

## EDITORIAL PREFACE

*Yingxu Wang, University of Calgary, Calgary, Canada*

IJSSCI Vol. 5, No. 1 is a regular issue on cognitive computing, software science, and computational intelligence. This issue includes five research papers on: 1) Facilitating Perspective Taking in Groups: An Analysis using Multiple Conversational Agents; 2) Theoretical Framework and Denotatum-Based Models of Knowledge Creation for Monitoring and Evaluating R&D Program Implementation; 3) The Cognitive Process and Formal Models of Human Attentions; 4) Design and Implementation of a Cognitive User-Support System for Skin Progress Analysis using a Smart Phone; and 5) An Efficient Memetic Algorithm for Dynamic Flexible Job Shop Scheduling with Random Job Arrivals.

The Editor-in-Chief would like to take this opportunity to report that the *International Institute of Cognitive Informatics and Cognitive Computing* (ICIC) has formally established (<http://www.ucalgary.ca/icic/>), which is hosted at University of Calgary, Canada with Prof. Yingxu Wang as the founding president. Key member organizations include Brown University, University of California (Berkeley), University of Calgary, Fudan University, Kyoto University, MIT, University of Rome, Stanford University, University of Toronto, Tsinghua University, and University of Vienna. The 2013 IEEE International Conference on Cognitive Informatics and Cognitive Computing (ICCI\*CC'12) will be held in New York

City, USA during July 16-18, 2013. Over the last decade, CI and CC have been established as an exciting research field, which has already created and attracted millions of entries over the Internet and related research communities. The theme of ICCI\*CC'13 will be on "*Cognitive Computers and Knowledge Processors*". The ICCI\*CC series is fully sponsored by the IEEE Computer Society, IEEE Computational Intelligence Society, and ICIC.

IJSSCI has been indexed in Google Scholar, DBLP, and RG on research papers published in the emerging fields of software science, theoretical software engineering, computational intelligence, and cognitive computing. A number of special issues in IJSSCI will be organized on *cognitive computing, computational intelligence, software science, and theoretical foundations of software engineering*. Submissions to these special issues in particular, and/or to the regular issues of IJSSCI in general, are welcome.

The Editor-in-Chief expects that readers of the *International Journal of Software Science and Computational Intelligence* (IJSSCI) will benefit from the papers presented in this issue in order to aware the recent advances in this field. I would like to thank the authors, members of the board of editors, and invited reviewers for their great contributions to this issue. I would like to acknowledge the publisher of IJSSCI, Idea Group Inc. Global (IGI) Publishing, USA,

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*Yingxu Wang*  
*Editor-in-Chief*  
*IJSSCI*

*Yingxu Wang is professor of denotational mathematics, cognitive informatics, software science, brain science, and neuroinformatics. He is President of International Institute of Cognitive Informatics and Cognitive Computing (ICIC) and Director of Laboratory for Cognitive Informatics and Cognitive Computing in Dept. of Electrical and Computer Engineering at the University of Calgary. He is a founding Fellow of ICIC, a Fellow of WIF (UK), a P.Eng of Canada, a Senior Member of IEEE and ACM. He received a PhD in Software Engineering from the Nottingham Trent University, UK, and a BSc in Electrical Engineering from Shanghai Tiedao University. He has industrial experience since 1972 and has been a full professor since 1994. He was a visiting professor on sabbatical leave in the Computing Laboratory at Oxford University in 1995, Dept. of Computer Science at Stanford University in 2008, the Berkeley Initiative in Soft Computing (BISC) Lab at University of California, Berkeley in 2008, and CSAIL at MIT (2012), respectively. He is the founder and steering committee chair of the annual IEEE International Conference on Cognitive Informatics and Cognitive Computing (ICCI\*CC). He is Editor-in-Chiefs of Journal of Advanced Mathematics and Applications (JAMA), International Journal of Cognitive Informatics and Natural Intelligence (IJCINI), and International Journal of Software Science and Computational Intelligence (IJSSCI), and Associate Editor of IEEE Trans. on System, Man, and Cybernetics: Systems. Dr. Wang is the initiator of a few cutting-edge research fields or subject areas such as Denotational Mathematics (i.e., concept algebra, inference algebra, semantic algebra, process algebra, system algebra, granular algebra, and visual semantic algebra); Cognitive Informatics (its theoretical framework, neuroinformatics, the layered reference model of the brain (LRMB), the mathematical model of consciousness, a cognitive learning engine, and the neural circuit theory); Abstract Intelligence ( $\alpha I$ , mathematical models of intelligence, theoretical foundations of brain science); Cognitive Computing (such as cognitive computers, cognitive robots, cognitive agents, and cognitive Internet); Software Science (on unified mathematical models and laws of software, cognitive complexity of software, automatic code generators, the coordinative work organization theory, and built-in tests (BITs)); Basic studies in Cognitive Linguistics (such as the cognitive linguistic framework, formal semantics of linguistics, mathematical model of abstract languages, deductive grammar of English, and the cognitive complexity of text comprehension). He has published over 150 peer reviewed journal papers, 230+ peer reviewed conference papers, and 25 books in denotational mathematics, cognitive informatics, cognitive computing, software science, and computational intelligence. He is the recipient of dozens international awards on academic leadership, outstanding contributions, best papers, and teaching in the last three decades.*