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ESTD.–1935

Western Disturbances

What else could have been the subject of an editorial other than the unthinkable, unprecedented, and interminable hot weather spell this year? Even meteorologists were locked in words whether this was a sequel to entry of western disturbances in the weather system. One of them argued that he had never experienced such an unending heat wave in his lifetime or career.

Generally western disturbances are common during winters which rob the chill every year at least of our metropolis of Kolkata. The retired scientist had held the summerly western disturbances responsible for these long spells. The other was of the opinion that it would be too early to draw a conclusion. Though not at dagger's drawn to each other, and still vacillating, they were somewhere unanimous to summarize that this could be a consequence to global warming.

Take the case of the desert city of Dubai, now dotted by high-rises, monuments, and museums everywhere. The skyscrapers have changed the desert city's entire look. But could the inhabitants imagine ever that they would see an unprecedented shower that would catch the city unawares? Since there is little rain in between which Dubaians are used to, there was no such infrastructure to face such an unwarranted natural disaster that had even washed away the airport and put the entire air traffic in disarray. No doubt that West Asia is in a "disturbance" as it is in a cauldron following the heat that generate in the ongoing war.

Or, take the case of Kolkata, the "chance directed, chance erected" city in the words of poet Rudyard Kipling, which has witnessed a tremendous construction business over these years. That, however, does not signify the city's overall economic growth since lower priced condominiums are not enjoying that much of sale. But one thing is for sure as construction of these towers of apartments require a huge amount of underground water. That has put a pressure on the ground water bed so much so that the level is drying up dangerously. If this trend continues unabated, hydrologists are apprehending that Kolkata would go dry like Bangalore or, to be more specific, like the four south Indian States by 2050 where water is now a scarce. People are queueing up with empty buckets in front of municipal taps.

As such the situation in the city was horrendous in the current heat spell. For two consecutive days meteorologists recorded a maximum temperature of 43 degree Celsius for the city of Kolkata, an earmark that was registered exactly 50 years ago which was many, many notches over and above the expected normal. This made even the weather scientists surprised. They wondered what was going to happen in the long run should this situation continue. It was proved again "April is the cruelest month," as had been said.

In America, for example, weather scientists are bewildered after noting the drastic weather changes in California which the Bulletin of the Atomic Scientists in its latest issue has dubbed as "catastrophic." California usually comes to the headlines every year because of massive wildfires. Lake Tulare, by the side of the Mississippi river, got drained and dried and its bed was repurposed for agriculture.

Last year, surprisingly, a huge area of more than 100,000 acres was inundated by unusual floods and the damage was incalculable. Climatologists thought this to be a fallout of the influence of what they called "atmospheric rivers", finally linking it to the El Niño and La Nina phenomenon, a sequel to global warming.

In the same vein, the World Meteorological Organization in its "state of the climate in Asia" has concluded in the report that of all the continents, Asia has been worst hit over these years due to climate changes. Last year alone there were 79 incidents of massive floods, cyclones, hurricanes, and similar natural disasters that killed more than 2000 people and affecting nine million others.

India, we all have passed through one of the hottest Parliamentary elections, politically as well as climatologically but there has seldom been any reference to the current natural calamities, barring a few on green energy. Unless and until our political leaders and election fighters pay any heed to global problems effecting the nature there will be little time left to prevent the situation going from bad to worse.

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Climate Action

The Stories of the Seventies

Sabyasachi Chattopadhyay

This small write-up is on the initial initiatives to protect environment through international conferences. Basically we are telling the stories of the seventies which was the first important decade that witnessed the concern for Green Globe. One may remember the publication of the book Silent Spring by Rachel Carson in 1962, which was regarded as a milestone as far as the individual concern for environment is concerned. But the organised effort to save the environment in international level was started in the next decade, i.e.1970s.

Undoubtedly the first major international conference on environment was held in 1972 in Stockholm, Sweden. But before that Ramsar Convention on wetlands was held in Ramsar, Iran in 1971. To protect the wetlands of the world a list of significant wetlands was made which is called as Ramsar Wetland Sites.

Stockholm Conference (1972) is very well known. This UN Conference on Environment and Sustainable Development was the first environmental summit where the head of 2>>

15 September 1971 - United Nations Headquarters, New York.
Mr. Maurice F. Strong, Secretary-General of the United Nations Conference on the Human Environment (right side), shows United Nations Secretary-General U Thant a design for the official Conference poster. On the left side Mr. Keith Johnson (Jamaica), Chairman of the Preparatory Committee for the Conference.
(Photo Credit: UN Photo/Teddy Chen)

Panelists Unanimous

Call For UN Reforms

Prasanta K. Bose

It was a hot Delhi afternoon with the mercury hovering around 45 degrees Celsius. The venue was a spacious hall of The Energy and Resources Institute (TERI). The occasion was a "dialogue" by an international team of panelists with many of the members attached to the United Nations (UN) as an individual or as an office holder. The theme was "Synergies between Climate Action and Sustainable Development Groups: Implications for Multilateralism."

So, it is clear that the on-line facility to join the almost three-hour long discussion did not provide for any opportunity for a tete-a-tete with any of the panelists, much to the chagrin of individual interview seekers. But, at the end of the day members of the audience came out with the sentence buzzing in their ears – there is a need for reforms in the UN. The objective should be to ensure synergies on climate action and to enforce multilateralism.

Initiating the discussion, Prof Jayeeta Gupta of the University of Amsterdam, introduced herself as an environmentalist with more than 35 years of experience of "teaching water," and as "a generalist." She recalled her long association with the UN in various capacities over these years and wondered why the synergies were not coming out. Presently the co-chair of the Bali World Water Forum of the UN, she observed that there is not a systematic approach as far as water is concerned. Some were linking water as an adaptation and some others at gender but there was no attempt to link water to "the desired 17 goals and this is a problem I have been facing

Revisiting Environmental Issues

Devaprasanna Sinha

As is almost ritual these days, we observe quite a number of international/national days declared by several bodies/agencies. Some are in vogue for many years. The purpose of observing the same through various programmes are primarily to create and sustain more knowledge and awareness amongst the students and general public. Appropriate themes are suitably chosen to emphasise the objectives.

The observance of World Environment Day is no exception. It is needless to say that a large amount of data, information and even action-oriented knowledge in all forms are available now from various sources, books, internet and from unstructured data hitherto uploaded 2>>

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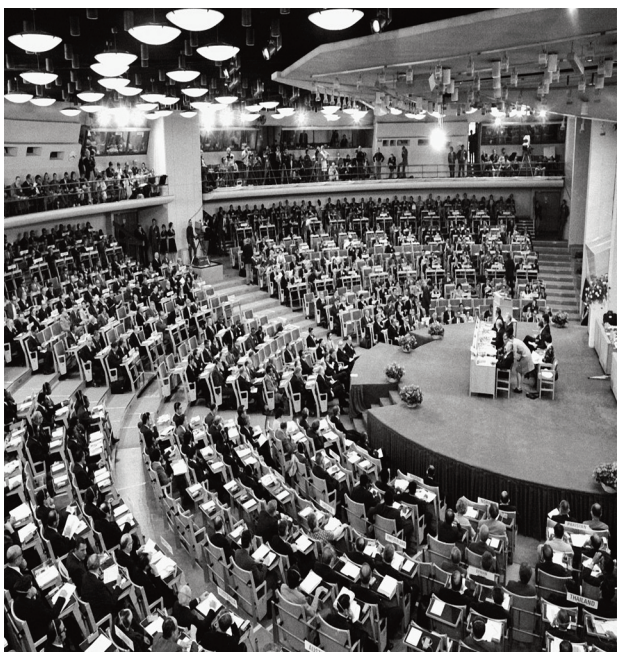
The Stories of the Seventies...

