

The voice is crisp even as it travels over 10,000 km through telecommunication lines on the surface, under the sea and across air waves. At 85, the voice still has the command, the clarity of thought, impeccable diction and the elephantine memory – traits that belongs only to a true leader and visionary. Here is the journey of a man born and raised in Chennai, who pursued higher studies in Chennai, taught in Chennai but encouraged and mentored generations of students to become scientists all over the world.

EARLY YEARS

Born on the 25th of April, 1932 at Villivakkam, which was then a distant suburb of Chennai, N. Venkatasubramanian (affectionately addressed as 'NVS') was the eldest of four siblings. His father was employed as a clerk with the Railways. His mother, a good musician, taught music to supplement the household income. Initial schooling till standard 3 was at Singaram Pillai Matriculation Higher Secondary School, Villivakkam after which he moved to the Dharmamurthi Rao Bahadur Calavala Cunnan Chetty's (DRBCCC) Higher Secondary School, Perambur. Being a bright student, NVS topped the class and even created a record in the school by topping in SSLC.

SEEDS OF A SCIENTIFIC MIND

It was at the DRBCCC School that the seeds of a great scientific mind were sown in the young lad. The then head master of the school Sri Sami Venkatachalam Chetty was a great science teacher who would organize frequent exhibitions and experiments at the school. As an eager student, NVS participated enthusiastically in every such experiment or exhibition. An undying passion for chemistry was thus born in him.

GRADUATION

NVS joined Presidency College in the last batch of intermediate students and once again topped in class. Here, to his good fortune, he came under the influence of Dr. T.R. Govindachary, who had just returned from the US after completing doctorate in physical organic chemistry. The bonding with chemistry got even stronger and he chose to do Chemistry (Hons).

LECTURER

In 1952, after graduating from Presidency College, NVS was picked up for the post of lecturer by Prof. S.V. Ananthakrishnan (Prof SVA), Head of Chemistry at the Madras Christian College, Tambaram. Prof. SVA was a doyen among the scientific circles in South India and actively encouraged his colleagues and students to conduct experiments. Simultaneously NVS also enrolled for his doctorate program which he completed in 1959.

In 1961, Vivekananda College in Mylapore was starting its M.Sc program in Chemistry and did not have a suitable person to teach. Having heard about the brilliant young Dr. NVS, they approached with an offer. But Prof.SVA would not let go of his bright young colleague. So, Dr. NVS' services were 'lent' to Vivekananda College. And so, for a year Dr. NVS lived in Tambaram and commuted daily to Mylapore to teach at Vivekananda College.

And the results were there for everyone to see – the M.Sc program saw 100% results in the first year itself and continued thus for many years.

In the words of his student Dr. K. Vasudevan 'There are two aspects in the work of anyone in the field of Science, one as a Scientist/Researcher and the other, a Science Teacher. Dr NVS excelled in both, which is a rarity'. Prof. NVS is internationally well known in the field of Physical Organic Chemistry, a branch which deals with trying to explain how interactions between organic substances take place. His earliest work in establishing a mechanism of 'oxidation reactions by chromic acid', in association with his Guru, Prof. S.V. Ananthakrishnan, is considered a pioneering work and provided a landmark to follow for a generation of Physical Organic Chemists.

HOD, CHEMISTRY

Not surprisingly, the management of Vivekananda College soon invited Prof. NVS to head the Chemistry Department. Thus, at 30 years, he was the youngest to become a HoD at the college. He was greatly encouraged in his work by Prof. T.N. Seshadri, a student of Sir C.V.Raman, and who later became the principal of the college.

Dr. K.S Viswanathan, his student and now Head, Department of Chemical Sciences at IISER, Mohali, Punjab says "Through his teaching Prof. NVS lifted the standard of the institution to great heights. With meagre funding he ran an extremely strong research department at the college that was internationally recognised. In fact, he even challenged theories put forth by well known people abroad and stood his ground".

Earning the respect of colleagues, adulation of all his students and admiration of everyone in the scientific circles, Prof. NVS found huge support in the Department of Science and Technology (DST), Council for Scientific and Industrial Research (CSIR), Bhabha Atomic Research Centre (BARC) and University Grants Commission (UGC) in his endeavour to make the college chemistry department world class.

As the HoD, he encouraged not only his M.Sc

students but also all his faculty colleagues in the department to take up research. As a result, at one stage almost all his colleagues were PhDs, prompting UGC to observe that the department was 'over qualified'.

