



# SHRI OM PRAKASH BHASIN FOUNDATION FOR SCIENCE & TECHNOLOGY



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# SHRI OM PRAKASH BHASIN FOUNDATION FOR SCIENCE & TECHNOLOGY

## *Founder Trustees*



Mrs. Vinod Bhasin



Prof. M.G.K. Menon



Shivy Bhasin



Hemant Kumar Bhasin





## Late Shri Om Prakash Bhasin

13.05.1913 - 01.11.1981

*The Values planted by  
Shri Om Prakash Bhasin, Jee,  
We shall keep alive.  
The torch lit by him,  
we shall keep burning bright.  
The reputation he built,  
we shall protect and enhance.  
His vision will be our mission.*



# ट्रस्ट का आगाज़ - भसीन साब की कलम से

Shrimati Indira Gandhi J.  
Prime Minister of India  
New Delhi

Kumail,  
handed over  
to her in Halli  
Halli  
on 10.5.81

No. 49.

Sueh. Your Secretariat Ref. No. 17(1900)/80/PHs  
dated 20<sup>12</sup>/<sub>80</sub> regarding an offer of  
Financial Assets for a Foundation for  
awarding Annual Prizes/Awards to ~~Indian~~  
~~Sci~~ distinguished Indian Scientists.

Respected Shrimati J.

<sup>2nd</sup> We had the opportunity of meeting you on  
the morning of Dec<sup>r</sup> 1980 in your office in Parliament House  
where we <sup>made an offer of</sup> offered Assets for a Foundation for awarding  
Annual Awards of Rs Five Lacs to distinguished Indian  
Scientists.

During this brief ~~last~~ meeting we had sought your  
kind assistance and blessings for this mission regarding  
exemption of Income tax, and procedure of selection of  
Nominees for the Awards, through the assistance of  
The State Bank of India who have agreed to  
act as Trustees of this Foundation ~~which~~ with  
an irrevocable perpetual deposit of Rs 50 to 51  
lacs with them out of Remittances of Foreign  
Exchange from our Foreign Exchange assets.

Kindly let us have the good fortune of  
doing this service for the welfare of our Country, and  
afford us your blessings ~~and assistance~~, and  
get the matter expedited. Your most respectfully,

Om Parvati Bhairav

Mrs. Vinod P. Bhairav





## VISIONARY OF THE TRUST LATE SHRI OM PRAKASH BHASIN



SHRI OM PRAKASH BHASIN, born on 13<sup>th</sup> May 1913, was the youngest son of Shri Maharaj Kishan and Smt. Mirdai of Sialkot (now in Pakistan). He lost his parents when he was about 2 years. His uncle Shri Nanak Chand Bhasin, and his aunt Smt. Bibi Pali, the well-known social worker of Sialkot, brought him up. After his graduation from Sialkot, he proceeded to Iraq in 1934 to set up his business there; and later, shifted to Kuwait in 1949. He was a greatly respected and very successful businessman. He made donations to several charitable organizations in different parts of India, as also regular donations to the Prime Minister's relief funds. These have been without any personal consideration, or "discrimination" based on religion, caste, creed or colour etc. His motivation was entirely to do something for his country.

Shri Bhasin envisioned that India will prosper if science & technology develops in our country. He therefore felt that Scientists and Technologists working in India ought to be encouraged by giving them awards for outstanding contributions particularly applications for National Development. He, therefore, decided to create a Trust in India with a corpus of Rs. 51 Lakhs, with the income to be utilized in a manner in which the Nobel Foundation has inspired confidence in its objectivity and selection on merit. He passed away on 1<sup>st</sup> November, 1981 before the scheme could materialize, but incorporated his intention in his WILL.

After his death, his wife Smt. Vinod Om Prakash Bhasin and their two sons, Shri Shivya Bhasin and Shri Hemant Kumar Bhasin, who were very keen to fulfill his desire, established the Foundation viz. Shri Om Prakash Bhasin Foundation on 22<sup>nd</sup> August, 1984.

# SHRI OM PRAKASH BHASIN AWARDS FOR SCIENCE AND TECHNOLOGY

Shri Om Prakash Bhasin envisioned that India will develop if science & technology develops in our country. He therefore felt that Scientists and Technologists working in India ought to be encouraged by giving them awards for outstanding contributions particularly applications for National Development. He therefore, decided to create a Trust in India with a corpus of Rs. 51 Lakhs, with the income to be utilized in a manner in which the Nobel Foundation has inspired confidence in its objectivity and selection on merit. He passed away on 1st November, 1981 before the scheme could materialize, but incorporated his intention in his WILL.

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The first five Trustees of the Foundation were Mrs. Vinod Bhasin, Prof. M.G.K. Menon, Mr. Shivvy Bhasin, Mr. Hement Kumar Bhasin and a nominee from the State Bank of India (the custodians of the corpus of the Foundation).

The 1st SHRI OM PRAKASH BHASIN AWARDS for the year 1985 were presented to eminent Scientists and Technologists of India on 17-03-1986 by SHRI RAJIV GANDHI, HON'BLE PRIME MINISTER OF INDIA. In the subsequent years, the Awards have been presented by notable dignitaries like SH. P.V. NARASIMHA RAO, DR MURLI MANOHAR JOSHI, SH. ATAL BEHARI VAJPAYEE, DR. A.P.J. ABDUL KALAM and others.

Apart from what has been said above, the objectives of the Foundation also include activities relating to promotion of, encouragement for, and assistance in the economic, technological and cultural development of the country, especially rural development and welfare/upliftment of the weaker sections of the society without any discrimination.

The Shri Om Prakash Bhasin Awards are being given in the following 5 disciplines:

1. **Agriculture & Allied Sciences** Including Animal Husbandry, Horticulture, Forestry, Fisheries, Bio-mass Production
2. **Biotechnology** including Modern Biology, Microbiology and Immunology
3. **Electronics and Information Technology**
4. **Engineering** including **Energy & Aero Space**
5. **Health & Medical Sciences**

## NUMBER OF AWARDS

There are, at present, 5 Awards each year, in the fields mentioned above to ensure coverage of all the areas. **Each Award carries award of Rs. 1,00,000/-** (given in the form of a Banker's cheque) **with an appropriate PLAQUE and CITATION.**

## ELIGIBILITY

- » Any Citizen of India or Overseas Citizen of India engaged in scientific work in any of the fields mentioned above.
- » There is no age limit. (No posthumous nominations will be considered).
- » The Awards will normally be given for work primarily done within India and which is of relevance to India and other developing countries.
- » New discoveries/inventions, particularly by young upcoming scientists, **would be given high consideration.**

## PROCEDURE FOR NOMINATIONS

Nomination Papers for SHRI OM PRAKASH BHASIN AWARDS can be sponsored and forwarded by the following categories of persons:-

- i) **Presidents** of approved scientific societies of all India character.
- ii) **Vice-Chancellors and Deans** of Science, Engineering and Technology and Medical Faculties of Universities, and corresponding functionaries of Agricultural Universities.
- iii) **Heads and Deans** of Faculties of institutions deemed to be of University status (viz. Indian Institute of Sciences, Bangalore, All India Institute of Medical Sciences, New Delhi, Post Graduate Institute of Medical Sciences, Chandigarh, Birla Institute of Technology Pilani, etc.)
- iv) **Directors of IITs**
- v) **Director-Generals** of major R&D Organizations: Defense Research and Development D.R.D.O., I.C.A.R., I.C.M.R.,



C.S.I.R., Indian Meteorological Department, Geological Survey of India etc.

- vi) **Chairman of Commissions** : Atomic Energy, Space, Oil and Natural Gas, University Grants Commission etc.
- vii) Members of the Planning Commission (NITI AAYOG)
- viii) **Secretaries** - Departments of Science and Technology; Scientific and Industrial Research; Ocean Science; Space; Atomic Energy; Environment; Mines, Metals and Fuel; Energy; Petroleum and Chemicals; Agriculture and Animal Husbandry; Ministries of Health, Railways, Shipping and Transport, Information Technology, Non-Conventional Energy Sources.
- ix) **Directors of** -  
Bhabha Atomic Research Center (BARC), Indian Agricultural Research Institute (IARI), Bose Institute, Forest Research Institute, Indian Association for the Cultivation of Science, Physical Research Laboratory, Saha Institute of Nuclear Physics, Tata Institute of Fundamental Research (TIFR), all Council of Scientific and Industrial Research (CSIR) Laboratories, all Defence R&D Laboratories, all laboratories functioning under Indian Council of Agricultural Research (ICAR) and Indian Council of Medical Research. (ICMR).
- x) **Directors of** - Co-operative Research Associations and of major private R&D Laboratories, as approved by the Department of Science and Technology.
- xi) **Award Winners** of Shri Om Prakash Bhasin Foundation for Science and Technology.
- xii) **The Judging Committee** constituted for the year can also draw up a list of eminent persons who may be specially requested to send nominations **on or before 30th Sept each year.**

#### HOW TO MAKE NOMINATIONS

Nominations should be on the prescribed NOMINATION FORM. This Form should be completed in all respects. Ten (10) sets of the NOMINATION PAPERS may be sent to:- Secretary, Shri Om Prakash Bhasin Foundation, K-5, Hauz Khas Enclave, Aurobindo Marg, New Delhi -110016, Telefax: 26602708 along with **at least one set of** reprints / preprints / reports pertaining to the R&D work and other documentary evidence particularly of the national gains

achieved including patents taken / exploited.