1>> of different states participated. Since then, the 5th of June, has been celebrated to mark the first day of this Conference as World Environment Day. The Stockholm Declaration agreed upon 26 principles on development and the environment. This was the first time at a global convention that countries acknowledged their responsibility to the environment. It also influenced the creation of the United Nations Environment Programme (UNEP) and brought environmental issues to the forefront.



5 June 1972 - United Nations Conference on the Human Environment, Stockholm, Sweden. A general view of the opening meeting of the Conference.(Photo Credit: UN Photo/Yutaka Nagata)

The Convention on the Control of International Trade in Endangered Species of Wild Fauna and Flora was held in Washington, USA in1973. The First World Climate Conference (WCC-1) was held in 1979 in Geneva, Switzerland by the World Meteorological Organisation (WMO), with several other major organisations as "a world conference of experts on climate and mankind". The WCC-1 resulted in the formation of the World Climate Programme, the World Climate Research Programme, the UN Environmental Programme (UNEP) and later the establishment of the Intergovernmental Panel on Climate Change (IPCC) in 1988. In the same year (1979) the Bonn Convention on the Conservation of Migratory Species of Wild Animals was held in Bonn, Germany. These conferences created the base for the future works to save our earth.

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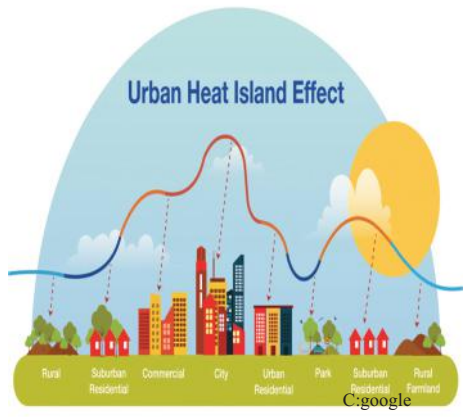
Cooling Down Cities

Debabrata Sur*

Have you ever noticed that on a hot summer afternoon, walking through a tree-filled park feels a lot cooler than walking down a busy city street with tall buildings? This is a result of the urban heat island (UHI) effect, which occurs when a city experiences higher temperature than nearby areas that are less urbanized. This happens because buildings, roads and other infrastructure absorb and re-emit the sun's heat more than natural landscapes such as forests. UHI negatively impact a community's environment and quality of life.

One promising solution to reduce the impact of UHI is painting urban surfaces with cool coatings. These are paints and other covering materials that absorb less heat, reflect more sunlight, and stay cooler compared to more traditional building surfaces and coatings. Significant research (mainly models and numerical solutions) has been done to assess the impact of cool paint coatings on surface and air temperature. Recently a real-world experiment was conducted to quantify the effect of the cooling ca pacity.



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In this study, researchers monitored environmental conditions on two streets in Singapore: one "cooling street" with roads, roofs and buildings coated with a cooling paint, and one "control street" that remain unchanged. Surface temperature, humidity, and radiated heat were measured for two months. They found that the cooling street absorbed 40% less heat and re-emitted 30% less heat than the control street. The cooling street was 200 C cooler than the control street. So, cooling coatings and increasing urban green spaces are promising solution for our environment to be cooler.

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Environmental Issues....

1>>Different legislations, rules with updations from time to time have been in vogue for many years to effect various initiatives and subsequent actions to make almost everything eco-friendly; even in cases where attempting initiatives in spite of other knowledge of becoming more smart, more modern where non-environmental or anti-environmental components play major roles for the development of mankind.

Global wellbeing or local comfort or coupling of the two are being talked about to have better impact on our life. We find other non-scientific measures are galore operating simultaneously in different channels in the midst of different forms of pollution, climate, ecology, heat wave, flood, natural disaster, mitigation, combat etc. now or later. We have from time to time harped on to understand the gravity of situations and urge leaders to take serious notes on more study, practice, research and application on various methods: we have to go to science and applications of science and technology. Environment, as a science and also part of science have been communicated, iterated and reiterated several times on earlier occasions in all media, even in this column. We are of the opinion that this day is not to be observed as a ritual with old mantras. More fund on research and awareness on different scores must be allocated by Government of India and the state governments, as stated in many ways earlier. Scientific institutes, societies, associations and even clubs should be given enough exposure to explore and work with the increased funds to organize not only courses or publications, but also work at the real grass root level at different layers for developmental projects in science and technology, not necessarily restricted to urban areas.

If we really talk about the necessity of science, in general, and environmental science and technology, in particular, we must have continuing discussion programmes at all levels in those places with greater interaction from others, forming both a big physical and virtual network in India. The election results are in the offing. My appeal to all would-be elected and assigned today's nation building makers is to create more resources in this direction and sustenance of the same on a perennial basis. These shouldn't go necessarily by default or by the advice, by most of today's half-fed, historically or otherwise, secretaries, several bureaucrats at different positions, even at the control levels securing highest positions.

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Panelists Unanimous.....

1>>when I talk to the UN people." Prof Gupta alleged that the World Bank was also "operating in different silos" and "that's how ministries function and that's how scientists' function" from an institutional and financial perspective. They were insisting on how to get the water problem addressed "but actually other departments of the World Bank are creating problems as far as water is concerned." Everybody was speaking from "a narrow perspective of their knowledge base." Viewing at the institutional story line, she said the negotiating teams from different countries were negotiating from different perspectives and that creates the problem." It is very difficult for the UN to coordinate because it is dependent on governments with different priorities, she added.

Another speaker, Mr. Christian Garroway, RC India office of the UN, the highest representative of the UN Secretary General in the country, jocularly began by saying that his was the "UN reforms office in India." He felt that "the window of opportunities is actually closed and we have not realized the agenda until Covid 19." The SDGs were an integrated agenda, though, from the very beginning. The "stimulus efforts" that were made after Covid revealed "just how unequal the world still is." The window of multilateral reforms actually began after Covid. He said that the gap in financial resources that the UN had calculated had jumped to 4 trillion dollars in 2021 from 2.5 trillion dollars in 2014 even though hunger and poverty had declined over the last 30 years. Actually, Covid rang "an alarm bell for all of us." The international financial architecture to pull up private resources for the SDGs could be seen from the perspective of "inadequate investments" that led to the increasing "impacts of climate change with more disasters." However, he said, all these efforts to improve the multilateral reforms system have not been enough. In his opinion, the G-20 is a more useful forum for negotiations on multilateral reforms. The dialogue ended with a vote of thanks to Mr. Garroway and other speakers before they invited questions from the chat box.

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Milestone In Publishing And Information System

Sudhendu Mandal*

Writing language : From time immemorial Usage of papyrus : 3000 BC in Egypt Paper used : 105 AD in China Wood carving for printing : 5th century in China Printing using metal (movable type) : Johannes Gutenberg (1454) Type writer concept : Henry Mill (1714) Lithography : Aloys Senefelder (1796) Iron press invented : Beginning of 19th century Calcutta Public Library : 21 March 1836 Commercial Typewriter : Samuel W. Soule, Christopher L. Sholes and Carlose Glidden (1869) Offset Litho : R. Barclay (1875) First Generation PTS : After second World War (Late 1930s) Linotype composing : 1885 Monotype composing : 1887 Half-tone printing press : Frederic Ives (1893) Monotyping printing press : Tolbert Lanston (1896) Computer as a medium for composing: 1955 Bytes : Werner Buchholz

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(1956) Computer photo type setting : 1960 Word processing : 1964 Microprocessors/Microcomputers : Late 1970s Digitization : Michael S. Hart (1971) Scanner : Raymond Kurzweil (1974) DTP with laser printing : Early 1980 Internet : January 1, 1983 is considered the official birthday :(Robert Elliot Kahn and Vinton Cerf) : Internet was first introduced on 6th August 1991 World Wide Web (WWW or Web) :Timothy Berners-Lee (12th March 1989) The First Web Browser released at : CERN near Geneva, Switzerland (1990) : Other Research Institutes in January 1991 : General Public use in August 1991 :On April 30, 1993, CERN announced that the World Wide Web would be free to anyone, with no fees due.: Web began to enter everyday use in 1993-4 Google Books: Google created a project (December 2004) to digitize all the books available in the world to make them accessible online. Universal Information Space: At CERN in March 1989, 33-year-old English Computer Scientist Tim Berners-Lee proposed an idea for a free, 'universal information space' for knowledge sharing. His vision for a World Wide Web would go on to transform our lives. Berners-Lee joined a team at CERN in 1984, working on data acquisition and control. In the 1980's, CERN had become a major European hub for research networking, and joined the Internet in 1989. Scientists would generate information using different types of computers, languages, and formats.

