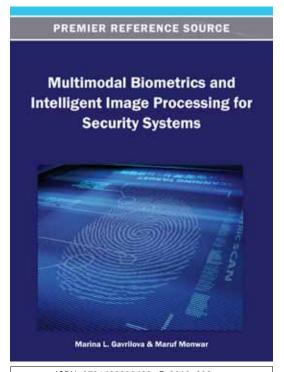
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Multimodal Biometrics and Intelligent Image Processing for Security Systems

Marina L. Gavrilova (University of Calgary, Canada) and Maruf Monwar (Carnegie Mellon University, USA)

Although it is a relatively new approach to biometric knowledge representation, multimodal biometric systems have emerged as an innovative alternative that aids in developing a more reliable and efficient security system.

Multimodal Biometrics and Intelligent Image Processing for Security Systems provides an in-depth description of existing and fresh fusion approaches for multimodal biometric systems. Covering relevant topics affecting the security and intelligent industries, this reference will be useful for readers from both academia and industry in the areas of pattern recognition, security, and image processing domains.

Topics Covered:

- Biometric Identifiers
- Biometric Image Processing
- Biometric Systems
- Fuzzy Fusion

- Intelligent Security Systems
- Multimodal Biometric System
- Social Biometric Identifiers

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Marina L. Gavrilova is an Associate Head and Professor in the Department of Computer Science, University of Calgary. Dr. Gavrilova research interests lie in the area of computational geometry, image processing, optimization, spatial and biometric modeling. Prof. Gavrilova is founder and co-director of two innovative research laboratories: the Biometric Technologies Laboratory: Modeling and Simulation and the SPARCS Laboratory for Spatial Analysis in Computational Sciences. Prof. Gavrilova publication list includes over 120 journal and conference papers, edited special issues, books and book chapters, including World Scientific Bestseller of the Month (2007) – Image Pattern Recognition: Synthesis and Analysis in Biometric and Springer book Computational Intelligence: A Geometry-Based Approach.

Together with Dr. Kenneth Tan, Prof. Gavrilova founded ICCSA series of successful international events in 2001. She founded and chaired International Workshop on Computational Geometry and Applications since 2000, was Co-Chair of the International Workshop on Biometric Technologies BT 2004, Calgary; served as Overall Chair of the 3rd International Conference on Voronoi Diagrams in Science and Engineering (ISVD) in 2006, was Organization Chair of WADS 2009 (Banff), and general chair of International Conference on Cyberworlds CW2011 (October 4-6, Banff, Canada). Prof. Gavrilova is an Editor-in-Chief of successful LNCS Transactions on Computational Science Journal, Springer-Verlag since 2007 and serves on the Editorial Board for the International Journal of Computational Sciences and Engineering, CAD/CAM Journal and Journal of Biometrics. She has received numerous awards and was successful in obtaining major funding for her research program. Her research was profiled in newspaper and TV interviews, most recently being chosen together with other five outstanding Canadian scientists to be featured in National Museum of Civilization and National Film Canada production. Her greatest accomplishment, in her own words, is finding a



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