The Nominations should be signed by the Sponsors and sent in a sealed envelope marked "CONFIDENTIAL". **Consent of the nominee should be obtained by the sponsors and so indicated on the prescribed Nomination Form.**

#### DEAD-LINE FOR RECEIPT OF NOMINATIONS AND VALIDITY

- » The last date of receipt of nominations will be **30<sup>th</sup> September every year.**
- » The NOMINATION PAPERS once received will be valid for consideration **3 times.**
- » At present, 5 Awards winner are selected in a year and the awards presentation ceremony is held once in 2 years.

The proposers / nominees should inform the FOUNDATION from time to time about the change (if any) in the address, phone nos. Email ID etc. **They are requested to update of their Nomination Papers with major contributions made by the Nominee after initial submission of nomination papers.**

#### SELECTION OF AWARD WINNERS

The Foundation will set up **Experts Committee(s)** of each of the **five fields** in which Awards are to be given.

These Experts Committee(s) will go through the nomination papers and their recommendations will be put up to a **Judging Committee** consisting of the Scientist Trustee of the Foundation as its Chairman and Chairmen of the individual Expert Committees-as its Members. The Judging Committee's recommendation will be put up to the BOARD OF TRUSTEES whose decision shall be final and binding on all concerned.

#### PRESENTATION OF AWARDS

The Awards will be formally presented to the Awardees at an "Awards Presentation Ceremony". The scientific contributions of the award winners will be read out during the Ceremony.

The Awardees will be required to deliver and address / lecture to be called "SHRI OM PRAKASH BHASIN MEMORIAL LECTURE" on that occasion or elsewhere, on aspects relating to the scientific work for which he or she has been given the Award.



Late Mrs. Vinod Bhasin

08.09.1928 - 22.12.2008



## Remembrance of Late Mrs. VINOD BHASIN



Mrs. Vinod Bhasin was born on 8<sup>th</sup> September, 1928 in Rawalpindi (now in Pakistan). She was the wife of the Founder of this Trust Late Shri Om Prakash Bhasin. She was named the first Chairperson of this Trust/Foundation and headed it till her sad demise on 22<sup>nd</sup> December, 2008.

Mrs. Vinod Bhasin was very passionate about the Trust and all other charitable organizations that she & her husband got involved with, She took it upon herself as a mission to promote and support the cause that was so close to her husband's heart.

It would be fair to say that the entire success of 'The Shri Om Prakash Bhasin Foundation for Science & Technology' is due to the efforts of Mrs. Vinod Bhasin. Even though she was not a scientist, her sheer enthusiasm for this cause helped create a team of eminent scientists to support the Trust. Her dynamism, passion and determination has been at the heart of this great Foundation. She believed in the objectivity and impartiality of the deliberations to select the awardees; and took great interest in the discussions of the Jury to select the Awardees. She herself sent messages of congratulations to the selected individuals and often visited the places where the awardees had done the work that led to the Award.

Mrs. Bhasin will be greatly missed. It would be her goal to see her children further promote and uphold the noble thoughts behind this Trust. I know personally that the more she was involved in the Trust, the more she felt a closeness to her husband, whom she loved and respected dearly. She would want her children to carry forward this noble legacy. Mrs. Vinod Bhasin makes one realize the boundless power of a noble idea. This was an idea that her husband planted, which she grew into a glorious reality. We hope the Trust continues to grow and spread as its Founder & first Chairperson would want.

We will miss you dearly and hope we can live up to the impeccable standards you have created at The Shri Om Prakash Bhasin Foundation for Science & Technology.

Thank you Vinod Jee for all that you have done.

*Prof. M.G.K. Menon* , FRS

## OUR BELOVED Dr. V.P. SHARMA



06.04.1938 - 09.10.2015

Dr. Vinod Prakash Sharma born on 06.04.1938 the most distinguished Malariologist, worked in the ICMR for nearly 3 decades and retired in 1998 as Director, Malaria Research Centre an Additional Director General of I.C.M.R. He was a fellow of all the 3 Science Academies of India and of the Academy of Medical Sciences and TWAS. He has more than 40 research publications and many books to his credit. He was also WHO advisor for a long time and developed a road map for malaria control: this is used by many countries today. He was the former President of National Academy of Sciences, India (NASI) Allahabad, Dr. V.P. Sharma achieved numerous scientific Awards and distinctions for his outstanding contributions to research, and its application in the field of malaria and its control. These includes: the Padma Shri (1992) from the President of India, Ranbaxy Award for applied medical sciences (1990) FICCI Award (1998), Dr. B.R. Ambedkar Award of ICMR (2000) and the first Green Scientist Award for 2001 from Centre of Science & Environment and Gujar Mal Modi Award in 2013 etc. He was awarded Padma Bhushan in 2014.

A well known personality among the scientific community of the country. O.P.B.F. Trust is greatly facilitated by tremendous cooperation and keen interest/contribution from Late Dr. V.P. Sharma. He was the 1st Award Recipient (Shri Om Prakash Bhasin Award for Science & Technology in the field of Health & Medical Sciences for the year 1985) and was honored by the then Prime Minister of India – Shri Rajiv Gandhi. Later, from the year 2011 onwards he was Scientist Trustee of Shri Om Prakash Bhasin Foundation Trust (17.11.2011 to 09.10.2015)

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### TRIBUTES

"Deeply shocked and saddened to hear the sudden demise of our beloved scientist trustee Dr. V.P. Sharma on 09.10.2015. We warmly remember his enthusiastic and skillful support to Shri Om Prakash Bhasin foundation trust. He was a very kind person who was always willing to give his valuable time and knowledge to the scientific community and his colleagues. "we pray to the almighty god to grant peace to the departed soul and strength to the bereaved family."

Prof. M.G.K. Menon, FRS, Shivy Bhasin, Hemant Kumar Bhasin,  
Samar Vikram Bhasin, Vipin kumar chadha (S.B.I.) RC Grover-OPBF trust.

"Apart from being a great scientist of national and international repute, Dr V.P. Sharma was an affectionate human being with great zeal to work for all concerned. I fondly remember my interaction with him in 2007 when he organized my Dr. BP Pal lecture memorial award of NASI at the IARI, New Delhi. Being abroad i couldn't attend his lecture on 'sunlight and human health' at I.I.T. Delhi on 29th september 2015 but kept the abstract of his lecture in my folder, being a notable reminder to health conscious people. Alas ! I will greatly miss him now."

Dr. Prem Narain (Award Winner 1990 )

"We still cannot believe that Dr. V.P. Sharma is not there with us any more. He was such a respected scientist and always so helpful and so enthusiastic of all efforts. Among his many other responsibilities, Prof./Dr. V.P. Sharma was the chairperson of the NASI Delhi chapter."

Prof. Ajoy Ghatak (Award Winner 2015)



## Dr. A.P.J. ABDUL KALAM



15.10.1931 - 27.07.2015

Avul Pakir Jainulabdeen "A. P. J." Abdul Kalam was the 11th President of India from 2002 to 2007. A career scientist turned politician, Kalam was born and raised in Rameswaram, Tamil Nadu, and studied physics and aerospace engineering.

He spent the next four decades as a scientist and science administrator, mainly at the Defence Research and Development Organisation and Indian Space Research Organisation and was intimately involved in India's civilian space program and military missile development efforts. He thus came to be known as the Missile Man of India for his work on the development of ballistic missile and launch vehicle technology. He also played a pivotal organizational, technical, and political role in India's Pokhran-II nuclear tests in 1998, the first since the original nuclear test by India in 1974.

- Born: 15 Oct 1931, Rameswaram, India
- Education: St. Joseph's College, Tiruchirappalli, Madras Institute of Technology (1955 - 1960)
- Parents: Jainulabiddin Marakayar (Father), Ashiamma Jainulabiddin (Mother)
- Dr. Kalam was Ownerd with Shri Om Prakash Basin Award on 23-05-1987
- Principal Scientific Advisor to the Government of India
- Previous office: President of India ( 2002 – 2007 )
- Awards: BHARAT RATNA (1997), Padma Vibhushan (1990), Padma Bhushan (1981) Hoover Medal (2009)
- IEEE Honorary Membership (2011), Indira Gandhi Award for National Integration (1997), Ramanujan Award (2000).
- On 26-10-2006 Dr. A.P.J. Abdul Kalam was the Chief Guest, who honoured Indian Scientist with Shri Om Prakash Basin Awards.
- King Charles II Medal (2007), International von Kármán Wings Award (2009), Veer Savarkar Award (1998)
- Died: 27 Jul 2015, Shillong.

