Books

How to Write & Publish Engineering Papers and Reports, third edition, Herbert B. Michaelson, Oryx Press, Phoenix, Arizona, 1990. 221 pp. (ISBN 0-89774-650-3).

Having had the experience of being a practicing engineer, author, and editor during a thirty-nine year professional career and having known the author during this entire time, I have been present at the birth of the ideas presented in this book. I have watched Herb Michaelson polish his ideas and put them to work in the minds and hands of many aspiring authors, young and old.

This book is not about grammar and the details of how to write. It is about how to publish—that is, this book is about how to raise the raw results of an engineering assignment to the level of a professional publication. This is both a challenge and a double achievement—if you know how. This book shows the reader "how." The challenge is pretty obvious. The first achievement is that one becomes known among one's peers. The other achievement is an unexpected dividend: The creative act of writing contributes to the project by revealing nuances of the project that had been overlooked in the effort of doing it. Yes, this is a how-to book, and there are not many more satisfying feelings than knowing how to do something, especially something new. It's like the first time you speak to a Frenchman in French, and he knows what you are saying.

The first nine chapters could almost be called an all-purpose outline on how to write the parts of a technical paper—abstract, introduction, body, and conclusion. A knowledge of what goes into these professionally written components goes a long way toward overcoming the tyranny of the blank sheet of paper. (As a bonus, these nine chapters show the reader how to dig out needed information most efficiently.)

Chapters 10 through 15 show, tell, and answer questions that all writers are accountable for, except that the beginner does not always realize this responsibility. These things include emphasis (which the author also calls information traps and which I lump together as ambiguity), visuals, tables, references, and bibliography. May the reviewer interject a plea that a reference not be cited that the author has not actually read. It is embarassing, to say the least, to find that a reference does not say what the author believes it says.

I suggest skimming over Chapters 16 to the end to obtain an idea of the contents; read what is necessary to start writing, and postpone the rest until the need arises. For example, if the author is writing a thesis, it is not essential to immediately read about writing a journal paper or a trade-press paper. It may also be possible to postpone reading about referees and referee reports until the writer is confronted with one. However, almost everyone will want to read about the use of a personal computer and desktop publishing.

Grammar and style are important, but almost nothing is said about them in this book. If the writer has good content, editors, referees, and colleagues will be glad to help with the other matters until the author has learned more about grammar and style. However, no editor can or should contribute to the technical content of the paper, no matter how excellent the grammar and style.

How to Write & Publish Engineering Papers and Reports does an excellent job of showing and telling how to organize and present technical material that is itself worthy of publication. As for the writing, the best advice for producing a really excellent paper in both content and style is to follow the directions the musician gave when

asked how to get to Carnegie Hall. "Practice, man, practice."

George C. Stierhoff
Briarcliff Manor
New York

Managing Creativity in Science and Hi-Tech, Ronald Kay, Springer-Verlag, Inc., New York, 1989. 221 pp. (ISBN 3-540-51375-2 and ISBN 0-387-51375-2).

Ron Kay has written a stimulating, practical guide to the management of scientists and engineers in hi-tech enterprises. Kay believes the success of these organizations depends not only on the creative people who concentrate on their individual work, but to an even greater extent upon technically competent people with the ability to stimulate technical accomplishments in others—accomplishments that ultimately benefit both the organization and the individual. He recognizes that the academic world frequently engenders in graduate students a negative attitude toward the concept of management. The book is intended to question and influence some of the attitudes toward management prevalent among engineers and scientists.

Kay addresses in a forthright and entertaining manner many of the issues facing managers who deal with creative people and some of the ways managers have learned to deal with these issues. He covers many topics, including: directing one's own work project management, selection of managers, managing a department or a small enterprise, managing people, evaluation of research and development, administrative skills, starting a new enterprise or project, financing creativity, organizational culture, and the offerings of some behavioral scientists.

Drawing on his personal experience with IBM, Kay emphasizes the importance of management in fostering a creative environment. The book is worthwhile for new as well as experienced technical managers.

William J. Turner
Mt. Kisco
New York

Note—The books reviewed are those the Editor thinks might be of interest to our readers. The reviews express the opinions of the reviewers.