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Front Matter: Volume 6944

, "Front Matter: Volume 6944," Proc. SPIE 6944, Biometric Technology for Human Identification V, 694401 (22 April 2008); doi: 10.1117/12.792252

SPIE.

Event: SPIE Defense and Security Symposium, 2008, Orlando, Florida, United States

PROCEEDINGS OF SPIE

Biometric Technology for Human Identification V

B. V. K. Vijaya Kumar
Salil Prabhakar
Arun A. Ross
Editors

18–19 March 2008
Orlando, Florida, USA

Sponsored and Published by
SPIE

Volume 6944

Proceedings of SPIE, 0277-786X, v. 6944

SPIE is an international society advancing an interdisciplinary approach to the science and application of light.

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Author(s), "Title of Paper," in *Biometric Technology for Human Identification V*, edited by B. V. K. Vijaya Kumar, Salil Prabhakar, Arun A. Ross, Proceedings of SPIE Vol. 6944 (SPIE, Bellingham, WA, 2008) Article CID Number.

ISSN 0277-786X

ISBN 9780819471352

Published by

SPIE

P.O. Box 10, Bellingham, Washington 98227-0010 USA

Telephone +1 360 676 3290 (Pacific Time) · Fax +1 360 647 1445

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B. V. K. Vijaya Kumar, Carnegie Mellon University (USA)

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Arun A. Ross, West Virginia University (USA)

Hand and Palmprint

Arun A. Ross, West Virginia University (USA)

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Salil Prabhakar, Digital Persona, Inc. (USA)

Fingerprints

Salil Prabhakar, Digital Persona, Inc. (USA)

Statistical Analysis

Arun A. Ross, West Virginia University (USA)

Introduction

Positive and reliable identification of humans in an automated manner is a very important topic in a number of law enforcement (e.g., criminal investigation), government (e.g., border control), and commercial (e.g., logical and physical access control) applications. Surrogate representations of identity such as passwords and physical tokens do not provide satisfactory levels of security on their own in the current electronic era. Biometrics-based authentication techniques utilize physical and behavioral characteristics of individuals (such as fingerprint, iris, and voice) to either verify a claimed identity (biometric verification) or establish the identity of an individual (biometric identification). With increased emphasis on security, there is a growing and urgent need to build fully automated systems that are convenient to use and identify humans reliably both locally and remotely on a routine basis.

The purpose of this conference was to provide a scientific forum for researchers, engineers, system architects, and designers to report recent advances in this important area of human identification using biometrics. The papers presented at this year's conference spanned a variety of biometrics topics including face, fingerprint, iris, hand, palmprint, and vascular technologies. Papers related to privacy, cryptosystems, fusion, and sensor design were also presented at the conference. It is becoming increasingly apparent that biometrics is becoming an integral part of society.

This was the fifth edition of the Biometrics conference hosted by SPIE. We received a total of 55 manuscripts this year. The program committee comprising of thirty one biometric experts assisted us in reviewing these manuscripts. Each manuscript was reviewed by two or more experts. Based on their reviews and comments, 21 manuscripts were accepted for oral presentation and 11 were accepted for poster presentation. We are very grateful to the program committee members for their valuable assistance during the review process and to the authors for submitting high-quality papers to the conference. We are also thankful to the SPIE staff for their remarkable assistance in organizing the conference. We hope you enjoy reading the compilation of technical papers in this publication.

B. V. K. Vijaya Kumar
Salil Prabhakar
Arun A. Ross