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### Memories

On 23rd May 1987, Shri A.P.J. Abdul Kalam was honored with Shri Om Prakash Bhasin Award for the year 1986 for his distinguished contribution in the field of Space & Aero Space by Giani Zail Singh, the then President of India.

On 26th October, 2006, Dr. A.P.J. Abdul Kalam, Hon'ble President of India honoured 11 eminent scientists and technologists of India with Shri Om Prakash Bhasin Awards for the year 2004.

# SHRI OM PRAKASH BHASIN FOUNDATION FOR SCIENCE & TECHNOLOGY

## *Present Board of Trustees*



Shivy Bhasin



Hemant Kumar Bhasin



Samar Vikram Bhasin



Dr. (Mrs) Manju Sharma



Vipin Kumar Chadha

For and on behalf of

**State Bank of India**

Bank Trustee





## **Dr. (Mrs.) MANJU SHARMA**

Born in Kanpur, Uttar Pradesh, India on 13th February 1940. Educated at Lucknow University. BSc 1959, MSc 1961, Ph.D 1965 Post-doctorate, Purdue University, USA and Institute of Plant Anatomy and Cytology, Copenhagen, Denmark.

### **FELLOW**

Third World Academy of Sciences, National Academy of Sciences, India NASI, Indian Society of Agricultural Biochemists, National Academy of Agricultural Sciences.

### **RESEARCH AREAS**

Plant Anatomy & Plant Chemistry, Monumental contributions for development of, the field of Biotechnology in the country.

### **AWARDS / HONOURS**

- Gold Medal, Lucknow University, VASVIK Award 1994,
- Norman E. Borlaug Award 1995, Distinguished Scientist,
- K.N. Bahl Memorial Gold Medal 1997,
- FIE's National Award 1998,
- Shri Om Prakash Bhasin Award 1998 ,
- Gujar Mal Modi Award,
- Life Time Achievement Gold Medal by NASI, Allahabad,
- Hall of Fame of the International Conference on Women,
- Asutosh Mukerjee Memorial Award 2000-2001,
- President, Association of Microbiologists of India (AMI) 1999,
- President, Vigyan Parishad, Prayag, Allahabad,
- President, National Academy of Sciences, India, Allahabad,
- President, Indian Science Congress. Kolkata,
- Chairman, Board of Governors, S.R.I., New Delhi,
- Chairman, Board of Governors, UNU – IAS, Japan

### **Present Address**

#### **Dr. (Mrs.) MANJU SHARMA**

Formerly Secretary, Deptt. of Biotechnology, Government of India,  
Principal Advisor to the Deptt. of Science and Technology, Gujarat,  
Distinguished Women Scientist Chair Professor – NASI, Allahabad,  
SCIENTIST TRUSTEE - SHRI OM PRAKASH BHASIN FOUNDATION,  
B – 9 Extension (Gate No. 3) House No. 6476 ( FF),  
Vasant Kunj, New Delhi- 110 070, 09810702411,  
011- 46063722, 011- 26134608, (R) manjuvps@gmail.com

## OUR MENTOR



### Prof. M.G.K. MENON, FRS

Mambillikalathil Govind Kumar Menon also known by his dear ones as Goku, is an architect of modern scientific and technological India. Son of Kizhekapat Shankara Menon, a District and Sessions Judge, Prof. M.G.K. Menon was born in Mangalore on 28th August 1928.

From the beginning of his education journey he loved science and the spark that lit his deep commitment to fundamental research which was provided by none other than Nobel laureate Sir C.V. Raman. He was awarded Ph.D from Bristol, where he met his wife Indumati Patel, a student of philosophy.

Towards the end of 1955, Homi Jahangir Bhabha invited Prof. M.G.K. Menon to join the Tata Institute of Fundamental Research (TIFR). Over there, Prof. M.G.K. Menon experimented and extended his passion for physics by spearheading several programmes making him a pioneer in the study of physics in India. He was soon made the Dean of the Faculty of Physics immediately followed by elevation to the position of Deputy Director (Physics).

Given his valuable contribution and initiative at TIFR, and after the sad demise of Bhabha on 24th January 1966, Mr. JRD Tata appointed Prof. M.G.K. Menon, Director TIFR. In December 1971 Prof. M.G.K. Menon was appointed Chairman, Indian Space Research Organization (ISRO). He was already holding the positions of Chairman, Electronics Commission and Secretary to the Government of India, Department of Electronics, concurrent with the Directorship of TIFR, Menon was asked by the then Prime Minister Indira Gandhi to shoulder the additional responsibilities as the Chairman of ISRO and Director of Physical Research Laboratory (PRL), Ahmedabad.

Despite his numerous responsibilities and prestigious designations his love for science always took precedence. Menon was elected Fellow, Royal Society (London) in 1970, in recognition of his contributions to particle physics and for the studies of cosmic rays. He has also been the President of three academies of sciences in India- the Indian Academy of Sciences (IAS), the Indian National Science Academy (INSA) and the National Academy of Sciences (NASI). He was the President of International Council of Scientific Unions (ICSU). He is recipient of very prestigious national and international awards.

Prof. Menon's progressive and elegant management skills encouraged him to bring in scientists from new and emerging fields of study. The combination of a dynamic personality along with high intellect won Prof. M.G.K. Menon highly recognized awards, Padma Shri (1961), Padma Bhushan (1968) and Padma Vibhushan (1985). He served as Minister of State for Science and Technology and Education from 1989 to 1990. Moreover, he was Member of Parliament, Rajya Sabha from 1990 to 1996.

Prof. M.G.K. Menon has been the Scientific Trustee on the Board of Om Prakash Bhasin Foundation from its inception in 1984, and been instrumental in nurturing and establishing the OPBF as one of the highly reputed awards for Science and Technology in India.

Shri Om Prakash Bhasin Awards for the years 2011, 2012 & 2013 were presented by Prof. M.G.K. Menon on 01-11-2014 in the Auditorium of India International Center, New Delhi 110003.



## OUR CHIEF GUEST



### BHARAT RATNA Prof. C. N. R. Rao, FRS

Chintamani Nagesa Ramachandra Rao FRS, also known as C.N.R. Rao, is an outstanding Indian chemist who has worked mainly in solid-state and structural chemistry. He was the Head of the Scientific Advisory Council to the Prime Minister of India. Rao has honorary doctorates from 60 universities from around the world. He has authored around 1,500 research papers and 45 scientific books.

Born: 30 Jun 1934 • Bengaluru, India

Education: Purdue University • Banaras Hindu University • University of Mysore

#### AWARDS

He has received numerous national and international Awards. To name a few:-

- SS Bhatnagar Award,
- Gujar Mal Modi Award
- Royal Society Medal (London) 1981,
- Meghnad Saha Award (1990),
- Einstein Gold Medal Award (1996),
- Medal of Royal Society of Chemistry, London (2000),
- Hughes Medal (2000),
- Abdus Salam Medal (2008),
- Padam Shri (1974),
- Padam Vibhshan (1985)
- Highest civilian award - Bharat Ratna (2014)

#### TIMELINE

- 1953 : He was granted a scholarship for PhD in IIT Kharagpur.
- 1986 : Advances in Solid State Chemistry written by C. N. R. Rao was first published in 1986.
- 1989 : Rao is currently the National Research Professor, Linus Pauling Research Professor and Honorary President of Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore which he founded in 1989.

## SHRI OM PRAKASH BHASIN AWARDS (2014)

### AGRICULTURE AND ALLIED SCIENCES

(Including Animal Husbandry, Horticulture, Forestry, Fisheries, Bio-mass Production)



**Dr. H.S. Gupta**

Dr. Hari Shankar Gupta was born on 1st July 1953 at Rudrapur, Distt. Deoria, Uttar Pradesh India.

Dr. H.S. Gupta has made outstanding contribution in the field of agricultural sciences in general and molecular crop breeding in particular. He has been working on biofortification of maize for the last 15 years and has successfully developed several short duration 'Quality Protein Maize' hybrids through molecular marker-assisted backcross breeding. Two of these hybrids, rich in two essential amino acids viz. lysine and tryptophan, have been released for commercial cultivation and private seed companies are producing seeds of these hybrids.

Dr Gupta's group continues to work on improving nutritional quality of maize and has enriched many Quality Protein Maize hybrids with  $\beta$ -carotene, by transferring  $\beta$ -carotene hydroxylase (crtRB1) allele from a naturally occurring source that enhanced  $\beta$ -

carotene level by 8 times in the newly developed hybrids - from 2.5 ppm in the original hybrid to 17-21 ppm in the new hybrids. This is a significant step forward in producing multi-nutrient maize, which will help in reducing vitamin A deficiency in human population, which consumes maize as food, and livestock (viz. poultry and pigs) that uses maize as feed.

