



News & Views

First hyperloop might be built in India

The world's first Hyperloop is likely to be built in India and construction will start at the end of next year, Virgin Hyperloop One CEO Jay Walder told Yahoo Finance.

“One of the big projects that we have been working on right now is in India. It is to build a route from Mumbai to Pune,” Walder explained. “That is about a 120km route. The first phase of that project will be 12km long. I think there will be shovels in the ground by the end of 2020.”

The Hyperloop system is a futuristic mode of transportation that would put passengers in pods that would magnetically levitate and travel through vacuum tubes across states, or even countries. The mode of transportation would move with “1080km per hour,” Walder said.

Aside from the first actual track that is going to be built in India next year, the company has already built a test track in Nevada, near Las Vegas. The pod that was used in that test was on display in New York recently.

*Source: Yahoo Finance, 30.9.2019
<https://www.tunneltalk.com>*

Plans for Dwarka-Delhi airport tunnel link revived

In a move to create a much-needed western road link to Delhi's Indira Gandhi International Airport, the National Highways Authority of India (NHAI) is reviving a project to construct a 5km tunnel between Dwarka's Sector 24 and the airport.

The proposed tunnel will provide smooth access to the airport to traffic coming from north, west and southwest Delhi and decongest National Highway 8, which caters to airport-bound traffic from various parts of the city. “Currently, it takes nearly forty minutes to reach the airport, especially during rush hour. It will take about ten minutes to reach the airport from Dwarka once the tunnel is constructed,” an official said.

The western entry to the airport is also of strategic importance to open an alternative route. Transport planning experts said it would help solve the congestion problem in the city to a large extent. “It will provide alternate access to traffic coming from north, northwest and west Delhi and take the load off the existing road network. It will provide a huge relief to residents of the Dwarka city suburb.”

*Source: Hindustan Times, 15.3.2019
<https://www.tunneltalk.com>*

Tunnelling of Mumbai metro line-3 project to be completed by Sept 2020

Mumbai Metro Rail Corporation (MMRC) said that 100% tunnelling work of the Colaba-Bandra-Seepz Metro Line-3 project will be completed by September 2020. MMRC is implementing the

Metro Line-3 corridor. MMRC said in a statement, apart from this, the Corporation hopes to complete 70% of civil work and get the first rolling stock by December 2020. Presently, more than 70% of the tunnelling work across the 33 km corridor has been completed. It said, "As part of in-situ development, the tender for rehab buildings Kalbadevi-3 and Girgaon 3 will be awarded in January and May, respectively." "Also bids for O&M work is expected in February. Besides this, track laying work for the main line will also commence."

The nearly Rs 30,000-crore project will connect Cuffe Parade business district in the extreme south of the city to Seepz in the north-central with 26 underground and one at-grade station. Mumbai Metro Line-3 project, a 33.5km long corridor running along Colaba-Bandra-Seepz, envisages to decongest the traffic situation in Greater Mumbai.

Source: Rail News, 28.12.2019

Longest electrified rail tunnel in Andhra Pradesh, India

Vice President M. Venkaiah Naidu dedicated the country's longest electrified rail tunnel between Cherlopalli and Rapuru and the electrified railway line between Venkatachalam and Obulavaripalli.

Besides inaugurating the re-modelled yard at Guduru railway station, Naidu also flagged-off a new inter-city superfast express train between Guduru and Vijayawada. He termed the 6.7km long tunnel an "engineering marvel" and said it would provide viable rail connectivity between the Krishnapatnam Port and the hinterland for seamless movement of freight.

The tunnel, built at a cost of ₹437 crore, has 44 trolley refuges and 14 cross-passages in a horseshoe design. "I am overwhelmed with emotion as my long-cherished childhood dream has now come true," The Vice President remarked, recalling his trip on the newly-commissioned Obulavaripalli-Krishnapatnam line on Saturday evening.

"I am emotional because the railway line passes through my native and ancestral villages where I spent my childhood. At that time nobody had even imagined that a train would be passing these hillocks one day.

