Fei-Yue Wang - C.V.

Director of the State Key Laboratory for
Management and Control of
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State Specially Appointed Expert
AAAS Fellow
ASME Fellow
IFAC Fellow
INCOSE Fellow
IEEE Fellow
Outstanding Scientist of ACM

EDUCATION

Rensselaer Polytechnic Institute — Troy, NY, USA
Ph.D. in Computer and Systems Engineering — *Aug. 1990*

Zhejiang University — Hangzhou, Zhejiang, China
Master in Mechanics — *Jan. 1984*

Shandong Institute of Chemical Engineering — Qingdao, Shandong, China
Bachelor in Chemical Engineering — *Jan. 1982*

PROFESSIONAL EXPERIENCES

Instructor — 1984{1986
Department of Mechanics, Zhejiang University — *Hangzhou, China*

Research Assistant — 1987{1988
Robotics and Automation Laboratory (RAL), RPI — *Troy, USA*

Research Engineer — 1988{1990
NASA Center for Intelligent Robotic Systems for Space Exploration (CIRSSE) — *USA*

Research Associate — 1988{1990
New York State Center for Manufacturing and Productivity Transfer — *New York, USA*

- Founding Director of the Intelligent Control and Systems Engineering Center under the support of the Outstanding Chinese Talents Program from the State Planning Council (1999)
- Appointed as the Director of the Key Laboratory of Complex Systems and Intelligence Science, CAS (2002)
- Appointed as the Deputy Director of the Institute of Automation, CAS (2002-2006)
- Appointed as the State Specially Appointed Expert and the Founding Director of the State Key Laboratory for Management and Control of Complex Systems (2011)

Dean 2005 { 2019
School of Software Engineering, Xi'an Jiaotong University *Xi'an, China*

Director 2010 { 2015
The Research Center of Computational Experiments
and Parallel Systems, NUDT *Changsha, China*

PROFESSIONAL SERVICES

President

• Supervision Council of Chinese Association of Automation	2018-Present
• IEEE Council on RFID	2019-2021
• Association of Global Intelligent Science and Technology (AGIST)	2015-2022
• American Zhu Kezhen Education Foundation	2007-2008
• IEEE ITS Society	2005-2007
• Chinese Association for Science and Technology, USA	2005-2006

Vice President

• IEEE Systems, Man, and Cybernetics Society	2019-2021
• ACM China Council	2010-2011
• Chinese Association of Automation	2008-2018

Founding Chair

• AAAI Beijing Chapter	2011-2016
• ACM Social and Economic Computing Chapter	2010-2015
• INFORMS Beijing Chapter	2008-2011
• ACM Beijing Chapter	2006-2008
• INCOSE Beijing Chapter	2005-2008

Editor-in-Chief

• IEEE Transactions on Intelligent Vehicles	2022-Present
• IEEE Transactions on Computational Social Systems	2017-2021
• ACTA Automatica Sinica	2011-2017
• IEEE Transactions on Intelligent Transportation Systems	2009-2016
• IEEE Intelligent Systems	2009-2012

Founding Editor-in-Chief

• Chinese Journal of Intelligent Science and Technology (in Chinese)	2019-2021

- China's Journal of Command and Control (in Chinese)   2015-2021
- IEEE/CAA Journal of Automatica Sinica   2014-2017
- IEEE ITS Magazine   2006-2007
- International Journal of Intelligent Control and Systems   1995-2000

Associate Editor-in-Chief

- Science and Technology Review   2008-2014
- IEEE Intelligent Systems   2004-2008

Editor-in-Charge

- Series in Intelligent Control and Intelligent Automation   1994-2005

Associate Editor

- IEEE Transactions on Systems, Man, and Cybernetics: Systems   2021-Present
- Systems Engineering, the INCOSE Journal   2012-Present
- ACM Transactions on Intelligent Systems and Technology   2010-2012
- ACM Transactions on Management Information Systems   2010-2014
- IEEE Transactions on Service Computing   2008-2010
- IEEE Transactions on Knowledge and Data Engineering   2006-2008
- IEEE Intelligent Systems   2004-2008
- IEEE Transactions on Robotics and Automation   2003-2005
- IEEE Transactions on Intelligent Transportation Systems   2002-2008
- IEEE Transactions on Systems, Man, and Cybernetics   1999-2005

Chair

- IFAC Technical Committee on Economic, Business, and Financial Systems   2016-Present
- IFAC Technical Committee on Social and Economic Systems   2008-2013

SERVICES IN CONFERENCES

General Chair

- 2021 IEEE International Conference on Digital Twins & Parallel Intelligence, Beijing, China, July 2021.
- The 3rd IFAC Workshop on Cyber-Physical & Human Systems, Beijing, China, Dec. 2020.
- The 12th Parallel Intelligence Conference, Qingdao, Shandong, Sept. 2020.
- The 11th Parallel Intelligence Conference, Beijing, China, Dec. 2019.
- The 29th IEEE Intelligent Vehicles Symposium, Changshu, Suzhou, June 2018.
- Chinese Congress on Intelligent Vehicles, Wuhan, China, Oct. 2015.
- The 9th IEEE International Conference on Networking, Sensing and Control, Beijing, China, July 2012.
- The 1st National Conference on Social Computing, Beijing, China, Dec. 2009.
- The 1st National Conference on Parallel Management, Beijing, China, Dec. 2009.

