 summit in Glasgow agreed to a 'phase-down' of coal power, but India's bid to extend the 'phase-down' to all fossil fuels at last year's Cop27 in Egypt was nixed by the oil producers. After that India, along with China, have resisted attempts to put a cap on coalproduction.

Demanding "equity and jus-tice", India and other developing countries have rightly argued that the developed and wealthy countries had contributed much more to the climate crisis by their indiscriminate pollution since the time of the Industrial Revolution in the 18th Century.

"Over the past century, a small section of humanity has indiscriminately exploited nature. However, entire humanity is paying the price for this, especially people living in the glo-bal south," Bhupinder Yadav, India's environment minister said in Dubai.

With the new target of 'tran sitioning away' from fossil fuels, it is only fair that those who have built their growth on the 'dirty coal' era, and are more responsible for global warming, now must finance and pass on new technology to tap renewable energy

As Cop28 has approved the 'Loss and Damages' Fund to meet climate disaster, it is high time a 'Transition Fund' of \$500 billion be set up initially to shoulder part of the burden of the developing world transiting from fossil fuels to renewable energy.

### 'All economic data understate country's GDP growth rate'

"We need to update base year and when we do it, our economic growth will be higher"

VEN as the Indian economy emerged stronger after the second quarter GDP numbers, there are a few pain points that need to be Monika Yadav in an interview with Sanjeev Sanyal, member, Economic Advisory Council of the Prime Minister (PM-EAC) discusses these issues. Here're excerpts:

The PM is likely to unveil a Vision Document for 2047. What are the broad contours of that vision?

The next 25 years, which is the Amrit Kal, is not merely the coincidence of it being the 75th to 100 year (of independence) phase. It also coincides with many other things that are happening. This is also the 25 years where we will be at our demographic peak. Between now and then, the proportion of the population of working age will rapidly rise and then fall.

This is a phase where we will first go past Germany in the next 18 months and then the next 18 months we will go past Japan to become the world's third-largest economy. Our per capita income still needs to go through a sharp upwards shift. So our effort will be to go through that so that extreme poverty is completely eliminated.

This is the phase where we will emerge after many centuries as a global power – not just as an economy but also in a geo strategic sense. We missed the first industrial revolution, and didn't participate in the industrial revolution 2.0 (of mid-20th century). We did participate in the third industrial revolution (AT and software boom) in a limited way But as the world is embarking on Industrial Revolution 4.0, we have an opportunity of being a serious world power as technologies, which are now emerging like space technology and AI, we have capabilities. This is a real opportunity of providing global leadership in the new Industrial Revolution cycle.

So, the next 25 years is a very crucial phase in terms of a wider economic cycle. We are not just building an economy but rebuilding a civilization.

India's Q2 GDP growth exceeded most estimates. The RBI has revised upwards FY24 growth to 7%. Do you think this rate is sustainable and will we see 8% plus growth in the near future?

We are achieving 7% growth in a difficult environment where we are not getting any help from exports, and the world has tightened monetary policies. So, we are achieving (such high) growth rate on our own steam under difficult circumstances suggests India's eco-nomic machine is in good



We have been able to generate a 7% GDP growth rate under these circumstances suggests this economy is capable of sustaining 8% plus growth rate in a benign external environment

shape, and importantly without any macroeconomic stress inflation is not spiking up, current account is not blowing up or foreign exchange re-serves have not declined.We have been able to generate a 7% growth rate under these circumstances suggests this economy is capable of sustaining 8% plus growth rate in a be nign external environment.

Manufacturing sector grew at 14% in Q2, but it was largely due to low-base effects. Share of manufacturing GVA as a percentage of GDP is below 14%. Can we achieve the target of 25% share of the sector in GDP?

The contribution of manufacturing gross value added (GVA) as a percentage of gross domestic product (GDP) will go up to 25% but it will take time. The share of agriculture is falling. and we are building capacities in areas such as defence, chemicals, and electronics. There are a huge amount of indus-trial activities that are happening in the country.

