# Dr. K. V. RAO SCIENTIFIC SOCIETY



**Annual Report 2020-21** 

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### **President's Note**

The KVRSS programmes for the 2020-21 year were held in the shadow of the pandemic. The challenge of conducting events without face-to-face interactions, was met head-on, with a major upgrade of the computer systems of the Society and all events conducted on-line.

Turning adversity into opportunity, the Society was able to expand its foot-print from south India to pan-India with participation in the Young Scientist Awards and the Spark Innovation Awards covering students and scholars from 23 states. However, the most popular Inter-school Science Quiz contest and the School Talent program could not be conducted as most of the participant schools were unable to get their teams ready.

We have used this opportunity to set up a science hobby and Innovation Centre with well-equipped labs spread over two floors - to conduct experiments in Physics, Chemistry and Biology. We hope this Centre will become the 'nursery' for future scientists. The Centre will provide a facility for children to get hands-on experience - in building projects and conducting experiments - which we believe is an essential ingredient for understanding and appreciating scientific principles and will hopefully, 'ignite' some young minds and launch them into a career in science.

We have also commenced work on another dream project of the Society - the Mobile Lab. We have purchased a bus (bare chassis) and currently, we are in the process of getting it fitted with the necessary equipment to conduct Science experiments for school children. We hope this Mobile Lab, along with visits to our Innovation Centre will fill a deep void in the teaching of science in the ill-equipped schools catering for the weaker sections.

The pandemic has affected virtually every country in the world and shaken the very foundations of our modern civilization. This has necessitated major changes that affect every segment of human activity - the way we work, teach and learn, travel, conduct meetings and events, entertain - even our attitude towards science. Despite initial misgivings in some corners, it is now clear that science and science alone, holds the key to defeating the challenges of this virus. Biological and human sciences, which had just begun to benefit from the convergence of technological advances in computing capabilities, data sciences, artificial intelligence, material sciences, etc. have now come into the forefront of research in terms of both funding and innovation. Within an astonishingly short period of time, we have not only secured multiple vaccines for the Covid -19 virus and its variants, but also, the accelerated advances in fields such as microbiology and genetic engineering now promises cures for ailments like cancer, Alzheimer's in the near future.

We hope the Prime Minister's clarion call for Atma-nirbhar Bharat and Make-in-India will spur industry to put in more resources for R&D, for which we will need an army of competent scientists and innovative engineers. Our mission - popularizing science among school children and encouraging young scientists to reach their full potential - is therefore all the more relevant in these times.

I end by thanking all the agencies that have supported us during these difficult times – M/s Electronic Arts who supported the setting up of our Innovation Centre, the Orange County Community Fund, California, US (Rani and Malli Varanasi contributions) for funding our Mobile lab, the galaxy of Judges who have spent their precious time and bestowed their stamp of approval and prestige in selecting the winners for our contests and of course, Dr Ratna Sastry and her dedicated team who braved the pandemic in completing the activities of the Society so efficiently in these difficult times.

Mr. Anil Kumar Kutty

### Vice President's Note

Our journey to encourage science education, scientific innovation in schools, universities and leading research labs continued with renewed vigour despite the disruption caused by the pandemic.

We broke new ground through the setting up of the Science Innovation Center and successfully expanded the reach of our programs to cover a wider geographic region. The Society was able to rise to the challenge to engage young minds in creative manner through a new program called SMART.

More initiatives are on the anvil like setting up of a Mobile Science Laboratory and a new program for Graduate and Post Graduate Science students.

Technology has always been a critical part of our lives and more so during these times of pandemic and we need to use it creatively to achieve our objectives.

We wish to reiterate and strongly encourage all award winners and participants, past and present, to reach out to us and stay connected with us in a collaborative effort to promote science

We rededicate ourselves to the vision of Dr K V Rao and we wish to reiterate our commitment to promote Science in the years to come and we shall engage with young minds in schools, leading research labs and universities in a more open collaborative manner leveraging technology.

We look forward to your involvement in the activities of the Society. Thank you.



### **Secretary's Note**

### Greetings from KVRSS !!!

The year 2020-21 has been a globally stressful year, however, it has also been an eventful year for KVRSS. Despite the continued pandemic situation, all the main events could be concluded successfully. And in fact, extended to cover students from across India at both school and university level.

