

Yoshiyasu Takefuji--deleted

Subjects: Engineering, Civil | Computer Science, Artificial Intelligence

Contributor: yoshiyasu takefuji

Graduated from Electrical Eng. of Keio Univ. (1978), MS (1980), Ph.D. (1983) respectively. Assistant Professor: Univ. of South Florida (1983-1985), Associate Professor: Univ. of South Carolina (1985-1988), Associate Professor: Case Western Reserve Univ. (1988-1996: tenured in 1992), tenured Professor: Keio University (1992-2021). Professor: Musashino University (2021-202x). Research: cyber-security, neural computing, energy harvesting, IoT, AI, applied mathematics. He authors 40 books and more than 800 scientific articles with supervising more than 35 Ph.D. students. He is currently Docent Professor on AI and Applications at IT Department of Jyväskylä University in Finland and economic advisor to governor of Shandong in China since March 2019 and to Weihai mayor in China since 2018 respectively. He has been developing AI systems using ensemble machine learning, neural computing with IoT devices for solving real intractable problems in our society. The prototypes outperform super-skilled humans in civil engineering, constructions, marketing, and medicine respectively.

Keywords: AI ; IoT ; energy harvesting

Google Scholar:

Citations: 6001

h-index: 33

i10-index: 88

ResearchGate Score: h-index:30

Scopus: h-index:24

Short biography:

Graduated from Electrical Eng. of Keio Univ. (1978), MS (1980), Ph.D. (1983) respectively. Assistant Professor: Univ. of South Florida (1983-1985), Associate Professor: Univ. of South Carolina (1985-1988), Associate Professor: Case Western Reserve Univ. (1988-1996: tenured in 1992), tenured Professor: Keio University (1992-2021), tenured Professor: Musashino University.

Research: cyber-security, neural computing, energy harvesting, IoT, AI, applied mathematics, science/health policy, disaster management.

He authors 40 books and more than 800 scientific articles with supervising more than 40 Ph.D. students. He is one of pioneers on neural computing. His team won the AI championship of 2017 NIPS in *Quiz Bowl* Question Answering with 308 cited.

He has published 210 eLetters and 1 report in Science (the report is entitled "A near-optimum parallel planarization algorithm" published in 1989 with 128 citations that is the world's first application based on neural computing), 1 correspondence in Nature on science policy, and 1 correspondence in NEJM on herd immunity.

His book entitled 'Neural network parallel computing' published in 1992 on optimization has influenced many researchers in the world with 334 cited.

He coauthored a paper entitled "Functional Link Net Computing: Theory, system Architecture and Functionalities" published in IEEE in 1992 which was cited by 671 articles.

The world's first paper on brain tumor segmentation entitled "Optimization neural networks for the segmentation of magnetic resonance images" was published in 1992 in IEEE Trans. on Medical Imaging with 238 cited.

The paper entitled "A neural network parallel algorithm for channel assignment problems in cellular radio networks" was published in IEEE transactions on Vehicular technology with 349 cited.

The paper "Artificial neural networks for four-coloring map problems and K-colorability problems" published in IEEE transactions on circuits and systems in 1991 is with 183 cited. He invented the world's first hysteresis neuron model published in Biological Cybernetics in 1991 with 133 cited.

Two papers using neural computing for solving job-shop scheduling were published in IEEE conference in 1988 with 219 and 172 cited.

His energy harvesting project was included in the official Japanese science textbook for junior high schools from 2021.

On artificial intelligence and security, he has been advising more than 50 profit and non-profit organizations including Food Service Association in Japan since 1992 and introduced technologies on sustainable protein alternatives published in Trends in Food Science & Technology.

He is currently Docent Professor at IT Department of Jyväskylä University in Finland and economic advisor to governor of Shandong in China since March 2019 and to Weihai mayor in China since 2018. He was a former advisor of air force research in the US.

He has been developing AI systems using ensemble machine learning, neural computing with IoT devices for solving real intractable problems in our society. The prototype robots outperform super-skilled human engineers in civil engineering and construction. One of his prototypes is currently used in construction of underground-tunnels in Central Shinkansen in Japan from Tokyo to Nagoya.

He is one of the world's famous inventors who invented world's first mobile phone's camera, Euro banknote validators (BV-6000: 12000 units installed in Europe as of 2009), AI-embedded drilling machines in Japan, and Nintendo's Gameboy camera, transverse-wave speakers and others.

He has been educating more than 10k students in universities and professional engineers in industries since 1980.

He has developed the world's first hypervisor called driverware for Windows:

<https://apps.dtic.mil/sti/citations/ADA451745>

The developed hypervisor has been embedded in many core systems in the world.

He has developed 20 open-source PyPI tools by himself for users worldwide: deathdaily (21624 users), scorecovid (12107), aircalc (13636), airpiano (11013), bugcount (8706), covidlag (10466), faceext (3768), usscore (4674), jpscore (3488), dyDNS (3966), scorev (1553), milspend (1860), sshanalysis (1388), vaers (1213), noaaco2 (1717), hiscovid (472) and others, according to PePy: <https://pepy.tech/>.

He is currently selected by Times Higher Education as a reputation evaluator for world's university rankings.