Dr Gupta has also been associated with development and release of more than 30 varieties of cereals, pulses, oilseeds and vegetables. While working at the Indian Agricultural Research Institute, New Delhi during 2009-14, he played key role in release and commercialization of wheat variety, HD 2967, which to date covers around 11 million ha area and adds approximately 4 million tonnes of additional wheat valued at Rs six thousand crores annually. Dr Gupta's research has been widely recognized nationally as well as internationally.

Shri Om Prakash Bhasin Foundation is happy in conferring on him its Award in the field of Agriculture and Allied Sciences for the year 2014.

## SHRI OM PRAKASH BHASIN AWARD (2015)

### AGRICULTURE AND ALLIED SCIENCES

(Including Animal Husbandry, Horticulture, Forestry, Fisheries, Bio-mass Production)



### Dr. Subanna Ayyappan

Dr. S. Ayyappan was born at Alakere in the State of Karnataka, India on 10th December, 1955. Dr. S. Ayyappan, with significant contributions in the areas of research are Fisheries, Freshwater Aquaculture and Aquatic Microbiology, has served as the Secretary, DARE & Director General, ICAR during 2010-16, Deputy Director General (Fisheries), ICAR, New Delhi, India, 2002-09; Director, CIFE (Deemed University), Mumbai, 2000-2002; and Director, CIFA, Bhubaneswar, 1996-2000, as also the Founder Chief Executive of the National Fisheries Development Board, Hyderabad. He has made significant contributions to administration and research management of the National Agricultural Research System since 1996.

Dr Ayyappan has over 200 publications in reputed journals/proceedings and books, two patents and conferred D.Sc. (honoris causa) by 13 Universities in the country, with technologies developed for intensive carp polyculture, aquatic biofertilisation, wastewater management. President of the National

Academy of Agricultural Sciences, New Delhi and Fellow of the National Academy of Sciences, India, Allahabad, he is a recipient of several awards and recognitions, ICAR Award for Team Research; ZahoorQasim Gold Medal; V.G. Jhingran Gold Medal; S.L. Hora Gold Medal; Dr. B.P. Pal Memorial Award, ISCA; Karnataka Rajyotsava Award; Dr. Y. Nayudamma Award; Dr. J.C. Bose Memorial Award; G.M. Modi Award for Innovative Science & Technology, to name a few.

Dr. Ayyappan has been on the Governing Board of the WorldFish, Malaysia; ICRISAT, Hyderabad; IRRI, Philippines; ICARDA, Lebanon; ACIAR, Australia; Chairman, Asia-Pacific Association of Agricultural Research Institutions (APAARI); Research Coordination Committee of the Central Silk Board; Adjunct Professor, National Institute of Advanced Studies, Bengaluru. Dr Ayyappan has represented the country in several important international fora. His visits to over forty countries have developed a deep understanding and widened the horizon of his vision of agricultural development, especially in the developing countries.

Dr. S. Ayyappan, NABARD Chair Professor; Adjunct Professor, NIAS; Former Atal Bihari Vajpayee Chair for Technology Foresighting & Policy Planning; Secretary, Department of Agricultural Research and Education (DARE) & Director General, Indian Council of Agricultural Research (ICAR), Government of India, Ministry of Agriculture, ICAR-NDRI Southern Regional Station, Adugodi, Bengaluru-560030, India

Shri Om Prakash Bhasin Foundation is happy in conferring on him its Award in the field of Agriculture and Allied Sciences for the year 2015.

## SHRI OM PRAKASH BHASIN AWARD (2014)

### BIOTECHNOLOGY

(Including Modern Biology Micro-biology And Immunology)



### Dr. (Ms.) Chandrima Shaha

Dr. (Ms.) Chandrima Shaha was born on 14th October, 1952 in Calcutta, India. Dr. Shaha's research has made major contributions towards the understanding of cell death pathways and cellular defense processes that have important bearing on designing of therapies for various diseases. The theme of Dr. Shaha's research is to understand how cell death processes can be manipulated to improve treatments of two diseases, namely Kala-azar and certain forms of cancer. Dr Shaha's laboratory was the first to identify the existence of distinct death machinery in the *Leishmania* parasite, the causative agent of Kala-azar. The highly cited publications from this research have led to important discoveries from her own group and other laboratories around the world. These discoveries show how parasite death can be induced by manipulating parts of the death machinery, thus identifying possible targets for drugs. As an offshoot of this study, a molecule was identified that was evaluated for Kala-azar

diagnosis and the study is now being expanded in a larger patient base to establish its utility as a diagnostic marker. The possible translational successes that can ensue from the studies from her laboratory are the development of a diagnostic kit for Kala-azar and small molecule inhibitor development for anti-parasitic activity. An overabundance of cells caused by normal body processes or pathological conditions lead to cancer. Dr Shaha's laboratory has shown how cells own processes of death can be manipulated to increase the susceptibility of the cancer cells to killing by drugs in testicular and blood cancers. Important advances have been made by Dr. Shaha's group to understand a self-eating cellular process essentiality meant for housekeeping can be harnessed to target tumor cells in animal models.

Shri Om Prakash Bhasin Foundation is happy in conferring on her its Award in the field of BIOTECHNOLOGY for the year 2014.



## SHRI OM PRAKASH BHASIN AWARD (2015)

### BIOTECHNOLOGY

(Including Modern Biology Micro-biology And Immunology)



**Prof. M. K. Bhan**

Prof. M.K. Bhan was born on 09th November, 1947 at Srinagar, Jammu & Kashmir, India.

Prof. M.K. Bhan, a Padma Bhushan awardee, is currently a National Science Professor at IIT Delhi and was the Former Secretary, Department of Biotechnology, Government of India.

He has achieved global recognition for his research contributions that have impacted children's health and survival across the developing world. His notable contributions included the development of an indigenous rotavirus vaccine which is now introduced in to the national program of immunization. This is the first discovery to development vaccine effort in India. His other contribution were to development of low osmolarity ORS, zinc as a treatment of diarrhea, understanding zinc deficiency and its consequences and the IMNCI program, now a backbone of Indian child health system. His research contributed important knowledge about gut infection including viral

pathogens and diarrheagenic E.coli, and was the first to identify a role for Enteraggregative E.coli in persistent diarrhea.

He has contributed significantly to translating research knowledge and products to child health program at international and national levels.

As Secretary, Department of Biotechnology, he was one of the key architects of designing the biotechnology ecosystem in the country and transformed academic industry interaction in biotechnology.

He is among the chosen global leaders of child health and nutrition, a teacher and researcher par excellence.

Shri Om Prakash Bhasin Foundation is happy in conferring on him its Award in the field of BIOTECHNOLOGY for the year 2015.

## SHRI OM PRAKASH BHASIN AWARD (2014)

### ELECTRONICS & INFORMATION TECHNOLOGY



**Prof. Subrat Kar**

Prof. Subrat Kar was born on 4th March 1966 at Cuttack in Odisha, India. After graduating with Honors in Electrical Engineering from BITS Pilani in 1987, Prof. Subrat Kar received his PhD Degree from the Indian Institute of Science, Bangalore in 1991.

After his post-doctoral work in ICTP Trieste and the Institut für Quantenelektronik, ETH-Hoenggerberg-Zurich, he joined IIT Delhi in 1994 where he is a full Professor with the Department of Electrical Engineering and the Bharti School of Telecommunication Technology and Management.

In 2011, he was appointed as the Ram and Sita Sabnani Chair Professor in Computer Communications. He works in the area of non-linear optical CDMA networks, free space optical communication (ground-satellite and inter-satellite) and in ultra-fast optical LSI and fast-tolerant integrated optical switching architectures. His

interests also involve formalisms in embedded system design, hardware-software co-design, telecom protocol design and verification tools for telecommunication protocols, large-scale sensor networks, routing algorithms, micro languages, large scale repository design for sensor data and localization issues in sensor networks.

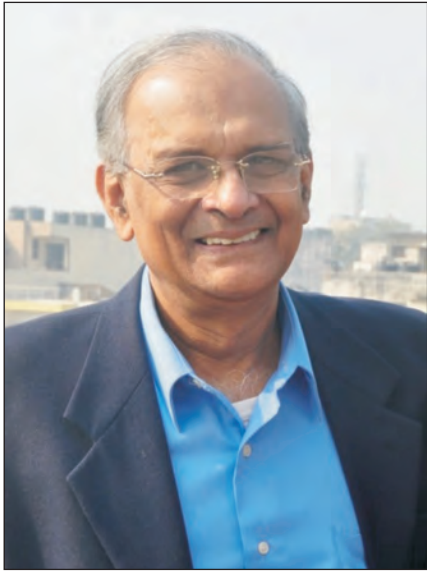
Prof. Subrat Kar has made significant contributions to the indigenous design and development of large sensor networks and in applying them to address two significant national problems (a) to achieve low-cost automation in animal husbandry or small unorganized rural farmers and (b) to prevent elephant deaths due to collisions with speeding locomotives by detecting animal movement and signalling the locomotive driver. The potential of such relevant low-cost automation is expected to yield rich economic dividends to the small Indian farmer. The application of sensor networks to prevent elephant deaths is a significant step towards elephant conservation.

