Record Nr. UNINA9910677503903321 Autore Wang Zhaocheng <1968-> Titolo Visible Light Communications: Modulation and Signal Processing // Zhaocheng Wang, Qi Wang, Wei Huang, Zhengyuan Xu Pubbl/distr/stampa Hoboken:,: Wiley,, [2017] [Piscatagay, New Jersey]:,: IEEE Xplore,, [2017] **ISBN** 1-119-33185-4 1-119-33184-6 1-119-33186-2 Descrizione fisica 1 PDF (x, 359 pages) Collana **IEEE Press** Altri autori (Persone) WangZhaocheng WangQi HuangWei XuZhengyuan Disciplina 621.382/7 Optical communications Soggetti Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali "IEEE Press". Nota di bibliografia Includes bibliographical references at the end of each chapters and index. Nota di contenuto Introduction to Visible Light Communications -- Visible Light Communications: Channel and Capacity -- Single Carrier/Carrierless Modulation and Coding -- Multicarrier Modulation -- Multicolor Modulation -- Optical MIMO -- Signal Processing and Optimization --Optical Camera Communication: Fundamentals -- Optical Camera Communication: Modulation and System Design -- IEEE Press Series on Digital And Mobile Communication. Sommario/riassunto A comprehensive reference on modulation and signal processing for visible light communication This informative new book on state-ofthe-art visible light communication (VLC) provides, for the first time, a systematical and advanced treatment of modulation and signal processing for VLC. Visible Light Communications: Modulation and Signal Processing is a practical guide to designing VLC, linking academic research with commercial applications. In recent years, VLC has attracted attention from academia and industry since it has many

advantages over the traditional radio frequency, including wide

unregulated bandwidth, high security, at a low cost. It is a promising complementary technique in 5G wireless communications, especially in indoor applications. However, lighting constraints have not been covered in current literature when considering VLC system design, and its importance has been underestimated. That's why this book written by a team of experts with both academic research experience and industrial development experience in the field— is so welcome. To help readers understand the theory and design of VLC systems, the book: . Details many modern techniques on both modulation and signal processing aspects. Links academic research with commercial applications in visible light communications as well as other wireless communication systems. Combines theoretical rigor with practical examples in presenting optical camera communication systems Visible Light Communications: Modulation and Signal Processing serves as a useful tool and reference book for visible light communication professionals, as well as wireless communication system professionals and project managers. It is also an important guide for undergraduates and graduates who want to conduct research in areas of wireless communications.