

Research Achievements:Conference Paper

Article Title	Journal Name	Author	Category	Publication Date
The application of augmented reality technology on gear module for indigenous culture	Information technology and application in education	Jen-Yang Chen, Chuan-Hsi Liu, Kuei-Fu Lu		2013.12
Indirect adaptive fuzzy controller for LEGO Mindstorms NXT two-wheeled robot	Applied Mechanics and Materials	J. Y. Chen, T. F. Wu, P. S. Tsai, K. Y. Lian		2013.07
Implementation motion recognition and Imitate in humanoid robot	J. of Informatics & Electronics	Y. H. Lin, P. S. Tsai, J. Y. Chen		2013.04
Exporing the differences between learning of indigenous and Han children in the instructional approach of building blocks by hand	Advance in Education Research	J.Y. Chao, J. Y. Chen, S. H. Chiu		2012.08
ADaptive fuzzy Cerebellar Model Articulation Controller for Two-Wheeled Robot	Advanced Materials Research	Jen-Yang Chen, Kuei-Chih Lin, Pu-Sheng Tsai, Chuan-Hsi Liu, Jing-Ming Ouyang		2012.02
The Application of the Collaborative Problem Solving Approach onto Primary Science Education - A case of the Course of Power Mechanics	Journal of Informatics and Electronics (Accepted)	Hsiao, K.F., Chen, J.Y. & Chen, C.C.		2010.06
Fuzzy sliding mode controller design for Nonlinear systems	Journal of China Institute	J. Y. Chen, J. C. Chen, H. S Shin		2005.04
Grey FCMAC controller design	The Journal of Grey System	Jen-Yang Chen, Ying-		2005.

		Hao Lin, Pu-Sheng Tsai and Sin Jhong Liou		
Adaptive design of A fuzzy cerebellar model arithmetic controller neural network	IEE Proceedings-Control Theory and Applications	Jen-Yang Chen, Pu-Sheng Tsai and Ching-Chang Wong		2005.
Self tuning grey fuzzy PID control	The Journal of Grey System,	Jen-Yang Chen, Pu-Sheng Tsai and Chao-shun Yang		2005.
Grey prediction fuzzy gain scheduler design	The Journal of Grey System, 15(4)	Pu-Sheng Tsai and Jen-Yang Chen		2003.
Implementation of DC motor speed control based on CMAC	Journal of China Institute of Technology, 26	Jen-Yang Chen and Pu-Sheng Tsai		2003.
Based on hierarchical strategy of adaptive tracking control of mobile robots using backstepping design	Journal of China Institute of Technology	Pu-Sheng Tsai, Jen-Yang Chen, and Ter-Feng Wu		2002.09
Adaptive Mamdani model-based fuzzy control for nonlinear systems	Journal of China Institute of Technology	Jen-Yang Chen, Pu-Sheng Tsai, and Ter-Feng Wu		2002.09
On GA-based fuzzy sliding mode control	Journal of China Institute of Technology	Jen-Yang Chen, Ter-Feng Wu, Pu-Sheng Tsai, and Ting-Chiang Liu		2002.09
A sliding mode control of nonholonomic mechanical systems in skew symmetric form	Journal of China Institute of Technology	Pu-Sheng Tsai, Jen-Yang Chen,		2002.09

		and Ter-Feng Wu		
The variativnal equations for coupled rigid bodies system: a case study in modeling of a two-DOF rotational mechanism	Journal of China Institute of Technology	Pu-Sheng Tsai, Ter-Feng Wu, and Jen-Yang Chen		2002.09
Fuzzy control design based on fuzzy modeling	Journal of ILan Institute of Technology	Ter-Feng Wu, Pu-Sheng Tsai and Jen-Yang Chen		2002.09
Extension sliding mode control for nonlinear systems	Journal of ILan Institute of Technology	Jen-Yang Chen, Ter-Feng Wu and Pu-Sheng Tsai		2002.09
Construction of a fuzzy controller through width adaptation	Knowledge-Based Systems	Jen-Yang Chen and Ching-Chang Wong		2001.09
Adaptive extension controller design for nonlinear systems	Engineering Sciences	Ching-Chang Wong and Jen-Yang Chen		2001.09
Extension controller design via VSS	Engineering Sciences	Jen-Yang Chen and Ching-Chang Wong		2001.09
Rule regulation of fuzzy sliding mode controller design: Direct adaptive approach	Fuzzy Sets and Systems	Jen-Yang Chen		2001.09
A simple PI-extension controller	Journal of GuangZhou	Jen-Yang Chen and Ching-Chang Wong		2001.09
Grey PID controller design using fuzzy gain scheduling	Journal of Fuzzy Mathematics	Ching-Chang Wong and Jen-Yang Chen		2000.09