There is this perception that rich people are leaving the country...

There may be some who are, but then there are also new people who are becoming rich through entrepreneurship, we are creating unicorns. Some people are moving back also. There's a continuous churn.

Have you done any research on how many people are coming back to India as well?

We want India to be a good place to live, including the rich, and we want our best entrepreneurs to live in India.

If there are issues, we are happy to fix them. But is it the case that a few thousand peo-ple moving out of India is destabilising our growth en gine? Probably not. In any large country, a few thousand will always move out, but there are also those who lived abroad for years and are coming back setting up something here.
Somebody has to research
what the net number is,
and if it is growing then we
need to fix it.

Both pro and government critics have raised concern on quality of GDP numbers, As a member of PM-EAC what is your view, and how is the government addressing this issue? There is a serious issue with the quality of GDP number, an issue that the PM-EAC has

raised many time It is obvious that our statis tics undercount economic activities. Almost all series are tivities. Almost all series are based on the base year of 2011-12. We need to update the base year and when we do it, our economic growth will be high-er. These numbers understate economic development in country due to the outdated base.

Is that the only problem,

the base year? This is the major problem. Oth-er minor problems arise bee of that. This is a serious problem - you can't have a base where you are still counting the number of transistors, black and white TVs, etc.

How frequently should we change the base year?

We should change it at least once a decade. When we are going through such rapid changes, you should change it more frequently because many new products are emerging. In 2011-12, smartphones weren't with everybody, you didn't have drones. Now it's a major production item. There are 500 other things like this which are major items of production to-day but didn't exist 13-14 years ago. You talk about rapid development but we are not going to account for it, how this

The tax-GDP ratio has been stagnant for a long time at around 17%. What is the government doing to address this issue?

The tax buoyancy is causing the ratio to go up. But you don't want it to be at the European levels. If you have a European level tax-to-GDP ratio, you will also get European level growth. European tax rates have damaged their economy. So what is the ideal Tax-GDP ratio for India? That is a matter to be evolved. Nobody has done that exercise, but it is not the Euro-pean level (at over 30%).

Are there other structural reforms that the govern-ment is looking into? Everybody loves structural re

forms like implementation of GST, Insolvency and Bankrupt cy Code (IBC) or inflation tarcy Code (IBC) or inflation tar-getting framework – however, there are large number of re-forms that don't attempt to change the structure of the economy as such, but make the existing one work better. Those are called process reforms. Thousands of such process

reforms are being attempted, which are about making the current system work efficient-ly Any such single reform may not be radical but cumulative-ly they have a huge impact on the economy I am a big propo-nent of greater attention being given to these process

reforms.

Most of these reforms don't need big political debate, and they are relatively easy to do. They don't even need big money to be done. For example, our patenting system – we have to just expand it. Nobody is debating that we should not expand the reform toward to the part of the part the patent system. You need to improve the judicial system, the way registration of land and property is done. These are process reforms and we need to do lots of them.

## ಚೇತರಿಕೆ ಹಾದಿಯಲ್ಲಿ ಲಂಕಾ ಆರ್ಥಿಕತೆ

ಕೊಲಂಬೊ (ಪಿಟಿಐ): ಆರ್ಥಿಕ ಬಿಕ್ಕಟ್ಟಿನ ಸಳಿಗೆ ಸಿಲುಕಿ ಜರ್ಜರಿತವಾಗಿರುವ ದ್ವೀಪರಾಷ್ಟ್ರ ಶ್ರೀಲಂಕಾದಲ್ಲಿ ಆರ್ಥಿಕತೆಯು ಧನಾತ್ಮಕ ಬೆಳವಣಿಗೆ ದಾಖಲಿಸಿದೆ ಎಂದು ಅಲ್ಲಿನ ಸರ್ಕಾರದ ಅಂಕಿ-ಅಂಶಗಳು ದೃಢಪಡಿಸಿವೆ.

