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## Breakthroughs in Software Science and Computational Intelligence

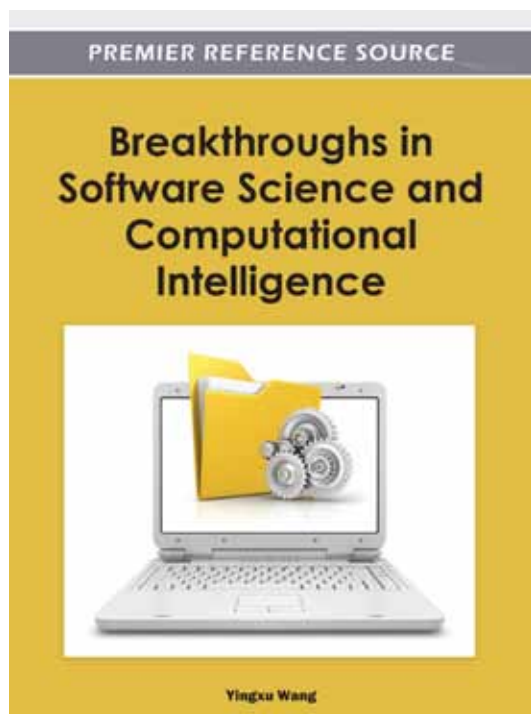
Yingxu Wang  
(University of Calgary, Canada)

As both intelligence and software science revolutionizes the modern world, the contributions that each make to the other combine into a new transdisciplinary field.

**Breakthroughs in Software Science and Computational Intelligence** charts the new ground broken by researchers exploring these two disciplines. A vital resource to students and practitioners working in computer science, theoretical software engineering, cognitive science, cognitive informatics, and intelligence science, this book establishes itself in this new field, emphasizing the abundance of future applications and advancement.

### Topics Covered:

- Autonomic/autonomous systems
- Granular computing
- Hybrid man-machine systems
- Intelligent software engineering
- Denotational vs. analytic mathematics
- Mathematical models of the brain and mind
- Real-time process algebra (RTPA)
- Cognitive informatics
- Intelligent behavioral foundations of software
- Neural informatics
- Theories for computational intelligence



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**Market:** This premier publication is essential for all academic and research library reference collections. It is a crucial tool for academicians, researchers, and practitioners and is ideal for classroom use.

**Yingxu Wang** is professor of cognitive informatics and software science, President of International Institute of Cognitive Informatics and Cognitive Computing (IICIC), 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 Fellow of WIF (UK), Fellow of ICIC, a PEng 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 leaves 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 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 founding Editor-in-Chief of *International Journal of Cognitive Informatics and Natural Intelligence (IJCINI)*, founding Editor-in-Chief of *International Journal of Software Science and Computational Intelligence (IJSSCI)*, Associate Editor of *IEEE Trans on System, Man, and Cybernetics (Part A)*, and associate Editor-in-Chief of *Journal of Advanced Mathematics and Applications*.

## Section 1: Computational Intelligence

### Chapter 1

*Perspectives on Cognitive Computing and Applications*

Wang Yingxu (University of Calgary, Canada)  
Pedrycz Witold (University of Alberta, Canada)  
Baciu George (Hong Kong Polytechnic University, China)  
Chen Ping (University of Houston-Downtown, USA)  
Wang Guoyin (Chongqing University of Posts & Telecommunications, China)  
Yao Yiyu (University of Regina, Canada)

### Chapter 2

*Granular Computing and Human-Centricity in Computational Intelligence*

Pedrycz Witold (University of Alberta, Canada, and Polish Academy of Sciences, Poland)

### Chapter 3

*A General Knowledge Representation Model for the Acquisition of Skills and Concepts*

Ramirez Carlos (Tec de Monterrey, Campus Querétaro, México)  
Valdes Benjamin (Tec de Monterrey, Campus Querétaro, México)

### Chapter 4

*Feature Based Rule Learner in Noisy Environment Using Neighbourhood Rough Set Model*

Liu Yang (Xi'an Jiaotong University, China)  
Jiao Luyang (First Affiliated Hospital of Xixiang Medical College, China)  
Bai Guohua (Blekinge Institute of Technology, Sweden)  
Feng Boqin (Xi'an Jiaotong University, China)

### Chapter 5

*A High Level Model of a Conscious Embodied Agent*

Wiedermann Jiří (Academy of Sciences of the Czech Republic, Czech Republic)

## Section 2: Cognitive Computing

### Chapter 6

*Cognitive Memory:*

Widrow Bernard (Stanford University, USA)  
Aragon Juan Carlos (Stanford University, USA)

### Chapter 7

*Multi-Fractal Analysis for Feature Extraction from DNA Sequences*

Kinsner Witold (University of Manitoba, Canada)  
Zhang Hong (University of Manitoba, Canada)

### Chapter 8

*Agent-Based Middleware for Advanced Communication Services in a Ubiquitous Computing Environment*

Suganuma Takuo (Tohoku University, Japan)  
Takahashi Hideyuki (Tohoku University, Japan)  
Shiratori Norio (Tohoku University, Japan)

### Chapter 9

*Relevant and Non-Redundant Amino Acid Sequence Selection for Protein Functional Site Identification*

Das Chandra (West Bengal University of Technology, India)  
Maji Pradipta (Indian Statistical Institute, India)

### Chapter 10

*Role-Based Autonomic Systems*

Zhu Haibin (Nipissing University, Canada)

