## Table of contents

- **Preface** (p. ix)
- Editor (p. xi)
- Contributors (p. xiii)
- Part I Power System Protection (p. I)
- 1 Transformer Protection (p. 1)
- 2 The Protection of Synchronous Generators (p. 2)
- 3 Transmission Line Protection (p. 3)
- 4 System Protection (p. 4)
- 5 Digital Relaying (p. 5)
- 6 Use of Oscillograph Records to Analyze System Performance (p. 6)
- 7 Systems Aspects of Large Blackouts (p. 7)
- Part II Power System Dynamics and Stability (p. II)
- 8 Power System Stability (p. 8)
- 9 Transient Stability (p. 9)
- 10 Small-Signal Stability and Power System Oscillations (p. 10)
- 11 Voltage Stability (p. 11)
- 12 Direct Stability Methods (p. 12)
- 13 Power System Stability Controls (p. 13)
- 14 Power System Dynamic Modeling (p. 14)
- 15 Wide-Area Monitoring and Situational Awareness (p. 15)
- 16 Assessment of Power System Stability and Dynamic Security Performance (p. 16)
- 17 Power System Dynamic Interaction with Turbine Generators (p. 17)
- 18 Wind Power Integration in Power Systems (p. 18)
- 19 Flexible AC Transmission Systems (FACTS) (p. 19)
- Part III Power System Operation and Control (p. III)
- 20 Energy Management (p. 20)
- 21 Generation Control: Economic Dispatch and Unit Commitment (p. 21)
- **22 State Estimation** (p. 22)
- 23 Optimal Power Flow (p. 23)
- 24 Security Analysis (p. 24)
- **Index** (p. 1)