Berners-Lee speaking at the launch of the World Wide Web Foundation. The first research journal from Calcutta, India was Asiatic Researches (1788) for inquiring into the History and Antiquities, the Arts, Sciences and literature of Asia. The First Indian research paper "A description of a common tree found in Bengal "Bel" or "Bilwa" (Aegle marmelos)" written by Baboo Ramcomol Shen (1829) was published in The Transactions of Medical and Physical Society of Calcutta. The second article "A new method for drawing common tangent to two circles" written by Radhanath Sikdar (1831) was also published in Gleanings in Science (Vol. III). The journal of the Asiatic Society, Kolkata started functioning from March 1832. The most influential primer of Bengal is Barnaparichay (in two parts i.e. part I and part II) written by 19th century Indian Social reformer Pandit Iswar Chandra Vidyasagar published on April 1,1855. Asutosh Mookerjee published his first paper entitled "Proof of Euclid 1.25" in the reputed Journal Messenger of Mathematics, Cambridge: 10 (1880- 81); 122-123.

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Survey In Odisha

The Bond Between Tribes And Nature

Saikat Kumar Basu*

Howrah Suparna, an NGO based on Howrah district of West Bengal has recently conducted an extensive ground survey of medicinal plants and herbs across Western Odisha in eastern India. The major focus was on identifying medicinal plants and herbs from the remote forests of

Western Odisha across the Raigad and Kalahandi districts including herbs, shrubs, trees and medicinal mushrooms. The ground level survey was rewarding in the sense many species were recorded and their corresponding conservation status are now being investigated in the lab. The comprehensive survey recorded around 250 plus species across Odisha.

Howrah Suparna, has also initiated a documentary movie under the direction of Sourav Sarkar, who is working towards finishing a documentary on the socio-cultural, socio-economic and ethnographic elements of the local Dongriya Khond, a hunter gatherer primitive tribe from the Niyamgiri hills in Western Odisha. The documentary is highlighting the tribal lifestyle, the role of the tribe in protecting the local forests, wildlife and biodiversity as well sustainable environment-friendly indigenous tribal technology, which is important for their survival and sustenance.

Niyamgiri hills is famous for the buxite mine. About 11 years ago these remote tribal communities united to protest against the establishment of a giant bauxite mine here. The decision of the indigenous Gram Sabha to prevent the opening of the bauxite mine by the then Odisha government was supported by the apex court of the country. This movement was initiated by the tribals only, the Dongriya Khond.

Hence, the Niyamgiri hills is still maintaining it's unique beauty and greenery which is the ultimate source of natural resources. The Secretary of Howrah Suparna, Prof (Dr.) Suparna Sanyal Mukherjee in the documentary has highlighted upon the plight of this forgotten primitive tribe and their local aspirations of socio-economic development from a purely tribal persoective. The documentary captures the life style, culture, economy, helplessness and the aspirations of the local tribal communities of the little known Niyangiri hills of Western Odisha.

Both the producer and Director sincerely believe that this will catch the attention of the audience as well as State and Central Governments

for the improvement of the quality of life for the ethnic communities of the region.

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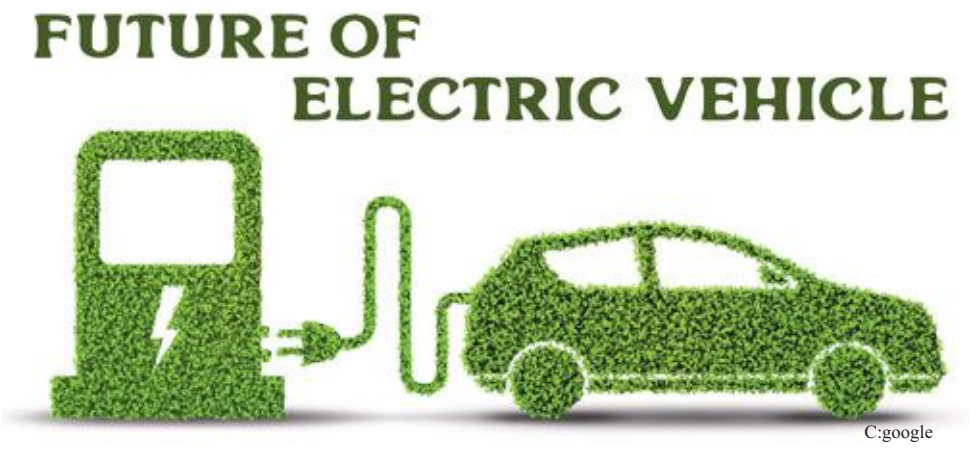
Photo credit: Saikat Kumar Basu

Future Of Electric Vehicles In India

Sayantan Chakraborty*

The electric vehicle (EV) era is undeniably upon us, offering a solution to air pollution with zero tailpipe emissions and a chance to reduce oil imports. India's position as one of the world's largest automobile markets makes its widespread adoption of electric vehicles as a potentially transformative moment both nationally and globally. The future of electric vehicles in India is promising, but it requires focused efforts for the market to flourish.

One major obstacle to EV adoption is the relatively higher upfront cost compared to conventional vehicles, limiting affordability and demand. Additionally, the presence of charging infrastructure remains a significant hindrance in achieving widespread acceptance among users. The need to retrain repair professionals or find newly trained workers for EV technology adds to the anxieties of EV owners and drivers, who worry about breakdowns in remote locations without access to help.



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Range anxiety, the fear of running out of battery charge while driving, poses another substantial challenge to the widespread adoption of electric vehicles. Battery degradation over time can also lead to a decrease in the driving range. At present, the range of available electric vehicle models in India is relatively constrained compared to conventional vehicles. To meet the diverse preferences and requirements of consumers, the market demands a broader selection of options, including affordable EVs, in various segments. Despite these challenges, there are positive signs in the Indian EV landscape. JMK Research reported impressive sales of 455,733 electric vehicle units in FY2022, and the Ministry of Road Transport and Highways revealed that as of July 2022, 1,334,385 electric vehicles were already on Indian roads. Further growth is expected as central and state governments, along with private sector entities, actively promote EV adoption.

By addressing these challenges and capitalizing on existing opportunities, India can create a greener and more sustainable transportation landscape.

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Dr. Chunilal Bose:
A Science Communicator In Oblivion

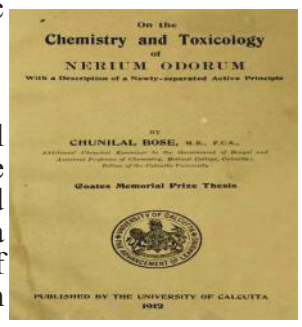
Manas Chakravarty*

Dr. Chunilal Bose, albeit a medical graduate, was an admirable popularizer of science in the late 19th and early 20th centuries. But by now he has almost gone into oblivion to the younger and the older generations alike. It is, therefore, all the more desirable that a short life sketch of this pioneering science communicator be presented to the science lovers, hence this write-up.

