Editorial Preface

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IJCINI Vol. 6, No. 4, is a special issue on a set of invited keynotes presented in the 2012 IEEE International Conference on Cognitive Informatics and Cognitive Computing (ICCI*CC'12) held in Kyoto, Japan during August 22-24, 2012. This issue encompasses five extended keynote papers on: 1) Perspectives on eBrain and Cognitive Computing; 2) The Ersatz Brain Project: A Brain-Like Computer Architecture for Cognition; 3) On Abstract Intelligence and Brain Informatics: Mapping Cognitive Functions of the Brain onto its Neural; 4) Textual Affect Sensing and Affective Communication; and 5) Augmenting Conversational Environment.

The Editor-in-Chief would like to take this opportunity to report that the International Institute of Cognitive Informatics and Cognitive Computing (ICIC) is formally established (http://www.ucalgary.ca/ICIC/), which is hosted at University of Calgary, Canada with Prof. Yingxu Wang as the funding president. Key member organizations include Harvard University, Stanford University, Brown University, University of California (Berkeley), University of Calgary, Fudan University, Kyoto University, MIT, University of Rome, University of Toronto, Tsinghua University, and University of Vienna. The 12th IEEE International Conference on Cognitive Informatics and Cognitive Computing (ICCI*CC'13) will be held in New York City, USA during July 16-18, 2013. The theme of ICCI*CC'13 will be on "Cognitive Computers and Knowledge Processors". 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 ICCI*CC series is fully sponsored by the IEEE Computer Society, IEEE Computational Intelligence Society, and ICIC.

The Editor-in-Chief expects that readers of the *International Journal of Cognitive Informatics and Natural Intelligence* (IJCINI) 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 IJCINI, IGI Global, USA, and to thank Mehdi Khosrow-Pour (President and CEO of IGI), Jan Travers (Director of Intellectual Property & Contracts), and the editorial staff of IGI Global, Chris Hrobak and Jamie Wilson, for their excellent professional support.

Yingxu Wang
Editor-in-Chief
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Yingxu Wang is professor of denotational mathematics, cognitive informatics, software science, and brain science. He is President of International Institute of Cognitive Informatics and Cognitive Computing (ICIC), Director of Laboratory for Cognitive Informatics and Cognitive Computing, and Director of Laboratory for Denotational Mathematics and Software Science 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-Chief of Journal of Advanced Mathematics and Applications *(JAMA), and Associate Editor of* IEEE Transactions on System, Man, and Cybernetics (Part A: 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 (theoretical framework of cognitive informatics, neuroinformatics, neurocomputing, the logical model of the brain (LMB), the layered reference model of the brain (LRMB), the cognitive model of brain informatics (CMBI), the mathematical model of consciousness, and the cognitive learning engine); Abstract Intelligence (αI, 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, and 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 140 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, research achievement, best papers, and teaching in the last three decades.*