

solving circuit problems, and apply it to simple examples. The next two give an introductory survey of feedback circuits and a short discussion of amplifier stage design. The next three, on stability of feedback systems, gain-phase analysis, and stabilization techniques, develop the general theory in detail; this is applied in the last three chapters to illustrative feedback amplifiers, feedback integrators and differentiators, and stabilized power supplies. These six chapters, about two-thirds of the book, although they are not as comprehensive in the treatment of theory as the book by Bode or some more recent books, do go far enough to permit the student to design his own circuits on the basis of the principles laid down. The applications are sufficiently varied and numerous to develop a feeling for when feedback techniques can be used advantageously. The clarity of the presentation makes me wish that more applications had been discussed.

American readers may occasionally be bothered by the use, without explanation, of British technical jargon not in common use here. One sometimes wonders at the choice of what is assumed as known to the reader and what is developed in detail—for example, complex variable is developed *ab initio* for the discussion of the Nyquist stability criterion after being assumed in the earlier discussion of Laplace transforms, transfer functions, and so forth. A more extensive bibliography, particularly of applications, would enhance the usefulness of this useful book still further. It is attractively printed and illustrated. Only one nontrivial misprint was noted, namely “cosh  $\omega t$ ” where “cos  $\omega t$ ” should be (entry 14, table of Laplace transforms, page 345).

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**Principles and Practice of Field Experimentation.** Technical communication 18. John Wishart and H. G. Sanders. Commonwealth Bureau of Plant Breeding and Genetics, Cambridge, England, ed. 2, 1955. 133 pp. 21s.

This small and concise clothbound book will continue to be of considerable value to experimenters even as the first edition was. The material in part II is especially interesting and should be re-read periodically by all experimenters who conduct field trials. Consulting statisticians will also find part II enlightening and worth-while reading. The authors state in the preface that “Part I has been almost entirely rewritten in order to make the book suitable for an introductory lecture course on the application of statistical methods to field experimentation, and the material has been

expanded to include reference to the more elaborate designs suitable for factorial trials and for use with large numbers of varieties. Part II has been revised and added to.”

It is true that part I has been rewritten, but it is unfortunate that the authors did not make use of some of the new developments in statistics by J. W. Tukey, D. B. Duncan, and M. Keuls on comparisons among means. Also, the relationship of error rate basis in experiments, type I error, type II error, and sample size are not considered. In order to be up to date, a book on statistics must consider these topics. The least significant difference (lsd) procedure is used throughout the book and the implication is that the error rate per experiment is 5 percent. This is not so; the error rate per comparison is 5 percent when all comparisons between two means are considered. Using an lsd procedure, the experimenter will find that the error rate per experiment may be larger than desired.

It is felt that the authors could have been more precise in their suggestions for using statistical procedures. Statistics as a science is objective, but the application of statistics becomes somewhat subjective; statisticians should strive to make the application of statistics as objective as possible. The book could be improved in this respect.

The following additional references should have been included: Smith, *J. Agri. Sci.* **28**, 1; Yates and Cochran, *J. Agri. Sci.* **28**, 556; Yates and Zecapanay, *J. Agri. Sci.* **25**, 545; Yates and Hale, *J. Roy. Stat. Soc. B*, **6**, 67; Eisenhart, *Biometrics* **3**, 1; Cochran, *Biometrics* **3**, 22; Bartlett, *Biometrics* **3**, 39; Yates, *Imp. Bur. Soil Sci., Tech. Comm.* **35**. Also, a number of the comments by Yates and Zecapanay on techniques of sampling and by Yates (*Imp. Bur. Soil Sci. Tech. Comm.* **35**) and Snedecor (*Statistical Methods*) on number of significant figures, rounding errors, and so forth, should have been included in the present version of the book. The inclusion of the aforementioned items would have more than compensated for the additional pages required.

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## New Books

**Resistance Welding.** Theory and use. Prepared by Resistance Welding Committee, American Welding Society. Reinhold, New York; Chapman & Hall, London, 1956. 163 pp. \$4.50.

**A Follow-Up Study of War Neuroses.** Norman Q. Brill and Gilbert W. Beebe. Supt. of Documents, GPO, Washington 25, 1956. 393 pp.

**Infinite Sequences and Series.** Konrad Knopp. Translated by Frederick Bagemihl. Dover, New York, 1956. 186 pp. Paper, \$1.75.

**Advances in Chemical Engineering.** Thomas B. Drew and John W. Hoopes, Jr. Academic Press, New York, 1956. 448 pp. \$10.

**CIBA Foundation Symposium on Extrasensory Perception.** G. E. W. Wolstenholme and Elaine C. P. Millar. Little, Brown, Boston, 1956. 240 pp. \$6.

**Taboo.** Franz Steiner. Philosophical Library, New York, 1956.

**Essentials in Problem Solving.** Zuce Kogan. Arco, New York, N.Y., 1956. 119 pp. \$3.

**Earth Satellites as Research Vehicles.** Proceedings of the symposium held 18 Apr. 1956 at the Franklin Institute in Philadelphia. Monograph No. 2. Journal of the Franklin Institute, Philadelphia, Pa., 1956. 115 pp. \$2.50.

**Report of the Special Committee on the Federal Loyalty-Security Program of the Association of the Bar of the City of New York.** Dodd, Mead, New York, 1956. 301 pp. \$5.

**Science and Civilisation in China.** vol. 2. *History of Scientific Thought.* Joseph Needham. Wang Ling, research assistant. Cambridge University Press, New York 22, 1956. 696 pp. \$14.50.

**Geology and Ourselves.** F. H. Edmunds. Philosophical Library, New York, 1956. 256 pp. \$10.

**Chemistry and Uses of Pesticides.** E. R. de Ong. Reinhold, New York; Chapman & Hall, London, ed. 2, 1956. 334 pp. \$8.75.

## Miscellaneous Publications

(Inquiries concerning these publications should be addressed, not to Science, but to the publisher or agency sponsoring the publication.)

**The Hazards to Man of Nuclear and Allied Radiations.** Presented by the Lord President of the Council to Parliament by Command of Her Majesty June 1956. Medical Research Council. Her Majesty's Stationery Office, London, 1956. 128 pp. 5s. 6d.

**Psychiatry, the Press and the Public.** Problems in communication. American Psychiatric Association, Washington, D.C., 1956. 66 pp.

**Manpower and Education.** Educational Policies Commission. National Education Association, 1201 16 St., NW, Washington 6, D.C. 128 pp. \$1.25.

**Current Issues in Higher Education, 1945, Resources for Higher Education.** Proceedings of the 11th annual National Conference on Higher Education. Chicago, Ill., 5-7 Mar. 1956. G. Kerry Smith, Ed. Association for Higher Education, 1201 16 St., NW, Washington 6, D.C. 363 pp. \$4.

**Fédération Internationale des Traducteurs F.I.T., Premier Congrès Mondial de la Traduction.** Rome, 29 Feb.-1 Mar. 1956. Associazione Italiana Traduttori, Via Firenze, 15, Rome, 1956. 44 pp.

**Carver Foundation, Tuskegee Institute, Alabama, Annual Report 1954-55, Ten Years of Research.** Carver Foundation, Tuskegee Institute, Ala., 1956. 18 pp.