

Jawaharlal Nehru Planetarium and Prof C V Vishweshara



1989 – The journey begins

Our Sun and His Family

- Artworks projected with Slide projectors
- Music Specially composed – in Chennai!
- Special effect projectors of the Zeiss machine
- Special effects created in house



The Theme

The Cosmic Journey, Life Beyond Earth,

Eclipses, Comets, Constellations, Galileo, Celestial Fireworks

Time- the Eternal Stream

The opening should be grand – the end should be memorable

The two should be as close to each other as possible!

DDDDD

Don't Discuss and Delay; Decide and Do

DDD

Daily Dose of Depression

Mule drivers becoming astronomers

And the converse

Supernovae were discovered by great astronomers like Galileo and Kepler

Since then we have not seen supernovae.....

Science Popularisation Activities

- Sky-theatre Programme Production
- Sky-theatre shows
- Production of Science Watch capsules
- Thematic Poster Exhibition
- The Science Park: design, installation and maintenance of models
- “Know Your Stars” – month
- Science film screening – mo
- Arrangements for viewing a

Non-formal Educational Activities

- Science Exhibitions
- Summer Programmes
- Workshops for science teachers and students
- Weekend Sessions for High school
- Special workshops for physically challenged students
- Research Education Advancement Programme in Physical Sciences (REAP)
- Research Education Advancement Programme in Life Sciences (Bio-REAP)
- Special lectures

ABOUT PROGRAM

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|--------------------------|------------------------|-----------------------------|---------|
| 1. Pt. Vinayak Torvi | - Vocal | 5. Kum. Vibha Kinal | - Vocal |
| 2. Kum. Vanishree Torvi | - Tanpura | 6. Smt. Soudamini Venkatesh | - Vocal |
| 3. Kirti Kumar Badsheshi | - Vocal +
Harmonium | 7. Kum. Namita | - Flute |
| 4. Dattatreya Valankar | - Vocal +
Harmonium | 8. Ashok Iyengar | - Sitar |
| | | 9. Gurumurthy Vajda | - Tabla |
| | | 10. Dhanaanjay Hegde | - Vocal |

