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Sommario/riassunto	Annotation In the face of climate change and resource scarcity, energy supply systems are on the verge of a major transformation, which mainly includes the introduction of new components and their integration into the existing infrastructures, new network configurations and reliable topologies, optimal design and novel operation schemes, and new incentives and business models. This revolution is affecting the current paradigm and demanding that energy systems be integrated into multi-carrier energy hubs. It is highly increasing the interactions between today's energy systems at various scales and future intelligent energy systems, which are able to incorporate an increasing amount renewable energy sources. This transformation is also accommodating active participation of end-users as responsive prosumers at different scales which in turn helps to reduce energy costs and to mitigate carbon footprints. This book covers the mentioned promising and dynamic areas of research and development, and reports on contributions in design, control and optimization of integrated energy systems. The contents of the book which are gathered based on the accepted articles in the special issue on Advances in Integrated Energy systems Design, Control and Optimization also covers a variety of topics, ranging from operation and control of small-scale electrical networks to the complex energy systems design and planning.