His first doctoral student, now retired Prof Sundaram recalls how Prof NVS exhorted his students to build models for Octant Rule, Walden Inversion, etc which were later on was borrowed by IIT Madras and other institutions. Once when a suggestion was made by an examiner that the students could do better in experiments, Prof NVS took it to heart and quickly explored in staff meetings how we could improve. 'There was no indication of bruised ego, only a genuine desire to improve the outcome and excel'.

Prof NVS encouraged all students to submit papers to international scientific journals. During his period, over 200 research papers produced by Viveka students were published.

In 1970, Prof. NVS travelled to the University of Texas to help out in a project, but returned quickly because he wanted to guide his six research students back in Chennai.

SCIENTIFIC CIRCLES

Prof. NVS enthusiastically involved himself in various other scientific organisations -

- He was the first secretary of 'Madras Science Association', an organisation which he helped co-found along with A. Ramachandran, then director of IIT. Through this, he organised weekly science meetings for schools and colleges and held annual science exhibitions at high school, UG and PG levels.
- He was elected as the chairman of the Madras chapter of the Royal Society of Chemistry and conducted a number of meetings under the aegis of the society.

PRINCIPAL

In 1973, when he was just 41, Prof. NVS was promoted as Principal of Vivekananda College.

As principal, he encouraged lecturers in other departments like economics, botany, Sanskrit and mathematics to become PhDs. He compelled the college management to allow the faculty to go on a 3 year program to the US for their PhDs under the UGC's Faculty Improvement Program. Several of his students went to the US for their doctoral programs and came back to India to start research programs. In 1975, he started the evening college at Viveka. In 1976 he was elected to the Syndicate of Madras University, a position he held till 1981.

FRESH CHALLENGES

Looking for change and fresh challenges, in 1981 Prof. NVS left the college and joined IDL Nitro-Nobel Research Institute (INBRI) a private organisation and established a basic research institute in Bangalore where he headed research activities till he retired in 1989.

In 1989 he became the first director of the Post-Graduate studies at the University of Pondicherry and continued till 1992 when he resigned due to health reasons.

TEACHER, MENTOR & A GREAT HUMAN BEING

Prof. NVS' love for science made him a true research 'evangelist'. He motivated his students and colleagues to conduct experiments, publish papers, pursue doctorate, go to the US for research and come back to India.

It is of little wonder that all his students without exception, credit him for their love of chemistry and the achievements in their personal lives in the field of Chemistry. He is their 'God'.

Prof. NVS is a great human being. He took personal interest in the lives of his students and mentored them and built their careers.

Dr. K.S Viswanathan has this to say about his mentor 'As a teacher I am yet to see

somebody I can put above him. When he taught, he taught concepts that get permanently etched in the mind; he never taught information. There was never a dull moment in class and nobody looked at their watches. Good teachers teach, but great teachers inspire -Prof NVS belongs to the latter category. And on behalf of all his students I can say we are all what we are today thanks

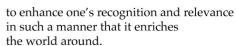
to Prof. NVS. They say people get decorated by awards, but in this case the award gets decorated by Prof.NVS'.

PRESENT

Prof NVS now lives with his wife and sons in the US and is in constant touch with all his students across the globe, taking keen interest in their careers even now.

He signs off with his favourite line from Taittiriya Upanishad that he tells his students "AchAryAya priyam dhanam Ahritya" (Give unto the Acharya what is dear to his heart). It is said that only he can command, who knows how to obey. Thus every Acharya should have been an obedient disciple, if he were to command respect later as an Acharya.

Giving a contemporary interpretation to this verse - What is the type of wealth that is dear for the teacher? The greatest aspiration of a true teacher is that his students gain recognition and relevance in this world. Fulfilling this aspiration is the biggest reward which a student can give to his teacher. So one should strive



The greatest aspiration for Prof NVS is that his students gain worldwide recognition and relevance in the field of Chemistry. Not only have his students done that, they are also carrying forward his legacy through an NGO called "Vivechem Trust" that helps bright students from economically weak background to pursue higher studies in Chemistry. Thus, the tradition is carried on...

To pursue a career of research in pure science is in itself a rarity. To do that and inspire others to follow is a mark of a Champion. In recognition of Prof. NVS's contribution to the field of science, the maiden CoC Award in the field of science is being conferred on Prof. N. Venkatasubramanian a.k.a Prof. NVS and may this old story retold ignite many a mind to illuminate and tread the path of science yet again!!!

K Kalyanasundaram

