

Newsletter

Vol. 17 Issue 1 JANUARY 2016

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

E-Mail: info@nehru-centre.org
Website: www.nehru-centre.org

Annual Subscription Rs. 100

Events At a Glance...

Art Gallery

**Indian Master's Retrospective
Exhibition of Master Painter late
Shri Deenanath Dalal**

An exhibition to celebrate the
Birth Centenary year of
Shri Deenanath Dalal.

**The exhibition will be open till
Sunday 3rd January 2016
Nehru Centre Art Gallery
Between: 11.00 am & 7.00 pm**

Culture Wing

**27TH MUSHAIRA
(Recitation of Poetry in Urdu)**

**16th January 2016, 8.00 pm
Nehru Centre Auditorium**

Library

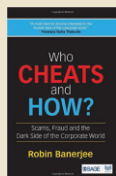
Book Discussion

Panelists:

**Robin Mukherjee, Tamal
Bandopadhyay, Ashok Barat**

**Thursday, 28th January, 2016,
5.00 pm**

**Venue: 'Who Are We' Hall,
First Floor
Discovery of India Exposition**



India's Defence Preparedness

A seminar on India's Defence Preparedness was organized by Nehru Centre recently. The seminar covered all the three wings of defence preparedness namely, Army, Navy and Air Force. The first one was Army Major Shashikant Pitre (Retd.) who spoke on defence preparedness of the Indian Army. His presentation was covered in the monthly Newsletters for June, August and September 2015.

Vice Admiral Vinod Pasricha presented a paper on the state of Indian Navy. Some excerpts from his speech were published in the monthly Newsletter for October, November and December 2015.

Air Marshal (Retd) B.N. Gokhale, PVSM AVSM VM, Former Vice Chief of the Air Staff, gave his presentation on the state of Indian Air Force Challenges and Opportunities.

Following are some excerpts from his presentation:

Introduction

The medium of air and its contiguous medium of space have not only added a third dimension but have, in turn, compressed the dimensions of

distance and time. It is no wonder then that in just over a decade of the first flight in 1903, use of aircraft for carrying out offensive support in the First World War, ushered a Revolution in Military Affairs (RMA). Rapid technological advances have enabled this medium to grow into a potent power, complementing its inherent characteristics of speed and flexibility.

The nascent IAF made decisive contribution in October 1947, when, with Spitfires and Tempests giving fire cover, the Dakotas flew in troops and supplies to Srinagar to save the valley from Pakistani attack. Presently the IAF has embarked on modernization of its ageing inventory; however, budgetary constraints along with slow pace of indigenization are hampering this effort. With aerospace power becoming the most preferred option being exercised at the beginning of most conflicts, this 4th largest air force in the world needs to infuse quality as well as quantity. The urgent need for modernization is necessary not only for the IAF but also for the nation to maintain a

contd. on page 2

decisive deterrence and cutting age potential to exercise this option, if and when needed.

Threat Perception

In a hostile neighbourhood with two adversarial countries armed with nuclear weapons and in many areas collaborating with each other, the challenges are far greater today than ever before. Added to this external threat is the dimension of internal strife and terrorism including the spread of Naxalism. Non-traditional security threats emanating from issues such as space and cyber security, increasing demands on food, water and energy also needs to be factored into the gamut of overall security preparedness. In this complex security scenario, the Armed Forces need to be prepared for conflicts across the spectrum, from Low Intensity (LICO) on one hand to an all out war on both fronts including the undesirable nuclear exchange. This makes equipping and training that much more complex and expensive especially for an equipment intensive service such as the Indian Air Force.

