



IUCAA
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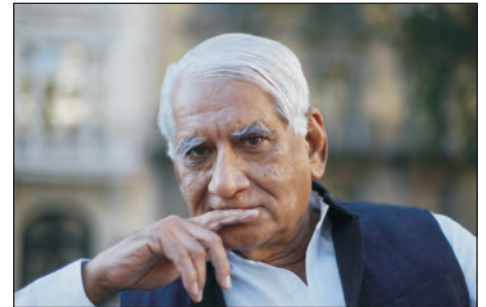
Charles Correa, Architect....

Charles Correa, architect of the IUCAA buildings, passed away in Mumbai on June 16, 2015. He was born on September 1, 1930. I first met him sometime in 1988, when I visited his office with Naresh Dadhich. We had a discussion with him on proposed buildings for an institute on astronomy and astrophysics for the university community which was then being set up, and which was yet to have a name. It was known that the institute would be in Pune, but the site was not identified. The required area of the buildings, the various functions that would be carried out in it and the funds which would be available for the construction were not known. Charles Correa had already been told about the exciting new project by Jayant Narlikar, and he very happily agreed to be the architect of the buildings, in spite of the very scant information that Naresh and I were able to give him. As the contours of the new institute became better defined, so did the design and what emerged finally are the serene buildings, which so many users and visitors find to be a perfect setting for the pursuit of science.

Charles Correa was known for his ability to combine ancient motifs and traditional design with modern concepts and requirements, to produce the striking buildings for which he is known. I learned through my long association with him that he had great curiosity and wonderful sense for the deep concepts of physics, particularly the ideas of space and time and for cosmology. He always looked for expressions of these concepts through art and architecture over the ages, and for connections between ancient and modern

interpretations of the observed world. Several of us worked with Charles Correa to include symbolic interpretations of some important concepts of physics and astronomy in the design of the buildings and gardens. The results can be seen as the Foucault pendulum, the Roche lobes the fractal triangles and other models on the campus. Many of the most attractive design features in the project were first thought of by the architect not in his studio, but while he walked for long period in the grounds as the foundations were dug, the columns rose and the walls were built. It was a wonderful experience to see the preliminary sketches and ideas finally transformed to the structures that we see today.

Charles Correa was one of the leading architects and urban planners of our time. He studied architecture at the University of Michigan at Ann Arbor, where Buckminster Fuller was one of his teachers, and at the Massachusetts Institute of Technology (MIT). He has lectured at Harvard University and the University of Cambridge, where he was a Jawaharlal Nehru Professor. He began his architectural practice in Mumbai in the late 1950s, and went on to design many iconic buildings, beginning with the Gandhi Memorial at Sabarmati Ashram in Ahmedabad. His academic buildings include IUCAA, McGovern Institute for Brain Research at MIT and the Champalimaud Centre for The Unknown in Lisbon, Portugal. He was the Chief Architect for Navi Mumbai in the 1970s and was the Chairman of the National Commission on Urbanization and was known for his work on low cost shelters. Charles Correa received



many national and international awards and honours, including the Padma Vibhushan, the Royal Society of British Architects Gold Medal, the Premium Imperiale from Japan and the Aga Khan Award for Architecture.

A few months ago Charles Correa finished the design of a new building for IUCAA, which will complement the existing office buildings and will include a science and art gallery below the ground and yet sunlit, providing a precious resource to the city of Pune. I was greatly looking forward to working with him on the project. Just days before he died, I spoke to Charles to say that the administrative processes had been completed and we could move forward towards construction.

Charles, and his wife Monica, did much for IUCAA. We will miss him greatly, as an architect, mentor, friend and a great human being.

Ajit Kembhavi

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Vacation Students' Programme



The Vacation Students' Programme (VSP), for students in their penultimate year of M.Sc. (Physics) or engineering degree course was held during May-July 2015. Exceptionally motivated final year B.Sc. and second year engineering students were also invited. This year, nine students participated in this programme. The participants attended about 50 lectures, dealing with a wide variety of topics in Astronomy and Astrophysics, given by the academic members of IUCAA. They also did a project with one of the faculty members of IUCAA, and at the end of the programme, the students presented their work in individual seminar, attended by faculty members and others. R. Srianand was the faculty coordinator of this programme.