- IEEE International Conference on Intelligent Transportation Systems, Beijing, China, 2008.
- Oriental Science and Technology Forum on Web Sciences, Shanghai, China, 2007.
- 2007 ASME/IEEE International Conference on Mechatronic and Embedded Systems and Applications (MESA'07), Las Vegas, NV USA, Sept. 2007.
- 2007 IEEE/INFORMS International Conference on Service Operations and Logistics, and Informatics (SOLI 06), Philadelphia, PA USA, Aug. 2007.
- 2007 IEEE International Conference on Vehicular Electronics and Safety (VES 07), Beijing, China, Dec. 2007.
- 2005 ASME/IEEE International Conference on Mechatronic and Embedded Systems and Applications (MESA'05), Long Beach, CA, USA, Oct. 2005.
- 2005 IEEE International Symposium on Intelligent Vehicles, Las Vegas, NV, USA, June 2005.
- 2005 IEEE International Conference on Networking, Sensing, and Control, Tucson, AZ, USA, March 2005.
- 2003 IEEE International Conference on Intelligent Transportation Systems, Shanghai, China, Oct. 2003.

General Co-Chair

- The 1st IEEE International Conference on Human-Machine Systems, Rome, Italy, Sept. 2020.
- IEEE International Intelligent Transportation Systems Conference, Qingdao, China, Oct. 2014.
- The 1st US-China International Workshop on Digital Government Research and Practice (IntDG06), Beijing China, Oct. 2006.
- Workshop on Intelligence and Security Informatics (WISI 05), Singapore, April 2005.
- 2005 IEEE Intelligence and Security Informatics, Atlanta, GA, May 2005.

Program Chair

- 2009 IEEE International Symposium on Intelligent Vehicles, Xi'an, China June 2009.
- XiangShan Scienti c Conference on Social Computing, Beijing, China, 2007.
- The 29th XiangShan Conference on System of Systems for Social Computing: Fundamentals and Applications, Beijing, China, April 2007.
- 2006 IEEE/INFORMS International Conference on Service Operations and Logistics, and Informatics (SOLI 06), Shanghai, China, June 2006.
- 2001 IEEE International Conference on Systems, Man, and Cybernetics, Tucson, AZ, USA, Oct. 2001.
- 1998 IEEE International Symposium on Intelligent Control, Gaithersburg, VA, USA, Sept. 1998.

Program Co-Chair

- The 2nd IEEE International Conference on Human-Machine Systems, Magdeburg, Germany, Sept. 2021.
- The 14th International IEEE Conference on Intelligent Transportation Systems, Anchorage, AK, USA, Sept. 2010.

- 2010 IEEE International Symposium on Intelligent Vehicles, San Diego, USA, June 2010.
- 2004 IEEE International Symposium on Intelligent Vehicles, Parma, Italy, June 2004.

Tutorials and Workshops Chair

- 2002 IEEE International Conference on Decision and Control, Las Vegas, NV, USA, Dec. 2002.

Local Chair

- The Internal Joint Conference on Artificial Intelligence, Beijing, China, August 2013.

Awards Committee Co-Chair

- The Internal Joint Conference on Artificial Intelligence, Beijing, China, August 2013.

Honor

International Federation of Automatic Control (IFAC) Fellow   In 2007

- For outstanding contributions to intelligent control systems and their applications.

American Society of Mechanical Engineers (ASME) Fellow   In 2007

- For outstanding contributions in mechanics, robotics, mechatronics, and embedded systems.

American Association for the Advancement of Science (AAAS) Fellow   In 2007

- For significant contributions to the field of complex systems and intelligence science, particularly for theory and methods in social computing, computational intelligence, and intelligent control.

International Council of Systems Engineering (INCOSE) Fellow   In 2005

- For significant contributions to theory and applications of intelligent and complex systems.

Institute of Electrical and Electronics Engineers (IEEE) Fellow   In 2003

- For contributions to intelligent control systems and applications to complex systems.