The Indo-Pak scenario has witnessed 3 wars of 1947, 1965 and 1971. In addition there have been 2 major conflicts, Siachin in 1984 and Kargil in 1999. However in keeping with Bhutto's strategy of 'thousand year war' and Gen Zia's doctrine of "bleeding India through thousand cuts", Pakistan has been waging a proxy war with India by supporting acts of terrorism. The policy of sponsoring terrorism suits her best as a prolonged war is not in the interest of Pakistan due to her limited geographical depth, which results in most of the civil or military installations within reach of Indian strike aircraft. However, with the US and International Security Assistance

Force (ISAF) troops slated for withdrawal from Afghanistan by end 2014 and likely resurgence of Taliban, India will need to factor in possible realignment in the Af-Pak scenario.

Considering the Nuclear overhang including Pakistan's recently tested Tactical Nuclear Weapons (TNW) it is felt that her ill-defined nuclear threshold will need to be factored in by India while selecting overall aim of an all out overt war against Pakistan. Ideally for India a full scale overt war will be won by swift and accurate strikes at Pakistan's military and industrial complex by delivering maximum punch at the very start of a conflict. However, due to the low threshold for use of nuclear weapons and the international pressure for de-escalation, in all likelihood the future scenarios will be limited in geography and duration akin to Kargil conflict.

Against China the reverse is true for India in terms of waging a protracted war. Till adequate modernization is achieved India will not be able to sustain a long duration war with China. The statistics indicate that "China's 'comprehensive national power' exceeds India's by a wide margin with China's economy over four times the size of India's in 2012, and over eight times the size when adjusting for purchasing power parity (PPP). China's official military budget of \$119 billion in 2013 was over three times larger than India's \$38 billion defence budget". In addition with the geographical advantage China enjoys, India will need long range weapon systems to hit where it will actually hurt. As such the conflict scenario presently seems to be that of local confrontation like the one in Daulat Beg Oldie (DBO) sector in April 2013, with both China and India avoiding escalation.

There are some other aspects of the Chinese strength which also need serious considerations. The Chinese have invested heavily in Cyber Warfare terming it as the modern day RMA. They have raised special battalions to neutralize the adversary in classical Sun Tzu maxim of "The supreme art of war is to subdue the enemy without fighting". Added to this is her increasing strength in the arena of Space with Anti-Satellite Weapon (ASAT) capability. Her rapid modernization and that too based on indigenous capability, allows the Chinese to exploit weapon systems independent of external pressures. This is one of the many important advantages China enjoys viz-a-viz India.

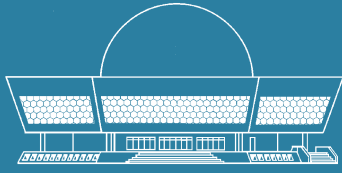
These challenges therefore, need to be weighed against both, current preparedness of the Armed Forces and possible opportunities. This paper attempts to look into various challenges and opportunities from the perspective of Aerospace power and its main practitioner, the Indian Air Force.

to be contd....

What Nehru said...

If we desire peace, we must develop the temper of peace and try to win even those who may be suspicious of us or who think they are against us. We have to try to understand others just as we expect them to understand us. We cannot seek peace in the language of war or of threats.... This is the only civilized approach to problems and leaves no ill will or bitterness behind.

January 12, 1951



NEHRU PLANETARIUM

SKY SHOWS : 'Wonders of the Universe'

Timings

12 noon (Hindi) 1:30 pm Marathi)
3:00 pm (English) 4:30 pm Hindi
(MONDAY CLOSED)

Lecture Series on SUN by Prof. Durgesh Tripathi

The Second Lecture of the Lecture Series on SUN was delivered by Prof. Durgesh Tripathi, Associate Professor, Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune on 'Sun and Aditya', on Saturday, 3 October 2015 at 5 p.m. at Hall of Harmony, Discovery of India Building, Nehru Centre, Worli, Mumbai 400018. We bring you the summary of the talk.



Prof. Durgesh Tripathi

The Sun is a typical star. It can be considered to be a laboratory provided by the nature to study various physical phenomena. It also plays a vital role in shaping the space weather and climate patterns on the Earth. Since it is the closest star, we can observe the Sun in great details using the telescopes on ground as well as from space.