Born on March 13, 1861, at Shyambazar in north Calcutta, Chunilal Bose passed the Entrance Examination of the Calcutta University from the Sanskrit Collegiate School in 1877, the First Arts Examination form The General Assembly's Institution (now Scottish Church College) and passed the M.B. examination with Gold Medals and Honours in many subjects from the Calcutta Medical College (CMC) in 1886. He joined the CMC in 1886 and served the Bengal Medical Service in the CMC for more than 34 years in various capacities, finally as the Chief Chemical Examiner and Professor of Chemistry.

Dr. Bose made notable contributions in scientific research on poisons, food adulteration, diabetes, small pox, forensic science, narcotics, etc. For science popularization, he lectured and wrote extensively, both in Bengali and in English, on various topics related to the wellness of his countrymen, especially in rural Bengal. The related articles were published by his son Dr. Jyoti Prakash Bose, a reputed endocrinologist, in a two-volume book (1924, 1925). He was also a highly popular teacher in the CMC, the Campbell Medical School (now N.R.S.), the Carmichael Medical College (now R.G. Kar) and the Indian Association for the Cultivation of Science.

Dr. Chunilal Bose earned many honours in his life. He became a 'Roy Bahadur', a Fellow of the Chemical Society of London, a Fellow of the Calcutta University, 'A Companion of the Imperial Service Order', the Sheriff of Calcutta, 'A Companion of the Order of the Indian Empire', a recipient of the Coates' Memorial Prize of the Calcutta University, earned the sobriquet 'Rasayanachariyia', etc. He was also the Editor of The Calcutta Journal of Medicine for 3 years, wrote a biography on Sir Gurudas Banerjee and was actively associated with the Mohunbagan Athletic Club since its inception.



Chunilal Bose married Tilottama Devi of Howrah in 1882. He had two sons and two daughters. He spent the last days of his life in Ranchi. He breathed his last on August 3, 1930. In his death Bengal lost the gem of a science communicator.

*Secretary
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The Revolutionary Geographer

Mouktik Sengupta*

The Revolutionary Geographer Many geographers and thinkers have shaped the world of geography that it is today. One such geographer was Alexander Von Humboldt. He is widely regarded as the "Father of Modern Geography" as he prepared the ground on which a new beginning could be made for the development of modern geography as a scientific discipline. He was a polymath with his field of study extending in subjects like physics, chemistry, botany, mineralogy, meteorology, and geomorphology.

A distinct feature of Humboldt's research was that he was a traveler and he travelled roughly more than 8000 km and, in his travels, he made minute observations which supported his further research. Humboldt 's travels were covered with extensive research which he did with instruments like barometer, sextant, clinometer with which he used to measure accurately the temperature, atmospheric pressure, elevation above sea level and several other aspects concerning physical geography.

Expeditions of Humboldt were extensive and vast and, in this process, he made observations about the physical and biotic phenomenon while collecting scientific data. He made an expedition to South America and he explored the Orinoco River and made its connection with the Amazon River. He also sailed to Cuba and explored the Andes in Colombia and Peru. Throughout his extensive travels in South America, he collected various specimens of plants and animals. He also made elaborate records of the latitudes, longitudes, and the temperatures of the places that he visited. During his journey to the coast of Ecuador, he kept records of temperature changes in the ocean waters and he was the first one to explore the Peruvian cold current and the phenomenon of the upwelling of the cold water from below. This is the reason that the Peruvian current is often referred to as the Humboldt Current.

He also made an extensive trip to the lands of Siberia travelling up to the borders of Mongolia. He kept a record of the regular temperature and pressure and pointed out that temperature on the same latitude varies inward from the sea coast. He was also a renowned scientific

writer of the 19th century. His most valuable work is Cosmos. The work is composed of five volumes. In Cosmos he gave a detailed description of the universe, man's effort to describe and discover, astronomy and laws of space and gave a detailed description of the geomorphology and animal and plant geography.

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JBNSTS
A Gateway For Science Aspirants

Tanmoy Paul*

The primary focus of JBNSTS has historically been to identify and nurture talented youngsters pursuing careers in science, technology, and medicine. The scholarships are for the truly talented science aspirants. Through a selection process honed over the years, JBNSTS has maintained the highest standards and never compromised on the quality. It is the successful careers of the scholars which bring glory to the entire endeavor. The Senior Scholarship Program is a heritage initiative of JBNSTS which was instituted in 1960 mandated to identify and mentor student scientists to face the 'real' science world. This year, the students who have passed 12th std. board examination (Science) and aspiring to study Basic Science (Hons.)/ BS-MS (Integrated)/ Engineering/ Medicine in any institution in West Bengal are eligible to appear for the Senior Talent Search Test. A senior scholar is entitled to receive Rs. 4,000/- as scholarship grant along with one-time Rs. 5,000/- as book grant for 4/5 years till completion of undergraduate studies in engineering and medicine. A research grant amounting to Rs. 80,000 /- (Rs. 60,000 + Rs. 20,000) per annum is awarded to JBNSTS senior scholars till completion of Master's Degree in Basic Science curriculum vis-à-vis DST INSPIRE norms and regulation, Government of India. To facilitate the academic endeavor and scope of web access in STEM education and research top ten boys and top ten girl scholars respectively in Senior Scholarship category are being presented with licensed software enabled modern laptops.

The Senior Bigyani Kanya Medha Britti is a phenomenal initiative by JBNSTS exclusively for girl students to eliminate barriers towards girls' education in STEM. The Senior Bigyani Kanya Medha Britti awardees will be identified through the Senior Talent Search Test, 2024. The girl students, who have passed 12th std. board examination (Science) in 2024 and aspiring to study Basic Science (Hons.)/ BS-MS (Integrated)/ Engineering/ Medicine in any institution in West Bengal are eligible for the instant program. The recipients of JBNSTS Senior Bigyani Kanya Medha Britti program are entitled to receive monthly scholarship valued Rs. 4,000/- for a total period of 5 years in case of studies in Basic Sciences (Master's Degree) including Integrated curriculum and 4 years pertaining to Engineering and 4.5 years Medicine stream of studies, respectively. In addition to monthly fellowship, the selected JBNSTS Senior Bigyani Kanya Medha Britti Awardees are entitled to receive Rs. 5,000/- as Annual Book Grant which would be remitted to them on a yearly basis.

The Junior Scholarship Program, established in 2015, encompasses students who have passed 10th std. Board examination in 2024 with at least 75 %

marks / equivalent CGPA in aggregate and currently studying Science in Class XI in any institution in West Bengal. The Junior Scholars are awarded with scholarship valued Rs. 1,250/- per month for two years and Rs. 2,500/- is being provided for two subsequent years as Annual Book Grant. In appreciation to the academic excellence of the candidates, fifty (50) candidates are selected as encouragement awardees are rewarded with one-time book grant amounting to Rs. 5,000/-. The Junior Bigyani Kanya Medha Britti program is only for girl students, who have passed 10th std. Board examination in 2024 with at least 75 % marks/equivalent CGPA in aggregate and currently studying Science in Class XI in any institution in West Bengal. The Junior Bigyani Kanya Medha Britti awardees will be identified through the Junior Talent Search Test, 2024. They will be awarded with scholarship valued Rs. 1,250/- per month for two consecutive years till completion of higher secondary studies along with a book grant amounting to Rs. 2,500/- for two subsequent years.

This year the date of JBNSTS Scholarship examinations has been scheduled on August18 across all districts of West Bengal. The timeline of submission of online application (www.jbnsts.ac.in) is June 1 to July 31, 2024. Besides the above scholarship programs, JBNSTS plays an important role in several other programs, namely, Vidyasagar State Science Olympiad, West Bengal District Schools Program, Teachers' Training Program, Talent Enrichment Program, Biotechnology Program for High School Students and Teachers' Sensitization Cum Orientation & Training Program on Inclusive Education for the Children with Special Needs which are aimed to nurture the future human resources of the nation.

