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»Iris and Periocular Biometrics for Head Mounted Displays: Segmentation, Recognition, and Synthetic Data Generation«
PROBLEM

➢ Rapidly growing security needs in Virtual and Augmented Reality
➢ Is biometric authentication possible?
  ➢ Can the iris and ocular images captured from HMD devices be used for a non-collaborative biometric authentication?


Overview of iris recognition workflow from eye image acquisition to feature extraction.
➢ Demonstrates the use of HMD internal cameras for iris and periocular biometrics
  ➢ Compact models for near accurate segmentation
  ➢ Realizes authentication based on iris recognition
  ➢ Enables the automatic generation of
    ➢ large scale training data
    ➢ presentation attack samples.

➢ biometric verification
  ➢ does not require user collaboration
  ➢ takes low computation resources into account
  ➢ High potential for future applications in the context of virtual world technologies