Refresher Course in Astronomy and Astrophysics (for College and University Teachers)



The biennial Refresher Course in Astronomy and Astrophysics for college and university teachers was held during May 5 to June 5, 2015 at IUCAA. The course introduced the participants to Astronomy and Astrophysics through a series of lectures delivered by IUCAA faculty members and a few faculty members from other institutions, with topics ranging from basic concepts to cutting edge research. The course included hands-on sessions managed by the students and postdocs of IUCAA, where different computing and astronomical data analysis techniques were demonstrated. Additionally, the IUCAA Sci-Pop team

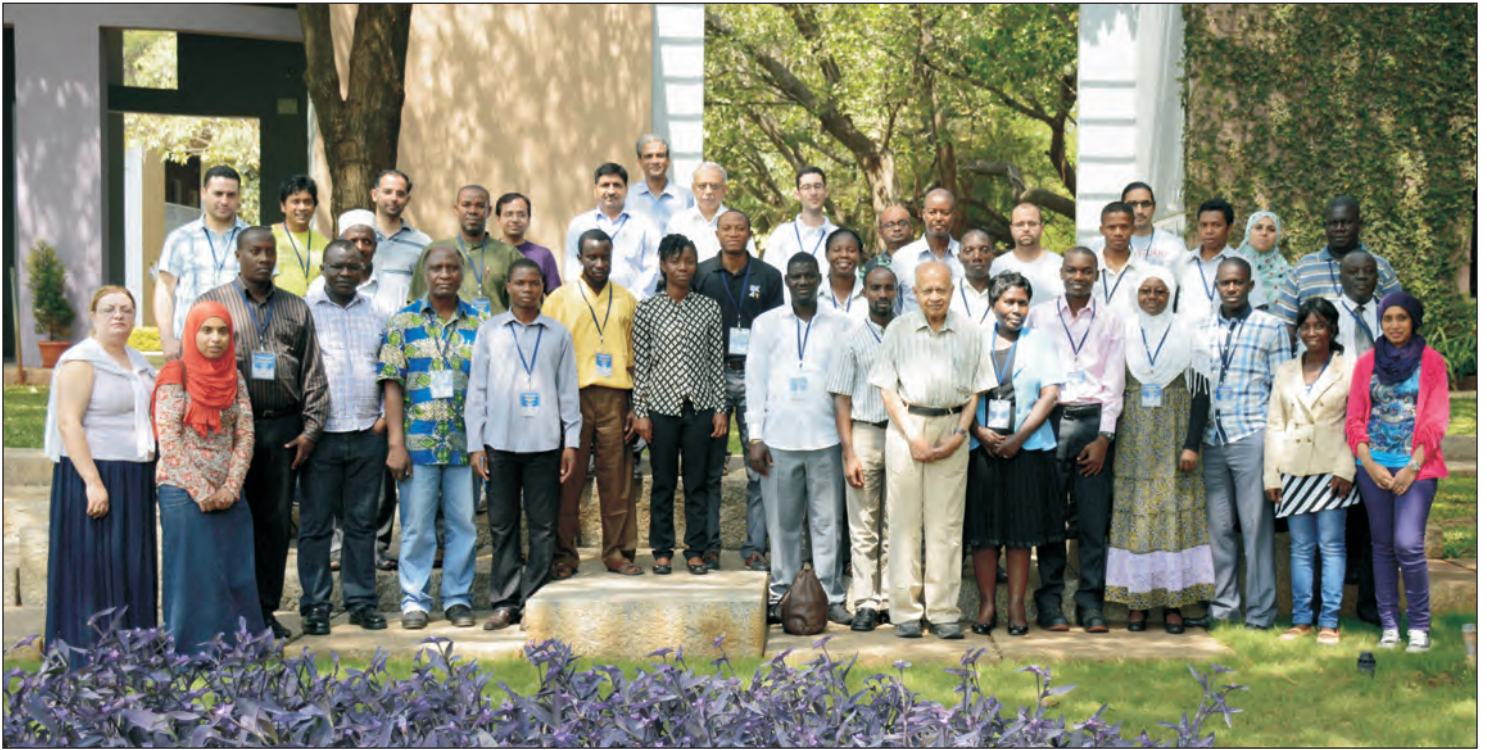
organised a demonstration on science toys and a night-sky watching programme for the participants. The participants were given a tour of the IUCAA Girawali Observatory (IGO). The scientific, technical and administrative staff of IUCAA played a vital role in ensuring that the course ran smoothly. Santosh Khadilkar, in particular, managed a significant part of the organisational work. The faculty coordinator for the refresher course was Aseem Paranjape.