He has demonstrated the use of cost effective Micro-Optical Electro-mechanical Systems (MOEMs) for setting up ground to satellite and satellite-satellite (LEO-LEO) optical links and has developed models for enhancing the throughput of free space under optical communication links turbulence conditions and flexgrid terrestrial optical links.

Shri Om Prakash Bhasin Foundation is happy in conferring on him its Award for the year 2014 in the field of ELECTRONICS & INFORMATION TECHNOLOGY.

## SHRI OM PRAKASH BHASIN AWARD (2015)

### ELECTRONICS & INFORMATION TECHNOLOGY



**Prof. Ajoy Ghatak**

Prof. Ajoy Ghatak was born on 9<sup>th</sup> November, 1939 at Lucknow, India.

Professor Ghatak has made extremely significant contributions in optical waveguide theory and in quantum well structures. He has given a new formalism to understand the propagation of leaky modes in waveguides. This formalism on the propagation of leaky modes has been used (by Professor Ghatak and his colleagues) to develop a matrix formalism to study the propagation characteristics of planar and circularly symmetric waveguides structures. The method has also been applied to quantum mechanics (with applications to quantum well structures) and the method has often been referred to as The Ghatak Method. In a series of papers Professor Ghatak (and his colleagues) have shown that a direct solution of the one dimensional wave equation based on Modified Airy functions gives a very accurate description of the wave function in a variety of situations. This method

has also been referred to as The Ghatak Method. Professor Ghatak (and his colleagues) have used Modified Airy Functions in solving problems in Waveguide Theory and Quantum mechanics; this work has also been recognized. His work (in collaboration with his colleagues at IIT Delhi) on the analysis of integrated optic waveguides now appear in text books.

He has also authored (and coauthored) many books which are being used throughout the world. Some of his books have been translated to Russian, Persian and Chinese. Because of his immense contributions, Professor Ghatak received the 2008 SPIE (USA) Educator Award “ ....in recognition of his unparalleled global contributions to the field of fiber optics research, and his tireless dedication to optics education worldwide ...”. He also received the 2003 Esther Hoffman Beller Medal instituted by the OSA (Optical Society of America); he received this award “..for outstanding contributions to optics education and for leadership of a major fiber optics and optoelectronics research and training program in a developing nation”. Professor Ghatak is also recipient of the CSIR SS Bhatnagar award for his outstanding contributions in Physical Sciences.

Shri Om Prakash Bhasin Foundation is happy in conferring on him its Award for the year 2015 in the field of ELECTRONICS & INFORMATION TECHNOLOGY.

## SHRI OM PRAKASH BHASIN AWARD (2014)

### ENGINEERING INCLUDING ENERGY & AERO SPACE



**Prof. Bhim Singh**

Prof. Bhim Singh was born on 1st January 1956 at Rahamapur, Bijnor (UP), India. He has demonstrated a high level of leadership for more than 36 years in research, consulting and innovative teaching. Most significant research contributions of Prof. Singh are on (i) Active power filters and multi-pulse AC-DC converters for power quality improvements, (ii) Voltage and frequency controllers of asynchronous generators for standalone power generation, (iii) Optimum design and development of energy efficient squirrel cage induction motors for irrigation pumps, and (iv) Solar PV Energy Conversion for grid interface and water pumping systems.

Prof. Singh has received Khosla Research Prize of University of Roorkee in year 1991. He is recipient of JC Bose and Bimal K. Bose awards of Institution of Electronics and Telecommunication Engineers for his contributions in the field of Power Electronics. He

is recipient of Maharashtra State National Award of Indian Society for Technical Education in recognition of his outstanding research work in the area of Power Quality. He has received PES Delhi Chapter Outstanding Engineer Award for the year 2006. Prof. Singh has received Khosla National Research Award of IIT Roorkee for the year 2013.

Prof. Bhim Singh has been General Chair of IEEE International Conference on Power Electronics, and Energy Systems (PEDES'2006), Co-General Chair of (PEDES'2010) held in New . He has guided 58 Ph.D. Dissertations and 156 ME / M.Tech / MS Thesis. He has executed more than 75 sponsored and consultancy projects. He has published more than 500 Journal and 650 Conference papers and 18 patents. He has co-authored a text book on power quality: Power Quality Problems and Mitigation Techniques published by John Wiley & Sons Ltd.

Prof. Singh is Fellow of The Indian National Science Academy (FNA) the Indian National Academy of Engineering (FNAE), the National Academy of Science, India (FNASc), the Indian Academy of Sciences, India (FASc), The World Academy of Sciences (FTWAS), Institute of Electrical and Electronics Engineers (FIEEE), Institute of Engineering and Technology (FIET), Institution of Engineers (India) (FIE), and Institute of Electronics and Telecommunication Engineers (FIETE).

Shri Om Prakash Bhasin Foundation is happy in conferring on him its Award for the year 2014 in the field of ENGINEERING including ENERGY & AERO SPACE.



## SHRI OM PRAKASH BHASIN AWARD (2015)

### ENGINEERING INCLUDING ENERGY & AERO SPACE



### Prof. (Ms.) Sneha Anand

Prof. Sneha Anand, was born on 2nd August, 1949 in Shimla, Himachal. She graduated in Electrical Engineering from Punjab University, Patiala in 1970 and did her Masters (Control & Instrumentation) and Doctoral Research (Biomedical Engineering) at the Indian Institute of Technology, New Delhi, in 1972 and 1976 respectively. She has contributed her 43 years of her life to Indian Institute of Delhi. She optimally combines her Engineering training with biomedicine to bring in innovative concepts and give them a practical shape as products which benefit many people in need. Dr. Anand's systematic holistic approach that is well directed towards manpower training, innovative research and technology development.

Her principal achievements are in the areas of transducers and biosensors, reproductive bioengineering and rehabilitation Engineering. Addressing the problem of population control she demonstrated how Electrical Engineering principles

could be applied to understand the physiology of reproduction and provide an electronic reversible fertility control device. Her multiple areas of research includes General Surgery, Neurology, Anesthesiology, Cancer, Health IT, Orthopedic, Patient Monitoring, Ophthalmology, Cardiology, Home care, Dermatology, Pediatrics, Imaging, Rehabilitation and Brain computer Interface.

With her dedicated biomedical R&D efforts she has published more than 130 papers in reputed biomedical journals. She has 8 inventions and more than 8 patents to her credit and has transferred 8 know-hows to Indian Industries. Her pioneering contributions rehabilitation engineering that helped the blind to find Industrial placements; a universal graphic system which enabled blind to read text and diagrams via computer monitor and a very special computer based communication system for spastics are noteworthy. For these scientific endeavors National Research and Development Corporation awarded topmost invention awards for the years 1989, Ministry of welfare presented Technology Invention awards for the years 1988, 1989, 1992 and 1993 in rehabilitation engineering and the Indian Council of Medical Research conferred Kshanika oration and Citation award for the year 1993 in Healthcare technology on her and many more. With this and others Prof. Anand stands unique in the country as an engineer who has gone beyond academics and practically helped people through biomedical technology.

Shri Om Prakash Bhasin Foundation is happy in conferring on her its Award in the field of ENGINEERING including ENERGY AND AERO SPACE for the year 2015.

## SHRI OM PRAKASH BHASIN AWARD (2014)

### HEALTH & MEDICAL SCIENCES



### Prof. Balram Bhargava

Prof. Balram Bhargava was born on 21st July 1961 at Lucknow, India, he is Professor of Cardiology at the prestigious All India Institute of Medical Sciences, New Delhi and also serves as the Executive Director for Stanford India Biodesign Centre, School of International Biodesign (SiB). Professor Balram Bhargava is an outstanding cardiologist, one of the foremost leaders in biomedical innovation, public health, medical education and medical research. He developed the indigenous Platinum Iridium coil coronary stent. He has been instrumental in clinically evaluating two other laser cut Indian stents (Supralimius and Release-T). These low cost indigenous stents have benefitted several thousand patients. He set up the c-GMP Centre for Excellence for Stem Cell Studies, which has initiated treatment of patients with dilated cardiomyopathy; this has benefitted number of no-option heart failure patients waiting on the cardiac transplant list.

He has excellent leadership qualities; and has promoted the India-Stanford Biodesign programme, a unique interdisciplinary fellowship programme to foster innovation, design in low cost implants/devices. This programme has led to the establishment of the School of International Biodesign (SiB). This fellowship on Biomedical Technology Innovation and has led to over twenty patents on low cost medical devices. One of the low cost devices is in the Indian market and one device has been approved by the USFDA.