The online platform has given the opportunity to extend our reach and thus the two main events, SPARK Innovation Awards for school children and Research Awards for Research scholars was extended from south India to cover all states of India. The response has been overwhelming in both cases and scrutiny of the papers turned out to be a big challenge. Also, another important factor had been the possibility of involving teachers and scientists from various institutions across India in the judging process. KVRSS has been fortunate to get support of eminent scientists from various research organisations and teachers from various schools on board for selections at various stages, which we are sure will add to the credibility of the awards.

Covid has played spoilsport to many activities and students have been confined indoors. To let out their creative side and to celebrate the National Science Day, KVRSS has come up with a concept drawing / painting competition, SMART (Science Meets ART). Students were asked to present any concept in science as a drawing or painting. These were judged by a team of scientists and science teachers and those entries which depicted the concepts innovatively were selected for awards.

An important development has been the creation of a Science Innovation Centre at the office of KVRSS which was funded by Electronics Arts Company (EA). The Centre is now ready for use for school children and all those interested in learning science and enjoying it. The facility has all the equipment required for conducting experiments based on various syllabi of schools. It also has a wide variety of models to explain various concepts in science. Content is being developed for various concepts in science and facility for hands-on experimentation is being provided. Equipment and facilities will also be provided for carrying out innovative and creative projects by students. Many of our research awardees have come forward to express their support in mentoring the school students in scaling up their projects. The Innovation Centre will be declared open from 1st September 2021 onwards to school students.

Another important initiative has been the development of a Mobile Science Lab (MSL). The Orange County Community Fund (OCCF) based at California, has extended support for development of the Mobile lab for school students to cater to the schools which do not have lab facilities. The vehicle will be equipped with all basic lab facilities and equipment required for science learning. The bus chassis has already been procured and the fabrication process is on. Due to covid and lockdowns there has been delay in fabricating the vehicle, however, the facility is expected to be completed by the end of September and we hope to commission it in October 2021.

We have been conducting the science guiz annually till last year. However, due to covid and schools being closed, we could not conduct it. To overcome the obstacle, we have started working on making the whole event online as well as take it to all India level. The basic structure of the quiz is ready, and we are in the process of testing the software on ground, and then launch.

Our focus all these years has been on spotting the talent at school and research levels. To bridge the gap between the two levels, from this year, i.e., 2021, we are coming up an event for graduate and postgraduate students in science. We are announcing the Grad Science Innovation Awards to be started in the state of Telangana and to be subsequently extended to all the other states of India.

The various developments in 2020-21 have given us the reason to feel encouraged to take our journey forward even in these tough times. We are sure our tag line of "Friendship with Science" is what makes a nation progress. We congratulate all the students who have participated in various events of KVRSS and wish them all the best in their future endeavours.

Dr. K. Ratna

### **Programmes conducted in 2020-21**

### **SMART (Science Meets ART) Awards**

National Science Day is observed on February 28th every year to mark the discovery of the Raman effect by Indian Physicist Sir C V Raman. Various events in science are conducted all over the country in his honor. This year KVRSS came up with a unique concept, Science Meets Art (SMART). The exhibit had to be a painting/ drawing related to science-based concept. The aim of the competition is to visualise science concepts and make the students to think out of the box and enhance their creativity.

The contest was conducted for school students from 7th to 12th grades across India. There was an overwhelming response as KVRSS had received more than 650 entries for initial scrutiny from which 100 were screened for final selection. A panel of eminent scientists and science teachers judged the exhibits and selected 5 students for awards and 11 students were given certificates of participation. The following are the selected paintings:

#### Winner



**Bhavin Saurabh Gupta - IX** Manthan International School, Sangareddy, Hyderabad, Telangana **Topic: Evolution** 



### Runner Up - I



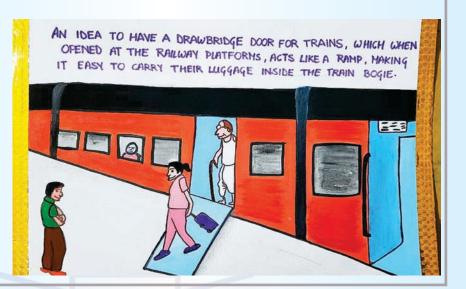
Avishi Bansal - IX Delhi Public School. R K Puram, New Delhi. Topic: Science's Ability to Develop