'ಜಿಡಿಪಿ ಬೆಳವಣಿಗೆ ದರವು ಪ್ರಸಕ್ತ ಹಣಕಾಸು ವರ್ಷದ ತ್ರೈಮಾಸಿಕ ಅವಧಿಯಲ್ಲಿ ಶೇ 1.6ರಷ್ಟದಾಗಿದೆ. ಇದು ಚೇತರಿಕೆ ಹಾದಿಯ ಆಶಾದಾಯಕ ಬೆಳವಣಿಗೆಯಾಗಿದೆ' ಎಂದು ಗಣತಿ ಮತ್ತು ಸಾಂಖಿಕ್ಕ (ಡಿಸಿಎಸ್) ಇಲಾಖೆಯು ಶುಕ್ರವಾರ ಬಿಡುಗಡೆ ಮಾಡಿರುವ ವರದಿಯಲ್ಲಿ ವಿವರಿಸಲಾಗಿದೆ. 2021ನೇ ಸಾಲಿನ ನಾಲ್ಕನೇ ತ್ರೈಮಾಸಿಕದಿಂದ ಶ್ರೀಲಂಕಾದ ಆರ್ಥಿಕತೆಯು ಖುಣಾತ್ಮಕ ಹಾದಿ ಹಿಡಿದಿತ್ತು. 2022ರ ಏಪ್ರಿಲ್ ನಲ್ಲಿ ಜಿಡಿಪಿಯು ಶೇ (-) 8ರಷ್ಟು ದಾಖಲಾಗಿದೆ ಎಂದು ಸರ್ಕಾರ ಘೋಷಿಸಿತ್ತು.

ಆರ್ಥಿಕ ಬಿಕ್ಕಟ್ಟಿನಿಂದ ತತ್ತರಿಸಿರುವ ದ್ವೀಪ ರಾಷ್ಟ್ರದ ನೆರವಿಗೆ ಧಾವಿಸಿದ್ದ ಅಂತರರಾ-ಷ್ಟ್ರೀಯ ಹಣಕಾಸು ನಿಧಿಯು (ಐಎಂಎಫ್) ಈ ವಾರದ ಆರಂಭದಲ್ಲಿ ₹24 ಸಾವಿರ ಕೋಟಿ ನೆರವು ಪ್ರಕಟಿಸಿತ್ತು. 2024ನೇ ಹಣಕಾಸು ವರ್ಷದಲ್ಲಿ ಆರ್ಥಿಕ ಬೆಳವಣಿಗೆಯು ಮತ್ತಷ್ಟು ವೃದ್ಧಿಯಾಗಲಿದೆ ಎಂದು ಶ್ರೀಲಂಕಾ ಸರ್ಕಾರ ವಿಶ್ವಾಸ ವ್ಯಕ್ತಪಡಿಸಿದೆ.



## Shami to miss Tests in SA

MUMBAI, PTI

India will not have the services of Mohammed Shamiintheir quest to register a maiden Test series win in South Africa as the senior pacer was on Saturday ruled out of the two-match series after the medical team did not clear him, the BCCI announced.

Shami, who has been recuperating from an ankle niggle post his wonder run in the recent ODI World Cup, was earlier included in India's Test squad but his availability was subject to him getting clearance from the board's medical team.

The BCCI did not name any replacement for Shami. The first Test between India and South Africa will start in Centurion from December 26.

Before the opening Test, the Indian Test team members will play a three-day intra-squad match from December 20.

As of now, Shami is likely to continue his recovery at home and the he could make a return during the Test series at home against England starting from January 25 in Hyderabad.



**Akash Deep** 

The second Test against the Proteas will start at Cape Town from January 3, 2024.

#### Chahar out of ODIs

Deepak Chahar was also withdrawn from the ODI squad after he expressed his unavailability to travel to South Africa because of a family emergency.

"Chahar has informed the BCCI that he will not be available for the upcoming ODI series due to a family medical emergency," the BCCI statement read.

