1. Record Nr. UNINA990001437710403321

Autore Shevchenko, Valery N.

Titolo Qualitative topics in integer linear programming / V. N. Shevchenko

Pubbl/distr/stampa Providence (RI): American Mathematical Society, c1997

ISBN 0-8218-0535-5

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Lingua di pubblicazione Inglese

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Livello bibliografico Monografia

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Autore Muhanji Steffi O

Titolo eloT [[electronic resource]]: The Development of the Energy Internet of

Things in Energy Infrastructure / / by Steffi O. Muhanji, Alison E. Flint,

Amro M. Farid

Pubbl/distr/stampa Cham, : Springer Nature, 2019

Cham:,: Springer International Publishing:,: Imprint: Springer,,

2019

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Edizione [1st ed. 2019.]

Descrizione fisica 1 online resource (XXVIII, 160 p. 39 illus., 26 illus. in color.)

Disciplina 621.042

Soggetti Renewable energy sources

Energy systems
Power electronics
Electrical engineering
Application software

Renewable and Green Energy

Energy Systems

Power Electronics, Electrical Machines and Networks

Communications Engineering, Networks

Information Systems Applications (incl. Internet)

Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
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Nota di contenuto	Chapter1: eloT as a Solution to Energy Management Change Drivers Chapter2: eloT Activates the Grid Periphery Chapter3: The Development of IoT within Energy Infrastructure Chapter4: Transactive Energy Applications of eloT Chapter5: eloT Transforms the Future Electric Grid.
Sommario/riassunto	This open access book explores the collision between the sustainable energy transition and the Internet of Things (IoT). In that regard, this book's arrival is timely. Not only is the Internet of Things for energy applications, herein called the energy Internet of Things (eIoT), rapidly developing but also the transition towards sustainable energy to abate global climate is very much at the forefront of public discourse. It is within the context of these two dynamic thrusts, digitization and global climate change, that the energy industry sees itself undergoing significant change in how it is operated and managed. This book recognizes that they impose five fundamental energy management change drivers: 1.) the growing demand for electricity, 2.) the emergence of renewable energy resources, 3.) the emergence of electrified transportation, 4.) the deregulation of electric power markets, 5.) and innovations in smart grid technology. Together, they challenge many of the assumptions upon which the electric grid was first built. The goal of this book is to provide a single integrated picture of how eloT can come to transform our energy infrastructure. This book links the energy management change drivers mentioned above to

the need for a technical energy management solution. It, then, describes how eloT meets many of the criteria required for such a technical solution. In that regard, the book stresses the ability of eloT to add sensing, decision-making, and actuation capabilities to millions or perhaps even billions of interacting "smart" devices. With such a large scale transformation composed of so many independent actions, the book also organizes the discussion into a single multi-layer energy management control loop structure. Consequently, much attention is

given to not just network-enabled physical devices but also

returns to how these technologies when integrated form new

the relationship between end users, utilities, and grid operators. Consequently, the book discusses some of the emerging applications for utilities, industry, commerce, and residences. The book concludes that these eloT applications will transform today's grid into one that is

much more responsive, dynamic, adaptive and flexible. It also

and the business models of its increasingly growing number of

participants and stakeholders.

communication networks, distributed control & decision making, and finally technical architectures and standards. Having gone into the detail of these many simultaneously developing technologies, the book

applications for transactive energy. In that regard, it highlights several eloT-enabled energy management use cases that fundamentally change

concludes that this transformation will bring about new challenges and opportunities for the cyber-physical-economic performance of the grid

3. Record Nr. UNICAMPANIAVAN0268497 **Autore** Bott, Raoul <1923-2005> **Titolo** Differential forms in algebraic topology / Raoul Bott, Loring W. Tu Pubbl/distr/stampa New York, : Springer, 1982 Descrizione fisica xiv, 331 p.: ill.; 24 cm Altri autori (Persone) Tu, Loring W. Soggetti 58Axx - General theory of differentiable manifolds [MSC 2020] 57Rxx - Differential topology [MSC 2020] 14F40 - de Rham cohomology and algebraic geometry [MSC 2020] Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia