

INTERNATIONAL JOURNAL OF COGNITIVE INFORMATICS AND NATURAL INTELLIGENCE

October-December 2012, Vol. 6, No. 4

Table of Contents

SPECIAL ISSUE OF INVITED KEYNOTES PRESENTED AT THE 2012 IEEE INTERNATIONAL CONFERENCE ON COGNITIVE INFORMATICS AND COGNITIVE COMPUTING, KYOTO, JAPAN, AUGUST 22-24, 2012

EDITORIAL PREFACE

- i Yingxu Wang, *Department of Electrical and Computer Engineering, University of Calgary, Calgary, AB, Canada*

RESEARCH ARTICLES

1 **Perspectives on eBrain and Cognitive Computing**

Yingxu Wang, *Department of Electrical and Computer Engineering, University of Calgary, Calgary, AB, Canada*
James A. Anderson, *Department of Cognitive, Linguistic and Psychological Sciences, Brown University, Providence, RI, USA*
George Bacciu, *Department of Computing, Hong Kong Polytechnic University, Hong Kong, Hong Kong*
Gerhard Budin, *Center for Translation Studies, Vienna University, Vienna, Austria*
D. Frank Hsu, *Department of Computer & Information Sciences, Fordham University, New York, NY, USA*
Mitsuru Ishizuka, *Department of Creative Informatics & Department of Information and Communication Engineering, Graduate School of Information Science and Technology, University of Tokyo, Tokyo, Japan*
Witold Kinsner, *Department of Electrical & Computer Engineering, University of Manitoba Winnipeg, MB, Canada*
Fumio Mizoguchi, *Tokyo University of Science, Tokyo, Japan*
Toyoaki Nishida, *Department of Intelligence Science and Technology, Graduate School of Informatics, Kyoto University, Kyoto, Japan*
Kenji Sugawara, *Department of Information and Network Science, Faculty of Computer and Network Science, Chiba Institute of Technology, Narashino, Chiba, Japan*
Shusaku Tsumoto, *Department of Medical Informatics, Faculty of Medicine, Shimane University, Izumo City, Japan*
Du Zhang, *Department of Computer Science, College of Engineering and Computer Science, California State University- Sacramento, Sacramento, CA, USA*

22 **The Ersatz Brain Project: A Brain-Like Computer Architecture for Cognition**

James A. Anderson, *Department of Cognitive, Linguistic and Psychological Sciences, Brown University, Providence, RI, USA*
Paul Allopenna, *Department of Cognitive, Linguistic and Psychological Sciences, Brown University, Providence, RI, USA*
Gerald S. Guralnik, *Department of Physics, Brown University, Providence, RI, USA*
Daniel Ferrente, *Department of Physics, Brown University, Providence, RI, USA*
John A. Santini, *SRI International, Sarnoff, Princeton, NJ, USA*

54 **On Abstract Intelligence and Brain Informatics: Mapping Cognitive Functions of the Brain onto its Neural Structures**

Yingxu Wang, *Department of Electrical and Computer Engineering, University of Calgary, Calgary, AB, Canada*

81 **Textual Affect Sensing and Affective Communication**

Mitsuru Ishizuka, *School of Information Science and Technology, The University of Tokyo, Tokyo, Japan*
Alena Neviarouskaya, *Department of Computer Science and Engineering, Toyohashi University of Technology, Toyohashi, Aichi, Japan*
Mostafa Al Masum Shaikh, *Macquarie University, Macquarie Park, NSW, Australia*

103 **Augmenting Conversational Environment**

Toyoaki Nishida, *Department of Intelligence Science and Technology, Graduate School of Informatics, Kyoto University, Kyoto, Japan*

Copyright

The *International Journal of Cognitive Informatics and Natural Intelligence* (ISSN: 1557-3958; e-ISSN: 1557-3966). Copyright © 2012 IGI Global. All rights, including translation into other languages reserved by the publisher. No part of this journal may be reproduced or used in any form or by any means without written permission from the publisher, except for noncommercial, educational use including classroom teaching purposes. Product or company names used in this journal are for identification purposes only. Inclusion of the names of the products or companies does not indicate a claim of ownership by IGI Global of the trademark or registered trademark. The views expressed in this journal are those of the authors but not necessarily of IGI Global.

IJCINI is currently listed or indexed in: ACM Digital Library; Bacon's Media Directory; Cabell's Directories; Compendex (Elsevier Engineering Index); CSA Illumina; DBLP; Gale Directory of Publications & Broadcast Media; GetCited; Google Scholar; INSPEC; JournalTOCs; MediaFinder; PsycINFO®; SCOPUS; The Index of Information Systems Journals; The Standard Periodical Directory; Ulrich's Periodicals Directory