### Runner Up - II



Akshra Singh - IX Delhi Public School, Kanpur, Uttar Pradesh Topic: Newton's Law



### **Consolation Prize**



Posika Aggarwal - VIII Bal Bharati Public School New Delhi Topic: Centripetal Force



#### **Consolation Prize**



Mrudula Raju K - IX Obul Reddy Public School Hyderabad Topic: The Science of the Hula Hoop



### **SPARK Innovation Awards**

The Annual SPARK Innovation Awards contest aims to encourage innovation among school children through an inter-school competition wherein the award is given to the children who come up with the most original exhibit/concepts in various fields of science. The competition is held each year for school students of classes 7th to 12th from the southern states of India. However, this year the event was extended to reach across students from all over India and response was overwhelming.

This year, i.e., 2020-21 the competition was held in the four basic sciences and KVRSS SPARK awards are being presented in each field separately, Math-GANITAM, Chemistry-RASAYANAM, Biology-JEEVANAM and Physics-BHOUTIKAM. KVRSS received 237 projects from 119 various schools for initial scrutiny in all 4 subjects of basic sciences. Out of them 40 projects were selected for final presentation. The entire event was held online on 20th March 2021. A panel of eminent scientists and science teachers judged the projects and a total of 11 projects were selected for the awards. The following are the selected projects:

### **Bhoutikam - Physics**

#### Winner

Mr Joe Daniel - IX, Mr Teja Narasimha Rao - IX &

Mr Gedela Bodhisatva - IX

School : SBOA School and Junior College, Chennai,

Tamil Nadu

Guide Teacher: Mrs. Revathy A

**Project Title** : Electronic Security Braking System

The work : The Electronic Security Braking System (ESBS)—uses data science and

> Python to process the videos from dash cams of cars and automatically brakes and stops the car after a warning to the driver when a pedestrian or an obstacle

is detected in close vicinity

#### Runner Up - I

### Aayush Bhansali - X

School : Delhi Public School, Greater Noida, New Delhi.

Guide Teacher: Mrs. Sonia Sehgal

Project Title : Super Energy Saver for Longer Battery Life and

Reducing E-Waste

The Work : The project involves developing and conceptua-

lizing a circuit which effectively uses the power of the dead battery cells and

increases the usage time of the device multifold

#### **Consolation Prize**

Naveen Rajan S K - XI

School : Mahatma Montessori Matriculation Higher

Secondary School, Madurai, Tamil Nadu

Guide Teacher : Mrs. Benazir Elamathi

Project Title : Reducing Fuel Consumption and Carbon

Footprint by Replacing Alternators with Seebeck

The Work : The project aims to reduce the Carbon Foot print by using the residual heat

produced by any practical engine, which is seen to result fuel savings up to 6%

as compared to alternators in charging the battery.





### Jeevanam - Biology

#### **Winners**

#### Shashwat S Nair - XII & Arnav Dixit - X

School : Venkateshwar International School, New Delhi

Guide Teacher: Ms. Nivedita Naithani

Project Title : Neer Sanchayan: S-Shalankund

(Water Conserving Smart Sink)

: Involves designing of a smart sink which The Work

organically and biologically retrievs the kitchen

sink water through natural and non-toxic methods of purification.



School : Venkateshwar International School, New Delhi

Guide Teacher: Ms. Nivedita Naithani

Project Title : SHVAASK - The Respobuddy

The Work : The project involves creating biodegradable,

affordable, anti-pollution respiratory masks using

eco-friendly / waste material.



#### **Consolation Prize**

#### Siddhant Attavar - X & Advait Abhijit Attavar - VIII

School : National Public School, Bengaluru, Karnataka.

Guide Teacher: Abhijit Attavar

Project Title : Stroke Monitoring and Rehabilitation Using

Technology (SMART)

The Work : SMART is a comprehensive innovative and

technology driven solution for stroke care

consisting of -1. SMART EEG headset and 2. SMART app, having diagnostic

and rehabilitation tools.



### Rasayanam - Chemistry

### Winner

### Siddhant Singh - XII

School : Venkateshwar International School, New Delhi

Guide Teacher: Ms. Kiran Mehta

Project Title : Cyanobacteria Neutralizer and Ocean Cleaner

(CYNOC)

The Work : CYNOC is a mechanical algae neutralizer and

> ocean waste cleaner that neutralizes algae and collects the waste that poses threat to marine life.



