Continuous Authentication Using Biometrics: Data, Models, and Metrics

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User authentication is the process of verifying whether the identity of a user is genuine prior to granting him or her access to resources or services in a secured environment. Traditionally, user authentication is performed statically at the point of entry of the system; however, continuous authentication (CA) seeks to address the shortcomings of this method by providing increased session security and combating insider threat.

Continuous Authentication Using Biometrics: Data, Models, and Metrics presents chapters on continuous authentication using biometrics that have been contributed by the leading experts in this recent, fast growing research area. These chapters collectively provide a thorough and concise introduction to the field of biometric-based continuous authentication. The book covers the conceptual framework underlying continuous authentication and presents detailed processing models for various types of practical continuous authentication applications.

Topics Covered:
- Cognitive Biometrics
- Continuous and Non-Disruptive Driver Authentication
- Continuous Authentication
- Continuous Biometric Authentication
- Keystroke Analysis for Intrusion Detection
- Keystroke Dynamics
- Neural Networks
- Performance Metrics for Continuous Authentication
- Wearable Motion Recording Sensors

Market: This premier publication is essential for all academic and research library reference collections. It is a crucial tool for academicians, researchers, and practitioners and is ideal for classroom use.

Issa Traore obtained a PhD in Software Engineering in 1998 from Institute Nationale Polytechnique (INPT)-LAAS/CNRS, Toulouse, France. He has been with the faculty of the Department of Electrical and Computer Engineering of the University of Victoria since 1999. He is currently an Associate Professor and the Coordinator of the Information Security and Object Technology (ISOT) Lab, a network security company which provides innovative authentication technologies, and is one of the pioneers in bringing continuous authentication products to the market.
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Introduction to Continuous Authentication
Traoré Issa (University of Victoria, Canada)
Ahmed Ahmed A.E. (University of Victoria, Canada)

Chapter 2
Performance Metrics and Models for Continuous Authentication Systems
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Hsiao Michael S. (Virginia Tech, USA)

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Roisenberg Mauro (Federal University of Santa Catarina, Brazil)

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