Implementation of the Takagi-Sugeno model-based fuzzy control using adaptive gain controller	IEE Proceedings- Control Theory and Applications	Jen-Yang Chen and Ching-Chang Wong		2000.09
Expert SMC-based fuzzy control with genetic algorithms	J. of Franklin Institute,	Jen-Yang Chen		1999.09
Fuzzy sliding mode controller design: indirect adaptive approach	Cybernetics and Systems: An International Journal,	Jen-Yang Chen		1999.09
A hybrid grey PID controller design through fuzzy gain scheduler	J. of Grey System	Ching-Chang Wong and Jen-Yang Chen		1999.09
Design of adaptive fuzzy sliding mode control for nonlinear systems	International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems	Jen-Yang Chen		1999.09
Based on sliding mode and genetic algorithm adaptive fuzzy controller design	Engineering Technology Communication	J. Y. Chen		1999.09
Fuzzy control of nonlinear systems via rule adjustment	IEE Proceedings- Control Theory and Applications	Ching-Chang Wong and Jen-Yang Chen		1999.09
Heuristic enhancement of the grey prediction controller through fuzzy reasoning	J. of Grey System	Jen-Yang Chen and Pvo-San Tsi		1998.09
A systematic design of SMC-based fuzzy controller for nonlinear systems	J. of Fuzzy Mathematics,	Jen-Yang Chen		1998.09
A ASFC-based fuzzy controller design	J. of Fuzzy Mathematics,	Jen-Yang Chen		1998.09
An approach to improve the performance of the	J. of Fuzzy Mathematics	Jen-Yang Chen		1998.09

ASFC-based fuzzy control system				
Rule regulation of indirect adaptive fuzzy controller design	IEE Proceedings- Control Theory and Applications	Ching-Chang Wong, Bing-Chyi Huang and Jen-Yang Chen		1998.09
Stable grey prediction controller design”	J. of Grey System	Jen-Yang Chen		1997.09
Design of fuzzy sliding mode controller with grey predictor	J. of Grey System	Jen-Yang Chen and Ying-Hao Lin		1996.09
Design of a stable grey prediction controller for nonlinear systems	J. of Grey System	Jen-Yang Chen		1996.09
Tuning of prediction step in grey prediction controller using stochastic learning	J. of Grey System	Jen-Yang Chen		1996.09
A novel fuzzy controller	J. of China Junior College of Technology	Jen-Yang Chen		1993.09

Research Achievements:Journal Article

Article Title	Journal Name	Author	Category	Publication Date
Interactive augmented reality time system implementation	14th Conf. on Information Technology and Application	J. Y. Chen, W. K. Wang, Y. C. Lee		2015.08
Adaptive TSK fuzzy control design using scaling gain adaptation for nonlinear systems	2014 10th Intern. Conf. on Intelligent Information Hiding and Multimedia Signal Proceeding	Nien-Tsu Hu, Pu-Sheng Tsai, Ter-Feng Wu, Jen-Yang Chen		2014.08
Obstacle avoidance system for wheeled mobile robots by	2014 10th Intern. Conf. on Intelligent Information Hiding and Multimedia Signal Proceeding.	Pu-Sheng Tsai, Nien-Tsu Hu, Ter-Fang Wu, Jen-Yang Chen		2014.08