*ISNA STUDENT

Environmental Consciousness & the Incorrigibly Unperturbed Leaders of India

It was only a week ago that Delhi hit a terrific 52.3 degree celsius, the highest ever temperature recorded in India. Yet, those in power seem to not be disconcerted at all. Environmental consciousness and preservation is seen as a menial issue in India, and is not in remote proximity of the cultural and political -zeitgeist.

Personally reaching out to family and acquaintances to inform and educate them about the ongoing environmental issues which put our lives in peril can never work for a country as large as India. As with most issues, there must be initiative from top-down. If India aspires to be a first world country, we must bring change in society. It is rather reflective of the poignant state of Indian politics that there was little to no discussion about the rapidly degrading environment during the recently concluded elections. World Environment Day is not confined to June the 5th, it is supposed to be atemporal . But when those in power seem so aloof and incorrigibly unperturbed no matter the magnitude of the situation it is reduced to a PR stunt. I am afraid that when we realise just how pantagruelian the nature of the danger we are in, it will be too little too late as we will find ourselves helpless and defeated in front of the raging inferno.

So, it is my request to those who are sober enough to see the imminent peril, to demand action from those in power.

-Alekhya Chakraborty
Class IX
South Point High School

Child Science

Susamoy Chakraborty
Class xii
School :
kamrabad uchcha vidialaya

Yalam Rai
Class: III
School :
Green Hills School
Ghum, Darjeeling

Adhrit Bera
Class XI
School : South point school

Prince Mondal
Class: 1st (2nd sem)
Institution :
The Regional Institute Of Printing Technology

Soujanya Banerjee
Class: II
School :
Lions Calcutta Greater Vidya Mandir

Adhrit Bera
Class XI
School : South point school

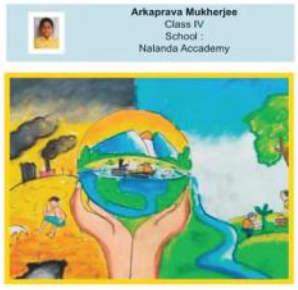
Sonakshi Basu
Class: II
School :
G D Birla Centre For Education

Aaradhya Gupta
Class: VI
Global Indian International School

Soumyendu Mukherjee
Class IX
School :
Bardhaman Municipal Boys High school

Subhranil Das
Class: V
School : Kamrabad Uchcha Vidyalaya

Riddhiman **khamaru**
Class-XI
School - Kamrabad Uchcha Vidyalaya



Arkaprava Mukherjee
Class IV
School :
Nalanda Accademy

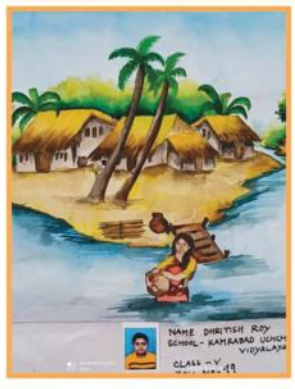
Animesh Gorain
Class VI
School :
B D M International

Aaradhya Gupta
Class -VI
School : Global Indian International

EARTH DAY

Somdeep Ghosh
Class: VIII
School :
Bhavans Gangabux Kanoria Vidyamandir

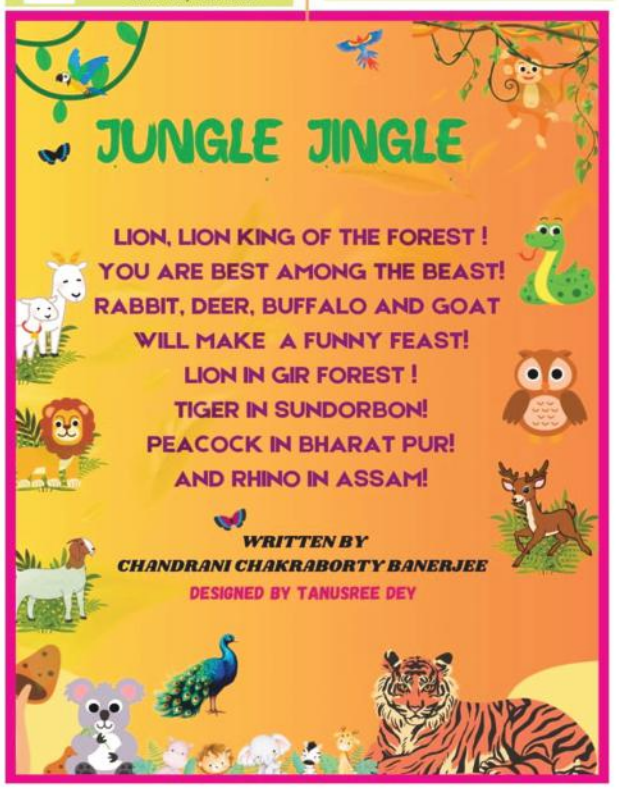
Aradhya Saha
Class: VI
School :
Rashmoni Balika Vidyalaya

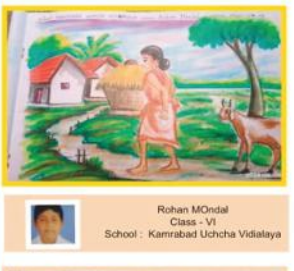


Rup Boliar
Class - V
School : Nalanda Academy
(Jaynagar Mozilpur)

Aahan Debnath
Class - I
School : Vivekananda Mission School, Baruipur

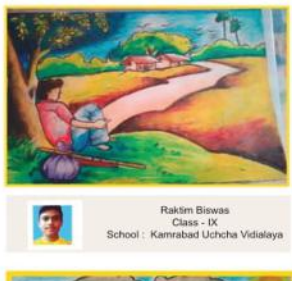
Smit Mondal
Class : VI
School : Holy Cross School





Sudipto Mondal
Class - X
School : Kamrabad Uchcha Vidialaya

Rohan MOndal
Class - VI
School : Kamrabad Uchcha Vidialaya



Raktim Biswas
Class - IX
School : Kamrabad Uchcha Vidialaya

Say No to Stylish Stilettos

Rezwana Parvin*

A fashionable, modern woman's wardrobe is incomplete without a pair of stylish stilettos or simply high heels. For many years high heels are a symbol of aristocracy, elegance and luxury among women. According to the evolutionary hypothesis women having bigger lumbar curvature have an essential impact on men's mate choice preferences. Research shows that wearing six (6) to ten (10) inches high heels can increase women's lumbar curvature which makes her very attractive in men's eyes. Men prefer women having larger lumbar curvature because biologically these women have good reproductive potential to carry men's children. But beneath the style and elegance an unhealthy amount of pressure being exerted by heels on our joints. Stilettos may vary in length from 2.5 cm (1 inch) to 25 cm (10 inches).


C:google

Bones are cramped together in a tight space leading to an altered posture. The high heels can change our bone anatomy. When these are worn for an extended period of time, they can cause long term bone displacements and some complex diseases. The calf muscles and the Achilles tendon becomes shorter. These diseases are --

1. Bunions --These are bony bumps form on the joint of the base of the toe.
2. Haglund's Deformity--It is a bony growth on your heel bone (calcaneus), where your Achilles tendon attaches.
3. Hammer Toe--It is a deformity of the muscles and ligaments of the proximal inter phalangeal joints of 2nd, 3rd, 4th and 5th toe.
4. Planter Fasciitis--It is an inflammation of a thick band of tissues that connects the heel bone to the toe. Here pain might be worse in the morning and with prolonged standing, running and jumping.
5. Metatarsalgia--Metatarsalgia involves pain in the ball of the foot. It stems from the problems with the metatarsal bones of the toe.
6. Morton's Neuroma --A thickening of the tissues around a nerve leading to the toes.
7. Osteoarthritis--It is the most common type of arthritis. It happens when the cartilage that lines your joints is damaged and your bones rub together when you use the joint.
8. Scoliosis--Scoliosis is a sideways curve in your spine or back.