Award

IFAC Pavel J. Nowacki Distinguished Lecturer for 2020-2023 Triennium In 2021

IEEE ITSS Outstanding Application Award   In 2021

First Prize in Natural Sciences, Chinese Association of Automation   In 2020

IFAC Outstanding Service Award   In 2020

IEEE SMC Andrew Sage Award Best Transactions Paper Award   In 2019

Second Prize in Science and Technology, China Intelligent

Transportation Systems Association   In 2019

First Prize in Creative Founder Award, China Association of Inventions In 2018

Special Prize in Science and Technology Progress,

Chinese Association of Automation   In 2018

First Prize in Science and Technology,

China Highway and Transportation Society   In 2017

First Prize in Science and Technology Progress,

Chinese Association of Automation   In 2017

IEEE Transactions on Neural Networks and Learning Systems

Outstanding Paper Awards   In 2017

Second Prize in Natural Sciences, Chinese Association of Automation   In 2016

First Class Award in Natural Sciences,

Chinese Association of Automation   In 2015

IEEE ITSS Outstanding Application Award Neural Networks and Learning Systems

Outstanding Technical Contribution Award: BHP Copper   In 1999

Oversea Outstanding Talent Award: Chinese Academy of Sciences   In 1999

Excellent Academic Award: Chinese Association

of Science and Technology (USA)   In 1999

Technical Innovation Award: Caterpillar   In 1996

Outstanding Technical Contribution Award: AT&T Foundation   In 1994

RESEARCH PROJECTS

- Co-PI,Intelligent Management and Control Technology for Vehicle Road Collaboration of Internet Connected Vehicles, ¥86M, Department of Science and Technology of Guangdong Province, China, 2020-2022.

- PI,Research on Cooperation Framework and Interaction Mechanism of Human Machine Hybrid Multi-agent, ¥5.5M, Ministry of Science and Technology, China, 2019-2023.

- Co-PI, Parallel Verification and Analysis System of Urban Traffic Based on Big Data, ¥3.27M, National Natural Science Foundation of China, 2019-2022.

- PI, Intel Collaborative Research Institute for Intelligent and Automated Connected Vehicles, $0.6M, Intel Corporation, 2018-2021

- Co-PI Research and Application Validation of Parallel Driving Technology Based on Intelligent Intelligence Fusion of Man-Machine Intention, ¥4 M, Beijing Municipal Science and Technology Commission, 2018-2019.

- PI, Application of Artificial Intelligence Adaptive Technology in K12 Education, ¥2M, Shanghai Yixue Education Technology Co., Ltd., 2018-2019.

- Co-PI, Funds Plan of Strategy Research and Platforms Construction for Steering Group of Experts, ¥1.5M, National Natural Science Foundation of China, 2017-2018.

- PI, Research and Verification of Knowledge Automation Systems for Production Planning in Process Industry Based on the CPSS, ¥3.4M, National Natural Science Foundation of China, 2016-2020.

- PI, Industries 5.0 Demonstration Project, ¥3B, QDMG and Huatong Inc., China, 2016-2020.

- PI, Intelligent Industries Development Fund, ¥200M, Venture Capital Investment, China, 2015-2020.

- PI, Intelligent Vehicles Proving Ground Project, ¥150M, CSMG, China, 2015-2018.

- PI, Intelligent Enterprise Systems, ¥180M, QDMG, China, 2014-2020.

- PI, ERP3.0: Research on the Theory and Key Technology of Parallel Management Systems for Enterprises, ¥2.47M, National Natural Science Foundation of China, 2013-2017.

- Co-PI, CC 5.0 and Intel 5.0: Computational Experiments, Knowledge Automation, Parallel Systems and Parallel Testing, ¥4.7B, DRF, China, 2012-2015.

- PI, Cloud Computing for Intelligent Systems and Applications, ¥20M, DGMG, China, 2012- 2014.

- PI, Management and Control of Complex Systems, ¥48M, Ministry of Science and Technology, China, 2011-2016.

- PI, Social Computing and Parallel Systems, ¥5M, Chinese Academy of Sciences, China, 2010-2013.

- PI, Method and Application of Intelligent Control and Computational Intelligence (Phase II), ¥5.5M, National Natural Science Foundation of China, 2010-2012.

- PI, Social Computing in E-Commerce, ¥2.85M, National Natural Science Foundation of China, 2009-2012.

- PI, Social Computing: Prototype Systems, ¥8M, Chinese Academy of Sciences, China, 2008-2011.

- PI, Basic Theory and Prototype System of Information and Security Informatics and Social Computing, ¥8M, Chinese Academy of Sciences, China, 2008-2009

- PI, Knowledge-based Multimedia Search Technologies and Service-Oriented Vertical Search Engines, Hi-tech Research and Development Program of China (863 Project), ¥5M, Ministry of Science and Technology, China, 2007-2010.

- PI, Method and Application of Intelligent Control and Computational Intelligence, ¥5M, National Natural Science Foundation of China, 2007-2009.

