BOOK REVIEW

SRINIVASALU (P.) and VAIDYANATHAN (C. V.): Hand Book of Machine Foundations, Pp. 258, Tata McGraw-Hill Publishing Co. Ltd., New Delhi, 1976, Rs. 28.50.

With the rapid industrialisation that the country is experiencing, the installation of machines of various types involves the design the suitable foundations based on scientific knowledge. The authors have collected and documented in this book relevant information on the design and construction of machine foundations of different types. The book consists of 8 chapters and 3 appendices.

The first three chapters contain basic information necessary for the design of different types of machine foundations which are treated in the next three chapters. In the first chapter the general background to the subject and the basic concepts are introduced. Chapter two treats briefly the essentials of structural dynamics necessary to appreciate the contents of the later chapters. Chapter 3 describes the evaluation of design parameters like the geometrical parameters of the machine-foundation system and the physical properties of the elastic base of the foundation. Evaluation of soil constants by field testing as per Indian Standards Codes is also described.

Chapters 4, 5, and 6 deal with the details of design of various types of machine foundations. Chapter 4 gives the analysis and design of block foundations for machines subjected to impact type forces (*e.g.*, hammers) and periodic forces (*e.g.*, reciprocating machines). A good review of several methods of dynamic analysis available is given. Barkan's method is recommended and it is explained in detail. The following examples are worked out to illustrate the general procedures:—(*a*) design of a block foundation for (i) a horizontal compressor, (ii) a diesel engine, (iii) vertical compressors on spring absorbers, (*b*) design of a hammer foundation resting on soil or on spring absorbers, (*c*) design of a foundation for a counter-blow hammer. Chapter 5 deals with the analysis and design of framed foundations for high speed machinery such as turbo-generator sets with a numerical example

of the design of framed foundation for a 200 MW turbo-generator. In chapter 6 the general principles of design of block foundations for other miscellaneous machines which cannot be distinctly classified are given. Those included are :—rotary type machines with low frequency, machine tools, impact-type machines other than hammers, fans and blowers, looms and testing machines. Chapter 7 deals with the principles and methods for structural isolation of machine foundations. Constructional details of machine foundations with explanatory sketches are given in the 8th chapter. The appendices contain useful data for designers' ready reference and a select bibliography.

This book serves as a useful reference manual for designers. Some of the chapters could also be used as teaching material.

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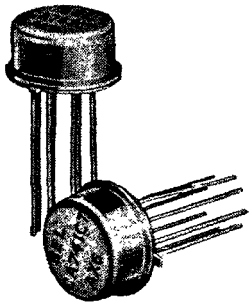

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Calendar of events: Conferences/Symposia at the Indian Institute of Science Campus

Name	Period	Sponsoring Department of the Institute
Workshop on Immunochemical Techniques	23 May to 19 June 1976	Biochemistry
Optical Computers and their Applications	1–14 June 1976	Electrical Communication Engineering
Refresher Course in Microbiology and Cell Biology	14 June to 13 July 1976	Microbiology and Cell-Biology Laboratory
Advanced Institute on Reaction Mechanisms—All-India University	16 June to 1st July 1976	Organic Chemistry
I.N.S.A.	26 Sept. to 5 Oct. 1976	..
Applications of Computers for Load Despatch	11–16 October 1976	School of Automation and Aeronautical Engineering
Winter School in Engineering—Applications on Lasers and Laser Systems	18 Oct. to 1 Nov. 1976	Central Instruments and Services Laboratory
Intensive Course on Design and Technology of Digital Equipment	21 Nov. to 4 Dec. 1976	Electrical Communication Engineering
Symposium on Vitamin and Carrier Function of Polyprenoids	9–11 December 1976	Biochemistry
Silver Jubilee Celebrations of the Department of Chemical Engineering	20–24 December 1976	Chemical Engineering

On the basis of the information received by the Editorial Office on 30th May 1976.