1. Record Nr. UNINA9910842487503321 Autore Shah Syed Imran Hussain Titolo Origami Antennas for Wireless Communication Systems [[electronic resource] /] / by Syed Imran Hussain Shah, Shahid Bashir, Slawomir Koziel Cham:,: Springer Nature Switzerland:,: Imprint: Springer., 2024 Pubbl/distr/stampa **ISBN** 3-031-53566-9 Edizione [1st ed. 2024.] Descrizione fisica 1 online resource (142 pages) Altri autori (Persone) **BashirShahid** KozielSlawomir Disciplina 621.3815 Soggetti Electronic circuits Telecommunication Wireless communication systems Mobile communication systems **Electronic Circuits and Systems** Microwaves, RF Engineering and Optical Communications Wireless and Mobile Communication Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Chapter 1: Introduction -- Chapter 2: Origami Antennas Design --Nota di contenuto Chapter 3: Origami Applications -- Chapter 4: Frequency Reconfigurable Origami Antennas -- Chapter 5: Pattern Reconfigurable Origami Antennas -- Chapter 6: Polarization Reconfigurable Origami Antennas -- Chapter 7: Light Weight Deployable Origami Antennas --Chapter 8: Summary. Sommario/riassunto This book discusses the lightweight, reconfigurable, and deployable origami antennas for adaptive communication systems. Traditional antennas, with their fixed characteristics, struggle to meet the evolving needs of modern communication systems. Reconfigurable antennas, on the other hand, can dynamically adjust their operating parameters, offering significant advantages in terms of performance, size, and cost. Origami technology has emerged as a disruptive force in antenna design, enabling the development of lightweight, reconfigurable

antennas with tailored radiation characteristics. Deployable origami

antennas offer a transformative solution for applications demanding mobility and rapid deployment in challenging environments. These innovative antennas hold immense promise to revolutionize communication systems, paving the way for a future where adaptability and versatility are paramount. This book offers a comprehensive guide to origami antenna technology, encompassing both fundamentals and practical applications. It might be a valuable resource for researchers and engineers working in the field of antenna development, particularly those focused on wireless communication systems with reconfigurability and deployability are essential design prerequisites. Covers fundamental design guidelines for selecting materials to use for origami antennas; Reviews recent development in origami technology in diverse engineering fields; Includes numerous examples of practical origami antenna designs for a variety of applications.