### Chapter 11

*Combining Ontology with Intelligent Agent to Provide Negotiation Service*

Pu Qiumei (MINZU University of China, China)  
Cao Yongcun (MINZU University of China, China)  
Pan Xiuqin (MINZU University of China, China)  
Fu Siyao (MINZU University of China, China)  
Hou Zengguang (MINZU University of China, China)

## Section 3: Software Science

### Chapter 12

*Design and Implementation of an Autonomic Code Generator Based on RTPA*

Wang Yingxu (University of Calgary, Canada)  
Tan Xinming (Wuhan University of Technology, China)  
Ngolah Cyprian F. (Sentinel Trending & Diagnostics Ltd., Calgary, Canada)

### Chapter 13

*The Formal Design Model of a Real-Time Operating System (RTOS+):*

Wang Yingxu (University of Calgary, Canada)  
Ngolah Cyprian F. (Sentinel Trending & Diagnostics Ltd., Canada)  
Zeng Guangping (University of Science and Technology Beijing, China and University of California, Berkeley, USA)  
Sheu Phillip C.-Y. (Wuhan University, China and University of California, Irvine, USA)  
Choy C. Philip (University of Calgary, Canada)  
Tian Yousheng (University of Calgary, Canada)

### Chapter 14

*The Formal Design Model of a Real-Time Operating System (RTOS+):*

Wang Yingxu (University of Calgary, Canada)  
Zeng Guangping (University of Science and Technology, China and University of California, Berkeley, USA)  
Ngolah Cyprian F. (Sentinel Trending & Diagnostics Ltd., Canada)  
Sheu Phillip C.-Y. (Wuhan University, China and University of California, Irvine, USA)  
Choy C. Philip (University of Calgary, Canada)  
Tian Yousheng (University of Calgary, Canada)

### Chapter 15

*The Formal Design Model of an Automatic Teller Machine (ATM)*

Wang Yingxu (University of Calgary, Canada)  
Zhang Yanan (University of Calgary, Canada)  
Sheu Phillip C.-Y. (Wuhan University, China and Univ. of California, Irvine, USA)  
Li Xuhui (Wuhan University, China)  
Guo Hong (Coventry University, UK)

### Chapter 16

*The Formal Design Models of a Set of Abstract Data Types (ADTs)*

Wang Yingxu (University of Calgary, Canada)  
Tan Xinming (Wuhan University of Technology, China)  
Ngolah Cyprian F. (Sentinel Trending & Diagnostics Ltd., Canada)  
Sheu Phillip C.-Y. (University of California, Irvine, USA)

### Chapter 17

*A Least-Laxity-First Scheduling Algorithm of Variable Time Slice for Periodic Tasks*

Teng Shaohua (Guangdong University of Technology, China)  
Zhang Wei (Guangdong University of Technology, China)  
Zhu Haibin (Nipissing University, Canada)  
Fu Xiufen (Guangdong University of Technology, China)  
Su Jiangyi (Guangdong University of Technology, China)  
Cui Baoliang (Guangdong University of Technology, China)

## Section 4: Applications of Computational Intelligence and Cognitive Computing

### Chapter 18

*Cognitive Location-Aware Information Retrieval by Agent-Based Semantic Matching*

Chan Eddie C. L. (The Hong Kong Polytechnic University, China)  
Baciu George (The Hong Kong Polytechnic University, China)  
Mak S. C. (The Hong Kong Polytechnic University, China)

### Chapter 19

*Perceiving the Social:*

Kryssanov Victor V. (Ritsumeikan University, Japan)  
Kumokawa Shizuka (Ritsumeikan University, Japan)  
Goncharenko Igor (3D Incorporated, Japan)  
Ogawa Hitoshi (Ritsumeikan University, Japan)

### Chapter 20

*Symbiotic Aspects in e-Government Application Development*

Moulin Claude (Compiègne University of Technology, France)  
Sbodio Marco Luca (Hewlett Packard – Italy Innovation Center, Italy)

### Chapter 21

*CoPBoard:*

Sato Gilson Yukio (Université de Technologie de Compiègne, France)  
Barthès Jean-Paul A. (Université de Technologie de Compiègne, France)

## Chapter 22

*Remote Conversation Support for People with Aphasia*

Aye Nilar (Myanmar Info-Tech Corporation Ltd., Myanmar)

Ito Takuro (Brother Industries Ltd., Japan)

Hattori Fumio (Ritsumeikan University, Japan)

Kuwabara Kazuhiro (Ritsumeikan University, Japan)

Yasuda Kiyoshi (Chiba Rosai Hospital, Japan)

## Chapter 23

*Estimating which Object Type a Sensor Node is Attached to in Ubiquitous Sensor Environment*

Maekawa Takuya (NTT Communication Science Laboratories, Japan)

Yanagisawa Yutaka (NTT Communication Science Laboratories, Japan)

Okadome Takeshi (NTT Communication Science Laboratories, Japan)

## Chapter 24

*Delay-Range-Dependent Robust Stability for Uncertain Stochastic Neural Networks with Time-Varying Delays*

Feng Wei (Chongqing University and Chongqing Education College, China)

Wu Haixia (Chongqing University and Chongqing Education College, China)

## Chapter 25

*Classifier Ensemble Based Analysis of a Genome-Wide SNP Dataset Concerning Late-Onset Alzheimer Disease*

Coelho Lúcio (Biomind LLC, USA)

Goertzel Ben (Biomind LLC, USA, and Xiamen University, China)

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