- PI, Outstanding Team Grant, ¥8.6M, the National Natural Science Foundation and Chinese Academy of Sciences, China, 2005-2012.

- PI, Information and Security Informatics Research Team, ¥6M, Chinese Academy of Sciences, China, 2005-2008

- PI, Knowledge-based Multimedia Search Technologies and Service-Oriented Vertical Search Engines, Hi-tech Research and Development Program of China (863 Project), ¥5M, Ministry of Science and Technology, China, 2005-2008.

- PI, Intelligence and Security Informatics, ¥6M, International Cooperation Program, Chinese Academy of Sciences, China, 2005-2008.

- PI, Social Computing: Theory and Applications, ¥5M, Chinese Academy of Sciences, China, 2005-2007.

- PI, Research of Computing with Word and Linguistic Dynamic Systems, ¥70K, National Natural Science Foundation of China, 2005.

- PI, Agent-based Control for Networked Systems, ¥2M, Key Project Program, the National Science Foundation and Chinese Academy of Sciences, China, 2004-2008.

- PI, Research on the Control Theory and Method under the Internet Environment, ¥1M, National Natural Science Foundation of China, 2004-2007.

- PI, Development of Embedded Vehicular Computing Platforms, ¥3M, the Provincial Key Technical Research Program, Department of Science and Technology, Shandong Province, China, 2004-2006.

- PI, OSEK/VDX & OSGi-based Embedded Vehicular Software Platform ¥1.5M, Hi-tech Research and Development Program (863 Project), Ministry of Science and Technology, China, 2004-2005.

- Co-PI, Recon gurable Systems for Networked Manufacturing Systems, ¥55M, The National Key Fundamental Research Program (973 Project), Ministry of Science and Technology, China, 2003-2008.

- PI, Agent-based Technology for Real-time Networked Manufacturing Systems, ¥1.5M, Department of Science and Technology, Shandong Province, China, 2003-2006.

- PI, Laboratory Development Matching Grant, ¥3.75M, National Key Laboratory Program, Chinese Academy of Sciences, China, 2002-2007.

- PI, Laboratory Development Grant, ¥2M, National Key Laboratory Program, Ministry of Science and Technology, China, 2002-2007.

- PI, Intelligent Control Theory, ¥0.8M, National Natural Science Foundation of China, 2002- 2005.

- PI, Digital Highway and Vehicles, $300K, DOT, USA, 2002-2005.

- PI, Sino-US Joint Center for Intelligent Control and Systems, $750K, Kelon Group and Chinese Academy of Sciences, China, 2001-2003.

- PI, Intelligent Transportation Systems for Integrated Tra c Control and Management, ¥720K, Key Project in the Knowledge Innovation Program, Chinese Academy of Sciences, China, 2001-2002.

- PI, Outstanding Young Scientist Award, ¥1.6M, the National Natural Science Foundation and Chinese Academy of Sciences, China, 2001.

- PI, PARCS (Program for Advanced Research in Complex Systems) Grant, $50K, ABB USA, 2001.

- PI, PARCS (Program for Advanced Research in Complex Systems) Scholarship Grant, $41K, Tang Education Foundation, 2001.

- PI, Development in Telematics, Vehicular Navigation Systems, and Intelligent Home Systems, $1.5M, Kelon Group, China, 2000-2003.

- PI, Integrated Design and Control of Flexible Manipulators, ¥150K, National Natural Science Foundation of China, 1999-2002.

- PI, Mechatronic Design and Control of IBM High-Performance Tape Track Following Systems, $90K, IBM, San Jose, CA, 1999-2000.

- PI, Outstanding Oversea Talent Award, ¥2M, the State Planning and Development Council and Chinese Academy of Sciences, China, 1999.

- PI, Outstanding Oversea Talent Award, ¥2M, the State Planning and Development Council and Chinese Academy of Sciences, China, 1999.

- PI, Integrated Platform for Internet-based Laboratory Experiments, $400K+$650 In-Kind Support, the National Science Foundation, USA, 1998-2001.

- PI, Vehicles with Intelligent Systems for Transport Automation (VISTA Project), $100K, the Arizona State Legislature, 1998-1999.

- Co-PI, Soft Distributed Control Systems for In Situ Copper Leaching, $6.5M, BHP Copper Corporation, 1998-1999.

- PI, An Agent-Based Distributed Control System for Leaching Processes, $150K, PWI Inc., 1998-1999.

- PI, A PLC Control System for BGA Assembly Stations, RVSI Corporation, $70K, 1998.

- Co-PI, Robotic Excavation Techniques for Wheel Loaders, $2.0M, Caterpillar Corporation, 1996-1999.

- PI, Development of a Computer-Based Scheduling Model for Planning and Operational Control of Leach Operations, $55K, Copper Range Co., MI, 1995-1996.

