Record Nr. UNINA9910522973903321 Autore Rathgeb Christian Titolo Handbook of Digital Face Manipulation and Detection : From DeepFakes to Morphing Attacks / / edited by Christian Rathgeb, Ruben Tolosana, Ruben Vera-Rodriguez, Christoph Busch Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2022 3-030-87664-0 **ISBN** Edizione [1st ed. 2022.] 1 online resource (481 pages): illustrations (chiefly color) Descrizione fisica Collana Advances in Computer Vision and Pattern Recognition, , 2191-6594 Classificazione COM016000COM053000TEC008000 Altri autori (Persone) RathgebChristian TolosanaRuben Vera-RodriguezRuben BuschChristoph Disciplina 006.248 Soggetti Biometric identification Image processing - Digital techniques Computer vision Data protection Image processing **Biometrics** Computer Imaging, Vision, Pattern Recognition and Graphics Data and Information Security **Image Processing** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Monografia Livello bibliografico Nota di bibliografia Includes index. Nota di contenuto Part I - Introduction: 1. Digital Face Manipulation: An Introduction -- 2. Face Manipulation in Biometric Systems -- 3. Face Manipulation in Media Forensics -- Part II - Face Manipulation Detection Methods: 4. DeepFakes Manipulation -- 5. DeepFakes Detection -- 6. Attacking Face Recognition Systems with DeepFakes. This open access book provides the first comprehensive collection of Sommario/riassunto studies dealing with the hot topic of digital face manipulation such as

DeepFakes, Face Morphing, or Reenactment. It combines the research fields of biometrics and media forensics including contributions from

academia and industry. Appealing to a broad readership, introductory chapters provide a comprehensive overview of the topic, which address readers wishing to gain a brief overview of the state-of-the-art. Subsequent chapters, which delve deeper into various research challenges, are oriented towards advanced readers. Moreover, the book provides a good starting point for young researchers as well as a reference guide pointing at further literature. Hence, the primary readership is academic institutions and industry currently involved in digital face manipulation and detection. The book could easily be used as a recommended text for courses in image processing, machine learning, media forensics, biometrics, and the general security area.