ODI squad: KL Rahul (captain, wk), Ruturaj Gaikwad, Sai Sudharsan, Tilak Varma, Rajat Patidar, Rinku Singh, Shreyas Iyer, Sanju Samson (wk), Axar Patel, Washington Sundar, Kuldeep Yadav, Yuzvendra Chahal, Mukesh Kumar, Avesh Khan, Arshdeep Singh, Akash Deep.

## A sneak peek into India's ODI future

### New stars will take centrestage as India take on SA in opener

JOHANNESBURG, PTI

ith a clutch of newgen stars lining up to make their presence felt, India's journey into their ODI future will hit its first stop during the opening match against South Africa at the hulking Wanderers here on Sunday.

Scepticism may be in the air about the relevance of an ODI series with a T20 World Cup in sight, but for India, and to a good extent for the Proteas as well, this face-off signifies the arrival of a fresh line, building up ahead of the ICC Champions Trophy 2025.

Virat Kohli and Rohit Sharma have built lofty castles in white-ball formats over the last decade and a half, but now they are in the evening of their careers, and the younger Indian names will perforce need to carry forward their legacy.

None then will be in more focus than KL Rahul, who will lead India in this three-match series.



It will be interesting to see if Rinku Singh can transpose his T20I skills onto ODI cricket. AFP

#### LIVE ON STAR SPORTS NETWORK, 1:30 PM

The wicketkeeper-batter has stood-in as India skipper in the past, but a successful outcome here could potentially land the Bengaluru man the ODI captaincy for a longer duration.

While the likes of Rahul, Ruturaj Gaikwad, if he has recovered from the illness that forced him to sit out of the T20Is, and Shreyas Iyer have showcased their prowess in the past, a few others will be eager to become part of the jostle for space in India's white ball scheme of things.

Rinku Singh has impressed

everyone with his impact outings in the T20Is so far this year, and the team management will now be eager to see him graduate to the 50-over version, and the left-hander could make his ODI debut on Sunday.

The international opportunity might also come in the way of Rajat Patidar, who has been churning out runs in domestic cricket for a few years now, and Sai Sudarshan, who had a reasonable run in the Vijay Hazare Trophy for Tamil Nadu, for slots open the middle-order along with Tilak Varma. The Indian think-tank will hope that these young names could tick a few boxes against a South African attack that has a depleted look to it in the absence of rested Kagiso Rabada and injured Anrich Nortje.

India too will not have the three pacers who shored up their bowling in the recent ODI World Cup - Jasprit Bumrah, Mohammed Shami and Mohammed Siraj. While Bumrah and Siraj will feature in the Test series, Shami has been ruled out of the tour after the BCCI medical team did not give him fitness clearance.

In the absence of these senior pros, the onus is squarely on the shoulders of bowlers such as Avesh Khan, Mukesh Kumar and Arshdeep Singh to marshal India's pace department and they will have to show more consistency despite producing a fine effort in the final T20I against South Africa at this venue.

Teams (from): India: KL Rahul (capt/ wk), Ruturaj Gaikwad, Sai Sudharsan, Tilak Varma, Rajat Patidar, Rinku Singh, Shreyas Iyer, Sanju Samson (wk), Axar Patel, Washington Sundar, Kuldeep Yadav, Yuzvendra Chahal, Mukesh Kumar, Avesh Khan, Arshdeep Singh, Akash Deep.

South Africa: Aiden Markram (capt), Ottniel Baartman, Nandre Burger, Tony de Zorzi, Reeza Hendricks, Heinrich Klaasen, Keshav Maharaj, Mihlali Mpongwana, David Miller, Wiaan Mulder, Andile Phehlukwayo, Tabraiz Shamsi, Rassie van der Dussen, Kyle Verreynne, Lizaad Williams.

## Crystal Palace fight back to frustrate Man City

AGENCIES @ Manchester

MANCHESTER CITY were held 2-2 by Crystal Palace at the Etihad Stadium in the Premier League on Saturday. This is a massive blow for Pep Guardiola's men before they go for Club World Cup assignment

Club World Cup assignment.
After Jack Grealish and Rico
Lewis had handed them 2-0
lead, it seemed like City would
get a routine win. However.