The participants were very enthusiastic throughout the course and took active part

in the lectures and hands-on sessions by engaging in lively discussions with the lecturers. At the end of five weeks, they left IUCAA excited about teaching and pursuing research in Astronomy and Astrophysics in their home institutions.



Training Programme for African Scientists



A training programme in Astronomy for African scientists was sponsored by the Ministry of External Affairs and Department of Science and Technology, Government of India and was hosted by the Inter-University Centre for Astronomy and Astrophysics at Pune during April 29 till May 1, 2015.

Twenty nine participants from 13 countries (Tanzania, Uganda, Mauritius, Gambia, Burundi, Senegal, Madagascar, Ghana, Malawi, Niger, Tunisia, Egypt and Kenya) were selected for the programme and all of them attended. The participants included young teachers as well as senior professors, who have a interest but have not had opportunities to be exposed to front-line Astronomy research. The programme consisted of several introductory lectures covering a wide range of Astrophysics with emphasis on research and the state-of-the-art international facilities available. There

were also 9 hours of hands-on sessions, where the participants were introduced to data analysis techniques, and in particular, were taught how to do basic analysis of Optical and X-ray data.

A one day field trip was organized to the IUCAA 2 metre telescope at Girawali and the Giant Metrewave Radio Telescope (GMRT) of the National Centre for Radio Astrophysics (NCRA).

The participants also visited the IUCAA Science Centre (MVS), where they were informed about the centre's various programmes to popularize science among urban and rural school students as well as the general public.

A cultural visit to the World Heritage Centres, Ajanta and Ellora was also organized over the weekend.

The participants greatly appreciated the programme and gave positive feedback along with suggestions for future programmes.



School Students' Summer Programme and Astronomy Summer Camp



IUCAA's Public Outreach team conducted the yearly School Students' Summer Programme and the Astronomy Summer Camp during April-May 2015. Recommended by their respective schools, one hundred seventy students of classes VIII/IX/X participated in these programmes.

For the School Students' Summer Programme, academics at IUCAA volunteered in guiding batches of 3-6 students, on some focussed scientific projects. This year Anirban Ain, Prasanta Bera, Sabyasachi Chattopadhyay, Debajyoti Sarkar, Shabbir Shaikh, Pallavi Bhat, Niladri Paul and a Kenyan visiting fellow Geoffrey Okeng'o provided their warm guidance and valuable time to the students.

Starting on Mondays, the invited students worked with their guides throughout the week. There were a variety of project topics ranging from the study of basic mechanics using a simple pendulum to an introduction to cosmology. There were also some exciting goal oriented projects like measuring the surface tension of a liquid and analysing some data to find evidence of dark matter in the universe. The IUCAA main library and the facilities of the Muktagan Vidyanan Shodhika, like the library, computer section and workshop were made available to the students. The teams concluded their week with well designed presentations attended by other students and IUCAA academics.

The Astronomy Summer Camp was carried out in a novel four-day format, for 4 different batches this year. Each batch had about 35 students. The students were exposed to

basic astronomy according to the content specially designed by Samir Dhurde and Sonal Thorve. This involved presentations, informative movies and lectures on different topics, viz. the expanse of the Universe, telescopes and their making, etc. The students also participated in interactive sessions with great zeal.

During the camp, experiments were performed under the guidance of the team of outreach interns and Durgesh Tripathi. The students had fun with trigonometry, determining the ratio of the Sun's diameter to its distance from the Earth and making their own astrolabe to measure altitudes in the sky. Tripathi also interacted with the students in answering questions ranging from the internal structure of the Sun to career options in Astronomy.

The camp ended with an evening sky gazing session, where students could utilize their sky map reading skills that they learnt during the week.



Welcome to New Arrivals ...



Sonali Sachdeva joined IUCAA as a Post-doctoral Fellow (PDF) in June 2015. Her general area of interest is the structural evolution of galaxies in the

Universe. She got her Bachelor's degree in Physics (2007), Master's degree in Physics (2009), Bachelor's degree in Education (2010) and Ph.D. in Astrophysics (2015) from the University of Delhi. In her Ph.D. her research is focused on understanding the relative importance of environment and internal asymmetric features in the growth of bulges in disc galaxies. Exploring the reasons for the survival of giant bulgeless galaxies, which challenge our picture of galaxy formation by hierarchical clustering, is now one of her primary interests. To obtain further insight on that, she has been working on galaxy modeling in addition to image analysis.



