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Titolo	2005 Asian Conference on Sensors and the International Conference on New Techniques in Pharmaceutical and Biomedical Research : proceedings, September 5-7, 2005, Kuala Lumpur, Malaysia / edited by Deepak K. Ghodgaonkar ... [et al
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Livello bibliografico	Monografia
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2. Record Nr. UNINA9910583339403321

Autore	DiPippo Ronald
Titolo	Geothermal power plants : principles, applications, case studies and environmental impact / / Ronald DiPippo, Ph.D., Chancellor Professor Emeritus University of Massachusetts Dartmouth North Dartmouth, MA, USA
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ISBN	0-08-100290-4
Edizione	[4th ed.]
Descrizione fisica	1 online resource (802 p.)
Disciplina	333.8
Soggetti	Geothermal power plants Geothermal resources Geothermal engineering
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Front Cover; Geothermal Power Plants; Copyright Page; Dedication; Contents; Foreword to the Fourth Edition; Preface and Acknowledgements to the Fourth Edition; What's New in the Fourth Edition?; A Few Observations; A Newcomer's Introduction to Geothermal Power Conversion; Acknowledgments; Preface and Acknowledgements to the Third Edition; Preface and Acknowledgements to the Second Edition; Preface and Acknowledgements to the First Edition; 1. Resource Identification and Development; 1 Geology of Geothermal Regions; 1.1 Introduction; 1.2 The Earth and its Atmosphere 1.3 Active Geothermal Regions1.4 Model of a Hydrothermal Geothermal Resource; 1.5 Other Types of Geothermal Resources; 1.5.1 Hot Dry Rock; 1.5.2 Geopressure; 1.5.3 Magma Energy; 1.5.4 Deep Hydrothermal; 1.5.5 Low Temperature; References; Problems; 2 Exploration Strategies and Techniques; 2.1 Introduction; 2.2 Objectives of an Exploration Program; 2.3 Phases of an Exploration Program; 2.3.1 Literature Survey; 2.3.2 Airborne Survey; 2.3.3 Geologic Survey; 2.3.4 Hydrologic Survey; 2.3.5 Geochemical Survey; 2.3.6 Geophysical Survey; 2.4 Synthesis and Interpretation; 2.5 The Next Step: Drilling

ReferencesProblems; 3 Geothermal Well Drilling; 3.1 Introduction; 3.2 Site Preparation and Drilling Equipment; 3.3 Drilling Operations; 3.4 Safety Precautions; References; Problems; 4 Reservoir Engineering; 4.1 Introduction; 4.2 Reservoir and Well Flow; 4.2.1 Darcy's Law; 4.2.2 Reservoir-Well Model: Ideal Case; 4.2.3 Reservoir-Well Model: Basic Principles; 4.2.4 Liquid-Only Flow; 4.2.5 Location of the Flash Horizon; 4.2.6 Two-Phase Flow in the Well; 4.2.7 Complete Model: Reservoir to Wellhead with Wellbore Flashing; 4.3 Well Testing; 4.3.1 Desired Information
4.3.2 Pressure and Temperature Instrumentation4.3.3 Direct Mass Flow Rate Measurements; 4.3.4 Indirect Mass Flow Rate Measurements; 4.3.5 Transient Pressure Measurements and Analysis; 4.4 Calcite Scaling in Well Casings; 4.5 Reservoir Modeling and Simulation; 4.5.1 Input; 4.5.2 Architecture; 4.5.3 Calibration and Validation; 4.5.4 History Matching; 4.5.5 Use of the Model; 4.5.6 Examples of Reservoir Simulators; 4.6 Reinjection; 4.6.1 Motivation; 4.6.2 Strategies; 4.6.3 Examples; References; Problems; 2. Geothermal Power Generating Systems; 5 Single-Flash Steam Power Plants; 5.1 Introduction
5.2 Gathering System Design Considerations5.2.1 Piping Layouts; 5.2.2 Pressure Losses; 5.3 Energy Conversion System; 5.4 Thermodynamics of the Conversion Process; 5.4.1 Temperature-Entropy Process Diagram; 5.4.2 Flashing Process; 5.4.3 Separation Process; 5.4.4 Turbine Expansion Process; 5.4.5 Condensing Process; 5.4.6 Cooling Tower Process; 5.4.7 Utilization Efficiency; 5.5 Example: Single-Flash Optimization; 5.5.1 Choked Well Flow; 5.5.2 Non-Choked Well Flow; 5.6 Optimum Separator Temperature: An Approximate Formulation; 5.7 Environmental Aspects for Single-Flash Plants
5.7.1 General Considerations

