

Dr. P. C. Varghese,

(M.S; M.Engg (Harvard); Ph.D)



General :

Engineering has really no age bar. In fact the Quality services always exhibit a long life. Famous Singer and winner of Bharat Ratna award, Smt. Lata Mangeshkar, once said, “Practice of Correct *Sur* in music leads to increase in the life of a singer”. This statement can be extended to engineering also. The practice of correct engineering principles lead to increase in the life of an Engineer. In fact such engineer no more remain an engineer, but becomes a visionary icon personality. Probably this has come true for Sir. M.V., Prof. Timoshenko and many more who have seen 100+ years of their lives.

Author of numerous books, and Technical Papers, Prof. P.C. Varghese, an eminent professor of Structural Engineering, has once again proved the above statement. Prof. Varghese recently completed 90 years of his age and more than 60 years of service to the Civil / Structural engineering. On this occasion, he was felicitated by IIT-Madras (Chennai) on 26th March’2011; incidentally it was a 40th Anniversary of ‘Structural Engineering Laboratory @ IIT Madras’. In this document a brief about this Gem are covered.

Schooling and Basic Engineering Education :

Shri Puthenveetil Chandapillai Varghese was born on 3rd March’1921 at Mavelikara, Kerala. He did his primary schooling at Mavelikara itself. In 1939 he completed his Pre-Degree education at CMS College, Kottayam. Later he moved for his B.Sc. Degree (with key subjects as Mathematics, Physics and Chemistry) at Loyola College, Madras. He completed the same in Yr. 1941. The consistent urge for the knowledge made him to join B.Sc. Degree (Civil Engineering) at College of Engineering, Trivandrum, which he completed in 1945.

Experience :

In Year 1947 Dr. Varghese, joined Building Research Station, Roorkee, as a Scientist. He received the Scholarship from Ministry of Irrigation and Power, Government of India, to study Soil Mechanics and Earth Dams.

Soon, in Yr. 1948, he left for MS Degree (Civil Engineering) at Harvard University, USA. He completed the same with a great success, and then in 1949 joined M.Engg. Degree in Soil Mechanics at Harvard University, itself. During this course he was lucky enough to get a chance to work with Professor Karl Terzhaghi. Also in this period he could get a Training with US Corps of Engineers, Tennessee Valley Authority, which is widely known to the engineering world, because of their variety of publications in Civil / Structural Engineering.

On sparing these memorable years in USA, Prof Varghese returned back to India, to serve his mother land. After returning to India in Yr 1950, he assistant as a Soil Specialist at Hirakud Dam Project, Orissa. At the end of this rigorous fieldwork for two years, in yr 1952 joined IIT Kharagpur to work with Professor Lyse, Head (CE) to study concrete structures. He was soon deputed on a UNSESCO Fellowship to study concrete with Prof.A. L. Baker, at Imperial College, London, UK. In 1954 Prof. Varghese did his Ph.D. at IIT-Kharagpur itself.

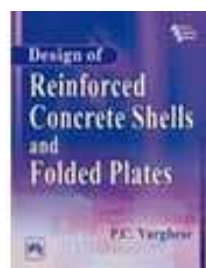
After completion of Ph.D. preferred to join institute rather than Industry. He had the privilege of working as one of the founding staff members of IIT Kharagpur from 1950 to 1961. Also worked as a Construction Engineer for campus development works from CPWD, at IIT Kharagpur.

In 1961 he joined at IIT-Madras (Chennai) as Head of the Civil Engineering department. Served there with his excellent work from 1961 till 1972. During his stay with IIT-M, he obtained German Government funding and technical support to develop the Structural Engineering Laboratory and Hydraulics Laboratory. He also encouraged and groomed many faculty members and graduates into leadership roles.

From Yr. 1972 to 1982 he served the Moratuwa Univeristy, Colombo (Sri Lanka). Also acted as UN advisor to the Ministry of Works, Sri Lanka during this period. He had honour of working (and Leading) a team of International experts. There he worked with the UNCHS and the Ministry of Works and Housing on many building projects. In 1983 he returned back from Sri-Lanka and settled down at Chennai.

Literature and Expert Services :

After getting steeled at Chennai, Prof. Varghese joined at Anna University, Chennai as a Honorary Professor, in Yr. 1984. Presently he is continuing in the same role. Unesco Chief Technical Advisor, Professor Varghese has over 60 years of teaching experience in premier institutes like the IITs. Besides, he has been a consultant to various in India and abroad. He has published six books with PHI learning in the filed of Civil Engineering, namely :-





- 1) Building Materials
- 2) Building Construction
- 3) Foundation Engineering
- 4) Design of Reinforced Concrete Foundations
- 5) Limit State Design of reinforced Concrete
- 6) Advanced Reinforced Concrete Design
- 7) Design of Reinforced Concrete Shells and Folded Plates

Currently the Legend is authoring a book on Engineering Geology.

He studied Shell Structures at the Imperial College, London and also taught the subject at IIT Kharagpur, IIT Madras. As a result of this wrote a book on this complex subject in a very very simple language, with less mathematics and more concepts and application. The book covered wide panorama from Historic development of shells till modern theories and typical design of folded plates and shells. Dr. P. Mannar Jawahar, vice chancellor, Anna University wrote the forward to his book. In which he has appreciated his efforts, largely. The examples in this book were based on the “Notes for a Short Course on Concrete Shells and Folded plates fro Practicing engineers”, prepared in Yr. 1972, by him and Prof. P. S. Rao at IIT Madras.

The books writing by Dr. Varghese on foundations / soil mechanics were also appreciated by Students, professors and practitioners as it contained many practical aspects. Having 60 years of professional experience, all the books written by Dr. Varghese is a blend of theory, practice and simple tools and tips. Dr. P. C. Varghese is one of the Gems of Structural Engineering with strong academic background.

On behalf of the Civil / Structural engineering fraternity I thank Dr. Varghese for render such a best services to society and providing us with excellent literature. Let’s pray god for his health, wealth and happiness.

References :

- Presentation prepared by IIT-Madras on 26th Aug’ 11
- Introduction published on the back cover of books
- Books published by PHI
- Correspondence with – Dr. N. Subramanian, Dr. C. Ganapathy, Dr. P. Meher, Dr. Koshy Varghese, Dr. CVR. Murthy.

Composed by Er. Vivek Abhyankar

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