The above conditions are dealt with proper care, medication, even surgery and avoiding high heels. Improve your posture with proper exercise and medication. So, prefer health over style and switch to flat - soled shoes over high heels. Say No to stilettoes. And, walk regularly on barefoot are beneficial for well-being of your feet.

*Former Student, ISNA
parvin2015rezwana@gmail.com

The Magic Of ECG

Amar Nath Bhadra*

We depend on the analysis of a cardiologist for his opinion and recommendation because of the reason that we, the common people, don't have an opportunity to know detailed information about the ECG by way of reading books. But, I think, if one can go through the standard text books written by any renowned author, he or she can easily understand the right interpretation.

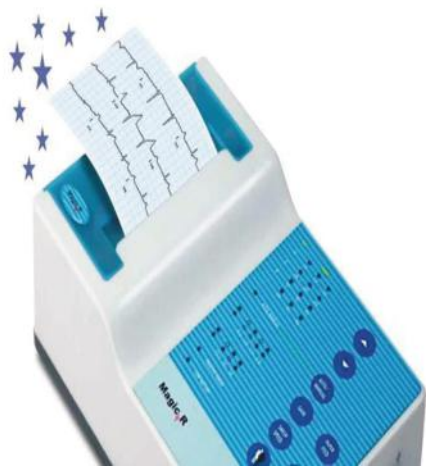
I have come to this conclusion as I have noticed that almost 50 percent of the analysis done by doctors actually don't match out with the recorded analysis of the ECG, as simply, they don't have time to explain the interpretation of the ECG. One needs to spend at least 15 minutes of time to come out with the analysis.

While most of the common people are observed to contain RBBB or LBBB, we can understand that some severe problems have been noted. But it may be pointed out that more than 50 percent common people are having RBBB shown in the ECG by varying waves or signals that form due to potential difference between the two sources. It is interesting to note that information can be received if one goes through the analysis of the ECG meticulously. For that he has to consult any standard text book. It may be noted although it is not so tough like the space technology but no Indian doctor has taken venture in this regard for reasons unknown. Lots of such books are available in Kolkata at even 20 percent discount.

I can speak with confidence that ECG graph serves as one of the most important sources of diagnostic sources of information, except the blockage in coronary artery in the graphical representation. Once you find time to explore the fault consult with the holder of a DM degree who will certainly have a good command on the analysis.

Let me explain what is causing the development of RBBB. In the conduction process passage of electrical energy down the right bundle fails to reach out and disorder of the depolarization phase occurs due to system disruption and that cannot be addressed by any medical treatment. It may be noted that it relates to the conduction problem of the electrical activity. Simple clinical examination by S1 and S2 are in suffice to interpret the results.

So, once you attain the age of 60 years, I will suggest get your lipid profile done as well as Urea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Creatinine level along with fasting and PP sugar and the HbA1 C test. Remember the fact that disorders of kidney don't give signal to the patient until it reaches the severe level.

*Science Communicator
amarnathhow@yahoo.com

World's Smallest Frog That Does Not Lay Eggs in Water

Minakshi De*

This newly found frog is incredibly small with a maximum length of above 3 cm. This tiny Limnonectes species has a special method of laying eggs. The male frogs take care of clutches of eggs attached to leaves. This new frog share its name with another frog species called L. arathooni. Researches have identified the world's smallest frog species in Sulawesi island, Indonesia. While some other frogs in Sulawesi are known to lay eggs on land, this tiny Limnonectes species has a special method. The male frogs take care of clutches of eggs attached to leaves or mossy rocks about 1 to 2m above small stream or puddles. This behaviour is different from other frogs in the area. This finding tells us a lot about the unique and surprising behaviour of these tiny frogs in Sulawesi. Even though there are still many frogs in this area that scientists have not officially named, this discovery will help to understand more about the fascinating world of these small creatures in one of the most biodiversified regions on earth.

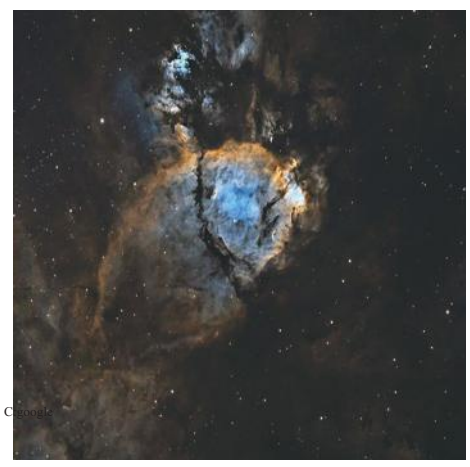
*Former Professor
Surendranath College


C:google

Cosmic Fish Fry

Tuhin Sajjad Sk*

Are you trying to fish in the troubled waters to have a roasted fish platter?Oh no! Let's try fishing in the universe to taste the cosmic "fish fry." It looks better, as is its taste! Yes, it is the "IC 1795" nebula, which looks like the head of a fish and is situated in the northern constellation Cassiopeia, approximately 6,000 light years away from the earth.This nebula is called the Fish Head Nebula or the Northern Bear Nebula. A nebula is a giant cloud of gas and dust in space that is a part of the interstellar medium. Nebulae are made up of ionized, neutral, or molecular hydrogen, cosmic dust, and other ionized gases. So be this nebula. It is located in the space with a declination of +62°02'. This nebula is observed in the cosmos by the Hubble Space Telescope, and we get images through its lenses. However, this colorful nebula features glowing gas and obscuring dust. It radiates high amounts of ultraviolet light, which excites the surrounding gas and causes it to shine at a high brightness. The brighter region of this nebula is named NGC 896.Recently, on behalf of NASA and the European Space Agency, astrophotographers Roberto Colombari and Mauro Narduzzi posted its beautiful picture as expected! This nebula is expecting. Yes, it is a highly star-forming nebula stalled at the double star cluster Perseus, the larger star-forming complex area of our Milky Way galaxy. This Fish Head Nebula has its neighbor, a Heart Nebula IC 1805, another star-forming expectant. In these nebulae, there is a great chance of a cosmic blast "supernova" occurring to end old stars and birth new offspring stars. It's a good news that we're going to have new members in the sky in the future! Till then, don't try too much; just wonder if you can have a cosmic fish fry.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*Science Communicator & Writer

ISNA Observes National Science Day

Malabika Sengupta*

The Indian Science News Association (ISNA) observed the National Science Day on February 29 in the N.R. Sen Auditorium, University of Calcutta, Rajabazar Science College campus. The theme for Science Day, 2024, was "Indigenous Technologies for Vikshit Bharat." Dr. Indranil Sanyal, former Director, National Council of Science Museums was the Guest of Honour. The programme was presided over by Prof. Mrs. Julie Banerji, Vice-President, ISNA.

In his welcome address, Prof Manas Chakrabarty, Hon. Secretary, ISNA spoke about the glorious past, and the motto of establishment since the initial days of ISNA, and also about the publication of Science and Culture, a bi-monthly magazine from the association and the training course on science communication. The association had successfully introduced the recent e- journals, Scientifica Communica in English and Bigyan Kahan in Bengali respectively.

Prof. Chakrabarty, dwelling on the theme of the National Science Day said that Prime Minister Narendra Modi on December11 last year had announced about "Vikshit Bharat @ 2047, Voice of Youth" through a video conference. The theme "Indigenous Technologies for Vikshit Bharat" was later announced by Union Minister Jitendra Singh on February 6. There are four pillars of Vikshit Bharat such as youth, poor, women and farmers. The vision of Vikshit Bharat is the development of India in these four sectors - economic growth, environmental sustainability, social progress and good governance - by 2047, the hundredth year of India's Independence, The next speaker was Dr. Indranil Sanyal. He began by mentioning about the outstanding discovery of Prof. C.V. Raman and his contribution to the Physics Department of Calcutta University, which was described as "a period as golden age." He touched on the initiation of colonial science at the Asiatic Society and on the contributions of Botanical Survey of India, and the Geological Survey of India. National science was also developed at the Calcutta Medical College. He said that the establishment of Indian Association for the Cultivation of Science and the Science College were two landmark stepping stones for the improvement and scope of research and development in the field of science. Individual contribution of stalwarts like Rajendra Lal Mitra, Prof. Jagadish Chandra Bose, Prasanta Chandra Mahalanabis in science popularization and research was mentioned. Sir Ashutosh Mukherjee's contribution and institutional help for scientific research was also referred to.