Swara Spandana

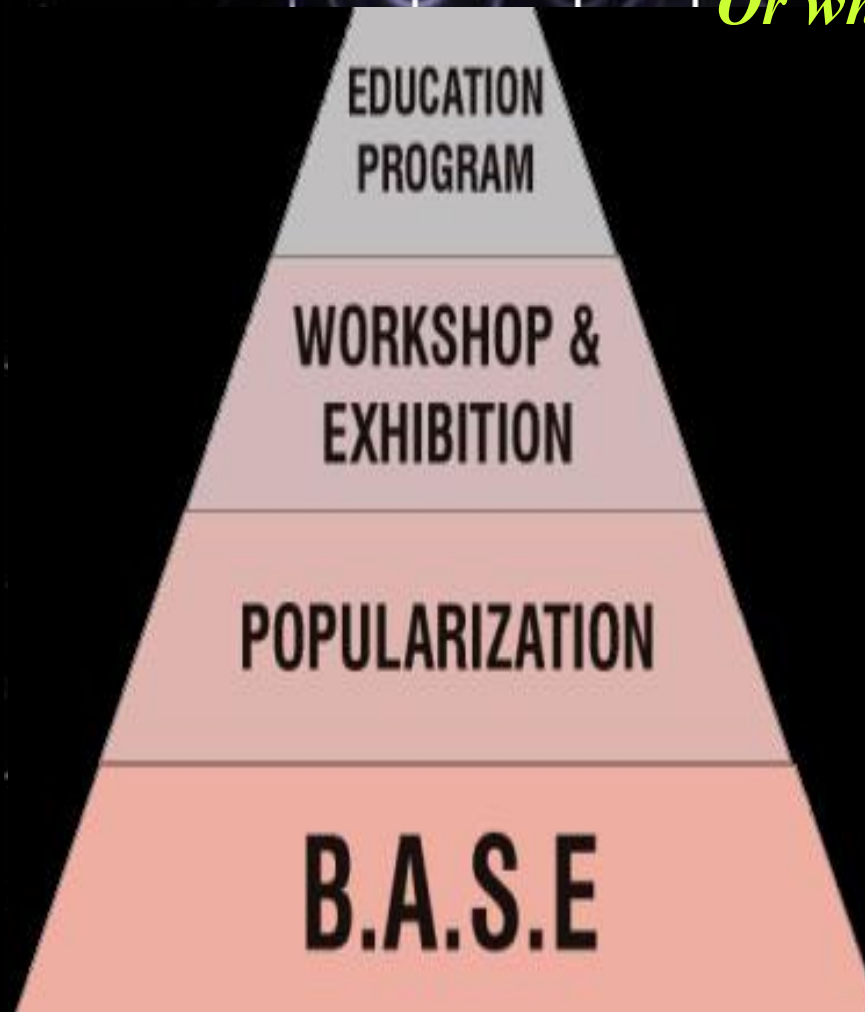
A Musical rendering of nature's rhythms

Concept and Supervision: Prof. C.V. Vishveshwara

JAWAHARLAL NEHRU PLANETARIUM

*Ah, but a man's reach
should exceed his grasp,
Or what's a heaven for?*

- Robert Browning

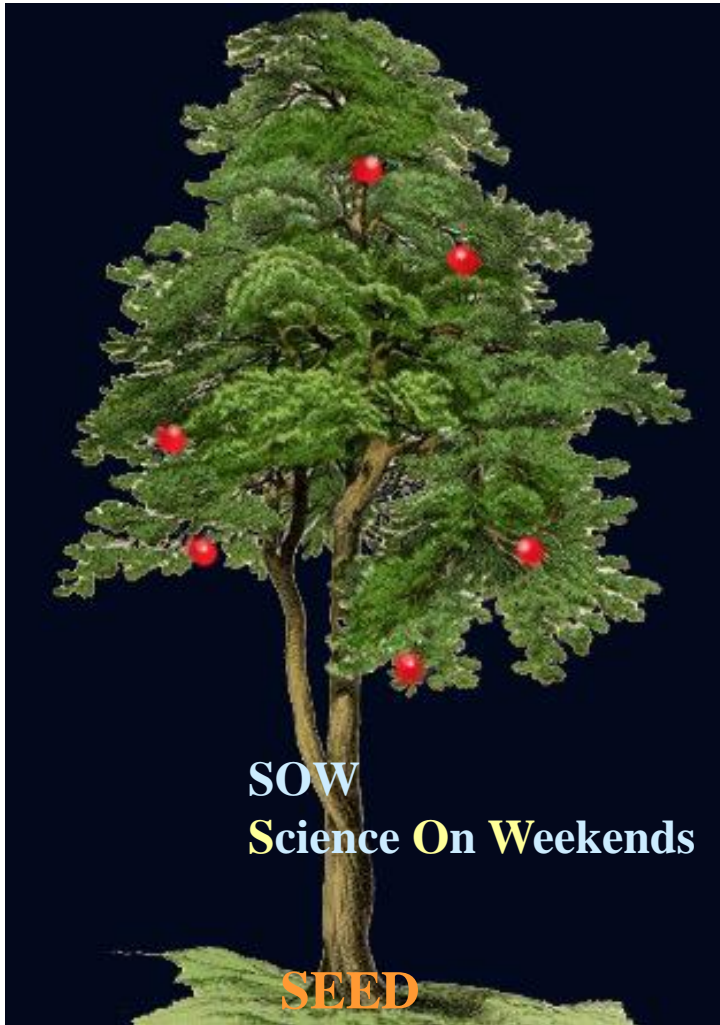


EDUCATIONAL PROGRAMMES



SEED

Science Education Early Development

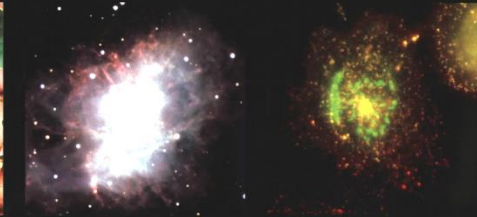
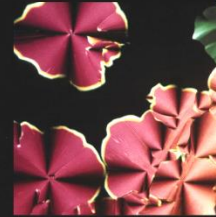