- Co-PI, Training Program in Motor Control Neurobiology, $1.2M, National Institute of Health, 1994-1997.

- PI, Automated Robotic Mining Excavation using Fuzzy Logic and Neural Networks, $36K, National Science Foundation, USA, 1994-1995.

- PI, A Vision-Based Intelligent Real-Time Control System for Mining Tasks in Dynamic Environments, $200K, Arizona Mining and Mineral Resource Research Institute, 1993-1994.

- PI, An Intelligent Vehicle for Lunar/Martian Applications, $200K, Seed Grant from NASA, 1992-1993.

- PI, High-Autonomous Control System Development for Lunar/Martian Oxygen Production Plant, $200K, NASA, 1991-1993.

- PI, Design and Evaluation of Communication Protocols for LAN-Connected Machines Environments, $14K, AT&T Science and Engineering Foundation, 1991-1992.

Inventions & Patents

- \Method and System of Keeping and Controlling Formation of Unmanned Vehicles" Chinese Patent Number ZL201711072217.3 February 2020

- \Formation Method, Storage Device and Processing Unit of Unmanned Devices", Chinese Patent Number ZL201710650445.8 November 2020

- \Method, System and Apparatus for Tra c Path Recommending based on Parallel Integrated Learning" Chinese Patent Number ZL201910793353.4 December 2020

- \Method, System and Apparatus for Short-time Tra c Flow Prediction Method Based on Hybrid Depth Learning" Chinese Patent Number ZL201910842242.8 December 2020

- \Vehicle Detection Method Based on Hybrid Image Template" United States Patent Number US10157320B2 December 2018

- \Docker-based Experimental Method for Large-scale Computation of Arti cial Tra c System" Chinese Patent Number ZL 201510518249.6, February 2018

- \Robustness Prospect Detection Method Based on Multi-view Learning" Chinese Patent Number ZL 201510174979.9 April 2018

- \A Method of Determining The Proportion of Partially Random Allocation of Tra c Evacuation Destinations" Chinese Patent Number ZL 201410785365.X May 2018

- \3D Printer Spray Nozzle Capable of Adjusting Cross Section Areas of Extruded Materials and Method for Controlling Printing Speed and Precision of the 3D Printer Spray Nozzle" United States Patent Number US10016929B2 July 2018

- \Method for Detecting Tra c Violation" United States Patent Number US9704060B2 July 2017

- \A Short Range Travel Time Prediction Method" Chinese Patent Number ZL201510345977.1 October 2017

- \A License Plate Recognition Method Based on Extreme Value Region and Extreme Learning Machine" Chinese Patent Number ZL201410374155.1 June 2017

- \A Tra c Data Compensation Method" Chinese Patent Number ZL201410336212.7 April 2017

- \A Detection System and Method for Illegally Operating Vehicles" Chinese Patent Number ZL201410361120.4 February 2017

- \3D Printing System" Chinese Patent Number ZL201480000261.1 November 2016

- \A Short-term Tra c Flow Forecasting Method" Chinese Patent Number ZL201410398861.X August 2016

- \A Detection and Prediction System and Method for Supply and Demand State of Public Transportation" Chinese Patent Number ZL201410293589.9 March 2016

- \A Tra c Accident Assistant Processing System and Method" Chinese Patent Number ZL201410064895.5 December 2015

- \Docker Based Large-scale Experimental Computation with Arti cial Transportation System" Chinese Patent Number ZL201510518249.6 August 2015

- \A Short-term Tra c Flow Prediction Method" Chinese Patent Number ZL201410398861.X August 2014

- \A Social Interaction Network Generation Method and Device Based on Arti cial Transportation Systems" Chinese Patent Number ZL201410065242.9 February 2014

- \A License Plate Recognition Method Based on Extreme Region and Extreme Learning Machine" Chinese Patent Number ZL201410374155.1 July 2014

- \An Intelligent Tra c Information Collection System and Method Based on Wireless Sensor Network" Chinese Patent Number ZL201410512888.7 September 2014

- \Tra c Signal Timing Recommendation System and Methods Based on ACP" Chinese Patent Number ZL201410373407.9 July 2014

- \An Optimization Method and System for Evacuation Control Scheme Based on Virtual Actural Interaction" Chinese Patent Number ZL201310037281.3 January 2013

- "A Vehicle Detection and Tracking Method Based on Vehicle Position Characteristics" Chinese Patent Number ZL201210340153.1 September 2012

- "An Auto-Inspection System for Vehicle Failures" Chinese Patent Number 200510098348.X September 2005

- "vASOS: An Embedded Vehicular Operating System" Chinese Patent Number 200510098349.4 September 2005

- "An Embedded Vehicle Auto-Navigation System and the Corresponding Methods" Chinese Patent Number 200510098351.1 September 2005

