

ASTRO PROJECT

Documentary
Series on
Astronomy
Research in
India

U
IAU

Office of Astronomy for Development

ENSCITEC
PRODUCTION

Astroproject is an initiative to develop a documentary series on Astronomy, Astrophysics and Space Science related research in India. The project received sanction from the International Astronomical Union Office of Astronomy for Development (OAD) to be implemented for the year 2014. The OAD received a total of 230 proposals. All proposals were evaluated by the respective Task Force taking into consideration the selection criteria as announced in the call for proposals. Each Task Force then submitted their recommendations to the IAU Extended Development Oversight Committee (EDOC) which is made up of the OAD Steering Committee, IAU President and IAU General Secretary. Only 10% (23 projects) of all projects submitted worldwide were funded to be implemented in 2014.

The project concerns with documenting the Astronomy, Astrophysics and Space Science Research Institutions along with their facilities across the Country, and in this regard, we plan to document your premier Research Institute and its facilities. On completion we shall extensively popularize these films in Schools, Colleges, Universities, Conferences, scientific gatherings and also broadcast on Local/ National Media along with online uploads. The produced films shall be in public domain and shall be distributed freely.

We look forward to your Endorsement, Participation and Support for the successful completion of this endeavour

Thanking you



Rakesh Rao



Sonam Arora Rao



Abstract

Astronomy has developed from bare naked eye observations in the past to the use of sophisticated instruments, like large telescopes, better imaging devices, satellites and space missions in the recent times. Research in the field of Astronomy requires large number of dedicated individuals to incorporate ideas and take the quest of understanding the universe to the next level. In the present scenario, fewer students are motivated to take up astronomy as a research option, the main reason being lack of awareness of the challenges offered in this field. The documentary series on Astronomy Research in India, aims to record and document the various aspects of research and development in the field of Astronomy, Astrophysics and Space Science in India and also highlight the facilities in terms of research laboratories, observatories and state of the art instrumentation. It intends to highlight the contribution of Astronomers, Astrophysicists and Space scientists in India who have contributed immensely towards a new outlook of the Universe today. Through this project, we propose to create awareness by educating the masses, specifically the student community, about the research work and facilities provided by these premier Research institutes in the country.

Objective

The discoveries and research carried out by our scientists in institutions like Indian Institute of Astrophysics (IIAP), Raman Research Institute (RRI), Inter University Centre for Astronomy & Astrophysics (IUCAA), Physical Research Laboratory (PRL), Aryabhata Research Institute of Observational Sciences (ARIES), Tata Institute of Fundamental Research (TIFR), Indian Space Research Organization (ISRO) and others are guiding us in unraveling the mysteries of the Universe. This groundbreaking work specifically needs to be highlighted among the students across the institutions in India and also emphasize the importance of research in the field of astronomy. The major objectives of the Documentary Series on Astronomy Research in India are :

- ✦ Increase awareness about Astronomy, Astrophysics and Space Science.
- ✦ Showcase research work being carried out by Scientist in India in the field of Astronomy.
- ✦ Create awareness about Premier Research Institutes and facilities across the country.
- ✦ Promote Astronomy education to the masses through all means of communication (television, website, exhibitions, online video sharing platforms etc).
- ✦ To Highlight some of the celestial events and thus, eradicating the superstitions associated with them (eclipses, planetary alignments, comet visits etc).



Project Implementation



The proposed project intends to develop a set of Four documentary series (running time: 30minutes each) with the prime focus on the following points.

- Research Institutes and facilities like Observatories, Laboratories, Instrumentation workshops etc
- Astronomers, Astrophysicists & Space scientist in India
- Ancient Indian Astronomy
- Modern day Astronomy, Astrophysics, Space Science
- Future of Indian Astronomy & Space Sciences.
- Landscape Astrophotography

The work plan shall be executed in four phases: Pre production, Production, Post production and Popularization.

Pre Production

The Pre Production Phase Shall incorporate extensive research and planning. All the correspondence with the researchers, Astronomers and Astrophysicists of the participating institutes shall be done in order to obtain the dates of availability, permission for the shoot. A major emphasis would be laid upon the preparation for the shoots at these institutions and composition of a story board.

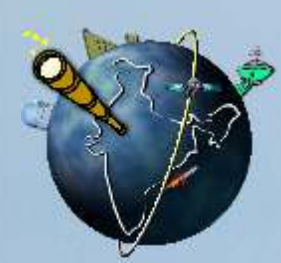
Production

The production phase will include in-situ filming of the entire project. This will comprise of travelling to all the proposed participating institutions and documenting their research facilities, Instrumentations and Observatories. Interviews with the eminent scientists and Astronomers shall be carried out. Also, landscape astrophotography and time-lapse will be extensively included during the visits to these observatories. The Production would be done in High definition medium.

Post Production

The raw footages and photographs captured during the entire production phase will be analyzed and edited. Final scripting, graphics and animation, voice over, background score and music will be a part of the post production phase. Preparation of the promotional materials like posters, exhibitions, postcards etc will be done. A website will also be created, that would house all the documentary series along with the photographs. The website shall also be used to give information about all the astronomy research Institutes in India and their facilities under one common domain.

Popularization



The final documentary series shall be screened in Schools, Colleges and Universities across India and would be done with the help of several stake holders like Research Institutions, Educational Institutes, Universities, Government bodies, Non Profit Organizations and Amateur Astronomy clubs. The documentary series shall also be dubbed in national language “Hindi” so as to reach rural centers for screening. Online social networking medium shall play a major role in spreading awareness about this project. The documentary series shall be made available for free download. Also broadcasting through television programs is highly envisaged.

*All the above phase shall be done in consultation with the Scientists from the participating Institutions.



