

Preface

The electric power substation, whether generating station or transmission and distribution, remains one of the most challenging and exciting fields of electric power engineering. Recent technological developments have had tremendous impact on all aspects of substation design and operation. The objective of *Electric Power Substations Engineering* is to provide an extensive overview of the substation, as well as a reference and guide for its study. The chapters are written for the electric power engineering professional to give detailed design information, as well as for other engineering professions (e.g., mechanical, civil) who want an overview or specific information in one particular area.

The book is organized into 18 chapters to provide comprehensive information on all aspects of substations, from the initial concept of a substation to design, automation, operation, and physical and cyber security. The chapters are written as tutorials, and most provide references for further reading and study. The chapter authors are members of the Institute of Electrical and Electronics Engineers (IEEE) Power Engineering Society (PES) Substations Committee, the group that develops the standards that govern all aspects of substations. Consequently, this book contains the most recent technological developments regarding industry practice as well as industry standards. This work is a member of the Electric Power Engineering Series published by CRC Press.

During my review of the individual chapters of this book, I was very pleased with the level of detail presented and, more importantly, the tutorial writing style and use of photographs and graphics to help the reader understand the material. I thank the tremendous efforts of the 25 authors who were dedicated to do the very best job they could in writing the 18 chapters. I also thank the personnel at CRC Press who have been involved in the production of this book, with a special word of thanks to Nora Konopka, Helena Redshaw, and Michele Berman. They were a pleasure to work with and made this project a lot of fun for all of us.

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