Operation, Construction, and Functionality of Direct Current Machines

Part of the Advances in Computer and Electrical Engineering (ACEE) Book Series

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Description:
Direct current machines are a quickly evolving domain whose applications affect many aspects of modern life from computers and printers to toys, electric vehicles, and traction applications. As their many uses continue to grow, it has become apparent that understanding these machines is the key to understanding our future.

Operation, Construction, and Functionality of Direct Current Machines brings together many concepts, from the most basic working principles and construction of DC machines to more advanced topics such as electro-magnetism, armature reaction, parallel operations, and many more. This publication highlights theoretical concepts and numerical problems.

Readers:
This book is an essential reference source for students, educators, and anyone interested in the field of electric machines.


Topics Covered:
- Armature Reaction
- Armature Windings
- Characteristics of DC Generators
- Commutation
- DC Motor Functionality
- Electromagnetism
- Parallel Operation of DC Generators
- Performance of DC Machines
- Types of DC Generators

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