### Runner Up - I

### Bhavay Garg - XII & Shubham Gupta - XII

School : Maharaja Agarsain Public School, New Delhi

Guide Teacher: Satish Singh

Project Title : Pollution Check-O-Meter

The Work : The project involves building a reliable and

efficient Pollution Monitoring system to monitor

Real-Time Air and Water pollution levels,

Detecting and notifying any violations, developing an app to access the pollution level data and a mechanism to predict future pollution levels and solutions using

artificial intelligence.

### Ganitam - Math

#### Winner

#### S Harini Hemavarshini - XI

School : Shristi Vidyashram Senior Secondary School,

Vellore, Tamilnadu

Guide Teacher: Mrs. Divyajothi Project Title : Playing with Powers

The Work : The project involves developing an easy and fast

method to find all the powers for a given number

without using any complicated formulae and through simple addition and

multiplication.

### Runner Up - I

### **Anand Kumar Sah - XII**

School : Army Public School, Raiwala Military Station,

Uttarakhand

Guide Teacher: Mrs. Preeti Rawat

Project Title : T-Ratio Calculator (TRIC)

The Work : The project involves developing of a teaching aid

for easy understanding and application of

Trigonometry in real life.



XPLANATION

34=27+6×9

#### **Consolation Prize**

#### Shubhashree Sahu - VII

School : Paramita High School, Karimnagar, Telangana

Guide Teacher: Lalit Mohan Sahu Project Title : Geometrical Paths

The Work : The objective behind the construction of the

Geometrical paths is to find the shortest possible path between different points through different

medium and to prove the minimum property of triangle and rectangle.



### **Annual Research Awards**

This event is held every year to promote science at research level for research scholars and doctorates below the age of 30 years for the exemplary work done as part of their PhD research. The areas in which the awards are given Rasayanam (Chemistry), Bhoutikam (Physics), Jeevanam (Biology) and Ganitam (Mathematics). Till the year 2019-20, the event was conducted for applicants from the southern states of India. However, this year KVRSS has extended its reach to the institutions across India and the event was conducted online.

The response this year was overwhelming with 212 applicants from various institutions of India in all four subjects of science for initial scrutiny. A panel of eminent scientists / professors shortlisted applicants for final presentation. This year has been a record of sorts in Mathematics with a total of 44 applicants. The students for awards are selected based on the recommendations of the panel of judges after careful evaluation of research papers and the presentations by the candidates in each category. The online platform has not only extended our reach to the students, we also had the opportunity to interact with eminent Scientists from across India. We thank all the judges who graciously participated in the evaluation process. The following are the students selected for the research awards for the year 2020-21:

### Jeevanam - Biology

### Winner

### **Tushna Kapoor**

Institute : Tata Institute of Fundamental Research, Mumbai,

Maharashtra

Project Title: "Nanoscale Indentation of Plasma Membrane

establishes a Contractile Actomyosin Scaffold through selective activation of the Amphiphysin-Rho1-

Dia/DAAM and Rok Pathway"

Supervisor : Prof. Krishanu Ray



### Runner Up - I

#### Vinavak Sadasivam Tumuluri

Institute : Indian Institute of Science Education and Research.

Pune, Maharashtra

Project Title: "Mechanism of DNA Cleavage by the Endonuclease

SauUSI – a Major Barrier to Horizontal Gene Transfer

and Antibiotic Resistance in Staphylococcus Aureus"

Supervisor: Prof. Saikrishnan Kayarat



### Runner - II **Ujjayinee Ray**

Insitute : Indian Institute of Science, Bengaluru, Karnataka

Project Title : "Identification and Characterization of Novel Inhibitors

of Nonhomologous End Joining: Implications in DNA

Double-Strand Break Repair and Cancer Therapy"

: Prof. Sathees C. Raghavan Supervisor



### Rasayanam - Chemistry

### Winner

### **Amreen Kaur Bains**

Institute : Indian Institute of Science Education and Research,

Mohali, Punjab

Project Title: "Ni-Catalyzed Borrowing-Hydrogen Reactions via

Hydrogen Atom Transfer (HAT)"

