

# Newsletter

Vol. 23 Issue 3 MARCH 2022

Price Rs. 10/- Per Copy

**Nehru  
Centre**



Discovery of India Building  
Dr. Annie Besant Road,  
Worli, Mumbai - 400 018.  
Phone : 2496 4676-80  
Fax : 2497 3827

Annual Subscription Rs. 100

## Contents

- **Constituent Assembly Debates:  
Fundamental Rights**
- **James Webb Space Telescope**
- **Folk Dances of India:  
Kerala**
- **Art Gallery: Programmes  
for March 2022**
- **UNESCO World Heritage Sites in India:  
The Architectural Work of  
Le Corbusier, an  
Outstanding Contribution  
to the Modern Movement**
- **Library:  
Meet the Author -  
Geetanjali Kaul**

## Constituent Assembly Debates: Fundamental Rights

The 'Objectives Resolution' was moved by Jawaharlal Nehru on December 13, 1946 and it was debated for six weeks. Over forty members of the Constituent Assembly expressed their views on the Resolution and proposed several amendments, all of which were withdrawn. Finally on January 22, 1947, Nehru replied to all points raised during the debate and the Resolution moved by him was adopted in its original form, all members standing in support.

On January 24, 1947, Pandit Govind Ballabh Pant, a member from U.P., moved a resolution for the appointment of an Advisory Committee on rights of citizens, minorities and tribal areas. He stated that provision has to be made in the Constitution for the determination of fundamental rights, the rights of minorities and for the administration of tribal and backward areas. With this in view, five sub-committees were proposed within the Advisory Committee out of which one was Fundamental Rights Sub-Committee. It was ensured that all inhabitants of this vast country viz. Hindus, Muslims, Sikhs, Christians, Parsis, Anglo Indians, depressed classes and tribals were adequately represented in the Fundamental Rights Sub-Committee. While moving his resolution, Pandit Pant

said: "The question of minorities everywhere looms large in Constitutional discussions. Many a Constitution has foundered on this rock. A satisfactory solution of questions pertaining to minorities will ensure the health, vitality and strength of the free state of India that will come into existence as a result of our discussions here. The question of minorities cannot possibly be overrated. It has been used so far for creating strife, distrust and cleavage between the different sections of the Indian nation. Imperialism thrives on such strife. It is interested in fomenting such tendencies. So far, the minorities have been incited and have been influenced in a manner which has hampered the growth of cohesion and unity, but now it is necessary that a new chapter should start and we should realize our responsibility. Unless the minorities are fully satisfied, we cannot make any progress; we cannot even maintain peace in an undisturbed manner. So, all that can possibly be done should be done." Pandit Pant reminded the House that the Objectives Resolution, which had been passed unanimously, said the same thing about the minorities. He further said that the entire strength of the Committee had been fixed in accordance with the wishes of one and each of every one of all the minorities in the House. It



Website: [www.nehru-centre.org](http://www.nehru-centre.org)



Email: [editor@nehru-centre.org](mailto:editor@nehru-centre.org)

Feedback, comments are welcome.

Published for Nehru Centre  
by **Shri Chandrakant M. Rane**  
Discovery of India Building,  
Dr. A. B. Road, Worli,  
Mumbai - 400 018.

represented their complete agreement. He said, "We have subordinated every other consideration in order to secure contentment and satisfaction. The task of constitution making is a practical one and we should not be lost in the doctrinaire maze; we should look at the problems from a realistic point of view and see that the decisions we take are not only just, but are also regarded as just by those affected thereby. We trust that in this committee every regard will be paid to the wishes of the different minorities and the decisions taken will be fully satisfactory to them."

