PROCEEDINGS OF SPIE

Evolutionary and Bio-Inspired Computation: Theory and Applications V

Misty Blowers
Teresa H. O'Donnell
Olga Lisvet Mendoza-Schrock
Editors

27–28 April 2011
Orlando, Florida, United States

Sponsored and Published by
SPIE

Volume 8059

Proceedings of SPIE, 0277-786X, v. 8059

The papers included in this volume were part of the technical conference cited on the cover and title page. Papers were selected and subject to review by the editors and conference program committee. Some conference presentations may not be available for publication. The papers published in these proceedings reflect the work and thoughts of the authors and are published herein as submitted. The publisher is not responsible for the validity of the information or for any outcomes resulting from reliance thereon.

Please use the following format to cite material from this book:
Author(s), "Title of Paper," in *Evolutionary and Bio-Inspired Computation: Theory and Applications V*, edited by Misty Blowers, Teresa H. O'Donnell, Olga Lisvet Mendoza-Schrock, Proceedings of SPIE Vol. 8059 (SPIE, Bellingham, WA, 2011) Article CID Number.

ISSN 0277-786X
ISBN 9780819486332

Published by
SPIE
P.O. Box 10, Bellingham, Washington 98227-0010 USA
Telephone +1 360 676 3290 (Pacific Time) · Fax +1 360 647 1445
SPIE.org

Printed in the United States of America.

Publication of record for individual papers is online in the SPIE Digital Library.

SPIEDigitalLibrary.org

Paper Numbering: Proceedings of SPIE follow an e-First publication model, with papers published first online and then in print and on CD-ROM. Papers are published as they are submitted and meet publication criteria. A unique, consistent, permanent citation identifier (CID) number is assigned to each article at the time of the first publication. Utilization of CIDs allows articles to be fully citable as soon they are published online, and connects the same identifier to all online, print, and electronic versions of the publication. SPIE uses a six-digit CID article numbering system in which:

- The first four digits correspond to the SPIE volume number.
- The last two digits indicate publication order within the volume using a Base 36 numbering system employing both numerals and letters. These two-number sets start with 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 0A, 0B … 0Z, followed by 10-1Z, 20-2Z, etc.

The CID number appears on each page of the manuscript. The complete citation is used on the first page, and an abbreviated version on subsequent pages. Numbers in the index correspond to the last two digits of the six-digit CID number.

Contents

MEDICAL IMAGING

IMAGE INTELLIGENCE

COMPUTER/NETWORK SECURITY

Conference Committee

Symposium Chair

William Jeffrey, HRL Laboratories, LLC (United States)

Symposium Cochair

Kevin P. Meiners, Office of the Secretary of Defense (United States)

Conference Chairs

Misty Blowers, Air Force Research Laboratory (United States)
Teresa H. O'Donnell, Air Force Research Laboratory (United States)
Olga Lisvet Mendoza-Schrock, Air Force Research Laboratory (United States)

Program Committee

Peter M. LaMonica, Air Force Research Laboratory (United States)
Leonid I. Perlovsky, Air Force Research Laboratory (United States)
Michael R. Peterson, University of Hawai'i at Hilo (United States)
Alex F. Sisti, Air Force Research Laboratory (United States)
Hugh L. Southall, Air Force Research Laboratory (United States)
John Spina, Air Force Research Laboratory (United States)

Session Chairs

1 Keynote Session I
Misty Blowers, Air Force Research Laboratory (United States)

2 Layered-Sensing Intelligence
Olga Lisvet Mendoza-Schrock, Air Force Research Laboratory (United States)

3 Keynote Session II
Misty Blowers, Air Force Research Laboratory (United States)

4 Knowledge Extraction
Peter M. LaMonica, Air Force Research Laboratory (United States)

5 Medical Imaging
Michael R. Peterson, University of Hawai'i at Hilo (United States)