CMOS image sensors				
A study of science education of Aboriginal students in Taiwan	Rhizomes VI, Queensland, Australia	Chuan-Hsi Liu, Jen-Yi Chao, Yuan-Chen Liu, Jen-Yang Chen		2011.2
Energy-efficient Algorithm to Improve the Performance of Wireless Data Broadcasting	International Conference on Machine Learning and Cybernetics 2011, Guilin, China	Haw-Yun Shin, Shin-Min Wu, Jen-Yang Chen	EI	2011.07
The Influence of Lego Bricks on Indigenous People Education in Taiwan	The Global Chinese Conference on Computers in Education, GCCCE2011	Jen-Yang Chen, Kuei-Fang Hsiao, Chuan-Hsi Liu, Jen-Yi Chao, Yuan-Chen Liu, Chien-Chun Chen,	EI	2011.05
A study of the creativity of culturally diverse students in Taiwan	Rhizomes VI, Australia	Jen-Yi Chao, Chuan-Hsi Liu, Yuan-Chen Liu, Jen-Yang Chen		2011.02
AN ADAPTIVE PID CONTROLLER	2010 Proceedings of the Ninth International Conference on Machine Learning and Cybernetics	JEN-YANG CHEN, CHUAN-HSI LIU, CHANG-WEI FAN3, HAW-YUN SHIN, MAO-HSU YEN	EI	2010.07
AMELIORATED PARTICLE SWARM OPTIMIZATION BY INTEGRATING TAGUCHI METHODS	2010 Proceedings of the Ninth International Conference on Machine Learning and Cybernetics	CHUAN-HSI LIU , YEN-LIANG CHEN , JEN-YANG CHEN	EI	2010.07

An Adaptive Fuzzy Cerebellar Model Articulation Controller via Particle Swarm Optimization	2010 2nd International Conference on Education Technology and Computer (ICETC)	Chang-Wei Fan, Jen-Yang Chen and Yi-Min Zhou	EI	2010.06
Robots with Object-oriented Peripheral Modules Controlled by a Personal Single Board Computer(PSBC)	IEEE Intern. Conf. on Advanced Robotics and its Social Impacts	C. H. Liu, H.W. Hsu, J.Y. Chen, J.Y. Chao, Hans Pao and Jerry Chang	EI	2008.08
Adaptive fuzzy CMAC control for nonlinear systems	The third International Conference on Innovative Computing, Information and Control	Jen-Yang Chen	EI	2008.06
A Robust Adaptive Fuzzy CMAC Controller for Nonlinear Systems	The second International Conference on Innovative Computing, Information and Control Kumamoto	Jen-Yang Chen	EI	2007.09
An adaptive fuzzy PI controller for nonlinear systems	IMACS Multiconference on Computational Engineering in Systems Applications	Chun-Ming Huang and Jen-Yang Chen	EI	2006.10
An adaptive PI-type fuzzy controller	2005 CACS Automatic Control Conference	Jen-Yang Chen and Z.X. Wu		2005.11
An adaptive FCMAC controller	Daeduck International Conf. on Human-Centered Advance Intelligent Technology, 63-67.Daejeon	Jen-Yang Chen		2005.09
Adaptive fuzzy CMAC control for nonlinear systems	IFSA2005 World Congress	Jen-Yang Chen, Ching-Chang Wong, and Chin-Ming Hong	EI	2005.07
Penetrating genetic algorithm	2003 Artificial Intelligent, fuzzy system Conference	David J-T Sung, Jen-Yang Chen and		2003.12

		Yao-Chu Hsueh		
Hybrid model-based fuzzy control	IEEE Conf. On Fuzzy Systems	Jen-Yang Chen	EI	2002.09
An on-line CMAC controller	IFSA Conference, Feb., 2001.	Jen-Yang Chen and Ching-Ming Hong	EI	2001.10
A VSS-type FCMAC controller	IEEE Conf. On Fuzzy Systems	Jen-Yang Chen	EI	2001.10
Indirect adaptive fuzzy control based on different fuzzy models	2000 8th National Conference on Fuzzy Theory and Its Applications, Taipei, Oct., 2000.	Jen-Yang Chen and Ching-Chang Wong		2000.10
Adaptive extension controller design for nonlinear systems	Extension Engineering Conference, Guangzhou, China, Aug., 2000.	Jen-Yang Chen and Ching-Chang Wong,		2000.10
Extension controller design via sliding mode control	Extension Engineering Conference, Guangzhou, China, Aug. 2000.	Jen-Yang Chen and Ching-Chang Wong		2000.10
Stable extension control of nonlinear systems	IEEE Intern Conf. On Systems, Man and Cybernetics	Jen-Yang Chen and Ching-Chang Wong	EI	2000.10
Indirect adaptive fuzzy control based on different fuzzy models	2000 8th National Conference on Fuzzy Theory and Its Applications	Jen-Yang Chen and Ching-Chang Wong		2000.10
An integration design approach in PID controller	IEEE International Conference on Intelligent Processing and Manufacturing of Materials	Jen-Yang Chen,	EI	1999.10
Direct width adaptation of a fuzzy controller	4th National Conference on Artificial Intelligence	Jen-Yang Chen		1999.10
Rule adaptation of fuzzy sliding mode controller design	IEEE Intern. Conf. On Fuzzy Systems	Jen-Yang Chen	EI	1998.10