Pandit Pant made a profound statement at the end of his speech. He said, "There is the unwholesome, and to some extent a degrading habit of thinking always in terms of communities. But it is after all citizens that form communities and the individual as such is essentially the core of all mechanisms and means and devices that are adopted for securing progress, and advancement. It is the welfare and happiness of the individual citizen which is the object of every sound administrator and statesman. So let us remember that it is the citizen that must count. It is the citizen that forms the base as well as the summit of the social pyramid and his importance, his dignity and his sanctity, should always be remembered. If you bear this in mind, I think we shall understand and appreciate the importance of fundamental rights. Because, on the proper appreciation of these rights has depended the progress of humanity. The Atlantic Charter with its Four Freedoms, the Charter of Rights of Men from the



time of Pain and Wells to that of the Declaration made last year represent the noble advance in the history of human race. After all we must remember the goal and objective of all human activity is a World State in which all citizens would possess the cosmopolitan outlook, would be equal in the eye of the law and would have full and ample opportunity for economic, social and political self-fulfilment. We find that in our own country we have to take particular care of the Depressed Classes, the Scheduled Castes and the Backward Classes. We have to atone for our omissions – I won't use the word commissions. We must do all we can to bring them up to the general level and it is a real necessity as much in our interest as in theirs that the gap should be bridged. The strength of the chain is measured by the weakest link of it and so until every link is fully revitalized, we will not have a healthy body politic. I hope this Advisory Committee will place before itself the ideals for which humanity has worked. It will try to forge such sanctions and such rights as will enable this Assembly not only to

frame a constitution but to achieve the independence of India. We are here not only for a formal task but for a real one and that has to be fulfilled. Let us hope that the Advisory Committee will bring concord and amity, goodwill and trust, in place of mutual strife, that occupies the political stage today and that as a result of the deliberations of this Committee we will have prepared the ground for Independent India for which we live, for which we may have died and, for which alone life is worth living."

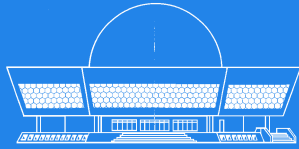
There was a short debate on the Resolution moved by Pandit Govind Ballabh Pant. Two amendments of technical nature were moved, one by K. M. Munshi of Bombay and the other by Gopalaswamy Ayyangar of Madras. Both were accepted by Pandit Pant and the Resolution, as amended, was adopted.

And what a Resolution it was! The philosophy of fundamental human rights could not have been better expounded.

## What Nehru said....

I have a sense of bearing heavy responsibility when the decisions we make can make a difference to large numbers of people. That is always a tremendous responsibility. That responsibility would, indeed, be impossible to bear if it was an individual responsibility, But when one shares it with others, then the burden is shared and spread out and does not become so heavy.

... *Speech at India House, London,  
December 5, 1946*



**NEHRU PLANETARIUM**

## **SKY SHOW : Awesome Universe**

12 noon (Hindi) 1:30 p.m. (Marathi)  
3:00 p.m. (English) 4:30 p.m. (Hindi)

**(MONDAY CLOSED)**

Tickets will be available only at the Booking Counter  
Visitors are expected to strictly follow Covid-19 norms.

## **James Webb Space Telescope**

At 5.50 p.m. (IST) on December 25, 2021, National Aeronautical Space Agency (NASA) launched the James Webb Space Telescope (JWST) on the Ariane 5 rocket from Europe's Spaceport in French Guiana. Exactly 27 minutes and 7 seconds after the launch, the telescope was separated from the rocket. The JWST is the most ambitious and state-of-the-art mission of NASA. It is a joint effort between European Space Agency and the Canadian Space Agency. In the coming years, this telescope is expected to unravel many secrets about the universe.

The JWST is designed to study the universe in a wavelength range from 0.6 microns to 28.3 microns. These are infrared radiations. It may be noted that the normal human body emits infrared radiation of a wavelength of 10 microns. A measured wavelength of fewer than 10 microns is an indicator of higher temperature. Every other object emits infrared radiation, including the earth and the moon.

