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Contactless palmprint recognition: A mini review

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The increasing terrorist and criminal acts on public, private, and government infrastructure have resulted in a chaotic situation, thereby putting the surveillance system in existence under pressure. Conventionally, information systems rely on users to remember their secret pins (passwords) or tokens, cards, or both to confirm their identity. In order to achieve this in modern times, personal identification is based on the behavioral or physiological traits of individuals. These attributes known as biometrics refer to the unique physiological (e.g., palmprint, fingerprint, face, iris, etc.) or behavioral (e.g., gaits, signature, voice, etc.) traits used for automatic recognition. These biometric traits offer many advantages over knowledge and possession-based approaches. For instance, palmprint images have rich, unique features for reliable human identification, and they have received significant research attention due to their stability, reliability, and uniqueness, which makes them a competitive area of research. This paper provides a mini overview of contactless palmprint recognition systems as well as preliminary findings. The various types of Region of Interest (ROI) extraction algorithms, feature

extraction, and matching algorithms are well discussed. In addition, the state-of-the-art performance of existing works is presented.

Topics

Feature extraction, **Knowledge**, **Review**

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