- "iHS: An Integrated Home Server" Chinese Patent Number 00131035.6 March 2002

- "aDCS: A Networked Distributed Control System", Chinese Patent Number 00131033.X March 2002

- "hASOS: A Real Time Operating Platform for Home Automation" Chinese Patent Number 00131037.2 March 2002

- "A Neuro-Fuzzy Controller for Remote Operations of Networked Systems" Chinese Patent Number 00130888.2 March 2002

- "A WAP-Based Communication System for Smart Homes" Chinese Patent Number 00130887.4 March 2002

KEYNOTES AND PRESENTATIONS

- "Parallel Intelligence in CPSS for Industries 5.0: From Metaphysics to Metaverse",International Winter School on AI in Cyber-Physical Systems For Industry 4.0, online, December 17, 2021

- "Social Presciption for Social Healthcare: From Merton's Laws to Prescriptive Computing", 3rd International Conference of Social Computing, Beijing China, December 11, 2021

- "Parallel Intelligence and Knowledge Automation: The Science and Technology for Metaverse and Beyonds", IEEE ICFTIC 2021, online, November 13, 2021

- "Transportation 5.0 and Parallel Intelligence: MetaTransportation in MetaCity for Smart Mobility of MetaSociety", ICITE2021, Beijing China, October 30, 2021

- "Parallel Intelligence for Unmanned Systems: From Virtual Twins to Parallel Operations", 4th IEEE International Conference on Unmanned Systems(ICUS 2021), Beijing, China, October 16, 2021

- "Parallel Intelligence in The Third Axial Age: IoM Based Human Machine Systems", 2021 Distributed and Hybrid Conference (DHC) on Internet of Minds (IoM), online, September 14, 2021

- "Industries 5.0 and Knowledge Automation: From CPS To CPSS via Parallel Intelligence", ICAC'21, online, September 3, 2021

- "Neural Computing and Logical Computing: Explainable AI or TRUE DAO Intelligence?", 2021 International Conference on Neural Computing for Advanced Applications, online, August 28, 2021

- \Parallel Intelligence for Parallel Education with Digital Learners in CPSS" IJCAI 2021 W14: AIMA4Edu: AI-based Multimodal Analytics for Understanding Human Learning in Real-World Educational Contexts, online, August 21, 2021

- \Parallel Education via iSTREAMS and iCDIOS: From Arti cial Intelligence to Educational Intelligence" IEEE DTPI 2021, Beijing China, August 15, 2021

- \Federated Services in CPSS: From Parallel Services to Services Intelligence via Digital Twins and Smart Contracts" 2021 INFORMS Conference on Service Science(ICSS 2021), online, August 11, 2021

- \Arti cial Intelligence and Intelligent Vehicles: Driving into the Third Axial Age with Smart Mobility in CPSS" Forum on core technologies of new generation vehicles, Beijing, China, January 12, 2020

- \Parallel Transportation and Transportation 5.0: From Intelligent Transportation to Transportation Intelligence" BAAI Conference, Beijing, China, June 23, 2020

- \The Origin and Goal of Cyber-Physical-Social Systems: From Systems Learning to Systems Intelligence" ICSSE 2020(online), September 01, 2020

- \Edge Emergence and Cloud Convergence in ITS: From Parallel Transportation to Transportation 5.0",ICITE 2020(online), September 11, 2020

- \The Origin and Goal of Future in CPSS: Industries 4.0 and Industries 5.0\ IEEE SMC2019, Bari Italy, October 07, 2019

- \AI and Grand Challenges for ITS: Parallel Transportation Systems and Transportation 5.0" IEEE ITSC 2019, Auckland New Zealand, October 28, 2019

- \The Future of Arti cial Intelligence: Driving into The Third Axial Age with Parallel Intelligence" 2019 China-Chile Workshop on Science and Technology Innovation Cooperation, Beijing, China, June 03, 2019

- \Intelligent Vehicles in China: Past Experiences and On-Going Innovations" 23rd World Semiconductor Council Meeting, Xiamen, Beijing, May 23, 2019

- \Parallel Driving and Parallel Mining" World Intelligent Driving Industry Forum, Tianjin, China, May 17, 2019

- \The Future of Arti cial Intelligence: Driving into the Third Axial Age with Parallel Intelligence" 2019 Futures Congress, Santiago, Chile, January 14, 2019

- \Building Robots for Parallel Cognition: Cognitive Science in Re ection and Perspective" 2018 Third International Conference on Cognitive Systems and Information Processing, Beijing, China, November 30, 2018

- \Parallel Robotics: Building Bridges between Human Intelligence and Arti cial Intelligence" The International Workshop on Robotics and AI, Beijing, China, November 16, 2018