When I was minister (in the erstwhile Vajpayee government) this line was envisaged, planned, surveyed and sanctioned. It is finally completed when I am the Vice President now," he said. Naidu said his next priority would be to get the crucial Nadikudi-Srikalahasthi new railway line project completed expeditiously.

Source: Hindustan Times, 02.09.2019

Saturn got the most number of moons

The solar system has a new winner in the moon department.

Twenty new moons have been found around Saturn, giving the ringed planet a total of 82. That beats Jupiter and its 79 moons. "It was fun to find that Saturn is the true moon king," said astronomer Scott Sheppard of the Carnegie Institution for Science.

If it's any consolation to the Jupiter crowd, our solar system's biggest planet – Jupiter still has the biggest moon.

Jupiter's Ganymede is almost half the size of Earth. By contrast, Saturn's 20 new moons are minuscule, each barely 5 km in diameter.

Sheppard and his team used a telescope in Hawaii to spot Saturn's 20 new moons over the summer. About 100 even tinier moons may be orbiting Saturn, still waiting to be found, he said.

It's harder spotting mini moons around Saturn than Jupiter, Sheppard said, given how much farther Saturn is.

"So seeing that Saturn has more moons even though it is harder to find them, shows just how many moons Saturn has collected over time," he wrote in an email. These baby moons may have come from larger parent moons that broke apart right after Saturn formed.

Seventeen of Saturn's new moons orbit the planet in the opposite, or retrograde, direction. The other three circle in the same direction that Saturn rotates. They're so far from Saturn that it takes two to three years to complete a single orbit. This announcement came from the International Astronomical Union's Minor Planet Center.

Source: Hindustan Times, 09.10.2019

How sports can serve as an efficient laboratory for us to learn about life

Nearly every one of us has played a sport at some point in our lives. Most of us enjoy watching sports. Events like the FIFA World Cup or Wimbledon attract television and online viewership in billions.

Hosting the Olympic games is seen as a matter of national pride, and can impact the fortunes of an entire country or population. The business of sports is a \$500-billion industry worldwide, and growing. Clearly, sports is a substantial aspect of the world we live in.

But what can we learn from sports? Remarkably, this is not a question that schools or universities have directly asked or answered.

Universities, for example, have focused on developing excellence in sports, and devote substantial resources to build winning teams and nurture champion athletes. So much so that college football or basketball in America is widely followed as a spectator sport. The Oxford-Cambridge regatta has become an inherent and historic part of elite higher education in the UK.

This in itself is a good thing. But there is a more substantial role that sports must play in educational institutions.

I have invited Viswanathan Anand, one of the most accomplished chess players in history, to share his view with me in this column.

Anand believes that sport imitates life, and shows you how a game needs to be played correctly. In chess, for example, two players may be equal in many spheres of the game, but on a given day, one person wins not because of complete chess knowledge, but on that day their preparation, intuition and guts worked in their favour.

Going beyond developing excellence in sports, universities must embrace sports as a laboratory for life skills – where we can experiment and learn about life.

This can be structured around several questions.

First, how do we learn to cope with and learn from failure? Losing is an essential part of sports. No one likes to lose and, yet, we all do.

Playing sports regularly and therefore, losing somewhat regularly gives us an opportunity to develop a culture of learning from failure. Anand believes that failures sometimes teach us more than success. When you lose a game in chess, you can pinpoint the exact move that turned the result.

That could be a calculation oversight, an emotional oversight or plain physical fatigue. A good response to failure is not to brood, but to introspect, identify areas of improvement, and work hard to get better.

We must similarly respond to failure in our jobs, startups or other pursuits.

Second, how do we develop a culture of constant improvement? When Anand sits down to prepare for a match, he focuses on the problems in his preparation and just thinks of ways to solve them. Without worrying about large, long-term goals or expectations, he just thinks about what he should be working on for his next game. This cycle of constant review and improvement must carry over into our professional lives.

Third, how does one learn to deal with pressure situations and perform under pressure? Anand says that when you have had enough experience, dealing with pressure becomes second nature. Sports can be great training grounds to give us this experience. Anand believes that pressure goes away the moment a game begins, because you only worry about the position on the board and not about other things. Each of us may deal with pressure differently, but we must learn to deal with the stress situations we face in our lives. Sports offer a great testing ground for this.