He said that the total scenario of research in science was changed after World War II. Attack of Germany on Soviet Union, Stalin's strategy on shifting of all scientific research into war weapons, research on radar in UK, Cold War between America and Russia were the causes behind it. Establishment of military industrial complexes in European countries brought a swift change from individualistic approach to institutional collaboration. Research became expensive and collaborative. More emphasis was given on institutions rather than individuals.

According to him, after independence, Nehru's vision was to develop India on a scientific basis for which he took help from renowned scientists. Organizational contribution of scientists like Dr. Homi Bhabha and others were fruitful to fulfil the vision of Nehru. The making of the new nation was totally dependent on the western scientific research and technology. India's age-old indigenous science was not given importance during that time. At present the government is thinking of introducing indigenous technologies. India is progressing with the help of western science and technology but we have to know about the use of science with minimal expenditure.

Dr. Sanyal said that the ancient knowledge on mathematics, surgery, astronomy, as well as on architecture and construction from Mauryan era to Mughal period proved that our country had a rich heritage of great scientific and technological knowledge. He hoped that should indigenous science and technology get a modern touch India could achieve a great height in future as a result of which maximum number of people could benefit. Prof. Julie Bannerji spoke on the importance of observation of National Science Day and on how the day was celebrated through lectures, radio and TV programmes, science movies, quiz competitions in various schools, colleges, technical and scientific institutions in India. Every year the Science Day themes were getting changed. She also explained the significance of the 2024 theme with a reference to the present-day scenario of scientific achievement in India.

Dr. Rupali Gangopadhyay, Associate Professor, Department of Chemistry, Sister Nivedita University, asserted that indigenous knowledge must be used to improve the lives of human beings. Extraction of scientific knowledge from ancient days and making creative use of it was very important for today's India. She said traditional things like natural dye, primitive irrigational methods, various ingredients of fishing, organic farming were still relevant in modern India.

Prize distribution of national-level inter-college and University Poster Competition on 'Indigenous Technology for Vikshit Bharat", held on the occasion at Vijaygarh Jyotish Ray College, soon followed. The1st position was jointly grabbed by Manavi Jaiswal and Megha Chowdhury from the JIS University. Their title of poster was "Bioplastics-panacea in the era of Microplastics. Rudra Sankar Karmakar from the Vijaygarh Jyotish Ray College received the 2nd prize for the poster 'Innovative approaches to arsenic removal: harnessing Biochar and Microbial Insights'. The 3rd prize went to Sk Hazikul Alam and Debjit Goswami of Mankar College for their poster -'Third eye for blind person.'

'Special Appreciation Awards were given to Deblina Jana from Scottish Church College, [Vascular- specific expression of GUS and GFP reporter genes in transgenic potato plants], Rajyashree Basu and Pramita Biswas from Dum Dum Motijheel College [India's newest breakthroughs in Science and Technology, Health, Environment and Agriculture.] and Barasat Government College [Climate change] and Sourima Pal from Techno International, New Town [Building a resilient Bharat with technology made in India].

A special issue of Science and Culture of January, 2024, was published on the occasion and the topics were explained by Prof. Sudhendu Mondol, Editor-in-Chief. The programme concluded with a vote of thanks by Prof. Prabir Kumar Saha, Hon. Treasurer, ISNA.

*Former student, ISNA

Indian Science News Association (ISNA), Kolkata

cordially invite you to the

Celebration of National Science Day 2024
on Thursday, 29th February, 2024 at 4.30 p.m.

Theme: Indigenous Technologies for Viksit Bharat

Venue:
N.R. Sen Auditorium, University of Calcutta, Rashbehari Siksha Prangan,
Rajabazar Campus, 92, Acharya Prafulla Chandra Road, Kolkata - 700 009

Speaker:
Dr. Rupali Gangopadhyay, Associate Professor, Department of Chemistry,
Sister Nivedita University

Guest of Honour:
Dr. Indranil Sanyal, Former Director (Headquarters),
National Council of Science Museums

Chief Guest:
Professor Santa Dutta (De), Vice-Chancellor, University of Calcutta

to be presided over by:
Professor (Mrs.) Julie Banerji
Vice-President, ISNA and former Khaira Professor and Head of the Department of Chemistry,
University of Calcutta

Professor Manas Chakrabarty, Honorary Secretary, ISNA
Dr. Amit Krishna De, Honorary Secretary, ISNA

INDIAN SCIENCE NEWS ASSOCIATION
Phones 033-23502224
Dated: 21/02/2024

Constants Are The Universe

Abhijit Roy*

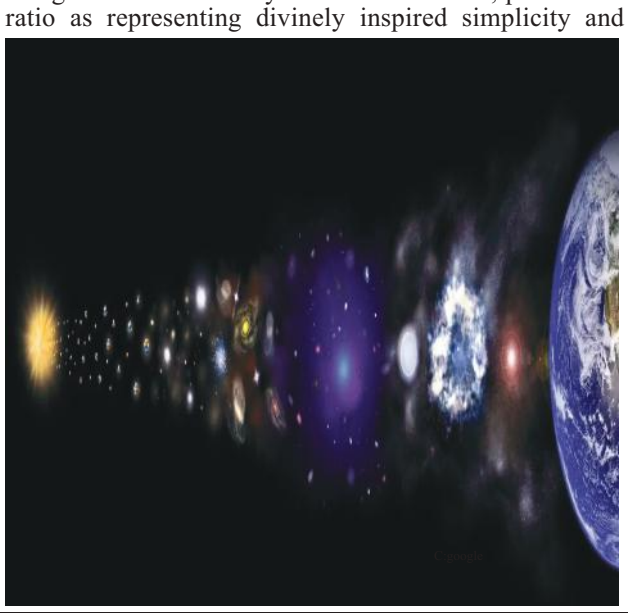
It is said that in this universe change is the only constant. But science says, constants are the universe. Surprising, isn't it?

The world around us is governed by the laws of Physics and Mathematics, while they are dictated by some mystique fundamental constants. They encode the deepest secrets of the Universe, and help express our knowledge about the mysterious Cosmos. At a fundamental level, our Universe is made of particles, forces, interactions, and the fabric of space and time. Spacetime forms the ever-evolving stage on which the play of Cosmos gradually unfolds with the particles being the main characters and the fundamental constants being the director. The study of these constants gives us almost everything we need to understand how the Universe quantitatively evolved or the way we understood it today. They have the same values whether measured on the earth or near the edge of our galaxy or in a distant galaxy cluster. That's why they are CONSTANTS. They are of two types – Mathematical and Physical. Archimedes constant π (Pi) = 3.14159…, is the ratio between the circumference and diameter of a circle. In addition to Mathematics, many formulas in Physics and several physical constants are naturally defined with π or its reciprocal factored out. For example, the ground state wave function of the hydrogen atom is ψ (r)=(1÷√(πa_0^3)).e^(-r/a_0), where a0 is the Bohr radius. Can we imagine the square root of any negative number? Well, Mathematics does and describes as an imaginary number. The imaginary unit, a versatile mathematical constant, defined as i=√-1 which is a solution to the quadratic equation x2 + 1 = 0. There are in fact two complex square roots of -1, namely i and -i, just as there are two complex square roots of every other real number (except zero). Imaginary number is an important mathematical concept for extending the real number system R to the complex number system C. They're inevitable in almost every part of the universe like modelling of periodic motions as well as alternating currents, understanding complex analysis, the study of functions of complex variables, fluid dynamic problems, how earthquakes shake buildings and how electronic devices work on a quantum level.