Sommario/riassunto

Now in its 4th edition, this single resource covers all aspects of the utilization of geothermal energy for power generation using fundamental scientific and engineering principles. Its practical emphasis is enhanced by the use of global case studies from real plants and applications from around the world that increase your understanding of geothermal energy conversion and provide a unique compilation of hard-to-obtain data and experience. Technical, economic and business aspects presented in case studies provide current and up-and-coming geothermal developers and entrepreneurs with a solid understanding of opportunities and pitfalls. Geothermal Power Plants, 4th Edition, presents state-of-the-art geothermal developments and experience of real applications for professionals, and a comprehensive reference for theory and practice. Important new and revised content on double- and triple-flash steam power plants, plant and well pumps, and biomass-geothermal and solar-geothermal hybrid systems New chapters on global case studies with comprehensive and up-to-date statistics, including New Zealand, Indonesia, Central America and the Caribbean, and the state of Nevada, USA, plus updated chapters on Larderello (Italy), The Geysers (USA), Turkey and Enhanced Geothermal Systems (EGS) make this useable and relevant for a global audience Revised and additional practice problems with emphasis on system simulation using electronic equations of state for working fluid properties. SI units are now used exclusively

3. Record Nr. UNINA9910438050103321

Autore	Shaikhet Leonid
Titolo	Lyapunov functionals and stability of stochastic functional differential equations / / Leonid Shaikhet
Pubbl/distr/stampa	Cham, Switzerland ; ; New York, : Springer, c2013
ISBN	3-319-00101-9
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (342 p.)
Disciplina	515/.35
Soggetti	Lyapunov functions Stochastic differential equations
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Short Introduction to Stability Theory of Deterministic Functional Differential Equations -- Stability of Linear Scalar Equations -- Stability of Linear Systems of Two Equations -- Stability of Systems with Nonlinearities -- Matrix Riccati Equations in Stability of Linear Stochastic Differential Equations with Delays -- Stochastic Systems with Markovian Switching -- Stabilization of the Controlled Inverted Pendulum by Control with Delay -- Stability of Equilibrium Points of Nicholson's Blowflies Equation with Stochastic Perturbations -- Stability of Positive Equilibrium Point of Nonlinear System of Type of Predator-Prey with Aftereffect and Stochastic Perturbations -- Stability of SIR Epidemic Model Equilibrium Points -- Stability of Some Social Mathematical Models with Delay by Stochastic Perturbations.
Sommario/riassunto	Stability conditions for functional differential equations can be obtained using Lyapunov functionals. Lyapunov Functionals and Stability of Stochastic Functional Differential Equations describes the general method of construction of Lyapunov functionals to investigate the stability of differential equations with delays. This work continues and complements the author's previous book Lyapunov Functionals and Stability of Stochastic Difference Equations, where this method is described for discrete- and continuous-time difference equations. The text begins with a description of the peculiarities of deterministic and stochastic functional differential equations. There follow basic definitions for stability theory of stochastic hereditary systems, and a

formal procedure of Lyapunov functionals construction is presented. Stability investigation is conducted for stochastic linear and nonlinear differential equations with constant and distributed delays. The proposed method is used for stability investigation of different mathematical models such as: • inverted controlled pendulum; • Nicholson's blowflies equation; • predator-prey relationships; • epidemic development; and • mathematical models that describe human behaviours related to addictions and obesity. Lyapunov Functionals and Stability of Stochastic Functional Differential Equations is primarily addressed to experts in stability theory but will also be of interest to professionals and students in pure and computational mathematics, physics, engineering, medicine, and biology.