

RESUME

Dr. V Bhujanga Rao,

NIAS, IISc Campus, Bangalore-12

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Personal Information:

Date of Birth: 10 October 1951

Dates of working DRDO*: 19 May 1973 – 31 October 2015. 42 1/2 years

Highest Appointment at DRDO: Distinguished Scientist & Director General, DRDO

(*Defence Research & Development Organisation, a Premier Scientific Organisation under the Government of India)

Present Appointment at National Institute of Advanced Studies, Bangalore (NIAS)

Visiting Professor: 15 April 2016 to 14 September 2016

ISRO* Chair Professor: 15 September 2016 to till date 14 Sep 2020

Visiting Professor: 15 September 2020 to tilldate (*Indian Space Research Organisation)

Educational Qualifications:

B.Sc Physics, Chemistry, Mathematics, Sri Venkateswara University, 1970

M.Sc Physics (Acoustics), Sri Venkateswara University, Tirupati, 1972

M.S (Mechanical Engineering), Indian Institute of Science, Bangalore, 1986

Ph.D (Mechanical Engineering), Jawaharlal Nehru Technological University, Hyderabad, 1992

Ph.D (Management), Institute of Management Studies, Devi Ahilya Vishwa Vidyalaya, Indore, 2002

Doctor of Science – Honoris Causa by VikramaSimhapuri University, Nellore (June 2014)

Doctor of Science – Honoris Causa by NIT Kurukshetra (March 2014)

Doctor of Science- Honoris Causa by GITAM University, Visakhapatnam.

Professional Experience:

As Director General he was guiding research in the following six Laboratories:

- Naval Science & Technological Laboratory (NSTL), Visakhapatnam
- Naval Physical & Oceanographic Laboratory (NPOL), Kochi
- Naval Materials Research Laboratory (NMRL), Mumbai

- Defence Metallurgical Research Laboratory (DMRL), Hyderabad
- Defence Laboratory (DL), Jodhpur
- Defence Materials & Stores Res & Dev Establishment (DMSRDE), Kanpur

Prior to that Director, Naval Science & Technological Laboratory, Visakhapatnam, India. (2006-11)

Present Areas of work:

- i) Studies on Commercialisation of grassroots innovations of NIF, Ahmedabad
- ii) EPSRC, UK project to develop an ultra-scan system to monitor fetus of pregnant women without revealing gender information
- iii) Studies on Inclusive manufacturing without regard for rural or urban, gender, age, rich or poor, normal or disadvantaged, mainland or island, plains or hilly areas etc through open architecture.
- iv) Chief Designer of Indian Cochlear Implant program with successful outcomes in the clinical trials.
- v) Studies on diabetic retinopathy patients for early diagnosis and prevention of vision loss using AI based smart phone as POC system
- vi) Condition Monitoring and Industry 4.0

Specialisation:

Acoustics (underwater, Bio-, Aero acoustics), Hydrodynamics, Sonar design, Submersible design, Hydro Ballistics, Stealth & Camouflage, Ship Magnetics, Underwater Electric field, Radar Cross Section, Infrared signatures, Underwater Explosions, Meta Materials, among others.

Facilities Set Up:

Acoustic Anechoic rooms, Reverberation room, Underwater Explosion Tanks, High Speed Towing Tank, Sea Keeping Manoeuvring Test facility, Underwater Noise Range and Underwater Magnetic Field Range, Cochlear Implant Lab etc

Special Invention:

Chief Designer of low cost Indigenous Cochlear Implant for profoundly hearing impaired (Deaf as well as dumb). While in DRDO, conceived the idea of developing a cochlear implant as a societal mission outside official duties in 2005. With very limited funding completed design and created a voluntary team to work. Seeing the progress made Society for Biomedical Technologies (SBMT), Bangalore came forward and funded this project. The device has undergone animal trials (Guinea pigs and cats trials) environmental trials, bio compatibility trials, cadaver trials, and now human trials have started. An ASIC chip is also designed and fabricated as part of implanted portion. A micro electrode array to simulate the auditory nerve in the cochlea was designed and fabricated. The Drug Controller General of India, Ministry of Health, as regulatory authority, granted approval to undertake human clinical trials. Though he superannuated from DRDO, DRDO retained as Chief Designer of this project till date. GOI has nominated as public query officer for all the trials.

Awards and Honours:

- Member, Governing Council of S&T of Karnataka State
- National Award for the Empowerment of Persons with Disabilities Ministry of Social Justice and Empowerment received from Honourable Finance Minister, 2015.
- National Award given by Vividhlaxi Audyogik Samshodhan Vikas Kendra for Mechanical Sciences received from Chief Minister of Gujarat, 2011(Present Prime Minister).
- National Design Award from National Design Research Foundation, Institution of Engineers India, presented during Indian Engineering Congress, 2009.
- DRDO Technology Leadership Award from Defence Minister, 2010.
- DRDO Agni Award for Excellence in Self Reliance received from the Prime Minister, 2005.
- DRDO Scientist of The Year Award For 1993 received from the Prime Minister of India, 1996.
- DRDO Silicon Trophy for Outstanding Contribution towards Development of several Naval Systems received from Defence Minister of India, 2010.
- DRDO TECHNOLOGY Award for Studies on Gas Turbine Vibration, 1992.
- DRDO Certificate of Commendation from Scientific Adviser to Defence Minister on National Science Day, 2000.
- Excellence in R&D Award from Bharat Electronics Limited, 2009.
- Organisational Excellence in Innovation Award by Indian Institute of Industrial Engineering, 2008.
- Stanley L Ehrlich Gold Medal from the Acoustical Society of America (Madras Regional Chapter) for developing Cochlear Implant Prosthesis indigenously (2010) JASA Vol 27 no 3 p1696, March 2010.
- Honorary Design Engineer, SM KIROV MACHINE BUILDING PLANT JSC, KAZAKHSTAN
- Visiting Scientist, Florida State University, USA, 2004-05.
- Member, Engineering Research Council, Florida International University, Miami, USA , 2013-15,
- Silver Medal from the Acoustical Society of America (Madras Chapter)for Contribution to Engineering Acoustics, 2005.
- Fellow of Indian National Academy of Engineering, 2000.
- Fellow of Andhra Pradesh Academy of Sciences, 2010.
- Honorary Professor, Andhra University College of Engineering, 2010 -12.
- Dr. V. Bhujanga Rao, The Stealth Man Best of Andhra Pradesh Honours, published by the Indian Express Group in 2007.
- Dr. V Bhujanga Rao Endowment Lecture instituted by GITAM University, Visakhapatnam from 2012
- Corporate Citizen Award by Rotary Club of Waltair, 2007.
- Suri Bhagavantham Distinguished Acoustician Award, 2013.
- M S Narayanan Oration Award, Acoustical Society of India, 2005.

- M K Nambiar Oration award by Indian Association of Biomedical Sciences, 2012.
- Co-Chair & Speaker, RAE (UK) – INAE Workshop on Distributed Manufacturing: Opportunities for Growth, Royal Academy of Engg., London, 16-18 June 2014.
- President, The Acoustical Society of India, 2007-09.
- Founder & President, The Condition Monitoring Society of India (2003- till date)

Patent:

i) Infra-Red Signature Suppression (IRSS) Device

For fitment at exhaust of diesel engine of ship to evade attack by Infra Red seeker missiles. 40 number of ships have been fitted with this device till date.

Application: 0123/DEL/2005 A Filing date: 19-1-2005 Publication date: 10-11-2006