The atmosphere of the Sun, which has basically four layers – namely the photosphere, the chromosphere, the transition region and the corona – presents us a number of mysterious physical phenomena which has great physical significance. For example, the very existence of a million degree hot corona above the cooler atmospheric layers such as photosphere (6000 K) offers a fundamental basic physics problem. Similarly, the Sun produces explosions known as solar flares and coronal mass ejections (CMEs). These are high energetic phenomena and have direct consequence on space weather and geo-space climate. The physics of origin and propagation of these energetic plasmas through the interplanetary space remains to be one of the most important questions to be comprehended.

Due to the high temperature, the upper atmospheric layers of the Sun radiate in UV, EUV and X-ray frequencies. Since these radiations are absorbed by our atmosphere – thankfully – in order to observe the Sun's hotter atmospheric layers we need to go to space. A number of observatories dedicated to solar studies have been launched by various space agencies such as NASA, ESA and JAXA. Currently, there are a number of space observatories dedicated to solar studies at multiple wavelengths such as the Solar Dynamics Observatory (SDO), Hinode, Solar Terrestrial Relations Observatory and Interface Region Imaging Spectrometer (IRIS). In addition, there are a number of ground based observatories to study the Sun at optical, infrared and radio wavelengths.

Observations from space-based and ground based observatories have revealed that the Sun's atmosphere is highly dynamic, showing changes in the complex magnetic structures on the time scales of minutes to hours. Additionally, it has now been proven that various layers of the atmosphere is magnetically coupled via some complex physical processes. Recent developments in observational capabilities combined with theoretical and numerical modelling have significantly improved our knowledge and understanding of various highly dynamic physical processes occurring in the solar atmosphere including their effects on space weather phenomena and geo-space climate. However, our understanding is far behind the full comprehension.

It has also been known that solar irradiance has strong impact on the upper atmosphere of the Earth, thereby directly affecting our climate pattern. In particular the solar irradiance in the near ultraviolet regime plays crucial roles in formation and dissociation of the ozone layer. It has also been known that the total solar irradiance changes only by about 0.1% with solar cycle. However the solar irradiance below 400nm changes by about 60% from solar minimum to solar maximum. Therefore, studying the causes related to the changes of irradiance below 400nm is of utmost importance.

The proposed Solar and Ultraviolet Imaging Telescope (SUIT) payload on board the proposed Aditya-L1 mission of ISRO will provide full disk simultaneous observations of the Sun from photosphere to the lower transition region in the wavelength range 200-400 nm, which has never been observed from space before. This will help us understand the energy transfer and coupling of the various layers of the atmosphere as well as to measure the spatially resolved solar spectral irradiance between 200-400 nm, which are directly relevant for sun-climate relations.

STAR CHART FOR JANUARY 2016

Use the Chart :

Early month : 10 p.m.

Middle month: 9 p.m.

Late month: 8 p.m.

As the year begins we have no planet in the evening sky. Only Mercury can be seen above the western horizon at sunset and that too just for a few days. By end of the first week it would be too close to the Sun.

But as the night progresses close to midnight Jupiter makes its appearance above the eastern horizon. It is nearly overhead at sunrise. On 27th Jan near full moon is just about three degrees from it.

In the predawn sky we have Saturn, Mars and Venus. Angular distance between Venus and Sun is decreasing and later it too will be too close to the Sun to be seen and would appear above the western horizon after sunset.