Palace fought back with Jean-Philippe Mateta and Michael Olise finding the back of the net. City are now three points behind leaders Liverpool, having played one more game.

While City had a day to forget, Chelsea and Newcastle recorded much-needed wins.

Results: Saturday: Chelsea 2-0 Sheffield; Man City 2-2 Palace; Newcastle 3-0 Fulham; Bouremouth 1-1 Luton (Suspended). Saturday: Forest 0-2 Tottenham.



Luton Town's Tom Lockyer receives treatment during the match against Bournemouth on Saturday, Match was cancelled after Lockver collapsed on the pitch in the second half when the teams were locked at 1-1 IAP

# ಭಾರತಕ್ಕೆ ಈಗ ಒನ್ಡೇ ಟೆಸ್ಟ್! ಇಂದಿನಿಂದ ದ.ಆಫ್ರಿಕಾ ವಿರುದ್ಧ 3 ಪಂದ್ಯಗಳ ಏಕದಿನ ಸರಣಿ

ಜೊಹಾನ್ಡ್ ಬರ್ಗ್: ವಿಶ್ವಕಪ್ ಫೈನಲ್ ನಲ್ಲಿ ಅನುಭವಿಸಿದ ಆಘಾತಕಾರಿ ಸೋಲಿನ ಬಳಿಕ 'ರೀಬೂಟ್' ಆಗಬೇಕಾದ ಅಗತ್ಯದೊಂದಿಗೆ ಭಾರತ ತಂಡ ದಕ್ಷಿಣ ಆಫ್ರಿಕಾ ವಿರುದ್ಧ 3 ಪಂದ್ಯಗಳ ಏಕದಿನ ಸರಣಿಗೆ ಅಣಿಯಾಗಿದೆ. 2025ರ ಐಸಿಸಿ ಚಾಂಪಿಯನ್ನ್ನ ಟ್ರೋಫಿ ಮತ್ತು 2027ರ ವಿಶ್ವಕಪ್ ತಯಾರಿಯ ಮೊದಲ ಮೆಟ್ಟಿಲು ಇದಾಗಿದ್ದು 'ನ್ಯೂ-ಜೆನ್' ಆಟಗಾರರು ಭಾರತೀಯ ತಂಡದ ಭವಿಷ್ಯವನ್ನು ಬರೆಯುವ ಕಾಲ ಇದಾಗಿದೆ. ಮೊದಲ ಮುಖಾಮುಖಿ ಭಾನುವಾರ 'ನ್ಯೂ ವಾಂಡರರ್'ಸಲ್ಲಿ ನಡೆಯಲಿದೆ.