Fourth, how do you play fair and play by the rules all the time, without exception?

When you nick an edge of your cricket bat to the wicket keeper, and the umpire hasn't heard it, do you walk off the pitch back to the pavilion or hold your ground? Anand believes that playing fair keeps his life simple and keeps him out of real-life chess situations. How you would handle these situations in sports mirrors how you would handle them in life.

So how can modern universities leverage the potential of sports to help students learn about life? The way to do this is to integrate sports into the curriculum thoughtfully, and open faculty positions for accomplished sportspersons who think cerebrally about how sports relate to life. Students must be encouraged to reflect on their regular sporting experience, whichever sport they choose to play, and determine what life lessons they can draw.

In today's world, there are other interesting questions too which sports can help us think about. How is a sport evolving, for example, and what shape is it likely to take 20 years from now? Think of the advent of T20 cricket or chess robots.

Trends in sports tend to mirror broader trends in society, such as shortening attention spans, and studying these can lead to interesting insights.

As yet another example, we might think about what it means to be a good team player in a virtual world, where online gaming participants team up virtually with other players they have never met or otherwise interacted with.

Sports mirror life, and therefore serve as a great laboratory to experiment with, learn about and prepare for life in an unpredictable world. Universities must embrace this view for the benefit of their students.

Source: Hindustan Times, 09.10.2019

IITs to now offer joint PhD programmes

Indian Institutes of Technology (IITs) have decided to offer joint doctorate courses, allowing a student to pursue part of the course at one IIT and the other part in another.

The elite engineering schools feel that such a move will foster collaborative research and utilization of advanced research infrastructure among IITs.

Through joint PhDs, it is possible to carry out high quality collaborative research work by taking advantage of expertise and excellent infrastructure available at both institutions. At present, IITs have joint degree programs of PhD mainly with foreign universities.

Here are five key components of the initiative.

- 1) Two IITs may enter into an agreement to offer joint PhDs in mutually agreeable areas of research.
Students interested will be first selected to the PhD programmes at either institute following selection procedures. The institute at which a student initially joins the PhD programme will be called the Home Institute, while the other will be the Partner Institute.
- 2) Students will complete the requisite course work and comprehensive examination as per the rules of the home institute. Each student of joint PhD programme will have at least two thesis supervisors (advisors/guides).
The thesis supervisor at the home institute will be the primary supervisor of the student, while the one from the partner institute will be the co-supervisor.
- 3) A doctoral Committee (or equivalent) will be setup for each student to monitor the research progress till the thesis is submitted.
The students will follow home institute regulations for monitoring their research progress, submission & evaluation of the thesis.
- 4) The students of the joint PhD programme are required to spend a minimum one year (two semesters) at the partner institute, working under the supervision of the co-supervisor.
During the period of stay at home institute, students will pay semester fee, including tuition fee and hostel fee as per the fee structure of the home or partner institute.
Each student of joint PhD programme will be entitled to financial assistance, scholarship as per rules.
- 5) The joint PhD candidate, post completion of the degree, will be awarded a single degree certificate with the signatures and stamps of both the institutes. The format of the degree certificate will be jointly finalized by the two institutes.
It means, both the IITs will be free to give two separate degree certificates, but the degree certificates must indicate unambiguously that the degree is being awarded jointly with the partner IIT for the same thesis.

Source: Hindustan Times, 09.10.2019

India on track to become a \$5-trillion economy: WEF

Steered by a decisive leadership, India now has a significantly enlarged global profile and the stage is set for the country to realize its vision of becoming a \$5-trillion economy in the next five years and \$10-trillion economy in the next decade-and-a-half, according to the president of World Economic Forum. BorgeBrende said, “India’s has been a dramatic rise, deserving of the global attention that it has commanded. The stage is set for India to realize its vision of becoming a \$5-trillion economy in the next half-decade and \$10-trillion economy in the next decade-and-a-half.

