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   Nota di bibliografia   Includes bibliographical references and index.

   Nota di contenuto Chapter 1. State of the art of 1D thermo-fluid dynamic simulation
                      models -- Chapter 2. Virtual engine development: 1D- and 3D-CFD up
                      to full engine simulation -- Chapter 3. Advanced OD and quasiD
                      thermodynamic combustion models for SI and CI engines -- Chapter 4.
                      Compressor and turbine as boundaryconditions for 1D simulations --
                      Chapter 5. 3D-CFD combustion models for SI and CI engines --
                      Chapter 6. Control-oriented gas dynamic simulation via model order
                      reduction -- Chapter 7. Modeling of EGR systems -- Chapter 8. 1D
                      engine model in XiL application: a simulation environment for the entire
                      powertrain development process -- Chapter 9. Coupling of 1D and 3D
                      fluid dynamic models for hybrid simulations -- Chapter 10. Extending
                      the 1D approach to the simulation of 3D components: the Quasi-3D
                      approach -- Chapter 11. 1D simulation models for aftertreatment
                      components -- Chapter 12. 3D simulation models for after-treatment
                      systems -- Chapter 13. Modeling of IC engine silencers and tailpipe
                      noise: 1D and 3D approaches.

Sommario/riassunto	This book provides a description of the most significant and recent achievements in the field of 1D engine simulation models and coupled 1D-3D modeling techniques, including 0D combustion models, quasi-3D methods and some 3D model applications.

2.

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Autore	Eriksson Sandra
Titolo	Permanent Magnet Synchronous Machines / Sandra Eriksson
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ISBN	9783039213511 3039213512
Descrizione fisica	1 electronic resource (282 p.)
Soggetti	History of engineering and technology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Interest in permanent magnet synchronous machines (PMSMs) is continuously increasing worldwide, especially with the increased use of renewable energy and the electrification of transports. This book contains the successful submissions of fifteen papers to a Special Issue of Energies on the subject area of "Permanent Magnet Synchronous Machines". The focus is on permanent magnet synchronous machines and the electrical systems they are connected to. The presented work represents a wide range of areas. Studies of control systems, both for permanent magnet synchronous machines and for brushless DC motors, are presented and experimentally verified. Design studies of generators for wind power, wave power and hydro power are presented. Finite element method simulations and analytical design methods are used. The presented studies represent several of the different research fields on permanent magnet machines and electric drives.