1. Record Nr. UNINA9910483320303321

Titolo	Methanol : A Sustainable Transport Fuel for CI Engines / / edited by Avinash Kumar Agarwal, Hardikk Valera, Martin Pexa, Jakub edík
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2021
ISBN	981-16-1280-3
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (XIV, 319 p. 131 illus., 110 illus. in color.)
Collana	Energy, Environment, and Sustainability, , 2522-8374
Disciplina	662.6692
Soggetti	Cogeneration of electric power and heat Fossil fuels Renewable energy sources Engines Automotive engineering Fossil Fuel Renewable Energy Engine Technology Automotive Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Introduction of Methanol: A Sustainable Transport Fuel for CI Engines -- Technology Options for Methanol Utilization in Railroad Sector -- Application of Methanol as Clean and Effecient Alternative Fuel to Engines with Compression Ignition -- Methanol - A Gateway to Bio-fuel Revolution in Global Heavy Duty ICE based Transportation -- Safety Aspects of Methanol as Fuel -- Combustion and Emission Analyses of a Diesel-Engine Running on Blends with Methanol -- Combustion Characteristics of Methanol Fuelled Compression Ignition Engines -- Heavy Duty Diesel Engines Operating on 100% Methanol for Lower Cost and Cleaner Emissions -- Combustion, Performance and Emission Analysis of Diesel-Methanol Fuel Blend in CI Engine -- Impact of Methanol on Engine Performance and Emissions -- Potential Assessment of Methanol to Reduce the Emission in LTC Mode Diesel Engine -- Methodology to Predict Emissions and Performance Parameter of a Methanol Fueled Diesel Engine.

Sommario/riassunto	This monograph is based on methanol as a fuel for transportation sector, specifically for compression ignition (CI) engines. The contents present examples of utilization of methanol as a fuel for CI engines in different modes of transportation such as railroad, personal vehicles or heavy duty road transportation. The book also focuses on effect of methanol on combustion and performance characteristics of the engine. The effect of methanol on exhaust emission production, prediction and control is also discussed. It also discusses current methanol utilization and its potential, its effect on the engine in terms of efficiency, combustion, performance, pollutants formation and prediction. Part of the chapters are based on review of state-of-the-art while other chapters are dedicated to an original research. This volume will be a useful guide to professionals and academics involved in alternative fuels, compression ignition engines, and environmental research.

2.

Record Nr.	UNINA9910483341503321
Titolo	Algebraic and Symbolic Computation Methods in Dynamical Systems / / edited by Alban Quadrat, Eva Zerz
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-030-38356-3
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (320 pages) : illustrations
Collana	Advances in Delays and Dynamics, , 2197-1161 ; ; 9
Disciplina	512.56
Soggetti	System theory Control theory Multibody systems Vibration Mechanics, Applied Mathematical optimization Calculus of variations Systems Theory, Control Multibody Systems and Mechanical Vibrations Calculus of Variations and Optimization
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa

Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	State-Dependent Sampling for Online Control -- Design of First Order Controllers for Unstable Infinite Dimensional Plants -- Anti-Windup Conditioning for Actuator Saturation in Internal Model Control with Delays -- Stabilization of Some Fractional Neutral Delay Systems which Possibly Possess an Infinite Number of Unstable Poles -- Controller Design for a Class of Delayed and Constrained Systems: Application to Supply Chains.
Sommario/riassunto	This book aims at reviewing recent progress in the direction of algebraic and symbolic computation methods for functional systems, e. g. ODE systems, differential time-delay equations, difference equations and integro-differential equations. In the nineties, modern algebraic theories were introduced in mathematical systems theory and in control theory. Combined with real algebraic geometry, which was previously introduced in control theory, the past years have seen a flourishing development of algebraic methods in control theory. One of the strengths of algebraic methods lies in their close connections to computations. The use of the above-mentioned algebraic theories in control theory has been an important source of motivation to develop effective versions of these theories (when possible). With the development of computer algebra and computer algebra systems, symbolic methods for control theory have been developed over the past years. The goal of this book is to propose a partial state of the art in this direction. To make recent results more easily accessible to a large audience, the chapters include materials which survey the main mathematical methods and results and which are illustrated with explicit examples.