Supervisor : Dr. Debashis Adhikari



### Runner Up - I

### **Pallavi Thakur**

Institute : Tata Institute of Fundamental Research, Hyderabad,

Telangana

Project Title: "Cobalt Nanoparticles Dispersed Nitrogen Doped

Graphitic Nano Spheres based Rechargeable High

Performance Zinc-Air Batteries"

Supervisor : Prof. T. N. Narayanan



### Runner Up - II

### **Bidushi Sarkar**

Institute : Indian Institute of Science, Bengaluru, Karnataka

Project Title: "Chromium Nitride Nanoparticles supported on N-

doped Graphitic Carbon Heterostructure as Electro-

catalyst for Oxygen Reduction Reaction"

: Prof. Karuna Kar Nanda Supervisor



### Ganitam - Maths

#### Winner

#### **Arvind Kumar**

Institute : Indian Institute of Technology Madras, Chennai,

Tamil Nadu

Project Title: "Regularity of Powers of Quadratic Sequences with

Applications to Binomial Ideals"

Supervisor : Prof. A. V. Jayanthan



### Runner Up - I

### **Kousik Dhara**

Institute : Indian Institute of Technology Madras, Chennai,

Tamil Nadu

Project Title: "The  $(n, \in)$ -Pseudospectrum of an Element of a Banach

Algebra"

: Prof. S. H. Kulkarni Supervisor



### Runner Up - II

### Kalane Sagar Balasaheb

Institute : Indian Institute of Science Education and Research,

Mohali, Punjab

Project Title: "Classification of Pairs of Quaternionic Hyperbolic

Isometries"

Supervisor: Dr. Krishnendu Gongopadhyay



### **Bhoutikam - Physics**

### Winner

### **Subhajit Sinha**

Institute : Tata Institute of Fundamental Research, Mumbai,

Maharashtra

Project Title: "Bulk Valley Transport in Twisted Double Bilayer

Graphene"

Supervisor: Prof Mandar M. Deshmukh



### Runner Up - I

#### Leelashree S

Institute : University of Hyderabad, Hyderabad, Telangana

Project Title: "Structural and Magnetic Properties of Room

Temperature Multiferroic Lu<sub>0.9</sub>Ho<sub>0.1</sub>FeO<sub>3</sub>"

Supervisor : Prof. S. Srinath



### Runner Up - II

### Seemesh Bhaskar

Institute : Sri Sathya Sai Institute of Higher Learning, Puttaparthi,

Andra Pradesh

Project Title: "Hybrid Soret Nano-assembly for Ultrasensitive

Surface Plasmon-Coupled Emission and Photonic

Crystal-Coupled Emission Interfaces"

: Dr. Sai Sathish Ramamurthy Supervisor



### **Collaborations**

### **EA KVRSS Science Innovation Centre**

The Innovation lab with scientific equipment, science models for enabling demonstration and easier understanding of concepts to school children was developed with support from EA. The Centre is also designed to support school students to enhance, scale up their projects with creative thinking and supported by senior guides and experts.

The funding for the project was approved and financial support from EA was received by KVRSS in January 2020.

The Innovation centre is equipped with equipment/Instruments and consumables needed in a regular lab. Many models to explain the concepts were either procured or developed in-house and a concept rack created to showcase these models.

A Wall Library has been created with books from various subjects and genres for students up to college level. A display area for various models was created in the conference room.



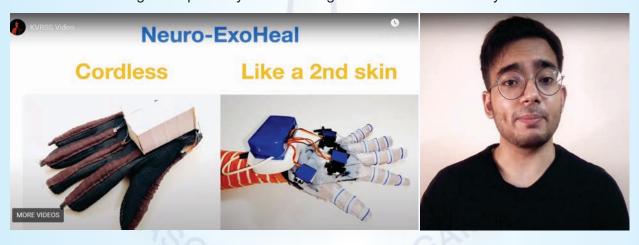




We are happy to inform that the Innovation Lab for school children at our office premises is now fully functional and is well equipped for both hands-on lab experience as well as scaling up of projects.

As part of supporting projects selected for SPARK awards through funding and providing facilities of the Innovation Centre, two projects were selected. Due to the pandemic, it was not possible for the students to avail the facilities of the lab. However, funding and mentor support was provided to enable the students to modify and refine their projects. The projects selected for scaling up are:

1. ExoHeal – Utilizing Neuroplasticity and Retaining the Brain with Robots – by Zain Samdani



2. Reducing Carbon Footprint, through Innovative Cooking Vessels - by Vibha Bhat



The results achieved so far have been extremely good and we plan to support more students in future and in giving shape to their creative ideas.