Sheelu Abraham joined as a Post-doctoral Fellow (PDF) in May 2015. She completed the Ph.D. in April 2015 from St. Thomas College,

Kozhencherry, affiliated to Mahatma Gandhi University, Kottayam, Kerala. She did her Bachelor's degree and Master's degree from the same college. The main focus of her doctoral thesis is on data analysis from large scale sky surveys using machine learning tools. Her current research interests are in galaxy morphology studies and properties of bar structure in galaxies. Also, she is involved in astronomical data analysis using Virtual Observatory tools.



Remya Nair obtained her Bachelor's degree (2007) (Physics Honors) from University of Delhi, Master's degree (2009) and her Ph.D. (2015) from the

Centre for Theoretical Physics, Jamia Millia Islamia, New Delhi. Her research is focused on the late time acceleration of the Universe. The so called Lambda cold dark matter model of the Universe is now supported by multiple cosmological probes, which include distance estimates from supernovae, galaxy clusters, baryon acoustic oscillations, etc. She studied consistency checks of some of these probes, analysing various distance estimates to see whether they are consistent with each other, and also looked for evidence for any violations in some of the basic underlying assumptions in Cosmology. Remya is also interested in the use of non-parametric reconstruction techniques in studying cosmological functions like the Hubble expansion rate, the luminosity distance, etc. and is currently trying to employ these statistical techniques in gravitational wave data analysis.

... Farewell

Kaustubh Deshpande,

Research Scholar, left IUCAA on April 15, 2015 to join the Ph.D. programme at the University of Maryland, College Park, USA.

Public Talk

In the continued celebration of 100 years of the General Theory of Relativity, on June 22, 2015 IUCAA organised a special public talk on *21st Century Cosmology: From Quantum Foam to the Cosmic Web*, by the renowned French scientist François Bouchet. He is from the Institut d'Astrophysique de Paris, France and is a lead scientist engaged in the Planck Surveyor Space Mission of the ESA.

In his talk, he shared the view of the Universe that we come across from studying Physical Cosmology and then went on to elaborate the story of the Planck satellite, from the point of view of an originator. The audience appreciated the years of hard work that goes into unravelling the mysteries of the early universe. In the following interaction, young students were inspired about future missions and challenges to which they could contribute.

IUCAA Preprints

IUCAA preprints released during April - June 2015 can be obtained from the IUCAA library (library@iucaa.ernet.in). The preprints can also be freely downloaded from <http://www.iucaa.ernet.in/~library/main.html>



Seminars

08.04.15 Sebastian Seebars on *Information gains in cosmological parameter estimation*; 08.04.15 Sridharan Rengaswamy on *Adaptive Optics Systems at USO and VLTI*; 09.04.15 Girjesh Gupta on *Observations of small-scale transient events in the solar atmosphere*; 23.04.15 Jayanti Prasad on *Probing primordial power spectrum with CMB anisotropies*; 23.04.15 Mainpal Rajan on *Spectral variability of active galactic nuclei*; 29.04.15 Mayukh Pahari on *Anatomy of microquasars - new techniques and prospects of ASTROSAT*; 30.04.15 Vikram Khaire on *Photon underproduction crisis: Are QSOs sufficient to resolve it?*; 30.04.15 Nilkanth Vagshette on *Heating and cooling mechanism in the group/cluster galaxies*; 06.05.15 Rajeshwari Dutta on *Cold HI 21-cm absorption line survey (Chitals)*; 06.05.15 Pallavi Bhat on *Fluctuation dynamos at finite correlation times and Kazantsev spectrum*; 14.05.15 Nagendra Kumar on *Rapid x-ray variability in NS LMXBS and the thermal comptonization process*; 20.05.15 Tulasi Parasar on *Kinetic physics of collisionless*

