Book Reviews

Computers


Reviewed by Heinz Walburger

This book presents basic material on the design and the functioning of both analog and digital computers. The first chapter is devoted to the introduction of the two types of machines. Three chapters are used to describe analog machines by means of a presentation which leads from the general to the specific. They cover operation of complete computers, design of computing systems, and computing circuits.

The presentation of digital machines (six chapters) begins with a chapter on number representation followed by one describing the operation of a computer system. Then circuitry, storage devices, and input-output equipment are each treated in a separate chapter.

Finally, a few remarks about programming, though not mentioning the wide range of present-day applications, close this hardware-oriented book.

Hydrometry


Reviewed by S. Kolupaila

This book is aimed at flow measurements, mostly for water and hydraulic engineering, but not at density determination, as dictionaries disseminate this science.

Author considers following elements of measurements: time, angle, distance and height, area, volume, pressure, velocity, intensity of flow, and total flow. Principles and methods of measurements are presented in the first part, while the second part explains the instruments and equipment. Some most significant chapters are: water-level gages; integrators; hydrometric nanometers; elastic pressure gages; hydrometric floats; impact-pressure velocity meters; hydrometric current meters; traveling screen; measuring weirs; pressure velocity meters; hydrometric current meters; electro-nometers; elastic pressure gages; hydrometric floats; impact-pressure meters—fermenter, variable aperture meters; inertia pressure method; salt-titration method; salt-velocity method; measuring orifices and nozzles; danaides; water meters—inferential, angle, distance and height, area, volume, pressure, velocity, intensity of flow, and total flow. Principles and methods of measurements are presented in the first part, while the second part explains the instruments and equipment. Some most significant chapters are: water-level gages; integrators; hydrometric nanometers; elastic pressure gages; hydrometric floats; impact-pressure velocity meters; hydrometric current meters; traveling screen; measuring weirs; pressure velocity meters; hydrometric current meters; electro-nometers; elastic pressure gages; hydrometric floats; impact-pressure meters—fermenter, variable aperture meters; inertia pressure method; salt-titration method; salt-velocity method; measuring orifices and nozzles; danaides; water meters—inferential, positive, compound; hydrometric laboratories. General bibliography, conversion tables, and an extensive subject index with terms translated into French and German conclude this treatise. Valuable lists of references are given after every chapter.

Turbocompressors


Reviewed by J. Kestin

This is a book for which no parallel exists in the English language—on either side of the Atlantic. It contains an ex-

Elastic Stability


Reviewed by W. Prager

The first edition of this text was published a quarter of a century ago. By stimulating interest in structural stability, it has contributed much to the rapid growth of the field, which must have made the selection of the material for the present edition a difficult task. The authors wisely decided to maintain the didactic character of the earlier work rather than aim at an encyclopedic coverage of the field. Though many changes have been made to bring the subject matter up to date, the over-all impression is not disturbed.

Chap. 1, now entitled “Beam-columns,” has been slightly shortened by the omission of the discussion of inelastic effects. The same omission has been made in Chap. 2, which has, on the other hand, been enlarged to include buckling under nonconservative forces and dynamic buckling. A new Chap. 3 on “Inelastic Buckling of Beams” has been inserted. Chap. 4 on “Experiments and Design Formulas” is essentially the same as the corresponding chapter of the first edition. Chap. 5 on “Torsional Buckling” constitutes another major addition to the

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