ಕಳೆದ ಒಂದೂವರೆ ದಶಕದಿಂದಲೂ ಸೀಮಿತ ಓವರ್ ಗಳ ತಂಡದ ಭಾಗವಾಗಿದ್ದ ರೋಹಿತ್ ಶರ್ಮ, ವಿರಾಟ್ ಕೊಹ್ಲಿ ಈಗ ಸಂಧ್ಯಾಕಾಲದಲ್ಲಿದ್ದಾರೆ. ದಕ್ಷಿಣ ಆಫ್ರಿಕಾ ಸರಣಿಯಲ್ಲಿಪಾಲ್ಗೊಳ್ಳದೆ ವಿಶ್ರಾಂತಿತೆಗೆದುಕೊಂಡಿದ್ದಾರೆ. ಇವರ ಗೈರಲ್ಲಿ ವಿಕೆಟ್ ಕೀಪರ್-ಬ್ಯಾಟರ್ ಕೆ.ಎಲ್. ರಾಹುಲ್ ಅವರಿಗೆ ನಾಯಕತ್ತ ವಹಿಸಲಾಗಿದೆ. ಇದೊಂದು ದೂರದೃಷ್ಟಿಯ ಆಯ್ಕೆ. ಇನ್ನು 4 ವರ್ಷಗಳ ಬಳಿಕ ನಡೆಯುವ ವಿಶ್ವಕಪ್ ನಲ್ಲಿ ರೋಹಿತ್, ಕೊಹ್ಲಿ ಮೊದಲಾದವರು ಆಡುವ ಸಾಧ್ಯತೆ ಕಡಿಮೆ. ಹೀಗಾಗಿ ನಾಯಕತ್ವಕ್ಕೆ ರಾಹುಲ್ ಸೂಕ್ತ ಆಯ್ಕೆ ಎಂಬುದು ಬಿಸಿಸಿಐ ತೀರ್ಮಾನವಾಗಿದ್ದರಲ್ಲಿ ಅಚ್ಚರಿಯೇನಿಲ್ಲ **ಏಕದಿನ ತಂಡದಲ್ಲೂ ಹೊಸತನ:** ಟಿ20ಯಂತೆ ದಕ್ಷಿಣ ಆಫ್ರಿಕಾಕ್ಗೆ ಬಂದಿಳಿದ ಏಕದಿನ ತಂಡದಲ್ಲೂ ಹೊಸತನ ಗೋಚರಿಸುತ್ತದೆ. ರೋಹಿತ್ ಜತೆಗಾರ ಶುಭಮನ್ ಗಿಲ್



自持是自	ವೇಳಾಪಟ್ಟ	
ಪಂದ್ಯ	<b>ਸੂ</b> ਦ	ಆರಂಭ
1ನೇ ಏಕದಿನ	ಜೊಹಾನ್ಸ್ಬರ್ಗ್	ಮಧ್ಯಾಹ್ನ 1.30
2ನೇ ಏಕದಿನ	ಪೋರ್ಟ್ ಎಲಿಜಬೆತ್	ಸಂಚ 4.30
3ನೇ ಏಕದಿನ	ಪಾರ್ಲ್	ಸಂಚ 4.30
	ಪಂದ್ಯ 1ನೇ ಏಕದಿನ 2ನೇ ಏಕದಿನ	ಪಂದ್ಯ ಸ್ಥಳ 1ನೇ ಏಕದಿನ ಜೊಹಾನ್ಸ್ಬರ್ಗ್ 2ನೇ ಏಕದಿನ ಪೋರ್ಟ್ ಎಲಿಜಬೆತ್

ಕೂಡ ಇಲ್ಲಿ ಕಾಣಿಸಿಲ್ಲ. ಯಶಸ್ವಿ ಜೈಸ್ತಾಲ್, ಇಶಾನ್ ಕಿಶನ್ ಅವರನ್ನೂ ಹೊರಗಿಡಲಾಗಿದೆ. ಹೀಗಾಗಿ ಋತುರಾಜ್ ಗಾಯಕ್ಕಾಡ್-ಸಾಯಿ ಸುದರ್ಶನ್ ರೂಪದ ನವ ಜೋಡಿಯೊಂದು ಭಾರತದ ಇನ್ನಿಂಗ್ಸ್ ಆರಂಭಿಸಬೇಕಿದೆ. ಇವರಲ್ಲಿ ಸಾಯಿ ಸುದರ್ಶನ್ ಈವರೆಗೆ ಅಂತಾರಾಷ್ಟ್ರೀಯ ಕ್ರಿಕೆಟ್ ಆಡಿದವರಲ್ಲ ಆದರೆ 2023ರ ಐಪಿಎಲ್ನಲ್ಲಿ ಗುಜರಾತ್ ಪರ ಎಂಟೀ ಇನ್ನಿಂಗ್ಫ್ ಗಳಲ್ಲಿ 362 ರನ್ ಬಾರಿಸಿದ ಹೆಗ್ಗಳಿಕೆ ಹೊಂದಿದ್ದಾರೆ. ಸದ್ಯ ಇಂಡಿಯಾದ ಸ್ತೆಷಲಿಸ್ಟ್ ಓಪನರ್ಗಳೆಂದರೆ ಇವರಿಬ್ಬರು ಮಾತ್ರ. ಅನಿವಾರ್ಯವಾದರೆ ರಾಹುಲ್ ಬರಬೇಕಾದೀತು.