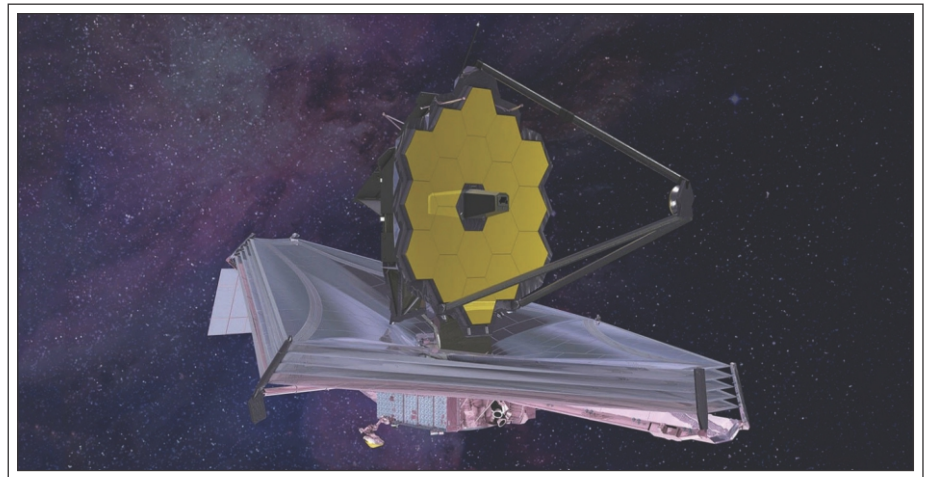
### **Structure of JWST**

The observation of infrared radiation from celestial objects can be severely blocked. Therefore the JWST had to be taken far away from the Earth. The JWST is now orbiting a point called the 2nd Lagrangian\* point which is about 1,500,000 km from the Earth. This point though, is beyond the line joining the Sun and Earth, with the Earth between the

two. It took nearly 43 days for JWST to reach this point.

Like any other large telescope, the JWST is also a reflecting type of telescope. It has a mirror with a diameter of 6.5 metres and a total light-collecting area of 25 square metres. This mirror is not one single piece of glass but is made of 18 hexagonal independent mirrors. The segmented mirror was required

temperature, it is non-magnetic and does not expand or contract with change in temperature below  $-173^{\circ}\text{C}$ . When they are optically ready, the mirrors are coated with a thin layer of gold which is very efficient in reflecting infrared light. The thickness of this layer is 100 nanometers. One nanometer equals 0.000001 millimeter. The total weight of gold that coats the mirror is just about 48 grams. A thin layer of gold



**JWST in space (Artist's impression)**

as presently there is no rocket that can carry a mirror larger than 5 metres in diameter. Each hexagonal mirror is 1.32 metres in diameter and is 5 centimetres thick. The mirrors are made using an element called beryllium and each mirror weighs about 20 kg. The hardness of beryllium is six times that of steel but it is one-third lighter than aluminium of the same size. The other important properties of this material are that it is a good conductor of

is deposited on the top of the gold layer to protect it from a possible hit by micrometeorites.

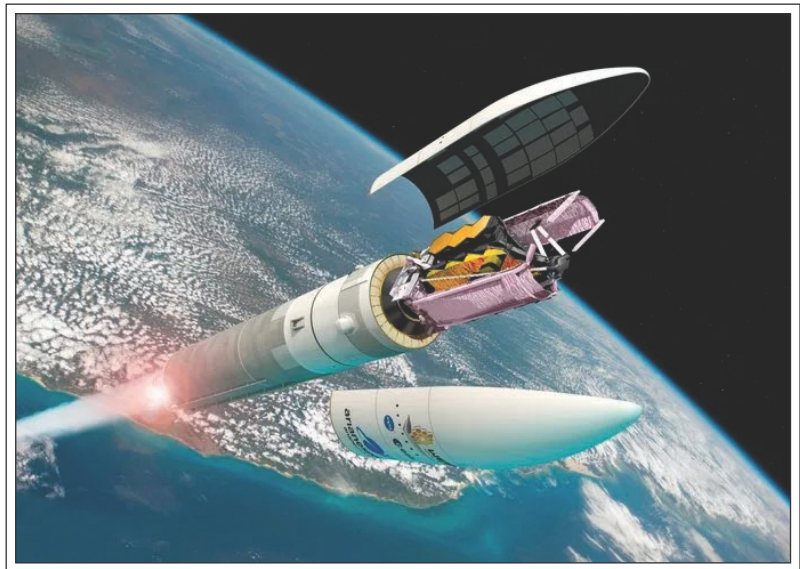
A second mirror reflects the light from the main mirror to the detectors placed behind the main mirror. Here there are four different detectors for different types of observations.

