

Book Title:

Introduction to Soil-Steel Structures

Authors:

Dr.J.A Zakeri

Dr.M.Esmaeili

Eng. P.Abdulrazzagh

Book Summary:

Since ۱۹۹۰ parallel to inventing a new generation of bridge structures called "*Soil-Steel Bridges*" a new window has opened toward the engineers who have engaged with construction of the novel bridge structures. In practice, the soil-steel bridges in addition to their environment-friendly behavior utilize soil-corrugated steel plate's interaction phenomenon to mobilize enough bearing capacity as road and railway bridge structures.

These type of bridges are broadly used in many countries like Canada, North America, Brasilia, Europe, South Africa and so on. The varieties of standards like BS, CALTRAN, CHBDC and ASTM have covered the various aspects of these structures. The history of such a bridges application in Iran returns to ۴۰ years ago as drainage culvert structures. Nowadays many types of these bridges are under construction as Road Bridge in many cities in Iran.

The existing shortage in technical knowledge of Iran engineering societies in this regard was the major motivate point in writing the present book. In this matter, it has tried that the general principle of design, construction, instrumentation and maintenance of these structures to be explained in simple way which can be used for civil and railway engineers. The present work is prepared in three major parts and nine chapters.

The first part of the book contains some introductory issues about the soil-steel structures. In the second part some materials about the analysis and design of the soil-steel structures has included. In the last part of the book, some engineering problems and challenges of the mentioned structures and their relevant solutions have presented. In writing process, it has attempted the book content to be enriched by including many understandable analysis and design examples based on the authors' practical experiences.

