

7th Annual Science Fair

SPARK

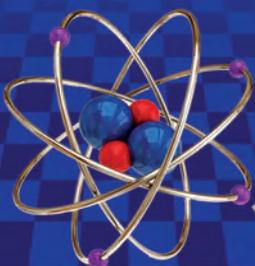
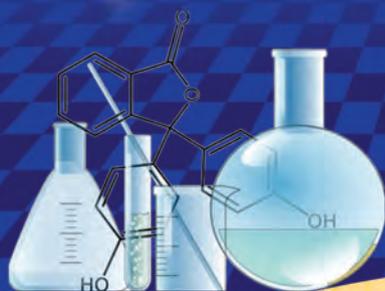


Innovation Awards

2017-18

Inter-State Science Fair

(Telangana, Andhra Pradesh, Karnataka, Tamilnadu & Kerala)



TAMASOMA JYOTHIRGAMAYA

FRIENDSHIP WITH SCIENCE

Dr. K.V. RAO SCIENTIFIC SOCIETY

I. Philosophy behind the SPARK Innovation Awards:

KVRSS is a not-for-profit, self funded society, dedicated to the promotion of science among youth, specially school-children. With a view of fostering spirit of scientific enquiry and promoting innovation among school-children, KVRSS holds an annual science fair wherein the **Spark Innovation Awards** are given for entries displaying harnessing of scientific concepts for solutions to everyday issues through some novel concept / method / process / device.

The latest developments in science and technology are in the process of making 'disruptive' changes in virtually every sphere of life. Path-breaking advances are being made in different fields like Semi-Conductor chip design and manufacturing, Computers design and programming, Robotics, Medicine, Bio-technology, Bio-engineering, Telecommunications, Material sciences etc. The major disruptions that are now happening come from the cross-disciplinary convergence of these technologies which, when combined with the astounding advances in Artificial Intelligence have the potential of making enormous changes in practically every sphere of human activity. Virtually every repetitive or 'formula based' activity, no matter how complicated, will get mechanized in the very near future and as time goes by, machines with 'deep learning' capabilities will increasingly take over and perform complex activities currently performed by humans.

Against this background, the work force will in all probability be science-based knowledge-workers. More certainly, the future belongs to innovators and scientific-minded individuals capable of understanding the ongoing, continuous advances in science and harnessing the emerging technologies for creating new products / processes / business models etc.

An issue of major concern for KVRSS is the way in which science is currently taught in schools - oriented largely towards getting children into engineering and medical colleges. Since the admissions are through very closely contested competitive examinations, the teaching of science is becoming syllabus-bound and regimented - with emphasis on preparing and reproducing answers to a standard set of expected questions! There is little or no lab-work, project work or any activity that requires the student to think about the concepts he has studied, its practical applications, work with his hands in a lab, carrying out experiments, making some simple devices, exploring various instruments, etc.

The **Spark Innovation Award** is KVRSS's small contribution towards fostering the culture of scientific enquiry by creating a multi-state competition which will force children to think out-of-the-box, do some individual research, understand basic scientific principles, think of practical applications and work with their own hands to create a new product. How-so-ever imperfect the end-product may be, what matters is the understanding of the scientific principles, the creativity involved and the novelty of the product /idea/concept.

There are numerous competitions around the world aimed at precisely this - recognizing and fostering the qualities of **innovation among school children** - which we believe is the correct stage at which original scientific thinking and spirit of enquiry must be encouraged and talented children recognized and nurtured.

The Spark contest aims to achieve this through an inter-school competition wherein the Spark Innovation Awards would be given to the children who come up with the most original exhibits/concepts in the fields of Biology, Botany, Food Sciences, Physics, Chemistry, Computer Science and Mathematics including - but not limited to all branches of science like Earth and Environment Sciences, Electricity and Electronics, Robotics, Energy. The competition is open to students from the states of Telangana, Andhra Pradesh, Karnataka, Tamil Nadu and Kerala.

II. What we are looking for:

It may be noted that the proposals should focus on Innovative Ideas of students and certainly not a mere compilation of ideas or project - work downloaded from the internet.

We have been conducting the SPARK programme for the past six years. However, perhaps due to poor communications from our side, we have been unable to get worthy exhibits for our competition. However, for the first time, last year, we received some excellent entries and we look forward to even better participation this year.