He is currently developing the Chest Compression Device for Sudden Cardiac Death patients; funded by the Wellcome Trust. He is providing leadership for creative disease prevention, early detection and transport system for sick cardiac patients. He is an innovator par excellence with innovations touching everyday lives with very huge social impact. He has also started the Society for Less Investigative Medicine (SLIM). He has been awarded the SN Bose Centenary Award by the Indian National Science Congress and NASI-Reliance Platinum Jubilee Award, Tata Innovation Fellowship and Vasvik Award for Biomedical Technology Innovation. He is currently the Founding Editor in Chief of the British Medical Journal Innovations (BMJi). He has been awarded the 'Padma Shri' high civilian award by the Honourable President of India.

Shri Om Prakash Bhasin Foundation is happy in conferring on him its Award for the year 2014 in the field of HEALTH & MEDICAL SCIENCES.

## SHRI OM PRAKASH BHASIN AWARD (2015)

### HEALTH & MEDICAL SCIENCES



**Prof. Nikhil Tandon**

Prof. Nikhil Tandon, was born on 28 November, 1963 in Lucknow. He had a brilliant academic career as an undergraduate at the All India Institute of Medical Sciences, where he was declared the Best Outgoing Student of his MBBS batch, before being trained in Internal Medicine and Endocrinology. Dr Tandon is recognised nationally and internationally as an outstanding research scientist. His clinical experience has helped him identify and conduct research on clinical, epidemiological, basic, genetic and translational aspects of nationally relevant diseases including diabetes and metabolic bone diseases including Vitamin D deficiency and osteoporosis. This research has contributed to our understanding of the epidemiology and etiopathogenesis of non-communicable diseases (NCDs) and their risk factors, and the impact of these diseases on life-long morbidity, all of which are critical to plan preventive and therapeutic strategies. His work has also improved our

understanding of the role played by events in early life (childhood and adolescence) in development of disease in adulthood. His group has also undertaken implementation research making innovative use of technology and task-shifting of health care workers for quality improvement in the management of diabetes, which is relevant for all resource-constrained settings.

Notwithstanding the heavy load of service and training, Professor Nikhil Tandon has been able to contribute to frontline, nationally relevant, and internationally competitive research leading to more than 300 papers which have been cited in excess of 4000 times.

In recognition of his contributions, he has been elected as a Fellow of National Academy of Medical Sciences, National Academy of Sciences, India, Indian Academy of Sciences, and the Royal College of Physicians (London). His contribution as a teacher was also recognized by being awarded the Dr BC Roy Award for being an Eminent Medical Teacher by the Medical Council of India. He has served as President of the Indian Society for Bone and Mineral Research and President of the Endocrine Society of India.

In recognition of his contributions as an outstanding academician, physician, and clinical research scientist, he has been conferred the Shri Om Prakash Bhasin Award in the Field of Health & Medical Sciences for the year 2015.

## List of Award Winners 2014 & 2015

Award Winners 2014	Field(s)	Award Winners 2015
<b>Dr. H.S. GUPTA</b> Director General Borlaug Institute for South Asia CG Block, NASC Complex, Pusa Campus, DPS Marg, New Delhi -110012 Tel.: 011- 25842940 Mob: 09654494989 E-mail: h.s.gupta@cgiar.org	<b>AGRICULTURE &amp; ALLIED SCIENCES</b> <b>including Animal Husbandry, Horticulture, Forestry, Fisheries, Bio-Mass Production</b>	<b>Dr. SUBANNA AYYAPPAN</b> Formerly Secretary to the Government of India, Deptt. of Agricultural Research & Education & Director General I.C.A.R. Krishi Anusandhan Bhawan A-1, N.A.S.C., D.P.S. Marg, New Delhi - 110012 Telexfax: 011-23384773, 011- 23387293 Mob: 9582898989 E-mail: sayyappan1955@gmail.com
<b>Dr. (Ms.) CHANDRIMA SHAHA</b> Director National Institute of Immunology, Aruna Asaf Ali Marg, New Delhi-110067 Tel.: 011-26717102, 011-26717103, 011-26703602, Res: 011-26742480 Fax: 011-26717104 E-mail: cshaha@nii.ac.in	<b>BIOTECHNOLOGY</b> <b>including Modern Biology, Microbiology and Immunology.</b>	<b>Prof. M. K. BHAN</b> Sp. Pediatrics Gastroenterology, Pediatrics Infectious Diseases & Nutrition Formerly Secretary Deptt of Biotechnology National Science Professor, Ministry of Science & Technology at The Indian Institute of Technology Delhi Residence : F-14 Hauz Khas Enclave, New Delhi -110016, 011-26964173 R rajkbhan@gmail.com
<b>Prof. SUBRAT KAR</b> Professor Department of Electrical Engineering Indian Institute of Technology Delhi Hauz Khas, New Delhi-110016 Tel.: 011-26591088 Res.: 011-26591569 E-mail: subrat@ee.iitd.ac.in	<b>ELECTRONICS &amp; INFORMATION TECHNOLOGY</b>	<b>Prof. AJOY GHATAK</b> Distinguished Scientist / Visiting Professor of Physics at the Indian Institute of Technology Delhi D-42, Hauz Khas, New Delhi-110016 Res.: 011-26862998, 011-41033386 Mob: 9810493018 E-mail: ajoykgatak@yahoo.
<b>Prof. BHIM SINGH</b> CEA Chair Professor & Head Deptt. of Electrical Engineering Indian Institute of Technology Hauz Khas, New Delhi-110016 Res.: 011-26591890 Mob: 9811502125 E-mail: bsingh@ee.iitd.ac.in	<b>ENGINEERING Including ENERGY and AERO SPACE</b>	<b>Prof. (Ms.) SNEH ANAND</b> Professor, Centre For Bio-Medical Engineering at the Indian Institute of Technology Delhi Room No. 299-C, Block - II, I.I.T.D. Hauz Khas, New Delhi-110016 Tel.: 011-26591039 Mob: 9818642808 E-mail: snehanand.iitd@gmail.com
<b>Prof. BALRAM BHARGAVA</b> Professor & Senior Consultant Deptt of Cardiology Cardiothoracic Sciences Centre, Executive Director, Stanford India Bio-design, All India Institute of Medical Sciences Ansari Nagar, New Delhi -110029 Tel.: 011-26593322 Res.: 011-41750574 E-mail: balrambhargava@yahoo.com	<b>HEALTH &amp; MEDICAL SCIENCES</b>	<b>Prof. NIKHIL TANDON</b> Professor & Head Department of Endocrinology & Metabolism All India Institute of Medical Sciences Ansari Nagar, New Delhi -110029 Mob: 9818211663, 9868397601 Residence: 413, Hawa Singh Block, Asian Games Village, New Delhi -110049 E-mail: nikhil_tandon@hotmail.com





## Award Winners 1985 to 2015

### AGRICULTURE & ALLIED SCIENCES

Including Animal Husbandry, Horticulture, Forestry, Fisheries, Bio-mass Production

S. No.	Name of Recipient	Year of Award	Date of Function	Presented by
1	Dr. B. P. Pal	1985	19.03.86	Shri Rajiv Gandhi, Hon'ble Prime Minister of India
2	Dr. H. K. Jain	1986	23.05.87	Giani Zail Singh, Hon'ble President of India
3	Prof. V. L. Chopra	1987	30.05.88	Dr. S. D. Sharma, Hon'ble President of India
4	Dr. G. S. Venkataraman	1988	30.03.89	Shri P. V. Narasimha Rao, Minister of External Affairs.
5	Dr. S. K. Sinha			
6	Prof. S. S. Parihar	1989	24.10.90	Prof. Madhu Dandavate, Minister of Finance
7	Dr. T. N. Khoshoo			
8	Prof. Prem Narain	1990	13.03.92	Shri Arjun Singh, Minister for Human Resources Development
9	Dr. R. S. Paroda	1991	20.05.92	Shri P. V. Narasimha Rao, Hon'ble Prime Minister of India
10	Dr. Y. L. Nene			
11	Prof. Anupam Verma	1992	15.05.93	Sh. Shivraj V. Patil, Hon'ble Speaker, Lok Sabha
12	Dr. K. L. Chadha			
13	Dr. M. R. Sethuraj	1993	11.04.95	Sh. P. N. Haksar, Chancellor, Jawahar Lal Nehru University
14	Dr. R. N. Sawhney			
15	Dr. S. N. Dwivedi	1994		
16	Dr. E. A. Siddiq			
17	Dr. M. S. Swaminathan	1995	18.02.97	Dr. Karan Singh, Member of Parliament
18	Prof. A. N. Purohit	1996	14.10.98	Dr. Murli Manohar Joshi, Minister for HRD and Science & Technology
19	Dr. S. L. Mehta	1997		
20	Prof. H. Shekar Shetty			
21	Dr. A. Seetharam	1998	21.06.99	Shri Atal Behari Vajpayee, Hon'ble Prime Minister of India
22	Dr. R. P. Sharma	1999	11.05.01	Shri. K C Pant, Dy Chairman, Planning Commission
23	Dr. Sushil Kumar	2000		
24	Dr. S. Nagarajan	2001	13.05.02	Shri. L. K. Advani, Minister of Home Affairs
25	Dr. Moti Lal Madan	2002-03	20.08.04	Shri. Bhairon Singh, Shekhawat, Hon'ble Vice President of India
26	Dr. Baldev Singh Dhillon	2006-07	15.11.11	Shri M. Hamid Ansari, Hon'ble Vice President of India
27	Dr. Deepak Pental	2008-09		
28	Prof. Akhilesh Kumar Tyagi	2010-11		
29	Dr. Vijai Pal Singh	2012-13	01.11.14	Prof. M.G.K. Menon, FRS Former Minister for Science & Technology
30	Dr. H.S. Gupta	2014	01.11.16	BHARAT RATNA Prof. C.N.R. Rao, FRS
31	Dr. Subanna Ayappan	2015		