Even at 1,500,000 km from the earth, the radiation from the sun is very strong. To protect the telescope



from this radiation, a five-layer reflecting sunshield is fixed to the spacecraft. This is a kite-shaped shield that is roughly 21.197 m x 14.162 m in size.

Each layer of sunshield is made of a material called kapton and is coated with aluminium. Kapton is a polyimide film that has high heat resistance. It remains stable from -269°C to 400°C. The first two layers are also coated with silicon that efficiently reflects the radiation. The temperature where the shield faces the sun is 54°C. Right behind, the temperature is 13°C. Temperature near the mirrors is -218°C.



JWST separating from Ariane Rocket (Artist's impression)

### Functioning of JWST

From separation from the rocket to the start of observations, the telescope has 344 points which are called 'single points of failure'. It will take six months for engineers and scientists to prepare the telescope before it starts its observations. The success of the telescope will depend on the successful operation of every single point that should function without fail. Unlike the Hubble Space Telescope, if anything goes wrong, there is no way of repairing it.

At the time of writing, the sunshield with a maximum of 258 single points of failure (75 per cent of all the points) has been successfully opened.

The folded mirror is also opened but a lot of time will be spent in aligning the mirrors. First, an image of a star will be taken. Since the mirrors are not expected to be all aligned there will be 18 images but they may not be sharp. Then all the mirrors would be moved one by one so that the images of the star to be observed are sharp. After this, the images would be brought to one point to make one final image.

### Goals of JWST

About 380,000 years after the beginning of the universe, the Big Bang showed that there were hot spots. But at that point, there were no stars or galaxies. The first stars were formed a few hundred million years after the Big Bang. JWST will try to understand exactly when these stars were formed and what they were.

The galaxies we see in the sky have evolved over time. Some big galaxies are formed by the collision of two small galaxies. JWST will try to study how the galaxies evolved.

JWST will try to understand the role that dark matter plays in the formation of galaxies. Based on various observations and theories today, astronomers believed that what we see is only 5% of the total matter. There is about 68% of dark energy and the other 27% is dark matter.

In 1930, Swiss astronomer Fritz Zwicky, who was studying clusters of galaxies noted that their speed in a cluster was so much that they should have been simply ejected out of the cluster. He speculated that there

must be some unseen matter which is holding the galaxies together. Astronomers called this 'dark matter'. Some sixty years later, astronomers discovered that the universe was not only expanding but accelerating.

This telescope will also study how stars and planets are formed. One of the main fields of current space research is to look for the existence of extraterrestrial life. Astronomers are looking for what is termed the 'Goldilocks zone'. This is based on the story of Goldilocks and the Three Bears. The 'Goldilocks zone' is where the temperature is just right for the kind of life that exists on earth. Oxygen and water are prime biomarkers, the presence of which would help astronomers to fine-tune their search for exoplanets, the planets where life in some form might have evolved. Once this telescope becomes fully operational we expect many new exciting discoveries.

*\* Lagrangian points - Named after Italian born French mathematician and astronomer Joseph-Louis Lagrange, these are five points between two massive bodies where gravitational forces of the two bodies balance each other.*

# Folk Dances of India - Kerala

Kerala has a rich variety of folk dances which are performed to the accompaniment of song and drama. The costumes and ornaments are usually very colourful and bright and are typical to the locality to which they belong. There are more than fifty well-known folk dances in Kerala.