III. SPARK - 2017-18

The competition is open to school students in the age group of 13 to 18 as on 31st December of the current year. All students must have permission/certificate from the school or parent or legal guardian to enter the Competition. The decision

regarding the students' eligibility to participate wrests with KVRSS - who in turn will constitute selection committees consisting of eminent science teachers - both school and university professors. The decisions of these expert committees will be final.

A. Entry requirements from participants:

- ❖ **Summary:** A brief overview of project in English (in addition, if so desired, a video of maximum 2 minute duration or a Slide show of maximum 10 slides may be sent).
- ❖ **Particulars of the Team:** (to be filled as in the attached format)
- ❖ **Proposal:** A brief description of the issue being investigated, its importance/relevance, methodology pursued and the expected result.
- ❖ **Research:** A write up of the research undertaken for finding the solution.
- ❖ **Materials & Method or How:** Detailed description of the experiment/s or design.
- ❖ **Results or What was found:** Experimental data of the experiments or testing, and an analysis of the data.
- ❖ **Discussion :** Interpretation of results
- ❖ **Conclusion/Report & Future Work:** Details of the outcome of the result and an explanation of the results obtained.
- ❖ **Bibliography, References and Acknowledgements**

B. Awards:

- a. Grand Prize - Rs. 10,000/-
- b. Best Project - Social Impact - Rs. 7,500/-
- c. Best Project - Application Oriented - Rs. 5000/-
- d. Best Project - Scientific Concepts used - Rs.5000/-
- e. Sponsored Awards - will be announced later

The prizes would be given in the following categories:

- i. Category A: Class 7 to 9
- ii. Category B: Class 10 to 12

C. Judging Criteria:

1. **How inspiring is the idea?**
2. **Capacity to make impact in some way.**
3. **Interest & Creativity demonstrated by the team.**
4. **Knowledge and use of scientific concepts.**
5. **Interpretation of results.**
6. **Presentation and communication skills.**

Projects that are just informational, working-models, kit building or downloads from internet will not be considered. A project may be a part of a larger study performed by professional scientists, but the project presented by the students must be only their own portion of the complete study.

NOTE: Scientific fraud and misconduct are not condoned at any level of research or competition. This includes plagiarism, forgery, use or presentation of other researcher's work as one's own and fabrication of data. Fraudulent projects will fail to qualify for competition.

D. Eligibility:

1. Each School may send multiple projects; however, a student can be part of only one project.
2. A student must be:
 - a. in class 7-12 or equivalent.
 - b. in the age group of 12 to 18
3. Abstracts and additional material must be in English.
4. A team may have a maximum of three members and from the same school. The team leader should be properly mentioned.

E. Registration

- ❖ All students, individuals and teams, must register as per the format given, by 15th December, 2017.
- ❖ Each Team must have a Team Leader identified.
- ❖ Complete project and all additional materials must be submitted on or before 31st December, 2017.
- ❖ Registration and submission of a project does not guarantee an entry into the final Presentation.

A confirmation mail will be sent on receiving the complete project.

Students have to send the information as per the following format to register.

Name of the student : _____

Class & Date of birth: _____

Address : _____

Mobile number : _____

email address : _____



Official school name: _____

Address: _____

Telephone number: _____

Mobile number : _____

Principal's name: _____

Mentor's name: _____

Address: _____

Mobile number: _____

email address: _____

Number of Students in the Team: _____

Title of the Project : _____

* All students in a team must submit the above details.

Tips to choose the right projects:

- a. Talk to the faculty at a nearby college, university or research institute.
- b. Search online, ask teachers, study science books, etc.
- c. Contact judges from earlier science competitions.
- D. Contact people who write science articles.

Students may also refer to the following websites for ideas:

- Google Science Fair
- Intel International Science and Engineering Fair
- Siemen's Foundation
- Regeneron Science Talent Search

Date of Final Presentation: 20th January 2018

Venue:

Siddhartha Nagar Welfare Association, Indoor Stadium and Cultural Centre,
8-3-169/163, Siddhartha Nagar, Near Kalyan Nagar Junction,
Vengal Rao Nagar, Ameerpet, Hyderabad.



Dr. K.V. Rao Scientific Society

"FRIENDSHIP HEIGHTS"

8-3-169/84, Siddhartha Nagar, Vengal Rao Nagar PO, Hyderabad - 500 038,
Visit us: www.kvrss.org, Mail us: drkvrss.sciencefair@gmail.com, contact@kvrss.org,
Mobile: 98499 90794, 70936 01588, 70936 00794, 99594 44933.