## Award Winners 1985 to 2015

### Biotechnology

Including Modern Biology, Micro Biology and Immunology

S. No.	Name of Recipient	Year of Award	Date of Function	Presented by
1	Dr. G. Padmanaban	1985	17.03.86	Shri Rajiv Gandhi, Hon'ble Prime Minister of India
2	Dr. K.K.G. Menon	1986	23.05.87	Giani Zail Singh, Hon'ble President of India
3	Dr. H. Y. Mohan Ram			
4	Dr. V. Jagannathan	1988	30.03.89	Shri P. V. Narasimha Rao, Minister of External Affairs
5	Prof. V. Sasisekharan	1989	24.10.90	Prof. Madhu Dandavate, Minister of Finance
6	Prof. Sipra Guha-Mukherjee			
7	Dr. (Mrs.) Indira Nath	1990	13.03.92	Shri Arjun Singh, Minister for Human Resources Development
8	Dr. Jyotimoy Das			
9	Dr. S. Ramachandran	1991	20.05.92	Shri. P. V. Narasimha Rao, Hon'ble Prime Minister of India
10	Prof. A. K. Sharma	1992	15.05.93	Sh. Shivraj Patil, Hon'ble Speaker, Lok Sabha
11	Prof. Avadhesha Surolia	1993	11.04.95	Sh. P. N. Haksar, Chancellor, Jawahar Lal Nehru University
12	Prof. Obaid Siddiqui			
13	Dr. C. R. Bhatia	1994		
14	Prof. H. K. Das			
15	Prof. Asis Dutta	1995	18.02.97	Dr. Karan Singh, Member of Parliament
16	Dr. Brahm S. Srivastava			
17	Prof. P.K. Maitra	1996	14.10.98	Dr. Murli Manohar Joshi, Minister for HRD and Science & Technology
18	Dr. Lalji Singh			
19	Dr. S. K. Basu	1997		
20	Prof. D. Balasubramanian			
21	Dr. (Mrs.) Manju Sharma	1998	21.06.99	Shri. Atal Behari Vajpayee, Hon'ble Prime Minister of India
22	Dr. C. M. Gupta	1999	11.05.01	Shri. K. C. Pant, Dy. Chairman, Planning Commission
23	Prof. M. Vijayan	2000		
24	Prof. Partha P. Majumder	2001	13.05.02	Shri. L. K. Advani, Minister of Home Affairs
25	Dr. V.S. Chauhan	2002	20.08.04	Shri. Bhairon Singh Shekhawat, Hon'ble Vice President of India
26	Dr. M.R.S. Rao	2003		
27	Dr. J. Gowrishankar	2004	26.10-06	Dr. A. P. J. Abdul Kalam, Hon'ble Vice President of India
28	Dr. Seyed E. Hasnain	2005		
29	Prof. Samir K. Brahmachari	2008-09	15.11.11	Shri M. Hamid Ansari, Hon'ble Vice President of India
30	Dr. Kanury V.S. Rao	2010-11		
31	Dr. Navin Khanna	2012	01.11.14	Prof. M.G.K. Menon, FRS Former Minister for Science & Technology
32	Dr. (Ms.) Chandrima Shaha	2014	01.11.16	BHARAT RATNA Prof. C.N.R. Rao, FRS
33	Prof. (Dr.) M.K. Bhan	2015		



## Award Winners 1985 to 2015

### Electronics & Information Technology

S. No.	Name of Recipient	Year of Award	Date of Function	Presented by
1	Prof. M.G.K. Menon	1985	17.03.86	Shri Rajiv Gandhi, Hon'ble Prime Minister of India
2	Dr. P. V. S. Rao	1986	23.05.87	Giani Zail Singh, Hon'ble President of India
3	Dr. A. P. Mitra	1987	30.05.88	Dr. S. D. Sharma, Hon'ble Vice President of India
4	Prof. R. Narasimhan	1988	30.03.89	Sh P.V. Narasimha Rao, Minister of External Affairs
5	Dr. N. Seshagiri	1989	24.10.90	Prof. Madhu Dandavate, Minister of Finance
6	Dr. S. Ramani	1990	13.03.92	Shri Arjun Singh, Minister for Human Resources Development
7	Shri. Sam Pitroda	1993	15.05.93	Shri. Shivraj Patil, Hon'ble Speaker, Lok Sabha
8	Dr. V. Rajaraman			
9	Dr. G. M. Cleetus	1994	11.04.95	Sh. P. N. Haksar, Chancellor, Jawahar Lal Nehru University
10	Dr. Surender Prasad			
11	Prof. B. L. Deekshatulu	1995	18.02.97	Dr. Karan Singh, Member of Parliament
12	Dr. Neelakanthan	1996	14.10.98	Dr. Murli Manohar Joshi, Minister for HRD and Science & Technology
13	Dr. D. Dutta Majumder			
14	Dr. Surendra Pal	1997		
15	Dr. Shankar K. Pal	1998	21.06.99	Shri. Atal Bihari Vajpayee Hon'ble Prime Minister of India
16	Dr. K. G. Narayanan	1999	11.05.01	Shri. K C Pant, Dy Chairman, Planning Commission
17	Dr. Vijay P. Bhatkar	2000		
18	Prof. Lalit Mohan Patnaik	2001	13.05.02	Shri. L. K. Advani, Minister of Home Affairs
19	Dr. Amitava Sen Gupta	2002-03	20.08.04	Shri. Bhairon Singh Shekhawat Hon'ble Vice President of India
20	Dr. Ashok Jhunjunwala	2004-05	26.10.06	Dr. A. P. J. Abdul Kalam, Hon'ble President of India
21	Dr. V. Narayana Rao	2006-07	15.11.11	Shri M. Hamid Ansari Hon'ble Vice President of India
22	Prof. Shibani Kishen Koul	2008-09		
23	Prof. Bidyut Baran Chaudhuri	2011	01.11.14	Prof. M.G.K. Menon, FRS Former Minister for Science & Technology
24	Prof. Bishnu P. Pal	2013		
25	Prof. Subrat Kar	2014	01.11.16	BHARAT RATNA Prof. C.N.R. Rao, FRS
26	Prof. Ajoy Kumar Ghatak	2015		



## Award Winners 1985 to 2015

### Engineering, Energy & Aero Space

S. No.	Name of Recipient	Year of Award	Date of Function	Presented by
1	Dr. Raja Ramanna	1985	17.03.86	Shri Rajiv Gandhi, Hon'ble Prime Minister of India
2	Prof. M. M. Sharma			
3	Dr. Satish Dhawan			
4	Sh. S. Roy Choudhary			
5	Dr. N. Tata Rao	1986	23.05.87	Giani Zail Singh, Hon'ble President of India
6	Dr. S. Varadarajan			
7	Dr. L. K. Doraiswami			
8	Dr. A. P. J. Abdul Kalam			
9	Prof. A. K. N. Reddy	1987	30.05.88	Dr. Shankar Dayal Sharma, Hon'ble Vice President of India
10	Prof. S. C. Dutta Roy			
11	Sh. R. M. Vasagam			
12	Dr. George Joseph			
13	Sh. P. R. Roy	1988	30.03.89	Sh. P. V. Narasimha Rao, Hon'ble Minister of External Affairs
14	Dr. R. K. Bhandari			
15	Dr. K. Kasturirangan			
16	Dr. V. S. Arunachalam	1989	24.10.90	Prof. Madhu Dandavate, Hon'ble Minister of Finance
17	Prof. K. L. Chopra			
18	Sh. J. C. Bhattacharya			
19	Sh. P. Banerjee			
20	Sh. N. B. Prasad	1990	13.03.92	Shri Arjun Singh, Hon'ble Minister of H.R.D.
21	Dr. K. H. Ghada			
22	Dr. R. A. Mashelkar			
23	Prof. M. A. Ramaswamy			
24	Prof. Rajinder Kumar	1991	20.05.92	Sh. P. V. Narashimha Rao, Hon'ble Prime Minister of India