turbulent plasmas; 28.05.15 Santanu Das on *First Bayesian measurement of statistical isotropy violation in CMB*; 03.06.15 Anuradha Gupta on *Characterization of noise transients in GW detector data and its implications*; 11.06.15 Bhooshan Gadre on *Efficient methods for detection of gravitational waves (GWs) from compact binary coalescences (CBCs)*; 11.06.15 Sanjay Jhingan on *Gravitational collapse*; 11.06.15 Ritaban Chatterjee on *Active galactic nuclei*; 16.06.15 Subenoy Chakraborty on *Universal thermodynamics: The present status*; 17.06.15 Arunima Banerjee on *Global instability studies of superthin galaxies*; 17.06.15 Sowgat Muzahid on *An HST/COS survey of molecular hydrogen in low-Z DLAs/sub-DLAs*; 24.06.15 Vishal Joshi on *Infrared studies of Nova Scorpii 2014: An outburst in a symbiotic system sans an accompanying blast wave*; 24.06.15 Sabyasachi Chattopadhyay on *Dotifs - progress*; 25.06.15 Anirban Ain on *Fast gravitational wave radiometry using data folding*; 25.06.15 Pradeep Kayshap on *MG II index measurement using interface region imaging spectrograph (IRIS)*.

Neem Seminars

11.06.2015 Sanjay Jhingan on *Gravitational Collapse*; 11.06.2015 Ritaban Chatterjee on *Active Galactic Nuclei*; 16.06.2015 Subenoy Chakraborty on *Universal thermodynamics: The present status*; 16.06.2015 Rajesh Kumble Nayak on *Angular momentum and Carter constant*; 23.06.2015 Sarbari Guha on *Consequences of time-dependent warp factor: The classical view point*; 23.06.2015 Ujjal Debnath on *Dark energy accretion: General Relativistic Prescription*; 30.06.2015 Anirudh Pradhan on *Unifying inflation with late-time acceleration by a bionic system*; 30.06.2015 Amit Pathak on *Interstellar PAHs - emission mechanism*.

Colloquia

22.06.15 François R. Bouchet on *Cosmology with the Planck satellite*.

Visitors (April- June 2015)

Eman Aly Shabaan Abd-El-Motaleb,
Faustine Abiriga,
Poojan Agrawal,
Mohammad Ahmad,
Gazi Ameen Ahmed,
Traore Allassane,
Ahmed Ammar,
Atma Anand,
K.G. Arun,
Naomi Asabre-Frimpong,
Mahasweta Bagchi,
Kalyani Bagri,
Sarmistha Banik,
Monmoyuri Baruah,
Sudhanshu Barway,
Prasad Basu,
Manisha Bhatnagar,
Pinaki Bhattacharya,
Sandip K. Bhattacharya,
K.G. Biju,
Aritra Biswas,
Ritabrata Biswas,
Swarnadeep Biswas,
H.B. Bohidar,
Sonal Borah,
Francois Bouchet,
Anicet Franck Bukuru,

Bhavishya C.P.,
Subenoy Chakraborty,
Avtar Chand,
Sunil Chandra,
Ayan Chatterjee,
Rajdeep Chatterjee,
Ritaban Chatterjee,
Subhamoy Chatterjee,
Suchetana Chatterjee,
Debatri Chattopadhyay,
Raghavendra Chaubey,
Sunil Choudhary,
Rudrani Chowdhury,
Haeun Chung,
Pratik Dabhade,
Ebrima L. Darboe,
Kaushik Chonkar,
Sanskriti Das,
Shankar Prasad Das,
Vinayak Dave,
Aritra De,
Soumi De,
Ujjal Debnath,
Rhucha Deshpande,
Reshma Sada Raut Dessai,
Jishnu Dey,
Mira Dey,

Renu Redhu,
Reetika Dudi,
Sukanta Dutta,
Peter Eggleton,
Savithri Ezhikode,
Selvarani G.,
Sharad Gaonkar,
Gurudatt Gaur,
Michelle George,
Abhirup Ghosh,
Archisman Ghosh,
Avyarthana Ghosh,
Ritesh Ghosh,
Somdutta Ghosh,
Sushant G. Ghosh,
Rupjyoti Gogoi,
Sushmita Gogoi,
Gabriel Katana Gona,
A. Gopakumar,
G.K. Goswami,
Sarbari Guha,
Swapnil Gupta,
Tanul Gupta,
Mubashir Hamid,
Maria Haney,
K.P. Harikrishnan,
M.K. Haris,