- \Parallel Driving for Smart Mobility: Towards Intelligent Vehicles of the Third Axial Age" Pangyo Autonomous Motor Show 2018 International Forum, Pangyo, Korea, November 15, 2018

- \A Parallel Driving Framework for 300% Safety!" Solving the Autonomous Vehicle Safety Assurance Challenge (IEEE ITSC 2018) INTEL, Maui, Hawaii, USA, November 07, 2018

- \Transportation 5.0:From Parallel Driving to Parallel Tra c Control" 2018 IEEE International Conference on Intelligent Transportation Systems, Maui, Hawaii, November 04, 2018

- \Systems Engineering 5.0: Towards Systems of Parallel Systems in CPSS and IoM" 2018 INCOSE Beijing Summit, Beijing, China, September 26, 2018

- \AI for Automation of Intelligence: From Newton's `Big Laws Small Data' to Merton's "Big Data Small Laws" 14th IEEE International Conference on Automation Science and Engineering, Munich, Germany, August 21, 2018

- \Parallel Emergency and Safety Management for Nuclear Plant Operations: A New Approach based AI and Knowledge Automation" 26th ICONE { International Conference on Nuclear Engineering, London, UK, July 22, 2018

- \Interoperable Neural Networks: A Personal Journal and Perspective" IJCAI 2018 Tutorial: Toward Interpretable Deep Learning via Fuzzy Logic, Stockholm,Sweden, July 13, 2018.

- \Parallel Intelligent Manufacturing Systems: From Social Manufacturing to Smart Manufacturing" EU-China Intelligent Manufacturing Conference,Shanghai, China, May 07,2018

- \Parallel Logistics in the Social IoT Era" IEEE World Form on Internet of Things -Logistics Track, Singapore, February 6,2018

- \Parallel Intelligent Education Systems in the New IT Era" Sino-Finnish EduCloud Forum 2017, Beijing, China, February 21, 2017.

- \Parallel Blockchain: Concept, Techniques and Applications" The rst International Symposium on Blockchain and Knowledge Automation (ISBKA 2017) , Denver, USA, April 3, 2017.

- \Parallel Sensing and Parallel Blockchain for Transportation 5.0: From RFID to IoT for ITS in CPSS" The 11th Annual IEEE International Conference on RFID, Phoenix, USA, May 9-11, 2017.

- \Parallel Intelligence and Parallel Blockchain for X 5.0 in CPSS" IEEE SMC Workshop on Computational Psychophysiology, Beijing, China, May 22, 2017.

- \Drive Customer Value by Parallel Intelligence: ACP-Based AI and People Analytics" 2017 Manufacturing Performance Days, Tampere, Finland, May 31, 2017.

- \AI and Future Challenge for IV: A Chinese Perspective and Practice" 2017 IEEE Intelligent Vehicles Symposium (IV 2017) , Redondo Beach, California, USA, June 11-14,2017.

- \From Industries 5.0 to Societies 5.0 via Grids 5.0 in CPSS: The Coming Age of New IT and Intelligent Industries" 2017 AIIB Annual Meeting of the Board of Governors, Seminar I: The Era of 4th Industrial Revolution and Infrastructure. Jeju, Korea, June 16, 2017.

- \Parallel Nuclear Power Systems: From Digitization To Smart Operation and Management" 2017 25th International Conference on Nuclear Engineering, Shanghai, China, July 2, 2017.

- \Arti cial Intelligence and Coming New Axial Age: The Mission and Future of History" Consultation on UNDP Asia-Paci c Regional Programme (2018-2021), Bangkok, Thailand , August 23, 2017.

- \Parallel Networks: From SDN to CPSS-Oriented Smart Networks for IoT" Workshop on Mobile Networking, Analytics and Edge Computing, Munich, Germany, September 29, 2017.

- \Intelligence and Age: China's Arti cial Intelligence Dream of Straight Overtaking" SAP China Summit, Beijing, China, September 6, 2017.

- \Parallel Steel: From Digitalization to Intelligent Production for Steel Manufacturing" 2017 China Steel Industry Intelligent Manufacturing Collaborative Innovation Development Forum, Wuhan, China, October 13, 2017.

- \Parallel Ocean: From Ocean Big Data to Ocean Intelligent Utilization and Control" Qingdao, Chinese Society for Oceanography 2017 Academic Annual Meeting China, October 31, 2017.

- \Arti cial Intelligence and Automotive Intelligence: China's Projects and New Initiatives" Ford Research & Innovation Center, Palo Alto ,USA, November 20, 2017 .

- \Parallel Driving and Parallel Roads: New Ideas for Future Travel" 2017 China Conference on Intelligent Vehicle & National Intelligent Vehicle Development Forum, Changshu, China, November 23, 2017.

