



Brief Bio of Prof. Takeshi Yamakawa

Prof. Takeshi Yamakawa is now a professor of Department of Brain Science and Engineering, Graduate School of Life Science and Systems Engineering, Kyushu Institute of Technology, Wakamatsu, Japan and also the chairman of Fuzzy Logic Systems Institute (FLSI). He received the B. Eng. degree in electronics engineering in 1969 from Kyushu Institute Technology, Tobata and the M. Eng. degree in electronics engineering in 1971 from Tohoku University, both in Japan. He received the Ph.D. degree for his studies on electrochemical devices in 1974 from Tohoku University, Japan. From 1974 to 1977, he engaged in the development of new electrochemical devices as a Research Assistant at Tohoku University. From 1977 to 1981 he served as a Research Assistant in electrical engineering and computer science at Kumamoto University, Japan. From 1981 to 1989 he was an Associate Professor at Kumamoto University. During this time, he developed intrinsic fuzzy logic integrated circuits in pMOS (1983) and CMOS (1985), a fuzzy logic controller hardware (1986), a fuzzy logic computer hardware (1986), a fuzzy memory device (1986), and fuzzy micro processors (rule chip and defuzzifier chip) (1988).

He joined the Faculty of Computer Science and Systems Engineering, Kyushu Institute of Technology, Iizuka, Japan and received a full professorship in April 1989. He established a foundation, Fuzzy Logic Systems Institute (FLSI), in Japan in 1990 to promote the international collaboration on fuzzy logic, neural networks and soft computing, and to promote the spread of the research results. Prof. Yamakawa developed the fuzzy neuron chip in BiCMOS technology which facilitates hand-written character recognition within 1 microsecond by one fuzzy neuron chip (1991). He also developed the chaos chip in CMOS technology (1992).

In 2000 he moved to the new campus, Wakamatsu, of the Kyushu Institute of Technology to be a professor of the Department of Brain Science and Engineering.

His main research interest lies on hardware implementation of fuzzy systems, fuzzy neural networks, and chaotic systems. He holds 11 patents in U.S.A., 4 patents in Europe, 1 patent in Australia and 1 patent in Taiwan, and he has also applied for more than 90 patents in Japan. Prof. Yamakawa is a fellow of IEEE, International Fuzzy Systems Association (IFSA) and Japan

Society of Fuzzy Theory and Systems (SOFT). He received IEEE 2008 Fuzzy Systems Pioneer Award. He is acting as a member of editorial board and a regional editor of 10 international professional journals. He contributed more than 80 international conferences as a member or the chairman of organizing/programming committee. He was used to organize the International Conference on Fuzzy Logic, Neural Nets and Soft Computing (so called IIZUKA Conference) every two years in Iizuka, Japan. He was the director of the 21st Century Center of Excellence entitled “World of Brain Computing Interwoven out of Animals and Robots” from 2003 to 2008. And now he is acting as the director of the project for Specially Promoted Research (Project No.20001008) entitled “Identification of Epileptogenic Focus by Employing Softcomputing and Establishment of Minimally Invasive and Definitive Surgery” from June 2008 to March 2012.

Prof. Yamakawa plays Karate (Japanese traditional martial arts) and possesses a black belt (5th Dan). And he likes swimming, a monocycle and horse riding as well. His interest also lies on Shakuhachi and Shamisen, which are Japanese traditional musical instruments.