Some popular folk dances are listed below:

**Thirayattam Dance:** *Thirayattam* is a fascinating form of ritual dance in Kerala. According to local myths, *Bhagavati*, the mother-goddess and Lord Shiva took various incarnations to defeat the demonic forces. The dancers impersonate the various incarnations of the god and goddess. When a dancer wears the complete make-up and equally colourful costume, he is called by the generic name *kolam*. Each important *kolam* is presented in three stages of development. The childhood phase when presented by *kolam* is called *Vellattam*. The phase of old age is called *Chantattam*. The most important phase is the youth which is known as *Thirayattam*. Before the *Thirayattam* begins, there is a musical prologue. The music of drums and cymbals which forms the prelude is called *Tayambaka*. Next comes the *Kuzhalpoot* music of the reeded pipes after which the *Thirayattam* begins.



Thirayattam Dance

**Teyyam Dance:** *Teyyam* is derived from the word *deivam* meaning God. *Teyyam* is a popular dance form in North Kerala, particularly in Cannanore district. The make-up and costume, which are highly stylized, differ according to the dancer who is called *Teyyam*. There are about 150 *Teyyams* in the traditional repertoire. The face of the dancer is given a mask like make-up with different bright colours. Each wears a towering and colourful headgear. The skirt is usually heavily pleated silk cloth. The dancers also wear many kinds of decorations made of tender fronds of coconut. The *Teyyam* with all these heavy bangles and garlands appear larger-than-life. After donning the costume, the *Teyyam* goes through a ritual with invocatory chanting called *Tottam*. This is to invoke the deity to enter into the body of the dancer. The dancer then executes some dance movements in slow tempo. Gradually the tempo increases and becomes a frenzied dance leading to an almost trance-like state.



Teyyam Dance

**Velakali Dance:** In the Alleppey district of southern Kerala, the Nair community traditionally performs the *Velakali* dance at the time of temple festivals from March to May. Before the dancing begins, a flourish of trumpets and kettle-drums gives the call. Brightly dressed dancers wielding swords and shields depict a fight sequence between the *Pandavas* and *Kauravas* during the course of the dance. *Velakali* is an all-male performance. The performers dress up in traditional clothes and colorful red headgear of the medieval Nair soldiers and wear cloth garlands of beads that cover their bare chests.



Velakali Dance



**JOY OF DIVINE by  
SUBHASH KHARAT**



Aura Art Gallery will showcase paintings depicting Buddhism and other religious subjects in acrylic on canvas will be display.

**Tuesday 1st March 2022 to  
Monday 7th March 2022  
(AC Gallery)**

**HEMALI JOY TAILOR**



Paintings in oil, acrylic on canvas and charcoal on paper will be exhibited.

**Tuesday 1st March 2022 to  
Monday 7th March 2022  
(Circular Gallery)**

**ASHISH KUMAR PATEL**



The artist has completed his art education from Florence, Italy. His paintings are figurative compositions in oil on canvas.

**Tuesday 8th March 2022 to  
Monday 14th March 2022  
(AC Gallery)**

**ONKKON ART STUDIO**

Onkkon Art Studio has been encouraging artists by holding exhibitions all over India. The show is called 'Maitree Utsav'.

**Tuesday 8th March 2022 to  
Monday 14th March 2022  
(Circular Gallery)**

**GILIYAL BHAT**



The abstract paintings on display are compositions in acrylic on canvas.

**Tuesday 15th March 2022 to  
Monday 21st March 2022  
(AC Gallery)**

**KALA SANSKRITI**

This group will showcase different styles and subjects of paintings.

**Tuesday 15th March 2022 to  
Monday 21st March 2022  
(Circular Gallery)**

**SWAPNIL RAGADE  
PRASAD NAGALEKAR**

Both artists specialize in portraits in oils on canvas.

**Tuesday 22nd March 2022 to  
Monday 28th March 2022  
(Circular Gallery)**

**“CHITRA-MAITREYA” by  
Late DHAMMAVIJAY TAMBE  
RAVINDRA LOLE  
MUKESH JANGIR  
SUMAN DABHOLKAR  
MANGESH SALVE**



Painting by Late Dhammavijay Tambe

This group of artists will display a variety of artwork like abstract compositions, sculptures in mix media, metal and fibre, water colours and also paintings on Buddhism depicting the teachings of Lord Buddha.