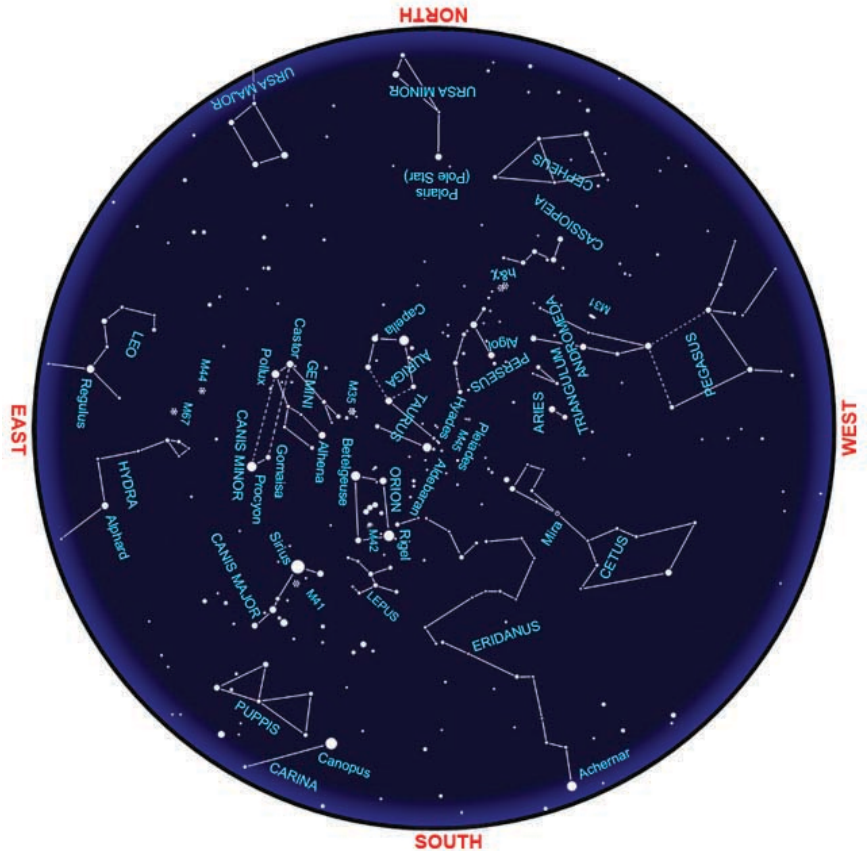
The first half of Jan '16 is full of nice planetary conjunctions and formation with a star Antares (Jyeshtha). As the month begins Saturn, Venus and Antares makes a nice right angle triangle. Three of them are within a circle of 10 deg.

On 4th, about 31% illuminated lunar disk can be seen right below Mars. Then on 7th thin lunar crescent, Venus and Saturn are within 7 deg field of view – all of them in the same field of binoculars.

Venus and Saturn are real close on 9th. They are just about 5 min of arc from each other. If your telescope field of view is half a degree then you must not miss this – both of them can be seen together in the eyepiece.

Venus is waning gibbous about 14 sec of arc. Saturn's equatorial and polar diameter would be 15" and 14" respectively. The angular size of its rings would be: major axis 35" and minor axis: 15.3". Consider this is a big photo-opportunity if your camera field of view is 10 to 15 min of arc. It would be a challenge to get a good picture as Saturn is 0.5 mag where as Venus is -4 mag. which amounts brightness difference of 63x.

On 3rd Jan at 4:18 IST Earth will be at perihelion, its closest point from the Sun. It will be 147 million km from the Sun or 0.983 astronomical unit.



The map shows slightly more sky than that will be visible from a given location. Thus the map can be used elsewhere in India at 21:00 hrs Indian Time. Hold the chart vertically before your eye and turn it until the geographical direction you are facing shows at the bottom of the chart.

Phases of the Moon (timings in IST hh:mm)

Last Quarter (Krishna Paksha Ashtami)	New Moon (Amavasya)	First Quarter (Shukla Paksha Ashtami)	Full Moon (Poornima)
02 Jan., 10:59	10 Jan., 07:00	16 Jan., 23:26	24 Jan., 01:45

(Disclaimer: The Indian names of the stars and planet, given in parenthesis for the purpose to remind the reader that India has a rich astronomical tradition. We do not subscribe to astrology.)