Source: Hindustan Times, 04.10.2019

Adopt indoor plants that work as purifiers

As the city of Taj battles poor level of air pollution post Diwali and a recent study, conducted jointly by the department of chemistry, St. John’s College Agra and the Society of Indoor Environment, New Delhi, showing an AQI level of 223, which is considered ‘poor’, and causes breathing discomfort to most people on prolonged exposure.

Experts have stressed on adopting indoor plants that purify air. “Indoor plants, like aloe vera, areca palm and ficula work as natural purifiers. They absorb carbon dioxide, carbon monoxide from air and produces more oxygen. Ivy plant helps in removal of feces particles and toxins from air while spider and styrene plants helped in filtering gasoline and styrene particles.” Said Susan Verghese P of the chemistry department. While snake plants could give oxygen even at night.

“Holy basil commonly known as tulsi is also a natural purifier and that can be alternate to electronic air purifiers,” Susan said. David Daneesh Massey of the department also stressed on boosting immune system besides purifying the indoor air. “You can add those foods that can boost immunity. Foods rich in vitamin C, magnesium or omega-3 fatty acids will help more remove toxins,” said MahimaHabil Massey of chemistry department.

Some immunity boosting foods include lemon, orange, grapefruit, kiwi, garlic, yogurt, spinach, turmeric, almonds and ginger. “Use of jiggery instead of sugar in daily diet is a good idea as it helps in removing toxins from our body,” she added.

Source: Hindustan Times, 10.11.2019

Saturn’s moon Titan looks pretty much like Earth

The largest of Saturn’s many moons has lakes, mountains and dunes, with its surface scarred and crafted by many of the same forces which have shaped Earth, scientists said.

A team led by Rosaly Lopes at the California Institute of Technology(Caltech) said Titan’s visible exterior was “one of the most geologically diverse in the Solar System.”

“Despite the differences in materials, temperatures and gravity fields between Earth and Titan, many of their surface features are similar and can be interpreted as products of the same geologic processes,” the scientists said in an article in Nature Astronomy.

Using radar and infra-red data generated by the now defunct Cassini probe, which completed a 20-year mission by crashing into Saturn in 2017, the scientists said they could fill in many of the gaps in mapping Titan, some 1.2 billion kilometers from Earth.

Dunes and lakes, they said, were relatively young while mountainous terrain appeared older. Titan's surface was sculpted by the accumulation and erosion of sediment and showed "clear latitudinal variation, with dunes at the equator, plains at mid-latitudes and labyrinth terrains and lakes at the poles," they said. The region around the equator is arid, with Titan getting wetter closer to the poles.

Just as on Earth, Titan's surface has been marked by impact craters, liquid-and air-driven erosion, methane-laden rainfall, tectonic plate movement and possible volcanic activity.

Alice Le Gall, one of the team and working at Paris-Sa-clay University, said Titan "is the only known extra-terrestrial body to have liquid bodies on its surface."

Source: Hindustan Times, 20.11.2019

Indian Prime Minister Modi gets Global Goalkeepers Award 2019

Prime Minister Narendra Modi Sept. 25, 2019 dedicated to the 1.3 billion people of India the Global Goalkeepers Award 2019 given to him by the Bill and Melinda Gates Foundation in recognition of the effort he has spear-headed to provide toilets and promote sanitation in the world's second most populous nation.

"The honour is not mine but of the crores of Indians who not only fulfilled the Swachh Bharat dream but also made it a part of their daily lives," Modi said in a 15-minute speech at the award ceremony in New York, USA.

He said a democracy is not just about voting in a popular government; it's about putting people in the centre of systems and schemes. "A strong democracy is one that creates policies that keeps the needs of the people in the centre," he said.

"In the last five years, more than 11 crore (110 million) toilets were constructed. The Swachh Bharat mission has benefitted women and girls the most. They had to wait for dark to go out or drop out of school because of the lack of toilet facilities," Modi said.

"India is ready to share best practices with other nations so that we can collectively work to improve global sanitation standards," said Modi.

This is the third big international award for Modi, who won the Seoul Peace Prize 2018 for reducing social and economic disparity and rooting out corruption; and the 2018 UNEP Champions of the Earth Award, the UN's highest environmental honour, for championing the International Solar Alliance and pledging to eliminate single-use plastic in India by 2022.

