



VOLUME II:

CONSTRUCTION MANAGEMENT

PRACTICAL INSIGHTS FROM INDIA AND ABROAD

VOL. II









Dr. H L Chawla

Construction Management: Practical Insights from India and Abroad- Volume 2

First Edition

Author

Dr. H L Chawla

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Dedicated to the loving memory of

My parents

Late Shri Nand Lal Chawla

Late Smt. Lajwanti Chawla

My parents-in-law

Late Dr. J L Azad

Late Smt. Daya Wati Azad

Foreword

I have known Dr. HL Chawla for the past 35 years and am familiar with the work done by him in various capacities in India and a number of countries abroad.

He has been instrumental in executing Construction Contracts in various capacities-in the IIT Delhi, CPWD, Hindustan Steel Works Ltd., Govt. of Iraq, with Consulting Engineers & Architects and in Indian and foreign Construction Companies. He has worked as a Consultant to ILO and World Bank.

As a Guest Faculty, he has been teaching at NICMAR, CIDC, ISDA for a number of years. To share his experiences based on his position on all sides of the contracting gamit, he has delivered lectures with Technical presentations at a couple of Universities, Engineering Colleges and at many places all over the Country. He is a fellow of many Technical Associations in India and abroad. Dr. Chawla earned his Ph.D. degree from Mewar University, Chittaurgarh in the year 2024 at the ripe age of 84 years. He has published a book titled "Need for Pre-Engineered Construction-A Way Forward".

He has now prepared the manuscript for his new book: "Construction Management-Practical Insights from India & Abroad". He intends publishing this in 3 Volumes-I, II and III.

In this book, Dr. Chawla has nicely explained the various aspects of Construction Management. This book should prove beneficial for construction industry professionals in the Contracting, Consulting Development agencies and the Supervisory areas as also to the budding Engineering Students.

I hope this book serves not only as a guide but also as an inspiration to all those who are connected with Construction Industry at different levels.

I wish his venture a grand success.

O.P. Goel
Director General, CPWD (Retd.)
Founder President-Indian Buildings Congress
Past President-Institution of Engineers (India)
Past President-Indian institution of technical Arbitrators
Past Vice President-Indian Roads Congress

Preface

Construction Management-Practical Insights from India and Abroad-is a title chosen by me.

It is my pleasure to explain the reason as under

I have worked for over 6 decades in various capacities on different types of construction projects in India, Algeria, Iraq, Jordan, Saudi Arabia and Thailand.

I have travelled to over 50 countries in connection with professional work. I was able to learn many new technologies in India and abroad and decided to share these with the young, budding engineers. Therefore, as a passion, I have been delivering guest lectures on many different topics almost all over the country for over 40 Years. I could, therefore build a large library of lectures in the PPP (Power Point Presentations) mode.

I have been involved in the construction of the following types of projects in India and abroad

Infrastructure projects viz. water & sewerage treatment plants, development of large industrial & residential estates, highways (both flexible & rigid pavements), flyovers, power plants, multi storeyed office buildings, commercial & industrial buildings, IIT New Delhi Main Building, Radio & TV station Baghdad (Iraq), hospital, irrigation projects, shopping malls, residential projects, textile mill project buildings, grain silos & flour mill building, exhibition hall (Space frame structure-Hall of Nations) etc.

While working as a member of one of the DABs (Disputes Adjudication Board), my fellow member, Shri R N Sharma, Retd. Executive Director, SJVN Ltd. suggested to me that I should use this material to convert into a book form.
I would like to highlight here that there has been a sea change in the way the students of various faculties have been getting educated in the past few decades. When I was an engineering student from 1959-1963, the education was through text books and the teachers using the black boards and drawing sketches on those and thus imparting education. The students were encouraged to ask questions and the teachers used to explain and answer these questions by way of drawing sketches/figures on the black boards.

That period was the period of slide rules etc. Apart from the text books, even good quality guide books were rarely available. In case the students were not attentive in the class room, there was no chance for the students to get

clarifications of their doubts about any particular topic which was missed out in the class room.

To start with, the calculators replaced the slide rules. Currently, there are quite a few tools and facilities available: mobile phones, laptops, internet facilities, online education, AI and Chat GPT, etc. However, unless the students are attentive, it is not possible to grasp the intricacies of the subjects.

I am aware that in the present- day scenario, most of the students do not like to read any books but go through the internet etc. as this is very easily available. For this reason, I have decided to use the electronic form also for this book. Since one single book would have been voluminous, I have broken this into 3 volumes.

I hope that the engineering fraternity shall like the materials available in this book.

My wife, Dr. Saroj Chawla and my sons, Aneesh and Dr. Mayank, their wives: Shweta and Archana and my grand-children: Antara, Aarav, Anjila and Amay have been my source of inspiration and encouragement for the writing of this book.

With my love and affection to them all.

Dr. H.L. Chawla

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ABOUT THE AUTHOR



Dr. Harish Lal Chawla, Ph.D

*** Education**

- Degree in Civil Engineering (1963), Thapar Institute of Engineering & Technology, Patiala.
- Completed PGRI Master's (2016) and Research (2023). The Ph.D. degree awarded in 2024 at the Convocation held at Mewar University , Gangrar, Chittorgarh, Rajasthan.

*** Professional Training**

- Six-week field training on Safety in Construction (1989) in the U.K., U.S.A., and Japan, sponsored by I.L.O.

*** Memberships**

- Life Fellow, Fellow, and Life Member of prominent national and international institutions.
- Member of BIS committees for standards development.

*** Experience**

- 60+ years in project management and construction supervision, including 35+ years in senior roles across India, Algeria, Iraq, Jordan, Saudi Arabia, and Thailand.
- Consultant for the World Bank and ILO; Panel Valuer for LICHF Ltd.
- Member of Disputes Adjudication Boards (DABs) in India and Bhutan.
- Travelled for professional work to over 50 countries.

*** Training Contributions:** Because of the experience gained in working on a good number of projects in India and abroad and travelling to various countries, the author had a penchant for sharing the experience gained on a variety of topics with fellow engineers over the length and breadth of the country. The author felt that he must give back to the engineering community what he had learnt in India and overseas.

- Guest Faculty at NICMAR for over 30 years, training postgraduates in Construction Management.
- Conducted lectures and workshops at universities, PSUs, and private companies all over India.

*** Seminars, Workshops & Publications**

- Presented papers and participated in events by the World Bank, ADB, EXIM Bank, ILO, FICCI, CII, NICMAR, and MDI.
- Attended the IVth Continuing Engineering Education Conference in Beijing (1989).
- Authored articles in technical journals.
- Punjab Government Scholarship (1962-63) for academic excellence.
- Commendation letters from CPWD (1972) and Government of Iraq (1977).
- Merit Award for an article in Institution of Engineers (India) journal (1994-1995).
- Multiple trophies and shields from various institutions.

Author of "Need for Pre-engineered Construction-A Way Forward" released in 2025.
"Construction Management : Practical Insights from India and Abroad- Vol 1" released in 2026.

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