P. Varun Immanuel,
K. Indulekha,
Safiqul Islam,
Bala Iyer,
S.N.A. Jaaffrey,
Joe Jacob,
Rinku Jacob,
Dhairiyashil Jagadale,
Sitha K. Jagan,
Rukmini Jagirdar,
Deepak Jain,
Sanjay Jhingan,
Reju Sam John,
Jimmy Johnson,
Nathan Johnson-McDaniel,
Charles Jose,
Umesh C. Joshi,
Kanti Jotania,
Jeena K.,
Sanjeev Kalita,
Rashmi Kapadia,
Abhay Karnataki,
Ravindra Keskar,
Bhaves Khamsera,
Samananda Khangembam,
Pankaj Khuswah,
Ram Kishor,

Ashish Ashok Koli,
Joyce Koranteng-Acquah,
Dawood Kothawala,
Rama Krishna,
Arup Kumar,
Nagendra Kumar,
Suresh Kumar,
Badam Singh Kushvah,
Siddharth Maharana,
Arkopriya Mallick,
Sumit Mamoria,
Soma Mandal,
Bhishek Manek,
R.S. Mani,
Bari Maqbool,
Sujay Vivek Mate,
Titus Mathew,
Sanya Matta,
Mohamed Abeid Mbarouk,
Rajib Mia,
Bivudutta Mishra,
Chandra Kant Mishra,
Vivek Mishra,
P.S. Mithun,
Kaustav Mitra,
Nishant Mittal,
Ghazali Mohammed,
Rekshesh Mohan,
Aditya Sow Mondal,
Soumen Mondal,
Sushanta K. Mondal,
Mona Mostafa,
Arunava Mukherjee,
Sajal Mukherjee,
Michael Musoke,
Pramod G. Musrif,
Florence Mutonyi-D'ujanga,
Sowgat Muzahid,
Patrick Joseph Cardinal
Mzaza,

Deepak Nair,
K. Rajagopalan Nair,
Navya Nanananda,
Rajesh Kumble Nayak,
Santatra Niaina-Lalatin-
Florent,
Benard Nsamba,
Jonathan Johnson Nyago,
Geoffrey Okeng'o,
Nadeem Oozeer,
Richard Geoffrey Oriada,
Archana Pai,
S.K. Pandey,
Vihan Pandey,
P.N. Pandita,
Dishant Pandya,
Ajith Parameswaran,
Abhishek Parida,
Daksha Patel,
Amit Pathak,
Shankar Dayal Pathak,
Jayanta Narayan Pati,
K.D. Patil,
M.K. Patil,
Vasudeo Rajaram Patil,
B.C. Paul,
Dipankar Paul,
Pramod Pawar,
Ninan Sajeeth Philip,
Khun Sang Phukon,
Nzohabonayo Pierre,
Pandurang Pole,
Anirudh Pradhan,
Parthapratim Pradhan,
Aswathy Mary Prince,
Emmanuel Proven-Adzri,
Manoj Puravankara,
Anil Narayan Raghav,
C. Meenakshi Rajagopal,
Rajesh S.R.,

Ravo Ramanantsoa,
Hari Rams,
Anushree Ranka,
A.R. Rao,
Shantanu Rastogi,
B.S. Ratanpal,
Katherine Rawlins,
Saibal Ray,
B. Eswar Reddy,
Sridharan Rengaswamy,
Amit Reza,
Tasneem Rossenkhan,
Soumen Roy,
Ispita Saha,
Sanjay Kumar Sahay,
Sunder B. Sahayanathan,
Mohd. Saleem,
Said Seif Salim,
Dinakar M. Salunke,
Anuradha Samajdar,
Prasant Kumar Samantray,
Shishir Sankhyayan,
Pavan Saran,
Mohan Pandurang Sarwade,
Sanjay Sarwe,
Sebastian Seehars,
Mavis Seidu,
Banashree Sen,
Somasri Sen,
Anand Sengupta,
T.R. Seshadri,
Kiran Shanker,
Aishawnniya Sharma,
Ashu Sharma,
Atul Sharma,
Joginder Sharma,
Rahul Sharma,
Ranjan Sharma,
Sanjeev Kumar Sharma,
Vishnu R.K. Sharma,

Gargi Shaw,
Shivprasad Shinde,
Karunya Shirali,
H.P. Singh,
Heisnam Shanjit Singh,
K. Newton Singh,
K. Yugindro Singh,
Rashmi Singh,
Suprit Singh,
Akshat Singhal,
Mark Sirotta,
Sarrah Snoussi,
P. Sreekumar,
Sreenikethh,
Avinash Surendran,
Arun Thampan,
V.O. Thomas,
Mufaddal Travadi,
S.K. Tripathy,
Santanu Tripathy,
Rashmi Uniyal,
C.S. Unnikrishnan,
Anisul Ain Usmani,
Gayathri V.,
Santosh Vadawale,
D.B. Vaidya,
Naveen Vasishta,
Gururaj Wagle,
Naveel Wani,
Anis Yahyaoui,
Gning Youssou,
Nouhou Bako Zeinabou,
Ayanda Romanis
Zungu,
Bupinder Zutshi.