The knowledge about these constants helps us understand how the universe grows. Talking about this, there is a particular constant dedicated to the growth of any function, the Euler's number, also known as the exponential growth factor, e = 2.71828… Just like π, it is non terminating irrational number. This number is accounted as the base for natural logarithm. Swiss mathematician Jacob Bernoulli introduced this in 1683 and used it to calculate decay or growth of a particular factor over time, such as compound interest. Besides this, mathematics also has Euler's constant (or the Euler-Mascheroni constant) denoted by ɣ = 0.57721… It is defined as the limiting difference between the harmonic series and the natural logarithm.

Some of the mathematical constants affect not only mathematics, physics or astronomy, but have undoubted influence on biologists, artists, musicians, historians, chitects, psychologists. One such constant is the Golden Ratio Phi (ϕ) which is approximately equal to 1.618. It is strongly associated with the "nature's secret code and universal rule", the Fibonacci sequence with the ratio of each umber and the previous number gradually approaching 1.618, the golden ratio.

In 1509, Italian mathematician Luca Pacioli published the book "De divina proportione", which, alongside illustrations by Leonardo da Vinci, praised the ratio as representing divinely inspired simplicity and orderliness. Many enthusiasts have claimed that the number is aesthetically pleasing to the eye and can be observed in nature in abundance like the proportions of nautilus shells and human bodies. Tree leaves and pine cone seeds tend to grow in patterns that approximate the golden ratio so that they do not shade each other. Sunflower spirals and other seeds tend to hew close to phi. This proportion has always been influenced human aesthetics in designing shapes, logos, layouts etc. Three famous examples are the Apple Logo, the Mona Lisa painting and the Taj Mahal with the ratio of the length to the width being approximately 1.6.



Apéry's Constant arises naturally in a number of physical problems, including in the second- and third-order terms of the electron's gyromagnetic ratio using quantum electrodynamics. It is defined as the sum of the reciprocal of the positive cube at the intersection of number theory and special functions…
ζ(3)= ∑_(n=1)^∞▒□1/n^3 = 1+ 1/2^3 □+ 1/3^3 + 1/4^3 +□= 1.2020569031…

Some simple mathematical constants also include square root of a few integers like 2, 3 and 5. Geometrically, the square root of 2 is the length of a diagonal across a square with sides of one unit of length following the Pythagorean theorem. It was probably the first number known to be irrational. The fraction 99/70 ≈ 1.4142857 is sometimes used as a good rational approximation with a reasonably small denominator. √2 is known as Pythagoras's constant.

Theodorus' of Cyrene (Libya) proved that the height of an equilateral triangle with sides of length 2 equals the square root of 3. This is a positive real and irrational number and known as Theodorus' Constant, √3 (square root of 3) = 1.73205...

The square root of 5 is the positive real number that has no rational square root because 2^2 is less than 5 and 3^2 is greater than 5. This number appears in the fractional for the golden ratio. It is denoted in the surd form as √5 = 2.2360…

Our Universe is an intricate, amazing place. Yet our greatest hope is to confine the parameters to a limited numbers. But the more we learn about the Universe, the more parameters we're learning it takes to fully describe it. it's also important to keep searching for a more complete paradigm and new meaning of these constants.

*Proprietor, Qualcast India

Scientifica Communica

Kolkata, June 14, 2024, Vol.3, Issue.2

World Environment Day Themes & Host City

How it all begins...

* **1972**, Stockholm Conference on Human Environment, Stockholm, Sweden
* **1973**, Only One Earth , Geneva, Switzerland
* **1974**, Only one Earth during Expo, Spokane, United States
* **1975**, Human Settlements, Dhaka, Bangladesh
* **1976**, Water: Vital Resource for Life, Ontario, Canada
* **1977**, Ozone Layer Environmental Concern; Lands Loss and Soil Degradation, Sylhet, Bangladesh
* **1978**, Development Without Destruction, Sylhet, Bangladesh
* **1979**, Only One Future for Our Children – Development Without Destruction, Sylhet, Bangladesh
* **1980**, A New Challenge for the New Decade: Development Without Destruction, Sylhet, Bangladesh
* **1981**, Ground Water; Toxic Chemicals in Human Food Chains, Sylhet, Bangladesh
* **1982**, Ten Years After Stockholm (Renewal of Environmental Concerns), Dhaka, Bangladesh
* **1983**, Managing and Disposing Hazardous Waste: Acid Rain and Energy, Sylhet, Bangladesh
* **1984**, Desertification, Rajshahi, Bangladesh
* **1985**, Youth: Population and the Environment, Islamabad, Pakistan
* **1986**, A Tree for Peace, Ontario, Canada
* **1987**, Environment and Shelter: More Than A Roof, Nairobi, Kenya
* **1988**, When People Put the Environment First, Will Last, Bangkok, Thailand
* **1989**, Global Warming; Global Warning, Brussels, Belgium
* **1990**, Children and the Environment, Mexico City, Mexico
* **1991**, Climate Change. Need for Global Partnership, Stockholm, Sweden
* **1992**, Only One Earth, Care and Share, Rio de Janeiro, Brazil
* **1993**, Poverty and the Environment – Breaking the Vicious Circle, Beijing, People's Republic of China
* **1994**, One Earth One Family, London, United Kingdom
* **1995**, We the Peoples: United for the Global Environment, Pretoria, South Africa
* **1996**, Our Earth, Our Habitat, Our Home, Istanbul, Turkey
* **1997**, For Life on Earth, Seoul, Republic of Korea
* **1998**, For Life on Earth – Save Our Seas, Moscow, Russian Federation
* **1999**, Our Earth – Our Future – Just Save It!, Tokyo, Japan
* **2000**, The Environment Millennium – Time to Act, Adelaide, Australia
* **2001**, Connect with the World Wide Web of Life, Torino, Italy and Havana, Cuba
* **2002**, Give Earth a Chance, Shenzhen, People's Republic of China
* **2003**, Water – Two Billion People are Dying for It!, Beirut, Lebanon
* **2004**, Wanted! Seas and Oceans – Dead or Alive?, Barcelona, Spain
* **2005**, Green Cities – Plant for the Planet!, San Francisco, US
* **2006**, Deserts and Desertification – Don't Desert Drylands!, Algiers, Algeria
* **2007**, Melting Ice – a Hot Topic?, London, England
* **2008**, Kick The Habit – Towards A Low Carbon Economy, Wellington, New Zealand
* **2009**, Your Planet Needs You – Unite to Combat Climate Change, Mexico City, Mexico
* **2010**, Many Species. One Planet. One Future, Rangpur, Bangladesh
* **2011**, Forests: Nature at your Service, Delhi, India
* **2012**, Green Economy: Does it include you?, Brasilia, Brazil
* **2013**, Think.Eat.Save. Reduce Your Foodprint, Ulaanbaatar, Mongolia
* **2014**, Raise your voice, not the sea level, Bridgetown, Barbados
* **2015**, Seven Billion Dreams. One Planet. Consume with Care., Rome, Italy
* **2016**, Zero Tolerance for the Illegal Wildlife Trade, Luanda, Angola
* **2017**, Connecting People to Nature – in the city and on the land, from the poles to the equator, Ottawa, Canada
* **2018**, Beat Plastic Pollution, New Delhi, India
* **2019**, Beat Air Pollution, People's Republic of China
* **2020**, Time for Nature, Colombia
* **2021**, Ecosystem Restoration, Pakistan
* **2022**, Only One Earth, Sweden
* **2023**, Solutions to Plastic Pollution, Côte d'Ivoire
* **2024**, Land restoration, Desertification and Drought Resilience, Riyadh, Saudi Arabia

c: Sukalyan Gain

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