Contents

JANUARY/FEBRUARY 2014
Volume 29, Number 1

IEEE Intelligent Systems provides peer-reviewed, cutting-edge articles on the theory and application of systems that perceive, reason, learn, and act intelligently.

ARTICLES

Representation and Reasoning

Guest Editor’s Introduction
Ulrich Furbach

Model Evolution-Based Theorem Proving
Peter Baumgartner

Description Logics
Markus Krötzsch, František Simančík, and Ian Horrocks

Reasoning and Verification: State of the Art and Current Trends
Bernhard Beckert and Reiner Hähnle

Generalizations of Dung Frameworks and Their Role in Formal Argumentation
Gerhard Brewka, Sylwia Polberg, and Stefan Woltran

Features

Optimal Design and Control of Smart Space Structures: A Memetic Evolution Approach
Dong-Xu Li and Rui Xu

Real-Time Adaptive Event Detection in Astronomical Data Streams
David R. Thompson, Sarah Burke-Spolaor, Adam T. Deller, Walid A. Majid, Divya Palaniswamy, Steven J. Tingay, Kiri L. Wagstaff, and Randall B. Wayth

Distributed, Agent-Based Intelligent System for Demand Response Program Simulation in Smart Grids
Luis Gomes, Pedro Faria, Hugo Morais, Zita Vale, and Carlos Ramos


Reuse Rights and Reprint Permissions: Educational or personal use of this material is permitted without fee, provided such use 1) is not made for profit, 2) includes this notice and a full citation to the original work on the first page of the copy, and 3) does not imply IEEE endorsement of any third-party products or services. Authors and their companies are permitted to post the accepted version of IEEE-copyrighted material on their own Web servers without permission, provided that the IEEE copyright notice and a full citation to the original work appear on the first screen of the posted copy. An accepted manuscript is a version that has been revised by the author to incorporate review suggestions but not the published version with copyediting, proofreading, and formatting added by IEEE. For more information, please go to http://www.ieee.org/publications_standards/publications/rights/paperversionpolicy.html. Permission to reprint/republish this material for commercial, advertising, or promotional purposes or for creating new collective works for resale or redistribution must be obtained from IEEE by writing to the IEEE Intellectual Property Rights Office, 445 Hoes Lane, Piscataway, NJ 08854-4141 or pubs-permissions@ieee.org. Copyright © 2014 IEEE. All rights reserved. Abstracting and Library Use: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy for private use of patrons, provided the per-copy fee indicated in the code at the bottom of the first page is paid through the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.
Erratum

On page 55 of the November/December 2013 issue of IEEE Intelligent Systems, in the Acknowledgments section of the article titled, “A System for Signature Verification Based on Horizontal and Vertical Components in Hand Gestures,” the grant number “2012-0001306” should read as “NRF-2011-0010938.”