SOW
Science On Weekends

SEED



Research Education Advancement Programme



Helping students to be tomorrow's scientists

By Harichandan A. A.

BANGALORE, MAY 15. Research Education Advancement Programme (REAP), a three-year weekend programme run by the Bangalore Association for Science Education (BASE), at the Nehru Planetarium, is a year old now.

The year saw the same exemplary work by BASE as in the previous four years, helping young students start on research careers; in that time, the commitment of the quiet, soft-spoken people there has been in inverse relation to the quantum of their diminishing annual budget from the State.

BASE is an autonomous society under the Government of Karnataka.

A silent but spectacular revolution is underway at BASE. Each year, a few students trained there are welcomed by such places as the Indian Institute of Science,

the Raman Research Institute, the Tata Institute of Fundamental Research and, more recently, the National Centre for Biological Sciences. Last year, when one student was offered the prestigious Rhodes scholarship, everyone was justifiably proud.

These students may very well become tomorrow's leading international scientists.

REAP is offered concurrently with the regular B.Sc. course. It is a formal version of the weekend interactions that BASE organised for students with scientists from the research institutes here.

Three of those organisations, the Raman Research Institute, the Indian Institute of Astrophysics, and the National Centre for Biological Sciences, are now committed partners in REAP. Scientists from these centres came together at the beginning of last year to make

the interactions structured and rigorous, while keeping the pedagogy flexible. There are other scientists too, who have made Bangalore their home. All of them come for the pure pleasure of teaching science to students eager to learn.

Starting with over 50 students at the beginning of REAP last year, BASE has now identified some 15 students who show promise and want to pursue scientific research as a career.

During the first year, they were taught basic courses in physics and biology (the students can opt for whichever area interests them) by some of the best in the business.

During the second year, they will continue to be taught the basics with applications, along with sessions on advanced areas.

In the last year, they will be attached to one of the three

partner institutes for research-oriented projects. When they come out, they will be ready to do research.

"Many a time, undergraduate science students in the West are learning advanced courses, String theory for example ... (there is) no reason why we can't do that", says C.V. Vishveshwara, Vice-Chairman, BASE, and Director of the planetarium.

Some like Chandrashekar, the Rhodes scholar, did just that.

He worked on atom trapping in a rubidium cloud at RRI, and then on quantum optics at the IISc, before going to the United Kingdom on the scholarship.

For others, REAP is a sea change from the way science is done by rote in their colleges.

"In our colleges, we already know what results we should get at the end of an

experiment. Here (at REAP) they are open ended, and we can play around with them," say some of the students who have just finished the first year.

Their confidence is high too, that they can do research. "I come from a village and thought people who did research were remarkable.

Even after coming to a college here, I felt that way, until REAP. Now I have seen places like NCBS, and know what they expect from a fresh entrant — a good grounding in the basics, and I am confident I can make it," says another student.

The course is open to B.Sc. students with physics as one of the major subjects and a few M.Sc. students.

It demands a high degree of motivation and commitment to pure science research.

For more information, students can call BASE on 2266084/ 2203234.

REAP

SOW

SEED

Research
Education
Advancement
Programme



He wanted to choose for his PhD

“The influence of one BH on another in a binary”

He told me in the year 2000

“I did not choose this; if I had ... my name would have been in the Guinness book of records.....”

As the student who took the longest duration for getting PhD from Maryland (or any other university)!

First ever detection of gravitational waves

In 1965 in Maryland University!

