

ISSN 0972 - 9038

I  
J  
C  
S  
A

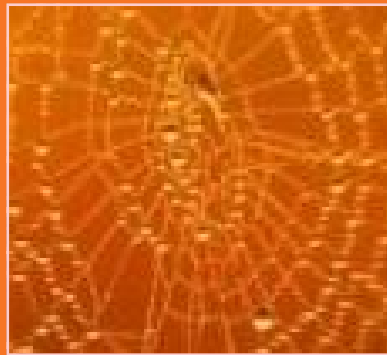
# International Journal of Computer Science & Applications

VOLUME 7, ISSUE 1      JANUARY 2010

Editor-in-Chief  
**Rajendra Akerkar**

Special Issue on

**Web Semantics & Ontology - I**



Published by

**Technomathematics Research Foundation, India**

# International Journal of Computer Science & Applications



**Editorial Office:** Technomathematics Research Foundation,  
204/17 Kh, New Shahupuri, Kolhapur 416001, India.  
E-mail: [editor@tmrfindia.org](mailto:editor@tmrfindia.org)

**Copyright** © 2010 by Technomathematics Research Foundation

**International Journal of Computer Science & Applications** (ISSN 0972 - 9038) is high quality electronic journal published by Technomathematics Research Foundation, Kolhapur, India.

The www-site of IJCSA is <http://www.tmrfindia.org/ijcsa.html>

## IJCSA

All rights reserved. This journal issue or parts thereof may not be reproduced in any form or by any means, electrical or mechanical, including photocopying, recording or any information storage and retrieval system now known or to be invented, without written permission from the copyright owner.

**Permission** to quote from this journal is granted provided that the customary acknowledgement is given to the source.

## EDITORIAL BOARD

**Advisory Editor:** Douglas Comer *Purdue University, USA.*  
**Editor-in-Chief:** Rajendra Akerkar *Technomathematics Research Foundation, India.*  
**Managing Editor:** David Camacho *Universidad Autonoma de Madrid, Spain.*  
**Associate Editors:**

Costin Badica  
*University of Craiova, Craiova, Romania*  
 Barbara Catania  
*Universita' di Genova, Italy*  
 Jianer Chen  
*Texas A&M University, Texas, USA*  
 Daoud S Daoud  
*Eastern Mediterranean University, Cyprus*  
 Evangelos Kranakis  
*Carleton University, Canada*  
 Mal Rey Lee  
*Chonbuk National University, Korea*  
 Maria D. R-Moreno  
*Universidad de Alcalá, Spain*

Roger RN. Nkambou  
*Université du Québec à Montréal, Canada*  
 Hans Juergen Ohlbach  
*Ludwig-Maximilians-Universitaet, Germany*  
 Parag C. Pendharkar  
*Pennsylvania State University, Harrisburg, USA*  
 Chunming Rong  
*University of Stavanger, Stavanger, Norway*  
 Cliff A. Shaffer,  
*Virginia Tech, Blacksburg, USA*  
 Mengjie Zhang  
*Victoria University of Wellington, New Zealand*

**Editorial Council:**

Stuart Aitken *University of Edinburgh, UK.*  
 Tetsuo Asano *JAIST, Japan.*  
 JF Baldwin *University of Bristol, UK*  
 Pavel Brazdil *LIACC/FEP, University of Porto, Portugal*  
 Ivan Bruha *Mcmaster University, Canada*  
 Jacques Calmet *Universität Karlsruhe Germany*  
 Narendra S. Chaudhari *Nanyang Techno. University, Singapore*  
 K. V. Dinesha *IIT, Bangalore, India*  
 David Hung-Chang Du *University of Minnesota, USA*  
 Hai-Bin Duan *Beihang University, P. R. China.*  
 Yakov I. Fet *Russian Academy of Sciences, Russia*  
 Maria Ganzha, *IBS PAN and EUH-E, Poland*  
 S. K. Gupta *IIT, New Delhi, India*  
 Henry Hexmoor *Southern Illinois University, Carbondale, U.S.A.*  
 Ray Jarvis *Monash University, Victoria, Australia*  
 Peter Kacsuk *MTA SZTAKI Research Institute, Hungary*

Pawan Lingras *Saint Mary's University, Halifax, Canada.*  
 Huan Liu *Arizona State University, USA*  
 Pericles Loucopoulos *UMIST, Manchester, UK.*  
 Lorraine McGinty *University College Dublin, Belfield, Ireland*  
 C. R. Muthukrishnan *Indian Institute of Technology, Chennai, India*  
 Marcin Paprzycki *IBS PAN and WSM, Poland.*  
 Lalit M. Patnaik *Indian Institute of Science, Bangalore, India*  
 Dana Petcu *Western University of Timisoara, Romania*  
 Shahram Rahimi *Southern Illinois University, Illinois, USA*  
 Sugata Sanyal *Tata Institute of Fundamental Research, India.*  
 Dharmendra Sharma *University of Canberra, Australia*  
 Ion O. Stamatescu *FEST, Heidelberg, Germany*  
 José M. Valls Ferrán *Universidad Carlos III, Spain*  
 Rajeev Wankar *University of Hyderabad, Hyderabad, India*  
 Krzysztof Wecel *The Poznan University of Economics, Poland*

## CONTENTS (Vol. 7, No. 1, January 2010)


### Editorial

iii

1. Ontology Based User Modeling for Personalized Information Access. 1 - 22  
*P. K. Bhawmick, S. Sarkar and A. Basu*
2. Towards SDL Ontology. 23—44  
*M. B. Babac and M. Kunštić*
3. Achieving Maturity: the State of Practice in Ontology Engineering in 2009. 45—65  
*E. Simperl, M. Mochol and T. Bürger*
4. Semantic Web Prefetching Scheme using Naïve Bayes Classifier. 66—78  
*P. Venketesh, R. Venkatesan and L. Arunprakash*
5. Ontology Based Approach for Finding the Similarity Among Questions in a Distributed Question Bank Scenario. 79—93  
*R. Ramesh and M. Sasikumar*
6. Automatic Language Identification: An Alternative Unsupervised Approach Using a New Hybrid Algorithm. 94—107  
*A. Amine, Z. Elberrichi and M. Simonet*



## Editorial (Vol. 7, No. 1, January 2010)



This special issue of the IJCSA on “Web Semantics & Ontology” provide articles on current research and development activities in the area of Web Semantics and Ontology. The emergence of Web technology has made world wide information sharing possible. This is possible through the establishment of an appropriate standard to define the conceptual level of a meta-language. This standard is called as an *ontology* that is described as sharable conceptualization of specific domain of interest in a machine-understandable format. Web semantics improves the efficiency of searching in the World Wide Web. It is a growing field in the domain of Web technology.

First paper presents an ontology based user modeling strategy in the context of personalized information access. The ontology for Specification and Description Language is developed in the second paper. Third paper presents an interesting survey of 148 ontology engineering projects. The focus of the survey was process-related issues. Next paper 4 deals with semantic prefetching scheme that uses anchor texts present in the web pages to make effective predictions. Fifth paper presents a approach to creation of subset ontologies for the questions in distributed question banks and comparing them to find the overlapping concepts to determine question similarity. Final paper deals with the effectiveness of the clustering algorithm for identifying text language of a given multilingual corpus.

We wish to thank all the authors of this special issue for contributing the high quality papers. We would like to thank our reviewers who have critically evaluated the papers within the short stipulated time.

We hope the readers will share our joy and find this IJCSA special issue very interesting.

**Rajendra Akerkar**  
*Editor-in-Chief*  
*International Journal of*  
*Computer Science & Applications*