Under the Swachh Bharat campaign launched on October 2 2014, approx. 100 million toilets have been built and approx. 0.6 million villages been declared open-defecation free.

Source: Hindustan Times, 26.09.2019

Key to inner happiness - To create creative confidence

Kindly dig happiness in yourself. There is a lot of happiness within all of us.

- Unknown Saint

There is a spiritual law. Hopes and happiness hold the world together. Positive thought has healing proportion. Happiness should be the fundamental right of the peoples all over the world. We can develop happiness chemicals (endorphins) by playing the out-door sports or doing deep breathing exercises for 1 hour daily, even in the old age. Adventurous sports create the leadership abilities in the sport-persons. Will-power is essential to be regular for whole life. Love by Invisible Blissful God can remove our tiredness, fears and lack of hope. Please connect your mind to your inner happiness. Inspire your mind wisely. Watch the children as they radiate the joy waves. Introvert is always happy. Spread your inner joy. Your joy will increase. Music is entertaining. Contentment is happiness. The top scientists are optimistic. Inner joy will revolutionize the whole world. The result of happiness is happiness. Happiness is medicine of the souls. So humour is the recent culture. The right training converts ordinary persons into extraordinary persons. The cyclic blooming of all the lives and flowers is the automatic law of the nature. All of us will, therefore, bloom and be happy automatically some days. Whenever people will find bliss, they will find bliss deeper within themselves. If you want to be happy for whole life, please love your work. *Highly organized societies are happy, healthy, rich and powerful for many eras.*

We should switch off our memories to enjoy the happiness deeper within us. We all know how to be unhappy. When our minds are up, we are unhappy. We are automatically relaxed whenever our minds, together with sentiments, are deep down on the earth. This is called the switch of lasting inner happiness. This switch is deeper below our own heart's consciousness. We have forgotten to operate this switch of inner happiness. Kindly pray God that our minds are deep down on the earth to switch on our own inner happiness. Lasting inner happiness is our true friend. All actors know how to operate their switches of inner happiness. They can be happy and smile or laugh at will. They can be unhappy at will. Thus we can also learn to operate this switch of lasting inner happiness and be happy at will. This is not easy. Switch off selfishness and be happy. Inner happiness will evolve with time automatically. Ignorance is bliss. God can switch on your inner happiness. Life is an inner journey deep downwards. Inner bliss is beyond space and time.

First of all please make your mind peaceful by ecstasy of regular deepest trance or meditation. Inner bliss heals our minds. Thereafter it is easier to bring down the peaceful mind deep down on the ground for longer periods. This is the secret of cheerfulness. Switching on the lasting inner happiness may be easier in the solitude. Thus, if you want anyone to be happy, just pull down his or her mind deep down on the ground. This is fun. It is difficult for the very thick brains or weak persons or panicky persons.

There are wars, as our minds are not deep down on the ground, and so we are not relaxed and happy. Hence do not incite violence in the minds of the peoples. Happiness can reduce wars. So let us drop down our enmity deep down on the earth, to enjoy our own lasting inner joy. O' Lord! Give us our inner joy. The flow of inner joy of a Blissful Saint to our hearts, is essential during the crisis. It is strange that *our suffering are riding our inner happiness. If you drop your suffering, then you are happy.* Our cheerfulness can resolve the conflicts between the success and religions. Yet we should not quit kindness and intellectual service till we are inspired deeper within us. Let us reduce cruelty. Critics can also find bliss deeper within themselves and laugh. Inner happiness sweetens our all the relationships. The poverty is the root cause of wars. Only technical/professional education has removed poverty of the peoples in many nations.