Direct center adaptive fuzzy controller design	IEEE Intern. Conf. On Fuzzy Systems	Ching-Chang Wong, Bing-Chyi Huang and Jen-Yang Chen	EI	1998.10
Fuzzy sliding mode control of nonlinear systems	5th intern. Conf. On Soft Computing and Information/Intelligent Systems	Jen-Yang Chen and Ching-Chang Wong	EI	1998.10
On SMC-based indirect adaptive fuzzy control	IEEE Intern. Conf. On Systems, Man, and Cybernetics	Jen-Yang Chen	EI	1998.10
Design of a SMC-based fuzzy controller for nonlinear systems	IEEE Intern. Conf. On Fuzzy systems	Jen-Yang Chen		1997.10
An systematic design of fuzzy control systems	IASTED Intern. Conf. On Applied Modelling and Simulation,	Jen-Yang Chen		1997.10
Fuzzy adaptation for grey prediction controller design	National Conf. On Grey Theory and Applications	Jen-Yang Chen and Pvo-San Tsi		1997.10
A correlation-based of fuzzy controller through scaling factor adjustment for nonlinear systems	4th European Congress on Intelligent Techniques and Soft Computing	Jen-Yang Chen and Ying-Hao Lin		1996.10
Design of a self-tuning fuzzy controller through scaling factor adjustment for nonlinear systems	Intern. Conf. In Intelligent Technologies on Human-Related Sciences	Jen-Yang Chen and Ying-Hao Lin		1996.10
Fuzzy self-tuning of PID controllers via Ziegler-Nichols-Like Formula	4th European Congress on Intelligent Techniques and Soft Computing	Ying-Hao Lin, Ta-Hsiung Hung and Jen-Yang Chen		1996.10
A simple tuning algorithms for fuzzy controller	3rd European Congress on Intelligent Techniques and Soft Computing,	Jen-Yang Chen, Jen-Moon Chew,		1995.10

		Ying-Hao Lin and Pvo-San Tsi		
Fuzzy self-tuning via gray predict of PID controllers	European Congress on Intelligent Techniques and Soft Computing	Ying-Hao Lin, Jen-Moon Chew, Jen-Yang Chen and Pvo-San Tsi		1995.10
A self-tuning fuzzy controller design	IEEE Intern Conf. On Neural Networks	Jen-Yang Chen and Ying-Hao Lin		1995.10
Grey fuzzy control	AMSE Intern. Conf. On Intelligent Systems	Jen-Moon Chew, Jen-Yang Chen, Ying-Hao Lin and Pvo-San Tsi		1994.10
Grey predictor control	MSE Intern. Conf. On Intelligent Systems	Ying-Hao Lin, Jen-Moon Chew, Jen-Yang Chen and Pvo-San Tsi		1994.10
Design of a novel fuzzy control	Proceeding of National Symposium on Automatic Control	Chung-Chun Kung , Jen-Yang Chen and Chia-Chang Liaw		1993.10
A novel approach of fuzzy control	IEEE International Conf. on Systems Engineering	Chung-Chun Kung and Jen-Yang Chen		1992.10
A modified fuzzy controller	Proceeding of National Symposium on Automatic Control, 1991.	Jen-Yang Chen and Chung-Chun Kung		1991.10

Research Achievements:Research Project

Project Title	Funding Source	Year/Months Implemented	Publication Date
Development and Deployment of CPS-based Fundamental Mechanical Curriculum for the	NSC	2/24	2013.08

Students of Indigenous Elementary SchoolsNSC 102-2511-S-130-002-MY4			
The Design and Development of Robot Curriculum for the Students of Aboriginal Elementary Schools(4/4)	NSC	12/12	2012.08
The Design and Development of Robot Curriculum for the Students of Aboriginal Elementary Schools(3/4)	NSC	12/12	2011.08
The Design and Development of Robot Curriculum for the Students of Aboriginal Elementary Schools(2/4)	NSC	12/12	2010.08
The Design and Development of Robot Curriculum for the Students of Aboriginal Elementary Schools(1/4)	NSC	12/12	2009.08