27TH MUSHAIRA (Recitation of Poetry in Urdu)

Nehru Centre is organising its Annual Mushaira for the last twenty six years. This year, the following poets from across the country will participate.

Local Poets

Aarzoo Rajasthani
Abdul Ahad Saaz
Ahmed Manzoor
Hamid Iqbal Siddiqui
Irfan Jafri
Irteza Nishat
Dr. Qasim Imam
Quaiser Khalid
Rajesh Reddy
Rauf Maroof
Shahid Latif
Shamim Abbas
Shamim Tarique
Obaid Azam Azmi

Outstation Poets

Akhtar Jamal (Bhiwandi)
Iqbal Ashhar (Delhi)
Kaleem Samar (Aligarh)
Malka Naseem (Jaipur)
Mateen Amrohavi (Delhi)
Muntakhab Ahmad Noor Saqlaini (Badayun)
Mushtaque Ahmed Mushtaque (Malegaon)
Prof. Shepar Rasool (Delhi)
Swaleh Tabish (Malegaon)
Sardar Asar (Hyderabad)
Zareef Ansari (Bhiwandi)
Dr. A. M. Zutshi Gulzar Dehalvi (Noida)

Dr. A. M. Zutshi Gulzar Dehalvi will preside over the Mushaira and it will be compered by Shamim Tarique.

Saturday, 16th January 2016, 8.00 pm
Nehru Centre Auditorium

Entry: Entrance Cards will be available on Wednesday, 13th January 2016 from 10.30 am until availability of entrance cards from the Booking Counter of the Nehru Centre Auditorium.

Online booking at cultshow@nehru-centre.org

Programmes for January 2016

TAPAS MAITI



Painting by Tapas Maiti

Tapas graduated in 1st class from Govt. College of Art & Craft, Kolkata University. He has many exhibitions and camps to his credit. His paintings are in acrylic with bold applications. He is a recipient of many awards.

Tuesday 5th January to
Monday 11th January 2016
(AC Gallery)

'TOUCH' presents paintings of eminent artists along with the paintings of child artists from 'TOUCH' organization.

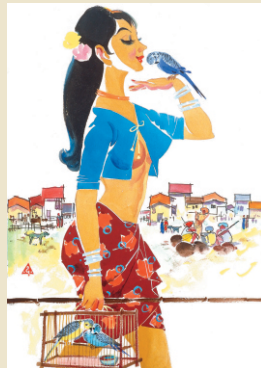
Touch is a voluntary organization to help the underprivileged children to realize their potentials by supporting their education by emphasizing their overall development. The exhibition is of paintings by eminent artists along with the works of winning children from the painting competition held by 'TOUCH'.

Tuesday 5th January to
Monday 11th January 2016
(Circular Gallery)

Indian Master's Retrospective



Shri Deenanath Dalal
B: 1916 D: 1971



Nehru Centre Art Gallery is celebrating the Birth Centenary year of Shri Deenanath Dalal by showcasing an exhibition of his paintings. The exhibition will be open till 3rd January 2016 at the Nehru Centre Art Gallery between 11.00 am & 7.00 pm.

SUDHIR BANGAR



Painting by Sudhir Bangar

Sudhir obtained A.T.D. from Latur; Dip.A.Ed. from Mumbai and G.A.D. in Painting from Abhinav, Pune. He has had many group and solo shows in India and received many awards for his art works. His paintings are in acrylic on canvas.

Tuesday 12th January to
Monday 18th January 2016
(AC Gallery)

RITESH BHOI .
RASHMI BAWANKAR



Painting by Ritesh Bhoi

Ritesh secured G.D.A. with 1st class from Kalavishwa Mahavidyalaya, Sangli; Dip. A.Ed. from J. J. School of Art, Mumbai and B.F.A. with 1st class from D. Y. Patil College.

His paintings are compositions in mix media.

Rashmi obtained B.F.A. from Nagpur and M.F.A. from J. J. School of Art, Mumbai in Print Making. She has had many exhibitions and won awards. She will display her compositions in etching.