ಮಧ್ಯಮ ಕ್ರಮಾಂಕದ ಲೈನ್ಅಪ್ ನಲ್ಲಿ ಶ್ರೇಯಸ್ ಅಯ್ಯರ್, ಕೆ.ಎಲ್. ರಾಹುಲ್, ತಿಲಕ್ ವರ್ಮ, ರಿಂಕು ಸಿಂಗ್, ಸಂಜು ಸ್ಯಾಮ್ನನ್ ಇದ್ದಾರೆ. ಆದರೆ ಅಯ್ಯರ್ ಕೇವಲ ಮೊದಲ ಪಂದ್ಯಕ್ಷಪ್ಪೇ ಸೀಮಿತ. ಬಳಿಕ ಇವರು ಟೆಸ್ಟ್ ತಂಡವನ್ನು ಕೂಡಿಕೊಳ್ಳಲಿದ್ದಾರೆ. ಆಲ್ ರೌಂಡರ್

ಗಳ ಯಾದಿಯಲ್ಲಿ ಇಬ್ಬರಿದ್ದಾರೆ-ಅಕ್ಷರ್ ಪಟೀಲ್ ಮತ್ತು ವಾಷಿಂಗ್ಟನ್ ಸುಂದರ್. ಇವರಲ್ಲೊಬ್ಬರು , ಅವಕಾಶ ಪಡೆಯಬಹುದು.

ಸಿನ್ನರ್ಗಳ ಮೇಲೆ ಅವಲಂಬನೆ: ಭಾರತದ ವೇಗದ ಬೌಲಿಂಗ್ ವಿಭಾಗ ಘಾತಕವಲ್ಲ ಅನುಭವಿಗಳಾದ ಬುಮ್ರಾ, ಸಿರಾಜ್, ಶಮಿ ಗೈರು ಎದ್ದು ಕಾಣುತ್ತದೆ. ಅರ್ಷದೀಪ್ ಸಿಂಗ್, ಆವೇಶ್ ಖಾನ್, ಮುಕೇಶ್ ಕುಮಾರ್ ಬಿಗ್ ಹಿಟ್ರರ್ ಗಳನ್ನೊಳಗೊಂಡ ದಕ್ಷಿಣ ಆಫ್ರಿಕಾ ಸರದಿಯನ್ನು ಹೇಗೆ ನಿಯಂತ್ರಿಸಬಲ್ಲರು ಎಂಬುದು ದೊಡ್ಡ ಪ್ರಶ್ನೆ. ಹೀಗಾಗಿ ಭಾರತ ಸ್ಪಿನ್ನರ್ ಗಳನ್ನೇ ಹೆಚ್ಚು ಅವಲಂಬಿಸುವುದು ಸೂಕ್ಷ. ಕುಲದೀಪ್ ಯಾದವ್, ಅಕ್ಟರ್ ಪಟೀಲ್ ಮತ್ತು ಯಜುವೇಂದ್ರ ಚಹಲ್ ಅವರನ್ನೊಳಗೊಂಡ ನಮ್ಮ ಸ್ಪಿನ್ ವಿಭಾಗ ಹೆಚ್ಚು ಬಲಿಷ್ಯ ವಿಶ್ವಕಪ್ ಸಮಿಪುನಲ್ ನಾಚೆ ಹೆಜ್ಜೆಯನ್ನೇ ಇಡದ ದಕ್ಷಿಣ ಆಫ್ರಿಕಾ ಕೂಡ ಹೊಸ ಆರಂಭದ ನಿರೀಕ್ಷೆಯಲ್ಲಿದೆ.

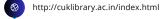


#### Any Feedback









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