**Tuesday 29th March 2022 to  
Monday 4th April 2022  
(AC Gallery)**

# UNESCO World Heritage Sites in India

## 30. The Architectural Work of Le Corbusier, an Outstanding Contribution to the Modern Movement

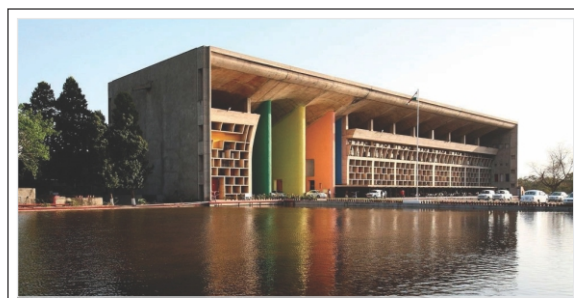
The architectural work of Le Corbusier, an outstanding contribution to the modern movement is a World Heritage Site consisting of a selection of seventeen building projects in several countries by the Franco-Swiss architect Le Corbusier. These sites demonstrate how modern architecture was applied to the needs of society and show the global range of the architect.

**Chandigarh Capitol Complex**, located in Sector-1 of Chandigarh city, is a government compound designed by Le Corbusier. It is spread over an area of 100 acres and is a prime manifestation of Chandigarh's architecture. It comprises three buildings: the Palace of Assembly or Legislative Assembly, Secretariat Building, the High Court with four monuments (Open Hand Monument, Geometric Hill, Tower of Shadows and the Martyrs Monument) and a lake.

During the final ten years of his lifetime, Le Corbusier produced the bulk of his work. The crowning achievements of the period are the monumental buildings at Chandigarh and the monastery at La Tourette near Lyon, France. The sheer scale of the buildings and the significance of their functions - political, legal, and administrative - gave the Chandigarh project exceptional international importance. The administrative buildings of Chandigarh are grouped around a broad central axis with the Parliament and Secretariat to the west and the Courts of Justice to the east. A large hyperbola crowns the upper house of the Parliament building, and a pyramid the lower house; they provide light for the two chambers. The great variety of forms, the equilibrium among the different shapes, the interplay of columns, terraces, ramps and sunscreens, the reflection of the buildings in water and the use of colour confer a monumental and dynamic quality on the whole that has seldom been equalled.



**Chandigarh Capitol Complex**



**Courts of Justice Buildings**

Chandigarh is divided into sectors with the business area in the centre, the industrial zone near the station and the administrative centre in the north. The roads are ranked according to importance from 1 for major through routes to 7 for pedestrian streets. Children do not have to cross any roads between home and school. The open spaces are based on modular proportions, but are landscaped with ditches and hillocks, pools of water and occasional pieces of sculpture.

Inside the buildings, to cope with the strength of the Indian sun and feature the distant view of the Himalayas across the plain, Le Corbusier controlled and filtered light with more than usual care. The Courts of Justice building in Chandigarh has a framework of large columns and arches supporting a sunshade roof. The western façade is partially occupied by the main entrance; this and the sunscreens are reflected in a pool. Open corridors allow fresh air to circulate. Coloured paint emphasizes the upward thrust of the big pylons and enlivens the sunscreens.

Le Corbusier wanted to provide Chandigarh with a focal point in the shape of a large sculpture of the Open Hand, rotating in the wind, built above an open air amphitheatre, with a view towards the Himalayas. This project was only realized after his death.

UNESCO declared the Architectural Work of Le Corbusier collectively as a World Heritage Site in 2016.