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S. No.	Name of Recipient	Year of Award	Date of Function	Presented by
25	Dr. T. K. Bose	1991	20.05.92	Sh. P. V. Narashimha Rao, Hon'ble Prime Minster of India
26	Sh. M. S. Vasudeva	1992	15.05.93	Sh. Shivraj V. Patil, Hon'ble Speaker, Lok Sabha
27	Sh. Paul Ratnasamy			
28	Sh. P. Ramachandran			
29	Dr. R. Balakrishan			
30	Dr. P. Rama Rao	1993	11.04.95	Sh. P. N. Haksar, Chancellor, Jawahar Lal Nehru University
31	Prof. U. R. Rao			
32	Dr. H. S. Mukunda	1994		
33	Dr. A. V. Rama Rao			
34	Dr. K. K. Mahajan			
35	Dr. (Mrs) Jyoti Parikh	1995	18.02.97	Dr. Karan Singh, Hon'ble Member of Parliament
36	Dr. S. Sivaram			
37	Dr. G. Madhvan Nair			
38	Sh. P.S. Goel			
39	Dr. M.R. Srinivasan	1996	14.10.98	Dr. Murli Manohar Joshi, Minister for HRD and Science & Technology
40	Dr. T.S.R. Prasada Rao			
41	Dr. C.G. Krishnadas Nair			
42	Dr. K.S. Narasimhan	1997		
43	Dr. K. N. Shankara			
44	Dr. P. R. Rao	1998	21.06.99	Shri Atal Bihari Vajpayee, Hon'ble Prime Minister of India
45	Dr. Placid Rodriguez	1999	11.05.01	Shri. K C Pant, Dy Chairman, Planning Commission
46	Dr. T. Ramasami	2000		
47	Prof. S. P. Sukhatme	2001	13.05.02	Shri L. K. Advani, Minister of Home Affairs
48	Dr. E. Sreedharan	2002-03	20.08.04	Shri. Bhairon Singh, Shekhawat, Hon'ble Vice President of India
49	Dr. Prem Chand Pandey	2004-05	26.10.06	Dr. A. P. J. Abdul Kalam, Hon'ble President of India
50	Dr. Kota Harinarayana	2006-07	15.11.11	Shri M. Hamid Ansari Hon'ble Vice President of India
51	Prof. Narinder Kumar Gupta	2008-09		
52	Dr. Baldev Raj	2011	01.11.14	Prof. M.G.K. Menon, FRS Former Minister for Science & Technology
53	Dr. G. Sundararajan	2013		
54	Prof. Bhim Singh	2014	01.11.16	BHARAT RATNA Prof. C.N.R. Rao, FRS
55	Prof. (Ms.) Sneha Anand	2015		



## Award Winners 1985 to 2015

### Health & Medical Science

S. No.	Name of Recipient	Year of Award	Date of Function	Presented by
1	Dr. V. P. Sharma	1985	17.03.86	Shri Rajiv Gandhi, Hon'ble Prime Minister of India
2	Dr. P. K. Rajgopalan			
3	Dr. M. S. Valiathan	1986	23.05.87	Giani Zail Singh, Hon'ble President of India
4	Prof. P. N. Tandon	1987	30.05.88	Dr. S. D. Sharma, Hon'ble Vice President of India
5	Dr. M. G. Deo	1988	30.03.89	Sh. P. V. Narasimha Rao, Minister of External Affairs
6	Dr. A. N. Malaviya	1989	24.10.90	Prof. Madhu Dandavate, Minister for Finance
7	Prof. B. N. Dhawan	1990	13.03.92	Shri Arjun Singh, Minister for HRD
8	Dr. J. S. Guleria			
9	Prof. Madan Mohan	1991	20.05.92	Sh. P. V. Narasimha Rao, Hon'ble Prime Minister of India
10	Prof. U. C. Chaturvedi			
11	Dr. Fali S. Mehta	1992	15.05.93	Sh. Shivraj Patil, Hon'ble Speaker, Lok Sabha
12	Dr. S. K. Kacker			
13	Dr. (Mrs.) Asha Mathur	1994	11.04.95	Sh. P. N. Haksar, Chancellor, J. N. U.
14	Prof. V. Ramalingaswami	1995	18.02.97	Dr. Karan Singh, Member of Parliament
15	Dr. V. I. Mathan			
16	Dr. Kalyan Banerjee	1996	14.10.98	Dr. Murli Manohar Joshi, Minister for HRD and Science & Technology
17	Dr. V. P. Kamboj			
18	Dr. N. K. Ganguly	1997		
19	Prof. (Mrs.) Sneha Bhargava			
20	Dr. (Ms.) M. Gourie Devi	1998	21.06.99	Shri Atal Behari Vajpayee, Hon'ble Prime Minister of India
21	Dr. (Ms.) Geeta Talukder	1999	11.05.01	Shri. K C Pant, Dy Chairman, Planning Commission
22	Prof. Narinder K. Mehra	2000		
23	Prof. Vijayalakshmi Ravindranath	2001	13.05.02	Shri. L. K. Advani, Minister of Home Affairs
24	Prof. A. S. Paintal	2002-03	20.08.04	Shri. Bhairon Singh, Shekhawat, Hon'ble Vice President of India
25	Dr. Pradeep Seth	2004-05	26.10.06	Dr. A. P. J. Abdul Kalam, Hon'ble President of India
26	Dr. Shiv Kumar Sarin	2006-07	15.11.11	Shri M. Hamid Ansari Hon'ble Vice President of India
27	Prof. Jitendra Nath Pande	2008-09		
28	Dr. Vishwa Mohan Katoch	2011	01.11.14	Prof. M.G.K. Menon, FRS Former Minister for Science & Technology
29	Dr. Girish Sahni	2013		
30	Prof. Balram Bhargava	2014	01.11.16	BHARAT RATNA Prof. C.N.R. Rao, FRS
31	Prof. Nikhil Tandon	2015		

## FROM THE DESK OF THE CHAIRMAN

### HEMANT KUMAR BHASIN, O.P.B.F. TRUST

Honouring the ones that help India take giant leaps was the dream of my father. My parents, Late Shri Om Prakash Bhasin & Late Mrs. Vinod Bhasin were simple and humble yet visionary individuals... My father envisaged this Trust to honour those pioneers that take great strides in the fields of Science & Technology and bring immense pride to our nation. My mother, picked up the mantle and made this a reality! This foundation is the result of her dedicated efforts where we now work together to honour this great couple and all those great achievers. I take this occasion to thank my parents from the core of my heart, remembering our times together with joy while feeling their absence.

Prof. M.G.K. Menon, the founder scientist trustee on the board of Om Prakash Bhasin Foundation from the date of its inception in 1984, has been instrumental in nurturing & establishing the OPBF as one of the highly reputed awards for Science & Technology in India. In 2011 due to his medical condition, he nominated Dr. V.P. Sharma as his successor as the scientist trustee of OPBF. After the sad demise of Dr. V.P. Sharma, National Academy of Science India, Allahabad, nominated Dr. Mrs. Manju Sharma to function as the scientist trustee of OPBF, for and on behalf of NASI. I thank Prof. M.G.K. Menon, Dr. V.P. Sharma & Dr. Manju Sharma for their unconditional contribution to the Foundation in the form of their precious time, suggestions & advices for the smooth functioning of Om Prakash Bhasin Foundation.

I extend my special thanks & appreciation to all the judging & Selection committees for their unbiased selection of the deserving awardees for OPBF, hence maintaining the prestige of the Om Prakash Bhasin Foundation.

The State Bank of India, the bank trustee on the board of OPBF, with their keen interest in the smooth functioning of the foundation, contributes financially towards the secretarial expenses of the foundation & actively participates in the Board of Trustees meetings regularly. I thank SBI for all the support they have extended to the foundation so far & hope for the continuation of the same in future.

Mohindra & Associates, Chartered Accountants, have provided their impeccable services to the trust since the inception of Om Prakash Bhasin Foundation. Late Mr. K.K. Mohindra had been very helpful in making the trust function smoothly financially with his suggestions and is remembered very dearly by us.

Mr. R.C. Grover, the Executive Secretary of Shri Om Prakash Bhasin Foundation, worked very diligently for over 3 decades under the leadership of Late Mrs. Vinod Bhasin, the 1st chairperson of the foundation. After her demise in 2008, he has worked tirelessly and has led various roles successfully with his excellent organizational skills, positive outlook & ability. His effective evolution has been invaluable and continually appreciated by the Board of Trustees. My heartfelt thanks to you - Mr. Ramesh Chander Grover.

Contd.....

I take this opportunity to thank Mr. Ajay jugran, Lawcombine, for his kind legal services and unconditional support to the Foundation.

I also extend my sincere gratitude to Retired Col. Karun Bahl for all his support to the foundation.

We hope and trust that OPBF continues to grow and honour future path breakers in the world of Science & Technology for "Nothing great in the world has been ever accomplished without passion."  
Georg Wilhelm Friedrich Hegel!





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