**Tuesday 12th January to
Monday 18th January 2016
(Circular Gallery)**

SUBODH PODDAR



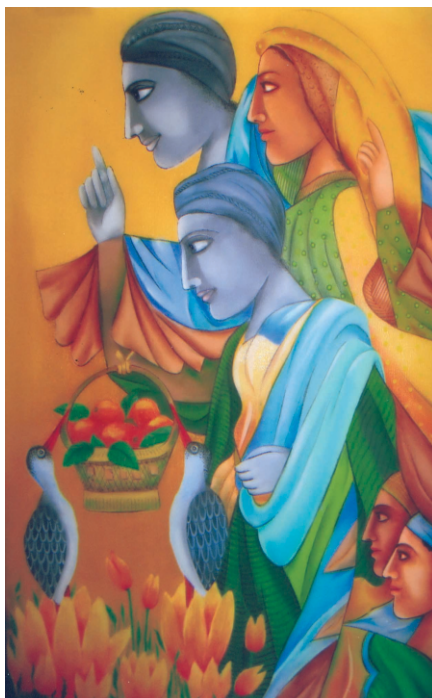
Sculpture in Bronze by Subodh Poddar

Subodh graduated from Sir J. J. Institute of Applied Art, Mumbai. He worked as Creative Art Director in leading Ad Agencies in Mumbai.

He has had many exhibitions of his paintings as well as Bronze sculptures in India and abroad. His bronze sculptures are inspired by Natyashastra and Mohenjodaro.

**Tuesday 19th January to
Monday 25th January 2016
(AC Gallery)**

KALYAN CHAKRABORTY



Painting by Kalyan Chakraborty

Kalyan has taken diploma in Indian painting from Kolkata. He has had many solo and group shows in major galleries. His figurative Indian paintings are in acrylic, pen & ink and mix media.

**Tuesday 19th January to
Monday 25th January 2016
(Circular Gallery)**

MADHAVI JOSHI



Painting by Madhavi Joshi

Madhavi has obtained Diploma in ENTC from Pune. She has many shows in India to her credit. Her paintings are in acrylic on canvas.

**Tuesday 26th January to
Monday 1st February 2016
(Circular Gallery)**

ANANTA MANDAL



Painting by Ananta Mandal

Ananta graduated with 1st class from Govt. College of Art & Craft, Kolkata. He has had many solo and group shows in India and abroad. He is a recipient of innumerable prestigious National and International awards for his water colour paintings. His paintings are in water colours.

**Tuesday 26th January to
Monday 1st February 2016
(AC Gallery)**

STUDY CAMP OF ART STUDENTS

For the last twenty two years Nehru Centre Art Gallery takes Water Colour Study Camp to different places.

This camp will be taken to Chaul village, Nagaon village, Alibag and nearby places. Ten students from Art colleges of Sangli, Pune and Mumbai are selected for this camp. Shri Kishor Nadavdekar will guide the students during this camp.

The camp will be held from 7th to 13th January 2016.

NEHRU CENTRE PUBLICATIONS

MUMBAI PAST & PRESENT * WITNESS TO HISTORY

* REMEMBERING EINSTEIN *

INDIAN ASTRONOMY A Source Book

EXPLORING THE UNIVERSE: The Planetarium Way

SCIENCE IN INDIA: PAST & PRESENT

DISCOVERY OF INDIA Abridged and illustrated

NEHRU REVISITED

RULE OF LAW IN A FREE SOCIETY

CHALLENGES TO DEMOCRACY IN INDIA

Colourful Catalogues for Sale

1. J. B. DIKSHIT / 2. R. K. LAXMAN

3. MARIO DE MIRANDA / 4. G. N. JADHAV

5. ART HERITAGE OF MAHARASHTRA

6. HAREN DAS / 7. PROF. P. A. DHOND

8. COLLECTOR'S PRIDE / 9. K. B. KULKARNI

10. VINAYAK S. MASOJI

11. SAMAKALEEN (Contemporary Five Artists)

VINAYAKRAO WAGH * RAJARAM PANVALKAR

KRISHNAJI KETKAR * DATTAJIRAO DALVI

* GOVIND MALADKAR

12. NAGESH B. SABANNAVAR

13. NARAYAN L. SONAVADEKAR

14. "GURU-SHISHYA"