*Further reading at Nehru Centre Library:*

- Le Corbusier: Architect of a new age by Jean Jenger; Thames and Hudson Ltd., London, 1996. Call No. 927.2/Cor/Jen. Barcode – 11781



**Open Hand Monument**



**NEHRU CENTRE PUBLICATIONS**

**Books for Sale**

- Nehru Revisited
- India's Defence Preparedness
- Nehru and Indian Constitutionalism
- Internal Security in India
- Constitutionalism and Democracy in South Asia
- मुंबई: काल आणि आज
- Mumbai: Past and Present
- India and Central Asia
- Witness to History
- India-Russia Relations
- India-China Relations
- Remembering Einstein
- Challenges to Democracy in India
- Rule of Law in a Free Society
- Science in India
- Exploring The Universe

Colourful art catalogues for sale

- (1) GOPALRAO DEUSKAR (1995)
- (2) VINAYAKRAO KARMARKAR (1996)
- (3) MITTER BEDI (1997)
- (4) S. L. & G. S. HALDANKAR (1998)
- (5) BALAJI & HARISH TALIM (1999)
- (6) D. G. KULKARNI (DIZI) (2001)
- (7) NARAYAN L. SONAVADEKAR (2003)
- (8) NAGESH B. SABANNAVAR (2004)
- (9) SAMAKALEEN (2005)
- (10) VINAYAK S. MASOJI (2006)
- and many more...

ART FUSION catalogues

2007 / 2008 / 2009 / 2010 / 2011 / 2012 / 2013 / 2014

Set of five assorted gift cards  
Designed by differently abled children

**SANSKRUTI - CD ROM :**  
An aesthetics of Indian culture

**DISCOVERY OF INDIA (VCD)**

Set of ten greeting cards  
Based on Discovery of India Exposition

Available at:  
Book Stall, Ground floor,  
Discovery of India Building,  
Nehru Centre, Worli, Mumbai - 400 018.



**#NCLOnline**

#NCLOnline is a library initiative started during COVID times on popular demand and requests of our countless readers and authors who are our resource persons. During lockdown days, the library got numerous calls asking when the programmes for children would restart, specially the 'Meet-the-Author' sessions. After some brainstorming with our loyal authors, we decided to have one online event every month.

January saw the first such event in which famous children's author and wildlife lover **Katie Bagli** spoke about her new book 'Ishaan's Treasures'. It was extremely heartening to see 105 students, teachers and parents take enthusiastic part in the session. In February, we invited **Vinitha R**, another famous children's author who has written numerous books and has won many awards. She talked about her new book 'Sera Learns to Fly'.

The library is happy to be a part of online sessions till such time as will be required. It is also nice to be back amongst authors talking about their books, although only online.



**Katie Bagli**



**Vinitha R**



**A child's impression of 'Sera Learns to Fly'**

**MEET-THE-AUTHOR – #NCLONLINE**

As the 3rd part of #NCLONLINE, we have invited **Geetanjali Kaul**, famous storyteller and founder of the Secret Passages, a group that tells stories and recreates them in an entertaining manner.



Geetanjali will speak on  
**'Raising Children Who Care'**.



**Date: Monday, 7th March 2022**

**Time: 11.00 a.m. to 12.30 p.m.**

**Online: [www.facebook.com/NehruCentreLibrary](http://www.facebook.com/NehruCentreLibrary)**

**OPEN TO ALL**

<p><i>Editor</i> Arati N. Desai <i>Design &amp; Layout</i> Imtiaz Kalu</p>	<p> : <a href="http://nehru-centre.org/library.html">nehru-centre.org/library.html</a>  : <a href="http://nehrucentrelibrary.blogspot.in">nehrucentrelibrary.blogspot.in</a>  : <a href="http://nehrucent-koha.informindia.co.in">nehrucent-koha.informindia.co.in</a></p>	<p><b>10.00 a.m. to 5.45 p.m.</b> <b>On all working days</b></p>
<p>Printed at <b>M/s PRINTCOM</b> I-Wing, Shop No. 1, Mahalaxmi SRA CHSL., P. B. Marg, Worli, Mumbai - 400 030.</p>	<p> : <a href="http://www.facebook.com/NehruCentreLibrary">www.facebook.com/NehruCentreLibrary</a>  : <a href="http://www.twitter.com/nehrucentlib">www.twitter.com/nehrucentlib</a></p>	