Record Nr. UNINA9910453610803321 Detection and intelligent systems for homeland security. / / edited by **Titolo** John G. Voeller Pubbl/distr/stampa Hoboken, New Jersey:,: John Wiley & Sons,, 2014 ©2014 **ISBN** 1-118-78742-0 1-118-78736-6 Descrizione fisica 1 online resource (129 p.) Altri autori (Persone) VoellerJohn G Disciplina 006.312 Soggetti Data mining Computer security Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Cover: Title Page: Contents: Preface: Chapter 1 2D-to-3d Face Recognition Systems; 1.1 Intelligent Video Systems; 1.1.1 The Need for Intelligent Video Systems; 1.1.2 The Barrier to Face; 1.1.3 2D-to-3D Bridges the Performance Gap for Intelligent Video Systems; 1.2 Computational Anatomy and Diffeomorphisms For 2D-TO-3D Model Generation; 1.2.1 Computational Anatomy; 1.2.2 One and Two-View Geometry Generation; 1.2.3 Statistical Validation of 2D-to-3D Model Generation; 1.2.4 Root Mean Squared Error on Controlled and Uncontrolled Imagery; 1.2.5 Rigid Motion Reconstruction Accuracy 1.3 The 2D-To-3D Technology for Photometric Representation 1.4 2D-To-3D Geometric Model Normalization; 1.4.1 2D-to-3D Geometric Normalization: 1.4.2 2D-to-3D Photometric Normalization: 1.4.3 Boosting Facial Recognition Systems via 2D-to-3D Geometric Model Generation; 1.5 Pose and Lighting Invariant Facial Recognition Systems Based On 2D-To-3D Geometry Generation; 1.5.1 2D-to-3D Enabled Frontal Pose-Invariant Facial Recognition Systems; 1.5.2 Lighting Invariant 2D-to-3D Facial Recognition Systems; 1.5.3 2D-to-3D Full

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Sommario/riassunto

Detection and Intelligent Systems for Homeland Security features articles from the Wiley Handbook of Science and Technology for Homeland Security covering advanced technology for image and video interpretation systems used for surveillance, which help in solving such problems as identifying faces from live streaming or stored videos. Biometrics for human identification, including eye retinas and irises, and facial patterns are also presented. The book then provides information on sensors for detection of explosive and radioactive materials and methods for sensing chemical