Visitors (Expected)

July 2015

Anu, Central Univ. of Himachal Pradesh;
Avinash Chaturvedi, University of
Lucknow; **Bhag Chand Chauhan**, Central
University of Himachal Pradesh; **Reetika
Dudi**, IIT-BHU, Varanasi; **Sunandan
Gangopadhyay**, West Bengal State
University; **Sushmita Gogoi**, Cotton
College State University, Assam; **Peter
Hersted**, University College of Zealand,
Denmark; **Pankaj Jain**, IIT, Kanpur; **Shashi
Kanbur**, State Univ. of New York; **Oswego**,
USA; **Rahul Nigam**, BITS-Pilani,
Hyderabad; **Khun Sang Phukon**, IIT,
Kanpur; **Anirban Saha**, West Bengal State

University, Kolkata; **Zahir Ahmad Shah**,
University of Kashmir, Srinagar; **Gazal
Sharma**, Central Univ. of Himachal
Pradesh; **Paniveni Udayashankar**, NIE
Institute of Technology, Mysore; **Naveel
Wani**, University of Kashmir, Srinagar.

August 2015

Ahmadjon Abdujabbarov, Uzbekistan
Academy of Sciences; **Dharam V.
Ahluwalia**, University of Canterbury, New
Zealand; **B. Ahmedov**, Uzbekistan
Academy of Sciences; **Siddharth Mohite**,
IISER, Pune; **Sardor Nuraliev**, Institute of
Nuclear Physics, Uzbekistan; **Javlon
Rayimbaev**, UlughBeg Astronomical

Institute, Tashkent; **Aishawnniya Sharma**,
Tezpur University, Assam; **Aishawnniya
Sharma**, Tezpur University, Assam.

September 2015

Nigel Bishop, Rhodes Univ., South Africa;
Sayantan Choudhury, TIFR, Mumbai;
Tanvir Hussain, Tezpur University, Assam;
Cheng Yang Lee, University of Campinas,
Brazil.

Long Term Visitor

Yogesh Wadadekar, NCRA, Pune.



▲ Red-vented Bulbul (*Pycnonotus cafer*); Marathi : Lalbudya Bulbul
Photo Courtesy : Bhalchandra Pujari



▲ Bulbul nest on tube light
(Photo : Chaitanya Rajarshi)

Hello friends,

It's time to introduce ourselves to another bird of the passerine family. This bird was a cage pet in the 19th century and was also used in bird fights. This aggressive bird is included in the world's worst 100 invasive alien species in the areas where it has been introduced.

The **red-vented Bulbul** is a medium size bird (about 20 cm long) and can be easily identified by its short crest. As the name suggests, it has a red vent. Its body is dark brown with a scaly pattern. The head is black, the rump is white and the tail is black with a white tip. Both the sexes are alike but the juveniles are duller.

This *least concerned* bird is spread over entire Indian subcontinent and also in the other parts of the world.

Many birds have lost their habitats to humans. Some species like Pigeons and Bulbuls have adapted to changing surroundings. In wild environment Bulbuls build their nests on shrubs, hedges, stunted date-palms or on slender branches of trees. Now, we see the nests inside our house, on tube lights, dowel bars of staircase, ceiling hooks and many more locations. The nest is made of twigs, roots, cobwebs and sometimes metal wires.

Usually 3-4 eggs, which are pale pinkish with dark red spots, are laid, and hatch after two weeks.

Bulbuls breed throughout the year but mainly from June to September in India. They mainly feed on flower nectar, fruits and occasionally on insects.

Bulbuls are commonly seen on the IUCAA campus. They are vocal birds with distinctive calls.

Wish You A Very
Happy Birding

Khagol (the Celestial Sphere)
is the quarterly bulletin of



We welcome your responses at the following address:

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