The top sports person switch on their inner happiness to play sports most efficiently. Only the brave nations are lucky nations. Our inner happiness can change moods of wars into the moods of happiness. Only bliss of God can satisfy our hunger of minds and nothing else. Learning of the switch of happiness is essential for the crisis management. Control your desires. Quit your fears,

you will enjoy God of Joy deeper within your hearts consciousness. Please forget your faith for some time and relax. Be brave. Why we do not feel happy within when there is happiness deeper within us? Our doubts, fears, anger and extrovert desires are hurdles in sacking our own inner happiness deeper within our self. A defeated leader can also find bliss deeper within oneself. Let us save our inner joy by our noble emotions, noble thoughts and humanitarian desires. Happiness is the Gift of God of Joy. Joy of reading the Holy Scriptures too comes from deeper within us. God is more blissful than all the scriptures. God is source of cheerfulness. Invisible Blissful God is the best Inner Entertainer.

Godly Bliss will enter within you one day. Let us go beyond hatred towards evil to search happiness, deeper within us. The hatred has given us only wars and not love. Forgiving the enemies is also a way to forgetting enemies. But the courage is better than bliss for self-defense. Adventurous sports will remake India a courageous nation. Fears help us to avoid mistakes. It is heartening to know that sport persons are bringing glory to India.

The young people love to do the challenging tasks. So responsibilities make young person eventually the responsible person. There is no need to run away from the responsibilities to be happy. Because happiness is deeper within all the healthy persons. Perform or parish is an excellent policy of government to stop cheating. What is needed is our inner journey to our inner happiness. So lasting inner happiness can be discovered only deeper within us all, but not in money, property, wealth, beauty and promotions etc. Enlightenment is the root cause of cheating on adequate experimental proofs are not given by the enlightened person unfortunately. There is a vast difference in their saying and doing. Even in the natural disasters, one can find bliss deeper within oneself. Let us spread happiness everywhere. The nature is good at creating happiness cyclically and so the cyclic happy seasons. So let us create happiness.

God is blissful. So God has the man-mesmerizing power. Blissful God can enter anyone and save lives. God punishes excessively cruel or cheating government eventually. God is more blissful than all the scriptures, books of sciences etc. God is Blissful Cosmic Healer. The heavenly bliss is actually evolving deeper within us. Everything is automatic on visible large scale in the long time in the universe, nature and specially lives. Automation is evolving automatically by Mercy of Invisible Subtle God. Yet our ultimate aim of life is the development of noble character by doing deeds(noble) according to the voice of our pure conscience. This is true even for the enlightened person. God has created a few heavens on the earth, both natural and man-made. People are searching bliss in science and technology but the lasting bliss is deeper within us all healthy beings. Time shrinks whenever Invisible Blissful God is with us. We are born to create orderliness in the universe. Bliss of seeing the blissful nature too comes from deeper within us all. The nature is self-healing and self-stabilizing as it loves the dynamic equilibrium. All the names of God are powerful surprisingly. Indeed truth is God. If God is ever discovered, Blissful God will be discovered within your heart. God is Blissful but Helpless like all the beautiful flowers. Hence God is Anti-Terrorism and Anti-wars. Some special persons are God-gifted. We are alive today because of bliss of God. O'truth seekers! Please be the seeker of the inner happiness. Time heals but love heals faster. Blissful God appears to be the slow healer of our sick thoughts. *The body is the best temple of God.* Happiness increases as happiness is shared with others. This is the law of happiness. Yogis' should spread happiness all over the world to create mentally healthy nations. Inspire Hope.

Smile and your destiny will smile on you. Please bring smiles on the faces of poor person. Please switch on happiness of the poor people. Laughter is the best medicine. There should be no business in six services i.e. research, education, medical service, social service, pollution and climate controls. There is a need of the happy civilization. Amazing deeds will be done by the children of poor people, as in the past so in the future also, because the genetic laws are not applicable to the

enlightened person. The enlightened persons may also develop their noble character by doing noble deeds according to the inner voice of their own conscience. *Sports and Yoga universities should be created in all the nations for creating mega-crises managing leaders of the world.* A one year improvement in the life expectancy of population increases economic output by 4%. Our priority should be right. The development of noble character should be our top priority. Out-door sports may create the cheerful society due to development of the happy chemicals (endorphins).

Source: Prof. Bhawani Singh

Humour

- Hindi is our mother.
English is our wife.

- ChetanBhagat

- LPG means liberalization, privatization and globalization !!!

- Anonymous