### Mobile Science Lab (MSL) funded by OCCF

Mobile Science Lab is a portable science laboratory for schools in and around Hyderabad that brings a Science Lab right into the classroom. It offers a wide coverage of subjects like Physics, Chemistry, Biology and Mathematical Sciences. More than 300 experiments based on both school Curriculum and scientific concepts can be carried out by the students. The hands-on experience fosters higher order thinking skills in children inculcating in them habits of curiosity to pose questions, seek answers and think scientifically.

This project aims to promote science education in twin cities of Hyderabad and Secunderabad in the state of Telangana and adjoining areas for children at school level by addressing critical issues of access to quality science labs and science teaching in places where there is a lack of adequate facilities and an opportunity to learn science with activities.

The Mobile Science Laboratory shall primarily serve Government and private schools but shall also be capable to deliver programs to larger groups like exhibitions and technical sessions. It proposes to travel to schools throughout the City of Hyderabad and the adjoining areas.

The Chassis has already been procured and sent for fabrication. The 1st stage of fabrication is complete, and paneling is underway. The fabrication of the vehicle is likely to be completed by end of September 2021 and we plan to commission it in the month of October 2021.

Many schools in the neighborhood have evinced interest in being part of the initiative. KVRSS hopes to support many students with this initiative.







### **Future Projects**

### **GSI Awards - Grad Science Innovation Awards**

KVRSS started its activities for Research students in 2001 and extended to school students in 2003. With a view of fostering spirit of scientific enquiry among students, KVRSS intends to extend their support students studying pursuing graduation and post-graduation. A new event is being introduced in this category, Grad Science Innovation Awards (GSI) for the year 2021-22.

The GSI awards contest aims to encourage college students, through a competition where the awards would be given to the students who come up with the most original exhibit/concepts in various fields of sciences, Rasayanam (Chemistry), Bhoutikam (Physics), Jeevanam (Biology) and Ganitam (Mathematics).

To start with, this contest will be open for students pursuing their graduation and post-graduation in the state of Telangana.

### National Science Quiz

The KVRSS Science Quiz contest was conducted among school students in the states of Andhra Pradesh and Telangana, till the year 2018. However, in the year 2019-20, it was extended to all the students from southern states of India.

This year, 2021-22, KVRSS proposes to the conduct the contest at national level. This is to encourage understanding and strengthening of science concepts among the school students all over India. The event is being planned to be conducted online. The basic structure of the event has been developed and after due testing of the software the event will be launched.

### Learning Garden

As a part of the Innovation Centre, KVRSS introduces a Learning Garden that has been partly developed with plans to create an extensive practical learning experience.

Most vegetable/spice gardens grown indoors are miniature versions of big farms. Growing herbs, spices, vegetable and medicinal plants indoors also allows you to successfully cultivate non-native and dwarf varieties of herbs and healing plants.

The underlying principle for the development of the Learning Garden is to inculcate hands on learning of botanical concepts. The other benefits of these gardens are good for improvement of environment and health.













### **Annual Memorial Oration**

The Annual Awards function of the Society is graced by an eminent Scientist who presents the Dr K V Rao Memorial Oration. The talk is arranged to motivate young children and all the other awardees in their guest for excellence. This year Dr K Kasturirangan, former Chairman Indian Space Research Organisation (ISRO) will present the 21st Annual Memorial Oration. The topic of the Oration is "My Tryst with Space and Beyond".

### **Orator's Profile**



Dr K Kasturirangan (born 24 October 1940) is an eminent scientist who steered the Indian space programme as the Chairman of ISRO from 1994 to 2003 and is currently Chancellor, Central University of Rajasthan Chairman, Governing Board, Inter-University Centre for Astronomy and Astrophysics (IUCAA); Chairperson, NIIT University. He is the former chancellor of Jawaharlal Nehru University and the chairman of Karnataka Knowledge Commission. He was also the Director of the National Institute of Advanced Studies, Bangalore. Dr. Kasturirangan was head of a committee tasked with creating the new education policy for India.

Dr. Krishnaswamy Kasturirangan earned his BSc (Hons) and MSc in Physics from Bombay University and received his PhD (1971) in 'Experimental High Energy Astronomy' from Physical Research Laboratory (PRL), Ahmedabad.

