

Biography



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Degree

He received the B.Eng. degree in System Engineering from Kobe University, Japan, in 1985, and Ph.D. degrees in Systems Information Science from Kumamoto University, Japan, in 2004.

Professional Career

He has worked for the Central Research Laboratory, the Fuzzy Technology Promotion Center, the New Business Development Center, the Information Technology Laboratory, and the Sensing & Control Laboratory of Omron Corporation from April 1985 to present. From April 2007, he is the Senior Technology Specialist of Sensing & Control Laboratory of Omron Corporation. During over these 22 years, he has researched and developed following technologies and products;

- Expert System Building Tool
- Learning Walk Robot
- Neural Networks
- Fuzzy Expert Systems
- Fuzzy Database Systems
- Mind Model and Life-like Agents
- Pet Robot
- Socially Intelligent Agents
- Speech Recognition and Dialogue Systems
- Automated Sensory Inspection Systems
- Health Management Systems for Human, Machine, and Energy
- Visceral Fat Estimation

Etc.

Research Interests

He is interested in intelligent systems especially employing soft computing technologies and their applications based on Humans & Machines collaboration. There are main different two directions should be considered to realize such intelligent systems. One is to implement intelligence in the machine sides. The other is connected with the interactions among humans and machines. The examples of the first are fuzzy systems, neural networks, and automated sensory

inspection systems. The examples of the second are dialogue systems, mind models, and socially intelligent agents.

Currently, he focuses on the general solution for improvement of health in humans, machines, and energy consumptions by applying sensory inspection and computational intelligence. The solution is so called the health management technology platform which consists of four main functions; measurement, recognition, estimation, and evolution. The platform covers wide technology area mainly in computational intelligence to provide effective and efficient solutions to wide business fields.

Professional Associations

He is a member of following academic societies;

- IEEE (Systems, Man, and Cybernetics Society)
- ACM
- AAAI
- Japan Society for Fuzzy Theory and Intelligent Informatics
- Japan Society for Artificial Intelligence
- The Society of Instrument and Control Engineers
- Information Processing Society of Japan
- Japan Society of Kansei Engineering

He has been active in the IEEE Systems, Man, and Cybernetics (SMC) Society, contributing as a member of program committee of soft computing in the International Conference on IEEE SMC (2006-2007) held in Taipei, Taiwan from 8th to 11th, October, 2006 and held in Montreal, Canada, from 7th to 10th, October, 2007, respectively. He is also a member of program committee of the International Conference on Distributed Human-Machine Systems, IEEE SMC will be held in Athnes, Greece, from 9th to 12th, March, 2008. Moreover, he is associate editors of International Journals and Domestic Journals such as International Journal of Intelligent Computing in Medical Science and Image Processing , World Scientific and Engineering Academy and Society, and Japan Society for Fuzzy Theory and Intelligent Informatics. Moreover, he is a co-chair of International Forum on Multimedia and Image Processing. He have led many international collaborative project with universities mainly in United States such as Stanford University and University of California, Berkeley.

He has widely published papers in journals, international conferences and received following awards;

- Best paper award from Interaction'99 in 1999.
- Best author award from Information Processing Society of Japan in 2000.
- Industrial Outstanding Application Award from International Fuzzy Systems Association in 2007.