Project Timeline

JANUARY 2014

Pre Production

FEBRUARY 2014

Project Planning and
Material Development

MARCH 2014

Website Development &
Proposal Submission for Endorsement

APRIL 2014

Documentation of Institutions and
Facilities at IIAP, RRI, ISRO, NCRA,
Bangalore Planetarium and others.

MAY 2014

Documentation of Institutions
and Facilities at IUCAA, GMRT,
TIFR, PRL, USO and Gurushikhar

JUNE 2014

Documentation of Institutions and
Facilities at NPL, ARIES, Delhi University,
IAO, HAGAR, MACE

JULY TO OCTOBER 2014

Analysis of Raw footage
& Post Production

NOVEMBER TO DECEMBER 2014

Extensive Popularisation, Events,
Exhibitions, Television Broadcast,
Public Screening Etc.



Abbreviations: IIAP - Indian Institute of Astrophysics, RRI- Raman Research Institute, ISRO- Indian Space Research Organisation, IUCAA- Inter University Center for Astronomy & Astrophysics, NCRA- National Center for Radio Astronomy, GMRT- Giant Meterwave Radio Telescope, ARIES- Aryabhata Research Institute of Observational Sciences, IAO- Indian Astronomical Observatory, VBO- Vainu Bappu Observatory, HAGAR- High Energy Gamma Ray Telescope, MACE- Major Atmospheric Cerenkov Telescope, TIFR- Tata Institute of Fundamental Research.



Deliverables

On successful completion of the documentary series, an extensive popularization event in participation with several stake holders like research institutions, educational institutes and departments and other scientific organizations shall be conducted. Major target areas would be Schools, Colleges, Universities, Conferences and other scientific gatherings. Through this we hope to create awareness among the masses and specifically the young scientific minds of our country on the challenges offered by these magnificent fields of Astronomy, Astrophysics and Space Science. By the end of the year 2014, we hope that the project would have motivated several students to opt Astronomy, Astrophysics & Space Science as a research option.



Institutional Participation

The Documentary series would need participation of several Research institutions and Establishments. We are looking forward to your participation in the successful completion of the project. We would need your support in the follow categories.

Permission:

The documentary series on Astronomy research in India is initiated with the sole purpose to showcase the Astronomy, Astrophysics and Space Science research institutions and their facilities in India. In this regards, we seek permission to visit and film your institute and the facilities. The shooting dates and the travel plan shall be discussed in the course of correspondence. We would also need permissions to highlight your Institute on the website www.astroproject.in along with photographs and videos. All the materials (Photo/Video) generated during the production shall be put in public domain after proper editing for relevant topics.

Knowledge Partners:

The documentary series would render incomplete without a proper scientific approach. We look forward for gathering this knowledge on interaction and interviewing Scientist, Astronomers, Engineers, Academicians and young student researchers. Permissions from individuals shall be sort before fixing any interview schedule. We would also need authorization to duplicate materials published on your official Institutional website or any other relevant documents. Prior permission would be sort in this regards.

Endorsement:

The documentary series on Astronomy Research in India would be successful only when it reaches maximum number of Schools, Colleges, Institutions, Universities, and other public forums. In this regards we would like your collaboration and support in carrying out the popularisation event by endorsing the "Astroproject". On completion of the documentary series we would seek your help in spreading the documentaries at different platforms.

Funding:

The documentary series would be filmed at several Research Institutes, Observatories, Universities and other Establishments across India and would incorporate ample amount of travelling. On completion of the production we shall popularise these films extensively across India through means of public screens, broadcast on National/Local channels, screening in schools, colleges, universities etc. Several educational materials, Landscape Astrophotography Exhibitions, distribution of DVD's etc are envisaged. A dedicated website with regular updates and information about the Institutions, Research work and current project shall be maintained. In order to achieve this Goal, We seek your support through funding this initiative and partnering with this project.



Encscitec Productions is dedicated to the development of innovative, educative and well researched films and photographs in the field of Environment, Science and technology. We are very passionate in Understanding Science and technology and more over attempting to capture it in the form of motion pictures and photographs.



Rakesh Rao

Having completed my education in Physics, I moved on to combine my education and passion in photography and film making to produce scientific documentaries. My latest project involved spending 14 months over a span of 3 years in the icy continent of Antarctica to film the construction of the third Indian scientific research station at Larsemann hills in Antarctica. I have done filming projects for National Centre for Antarctic and Ocean Research, Govt of India, Department of Science and Technology, Govt of Goa, Goa Pollution Control Board, Centre for Environment Education, Goa Forest Department and few Corporate. My work has been published in a book "90 Degrees South" and several newspaper and magazines. My photographs have been a part of an international photo exhibition "Sur polar IV" held in Argentina in 2012 and also at the Scientific Committee on Antarctic Research (SCAR) open science congress meeting held at Portland, USA in 2012. My landscape Astrophotography have also been featured in the guest gallery of "The world at Night" (TWAN) website. I have also been actively involved with Amateur Astronomers organization the "Association of friends of Astronomy" for the last 12 years and have been promoting Astronomy in schools and colleges across the country.



Sonam Arora Rao

Having completed my Masters in Applied Physics, I worked for over 2 years with Indian Institute of Astrophysics, Bangalore in handling the 2.1 meter Himalayan Chandra Telescope situated at Hanle, Ladak. I am currently pursuing my M Tech degree in Space and Atmospheric Science through a United Nation funded program organised by centre for Space Science and Technology Education in Asia and the Pacific along with Physical Research laboratory, Ahmedabad. I have been studying Comets using the 1.2 meter and 50 cm telescope at Gurushikhar Observatory. At Encscitec Production I am involved in conceptualizing ideas and carrying out research on the projects under production.

We appreciate any support
you are able to offer us

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