

25th Midwest Artificial Intelligence and Cognitive Science Conference

(MAICS 2014)

**Spokane, Washington, USA
26 April 2014**

Editors:

Atsushi Inoue

Paul DePalma

ISBN: 978-1-63439-545-8

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2014) by MAICS
All rights reserved.

Printed by Curran Associates, Inc. (2014)

For permission requests, please contact MAICS
at the address below.

MAICS
c/o Anca Ralescu
EECS Dept. ML 0030
University of Cincinnati
Cincinnati, OH 45221-0030

Phone: (513) 556-4752
Fax: (513) 556-2569

Anca.alescu@uc.edu

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

Table of Contents

- [Preface](#)

Plenary and Invited Lectures

- Plenary Lecture: [Futuristic Human-Robot Communication](#) 1
Yuki Nakagawa, Noriaki Nakagawa
- Invited Lecture 1: [Soft Computing Based Brain MR Angiography Image Analysis for Preventing Cerebellar Stroke](#) 2
Syoji Kobashi
- Invited Lecture 2: [Infinite Possibility of ICT in Medical and Clinical Fields: History and Future Direction of Hospital Information Systems](#) 3
Hiroharu Kawanaka

Advances in Modern Artificial Intelligence I

- [Derivation of Complex Linguistic Summaries from Databases for a More Human Consistent Data Analysis](#) 4-10
Gerda Bortsova, Pakizar Shamoi
- [Fuzzification of HSI Color Space and its Use in Apparel Coordination](#) 11-17
Pakizar Shamoi, Atsushi Inoue, Hiroharu Kawanaka
- [A Formal Framework for Identity in Cyber and Other Universes](#) 18-25
Albert Esterline, Gerry Dozier

Advances in Modern Artificial Intelligence II

- [A New Fine-Grained Weighting Method in Multi-Label Text Classification](#) 26-30
Chang-Hwan Lee
- [Toward Measurement of Conversational Interactivity in COMPS Computer Mediated Problem-Solving Dialogues](#) 31-38
Michael Glass, Jung Hee Kim, Kelvin Bryant, Melissa Desjarlais, Micayla Goodrum, Thomas Martin
- [Creating Visual Reactive Robot Behaviors Using Growing Neural Gas](#) 39-44
Gabriel Ferrer
- [Toward Introspective Human Versus Machine Learning of Simulated Airplane Flight Dynamics](#) 45-52
Dan Tappan, Matt Hempleman

Special Session: MAICS2014 Best Student Paper Competition

- [Comparison of Fuzzy Membership Functions for Value of Information Determination](#) 53-60
Sheng Miao, Robert Hammell II, Timothy Hanratty, Ziyang Tang

- [Developing a Machine Learning Approach to Controlling Musical Synthesizer Parameters in Real-Time Live Performance](#) 61-67
Nathan Sommer, Anca Ralescu

Special Session: Extracting Concepts and Relations from Noisy Human Data

- [Scaling User Preference Learning in Near Real-Time to Large Datasets](#) 68-73
Ian Beaver, Joe Dumoulin
- [Using Multiple Classifiers to Improve Intent Recognition in Human Chats](#) 74-79
Joe Dumoulin
- [An Anatomy for Artificial Conversation Generation in the Customer Service Domain](#) 80-85
Chayan Chakrabarti, George Luger
- [Modern AI: Stochastic Models and an Epistemological Stance](#) 86-92
George Luger, Chayan Chakrabarti