Academic and Research Achievements: As an astrophysicist, Dr Kasturirangan's interests include research in high energy X-ray and gamma ray astronomy as well as optical astronomy in which he made significant contributions. Under his leadership, ISRO witnessed several major milestones including the successful launching and operationalisation of the India's Polar Satellite Launch Vehicle (PSLV) and the Geosynchronous Satellite Launch Vehicle (GSLV). Further, he oversaw the development and launching of several Remote Sensing and Communication Satellites.

He has published more than 244 papers in the areas of astronomy, space science and applications. He is a recipient of Honorary Doctorate from 27 universities.

Other Contributions: Dr Kasturirangan is a member of the International Academy of Astronautics and the International Astronomical Union and served as President of Indian Academy of Sciences and Indian National Academy of Engineering. He was also General President of the Indian Science Congress. He is a Fellow of National Academy of Sciences, Allahabad, Indian Academy of Sciences, Bangalore, Indian National Academy of Engineering and Academy of Sciences for the Developing World. He is the Honorary Fellow of the Cardiff University, UK and an Academician of the Pontifical Academy of Sciences, Vatican City. He is the Chairman of Council of the Indian Institute of Science at Bangalore, Chairman of the Governing Council of the Raman Research Institute, Indian Institute of Astrophysics at Bangalore and Aryabhata Research Institute of Observational Sciences at Nainital. Dr. Kasturirangan was a Member of Rajya Sabha and a member of the Parliamentary Standing Committee on Energy and Parliamentary Consultative Committee on Human Resource Development. He is the President of India-Cyprus Parliamentary Friendship Group and a Member of India-China Eminent Persons' Group.

Awards and Honours: Dr. Kasturirangan is a recipient of many awards and honours which include the highest civilian honours Padma Shri, Padma Bhushan and Padma Vibhushan by the President of India and Award of 'Officer of the Legion d'honneur' by the President of the French Republic, France; Aryabhata Award of Astronautical Society of India), Brock Medal of International Society of Photogrammetry and Remote Sensing, Allan D Emil Memorial Award of the International Astronautical Federation, Theodore Von Karman Award by International Academy of Astronautics, France, SS Bhatnagar Award, Lifetime Achievement Award of Asia-Pacific Satellite Communications Council, Singapore and Asutosh Mookerjee Memorial Award by the Indian Science Congress.

We are extremely fortunate to have such an eminent personality as the Orator at our Annual function. We thank him for accepting our invitation and agreeing to grace the occasion.



# Dr. K.V. RAO SCIENTIFIC SOCIETY

## DONATION FORM

		200	
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I would like to Donate for the (Mention programme name).	- 1 Control of the	Specific program of the Society				
Parent(s) / Spouse Name  Age :  Qualifications :  Designation :  Organization :	£					
Phone: (0) Fax : PAN <sup>2</sup> :	(R)	Mobile : Email :				
Mode of Payment:		Bank Transfer/Cash/DD/Cheque	9			
DD/Cheque No <sup>3</sup> :	Date:	Bank:	Amount Rs.:			
I have read the terms and conditions of the rules and regulations of the Society and abide by the same.  The above information provided is correct.						
Date:		Signatu	ire of Donor			
Place:		Name:				
NOTE						
<sup>3</sup> In case of Corporates / Firms / Societi		lution of authorization and also the Memora	andum of Articles of Association /			

- The Society is registered under the Public Societies Registration Act
- The Society has 80G exemption under Income Tax Act in perpetuity.
- The Society is also registered under the FCRAAct and is eligible for foreign donations.

The details of the tax exemptions are available on our website, www.kvrss.org

<sup>&</sup>lt;sup>2</sup> Please attach the attested photocopy of the PAN Card.

<sup>&</sup>lt;sup>3</sup> The complete form along with the amount by DD/Cheque in favour of "Dr.K.V.Rao Scientific Society" payable at Hyderabad to be sent to: Dr. K. Ratna, Secretary, Dr. K.V.Rao Scientific Society, 84, Siddhartha Nagar, Vengal Rao Nagar P.O., Hyderabad – 500 038.

# Dr. K. V. RAO SCIENTIFIC SOCIETY FRIENDSHIP HEIGHTS

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