BABA GAJBAR & GANPATRAO WADANGEKAR

15. D. G. KULKARNI (DIZI)

16. MILLENNIUM SHOW

(A Century of Art from Maharashtra)

17. BALAJI TALIM & HARISH TALIM

18. S. L. HALDANKAR & G. S. HALDANKAR

19. VINAYAKRAO P. KARMARKAR

20. GOPALRAO DEUSKAR

ART FUSION

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

SANSKRUTI

CD ROM : An Aesthetics of Indian Culture

DISCOVERY OF INDIA

VCD Version

Set of ten greeting cards

Based on Discovery of India Exposition

Set of five assorted gift cards

Designed by Handicapped children

Available at:

Discovery of India Exposition, Ground Floor,
NEHRU CENTRE, Worli, Mumbai - 400 018.

As the country celebrates its 67th Republic Day on 26th January 2016, here is a list of some books on constitutionalism in the library

Sr. No.	Title	Author/s
1	Nehru and Indian constitutionalism - A Nehru Centre publication	N. R. Madhava Menon ed.
2	Constitutionalism, human rights and the rule of law: essays in honour of Soli R. Sorabjee	Mool Chand Sharma & Raju Ramchandran
3	The Indian Constitution	Madhav Khosla
4	Select world constitutions	Gokulesh Sharma
5	Citizens and the constitution: citizenship values under the constitution	Subhash C. Kashyap
6	Constitutional perspectives: essays in honour and memory of H. M. Seervai	Venkat Iyer
7	Constitutional development in India: contribution of Justice K. Subba Rao	T. V. Subba Rao
8	Nehruvian constitutional vision	I. P. Massey
9	World constitutions	Vishnoo Bhagwan & Vidya Bhushan
10	विश्व के प्रमुख संविधान	संजय सिंह

Please refer to our online catalogue <http://nehrucen-koha.informationindia.co.in> for more information on the subject.

Book Discussion

Panelists:

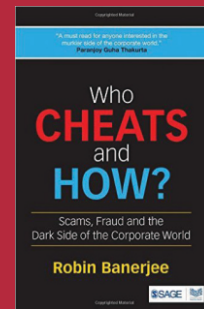
Robin Mukherjee, Tamal Bandopadhyay,
Ashok Barat.

Date and Time:

Thursday, 28th January, 2016, 5.00 pm

Venue: 'Who Are We' Hall, First Floor
Discovery of India Exposition

(Open to all)



NEHRU CENTRE LIBRARY

Nehru Centre : nehru-centre.org/library.html : nehrucenliblibrary.blogspot.in : nehrucen-koha.informindia.co.in : www.facebook.com/NehruCentreLibraryOpen: Monday to Friday,
1st, 3rd & 5th Saturdays
Timing: 10 am to 6 pm2nd & 4th Saturday
Timing: 10 am to 2 pmClosed on Sundays and
public holidaysPublished for Nehru Centre by Srinivas Krishna Kulkarni at Discovery of India Building,
Dr. Annie Besant Road, Worli, Mumbai - 400 018. Tel : 2496 4676 Fax : 2497 3827Printed at M/s Trimurti Enterprises, 229, A/2, Shah & Nahar Industrial Estate,
Lower Parel, Mumbai - 400 013. Phone : 8652666981 / 9820280366Editor : Srinivas Krishna Kulkarni
Design & Layout : Imtiaz Kalu
Photography: Vasant Vedre