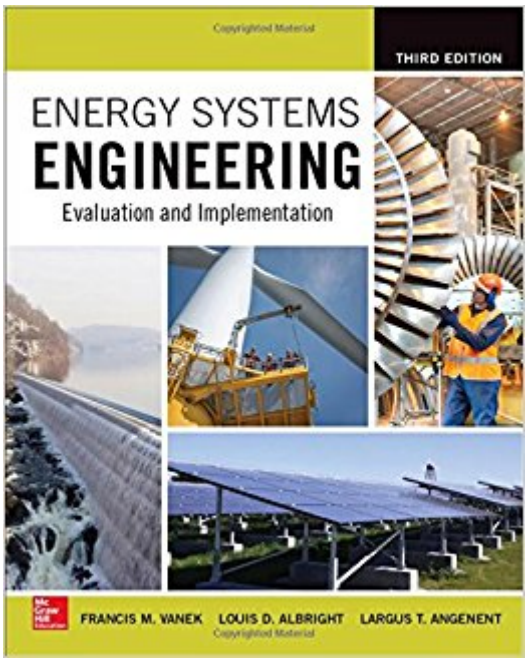
Energy Systems Engineering: Evaluation And Implementation, Third Edition (P/L Custom Scoring Survey)



Synopsis

A definitive guide to energy systems engineeringÃ¢â ¬â ¢thoroughly updated for the latest technologiesWritten by a team of experts in the industry, this comprehensive resource discusses fossil, nuclear, and renewable energy and lays out technology-neutral, portfolio-based approaches to energy systems. You will get complete coverage of all of the major energy technologies, including how they work, how they are quantitatively evaluated, what they cost, and their impact on the natural environment. The authors show how each technique is currently usedÃ¢â ¬â ¢and offer a look into the future of energy systems engineering.Thoroughly revised to include the latest advances, Energy Systems Engineering: Evaluation and Implementation, Third Edition, clearly addresses project scope estimation, cost, energy consumption, and technical efficiency. Example problems demonstrate the performance of each technology and teach, step-by-step, how to assess strengths and weaknesses. Hundreds of illustrations and end-of-chapter exercises aid in your understanding of the concepts presented. Valuable appendices contain reference tables, unit conversions, and thermodynamic constants.Coverage includes: Ã¢â ¬Â¢Ã Â Systems and economic tools Ã¢â ¬Â¢Ã Â Climate change and climate modeling Ã¢â ¬Â¢Ã Â Fossil fuel resources Ã¢â ¬Â¢Ã Â Stationary combustion systems Ã¢â ¬Â¢Ã Â Carbon sequestration Ã¢â ¬Â¢Ã Â Nuclear energy systems, including small-scale nuclear fusion Ã¢â ¬Â¢Ã Â Solar resourcesÃ¢â ¬Â¢Ã Â Solar photovoltaic technologies Ã¢â ¬Â¢Ã Â Active and passive solar thermal systems Ã¢â ¬Â¢Ã Â Wind energy systems and wind turbine designs for lower wind speedsÃ¢â ¬Â¢Ã Â Bioenergy resources and systemsÃ¢â ¬Â¢Ã Â Waste-to-energy conversionÃ¢â ¬Â¢Ã Â Transportation energy technologies, including electric vehicles Ã¢â ¬Â¢Ã Â Systems perspective on transportation energyÃ¢â ¬Â¢Ã Â Creating the twenty-first-century energy system

Book Information

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Customer Reviews

FrancisÃ Â M. Vanek, Ph.D., is a Senior Lecturer and Research Associate in Civil and Environmental Engineering at Cornell University, where he specializes in energy efficiency, alternative energy, and energy for transportation. He is also the lead author of Sustainable Transportation Systems Engineering from McGraw-Hill Education.Louis D. Albright, Ph.D., is a Professor Emeritus of Biological and Environmental Engineering at Cornell University. He is also a Fellow of the American Society of Agricultural and Biological Engineers (ASABE).Largus T. Angenent, Ph.D., is a Professor in the Department of Biological and Environmental Engineering at Cornell University. He specializes in converting organic biomass and waste materials into bioenergy, and also works in the areas of biosensors and bio-aerosols.

Lots of good information in this book. Sometimes hard to read without enough background.

I teach a graduate course in Renewable Energy and Resource Conservation to mostly environmental engineering students but engineering students from the mechanical, electrical, and ocean and naval architecture departments and environmental science students also take my course. I was looking for a textbook that I could use to introduce calculations and design related to wind energy and solar energy and for this purpose I found that Chapters 13, 9 and 10 of the 3rd edition of this book were excellent. I plan to develop my course further in the future using other chapters from this book. I think the students were also pleased with the course content. My impression has been that there are not too many books like this available and one of the reasons I selected this book is because the primary author has a civil and environmental engineering background and that is the same background as my own.

Comprehensive general review. However, third addition does not include PPT slides for instructor aids as did second addition.

Energy Systems Engineering: Evaluation and Implementation, Third Edition (P/L Custom Scoring Survey) Energy Systems Engineering: Evaluation and Implementation, Second Edition Manual of Low-Slope Roof Systems: Fourth Edition (P/L Custom Scoring Survey) Bridge Engineering: Design, Rehabilitation, and Maintenance of Modern Highway Bridges, Fourth Edition (P/L Custom Scoring Survey) Landscape Architecture, Fifth Edition: A Manual of Environmental Planning and Design (P/L Custom Scoring Survey) Reinforced Concrete Structures: Analysis and Design, Second Edition (P/L Custom Scoring Survey) Planning and Design of Airports, Fifth Edition (P/L Custom Scoring Survey) Construction Operations Manual of Policies and Procedures, Fifth Edition (P/L Custom Scoring Survey) Project Management in Construction, Sixth Edition (P/L Custom Scoring Survey) Charter of the New Urbanism, 2nd Edition (P/L Custom Scoring Survey) CPM in Construction Management, Eighth Edition (P/L Custom Scoring Survey) Masonry Structural Design, Second Edition (P/L Custom Scoring Survey) Electrician’s Calculations Manual, Second Edition (P/L Custom Scoring Survey) Public Infrastructure Asset Management, Second Edition (P/L Custom Scoring Survey) Ductile Design of Steel Structures, 2nd Edition (P/L Custom Scoring Survey) Construction Management of Healthcare Projects (P/L Custom Scoring Survey) Design of Reinforced Masonry Structures (P/L Custom Scoring Survey) Scoring High on the ITBS, Student Edition, Grade 8 (SCORING HIGH, ITBS) Scoring High on the TerraNova CTBS, Student Edition, Grade 7 (SCORING HIGH, CTBS) Reiki: The Healing Energy of Reiki - BeginnerÃ¢â ¬â„¢s Guide for Reiki Energy and Spiritual Healing: Reiki: Easy and Simple Energy Healing Techniques Using the ... Energy Healing for Beginners Book 1)