

# ELECTROMAGNETICS

Second Edition

JOSEPH A. FORMERISTER

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### SCHAUM'S OUTLINE OF

### THEORY AND PROBLEMS

OF

### **ELECTROMAGNETICS**

Second Edition

JOSEPH A. EDMINISTER

Professor Emeritus of Electrical Engineering The University of Akron

## SCHAUM'S OUTLINE SERIES McGRAW-HILL

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Schaum's Outline of Theory and Problems of ELECTROMAGNETICS

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### **Preface**

The second edition of Schaum's Outline of Electromagnetics offers three new chapters—in transmission lines, waveguides, and antennas. These have been included to make the book a more powerful tool for students and practitioners of electromagnetic field theory. I take pleasure here in thanking my colleagues M. L. Kult and K. F. Lee for their contribution of this valuable material.

The basic approach of the first edition has been retained: "As in other Schaum's Outlines the emphasis is on how to solve problems. Each chapter consists of an ample set of problems with detailed solutions, and a further set of problems with answers, preceded by a simplified outline of the principles and facts needed to understand the problems and their solutions. Throughout the book the mathematics has been kept as simple as possible, and an abstract approach has been avoided. Concrete examples are liberally used and numerous graphs and sketches are given. I have found in many years of teaching that the solution of most problems begins with a carefully drawn sketch."

Once again it is to my students—my former students—that I wish to dedicate this book.

JOSEPH A. EDMINISTER

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