1. Record Nr. UNINA9910574858403321 Complex Systems and Their Applications : Second International Titolo Conference (EDIESCA 2021) / / edited by Guillermo Huerta Cuéllar, Eric Campos Cantón, Esteban Tlelo-Cuautle Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2022 **ISBN** 3-031-02472-9 Edizione [1st ed. 2022.] Descrizione fisica 1 online resource (267 pages) Disciplina 003 Soggetti System theory **Dynamics** Nonlinear theories **Engineering mathematics** Engineering - Data processing Electronic circuit design Engineering design Multibody systems Vibration Mechanics, Applied **Complex Systems** Applied Dynamical Systems Mathematical and Computational Engineering Applications Electronics Design and Verification Engineering Design Multibody Systems and Mechanical Vibrations Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Complex systems -- Chaotic dynamics -- Synchronization of complex Nota di contenuto systems -- Secure communication systems -- Electronic

Sommario/riassunto

implementation of chaotic systems -- Nonlinear systems in Perception. This book is a compilation of scientific articles written by recognized

researchers, and select students, participating in the Second Conference on the Study of Complex Systems and their Applications (EDIESCA 2021). EDIESCA 2021 arose from the need for academic and research groups that carry out this scientific research to disseminate their results internationally. The study and characterization of systems with non-linear and/or chaotic behavior has been of great interest to researchers around the world, for which many important results have been obtained with various applications. The dynamic study of chaotic oscillators of different models, such as Rössler, Lorenz, and Chua, has generated important advances in understanding of chemical reactions, meteorological behavior, design of electronic devices, and other applications. Topics at the event included applications for communications systems by masking techniques, financial behavior, networks analysis, nonlinear lasers, numerical modeling, electronic design, and other interesting topics in the area of complex systems. Additionally, there are results on numerical simulation and electronic designs to generate complex dynamic behaviors.