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Nota di contenuto	Introduction : The why, what and how of social systems engineering / César García-Díaz and Camilo Olaya -- Social systems engineering : the very idea. Compromised exactness and the rationality of engineering / Steven L. Goldman ; Uncertainty in the design and maintenance of social systems / William M. Bulleit ; System farming / Bruce Edmonds ; Policy between evolution and engineering / Martin F. G. Schaffernicht ; 'Friend' versus 'electronic friend' / Joseph C. Pitt -- Methodologies and tools. Interactive visualizations for supporting decision-making in complex socio-technical systems / Zhongyuan Yu, Mehrnoosh Oghbaie, Chen Liu, William B. Rouse and Michael J. Pennock ; Developing agent-based simulation models for social systems engineering studies : a novel framework and its application to modelling peacebuilding activities / Peer-Olaf Siebers, Graziela P. Figueredo, Miwa Hirono and Anya Skatova ; Using actor-network theory in agent-based modelling / Sandra Méndez-Fajardo, Rafael A. Gonzalez and Ricardo A. Barros-Castro ; Engineering the process of

institutional innovation in contested territory / Russell C. Thomas and John S. Gero -- Cases and applications. Agent-based exploration of environmental consumption in segregated networks / Adam Douglas Henry and Heike I. Brugger ; Modelling in the 'muddled middle' : a case study of water service delivery in post-apartheid South Africa / Jai K. Clifford-Holmes, Jill H. Slinger, Chris de Wet and Carolyn G. Palmer ; Holistic system design : the Oncology Carinthia study / Markus Schwaninger and Johann Klocker ; Reinforcing the social in social systems engineering : lessons learnt from Smart City projects in the United Kingdom / Jenny O'Connor, Zeynep Gurguc and Koen H. van Dam.

Sommario/riassunto

Uniquely reflects an engineering view to social systems in a wide variety of contexts of application Social Systems Engineering: The Design of Complexity brings together a wide variety of application approaches to social systems from an engineering viewpoint. The book defines a social system as any complex system formed by human beings. Focus is given to the importance of systems intervention design for specific and singular settings, the possibilities of engineering thinking and methods, the use of computational models in particular contexts, and the development of portfolios of solutions. Furthermore, this book considers both technical, human and social perspectives, which are crucial to solving complex problems. Social Systems Engineering: The Design of Complexity provides modelling examples to explore the design aspect of social systems. Various applications are explored in a variety of areas, such as urban systems, health care systems, socio-economic systems, and environmental systems. It covers important topics such as organizational design, modelling and intervention in socio-economic systems, participatory and/or community-based modelling, application of systems engineering tools to social problems, applications of computational behavioral modeling, computational modelling and management of complexity, and more. Highlights an engineering view to social systems (as opposed to a "scientific" view) that stresses the importance of systems intervention design for specific and singular settings Divulges works where the design, re-design, and transformation of social systems constitute the main aim, and where joint considerations of both technical and social perspectives are deemed important in solving social problems Features an array of applied cases that illustrate the application of social systems engineering in different domains Social Systems Engineering: The Design of Complexity is an excellent text for academics and graduate students in engineering and social science—specifically, economists, political scientists, anthropologists, and management scientists with an interest in finding systematic ways to intervene and improve social systems.