- \AI and Intelligent Vehicles Future Challenge (IVFC) in China: From Cognitive Intelligence to Parallel Intelligence" Challenges for a data-driven society ITU Kaleidoscope Academic Conference, Nanjing, China, 28 November 2017

- \New IT and Coming New Axial Age: The Mission and Future of History" UNDP Workshop on Arti cial Intelligence and Beyond, Bangkok, Thailand, December 15, 2017.

- \The Essence and Signi cance of Man VS. Machine in Go: From Church-Turing Thesis to AlphaGo Thesis" China IT Summit 2016, Shenzhen, China, Mar 27, 2016.

- \The AlphaGo Thesis: Thinking on Complexity of Knowledge Automation" ShuangQing Forum of NNSFC, Beijing, China, Mar 30, 2016.

- \X 5.0: Foundation of Intelligent Manufacturing in Parallel Age" Phoenix Contact Meeting, Hannover, Germany, April 26, 2016.

- \Grids 5.0 and Social Energy: From Internet of Things to the Society of Minds" The 48th North American Power Symposium, Denver, USA, September.19, 2016.

- \AI Hall of Fame: In Memory and Celebration" AI World, Beijing, China, October 18, 2016.

- \Intelligent Vehicles in China : From Future Challenge to Parallel Driving" 2016 World Robot Conference, Beijing, China, October 23,2016.

- \ACP-Based Parallel Systems: Knowledge Automation and Smart Adaptability for Complex Adaptive Systems" 2016 Complex Adaptive Systems Conferences, Los Angles, USA, November 03, 2016. \Parallel Intelligence: ACP-based Knowledge Automation and Its Application" International Workshop on Disruptive Technologies in Biology and Crossing Fields, Beijing, China, November 24-25, 2016.

- \Parallel Systems Technology for Intelligent Robotics: From Industrial Automation to Knowledge Automation", World Robotics Congress, Beijing, China, November 27, 2015.

- \Parallel Driving for Intelligent Vehicles: Past, Present, and Future", National Congress on Intelligent Vehicles, Changshu, China, November 14, 2015.

- \From Norbert Wiener to Karl Popper: A Journal of Parallel Cybernetics in Three Worlds", Norbert Wiener Lecture, IEEE Int'l Conf. on Systems, Man, and Cybernetics, Hong Kong, October 10, 2015.

- \Driving in CPSS: From ADAS to Parallel Driving", Workshop on Today and Future of Automotive and Transportation, Tokyo, Japan, October 25, 2005.

- \Parallel Vehicles and Parallel Transportation at China's First Intelligent Vehicles Proving Ground", Global/Local Innovation for Next Generation Automotives, Sendai, Japan, October 29, 2015.

- \Parallel Robotic Systems for Intelligent Robotics: From Industrial Automation to Knowledge Automation", Keynote at the National Forum on Robotics Research and Development", Beijing, China, May 18, 2015.

- \Industries 5.0: Intelligent Manufacturing in Parallel Age", Keynote at the National Forum on Manufacturing Technology, Beijing, China, February 25, 2015.

- \Intelligent Enterprises in CPSS: Industries5.0 in the Parallel Age", Keynote at the Control Engineering Summit, Nov. 3, 2014, Shanghai, China, November 3, 2014.

- \Linguistic Dynamic Systems for Computational Societies: A Clouds based Neuro-Fuzzy Approach", World Congress on Computational Intelligence, Beijing, China, July 8, 2014.

- \Parallel Systems for Social Manufacturing: From Computer Integrated Manufacturing to Social Manufacturing", Siemens Forum on Manufacturing Technology, July 15, 2014.

- \Knowledge Automation and Future Control via Cyber-Physical-Social Systems", Chinese Automation Congress, Changsha, Hunan, China, November 2013.

- \Parallel Control and Command in Cyberspace", China Congress on Command and Control, Beijing, China, August, 2013.

- \Knowledge Automation and Future Control via Cyber-Physical-Social Systems", Chinese Automation Congress, Changsha, Hunan, China, November 2013.

- \The Emergence of Intelligent Enterprises: From Cyber-Physical Systems to Cyber-Physical- Social Systems", The 25th International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems, Dalian, China, June 2012

- \Newton vs. Merton: From Physical Robots to Web Surrogates", IEEE International Conference on Robotics and Automation, Agent Technology in Robotics and Automation Workshop (ICRA 2011), Shanghai, China, May 2011

- \From Computational Experimentation to Social and Economic Computing" The 3rd IEEE/ACM International Conference on Cyber, Physical and Social Computing (CPSCom2010), Hangzhou, Zhejiang Province, China, December 2010.

- \Parallel Control and Management for ITS: Concepts, Methods, and Applications" 13th International IEEE Conference on Intelligent Transportation Systems, Madeira Island, Portugal, September 2010

- \Linguistic Dynamic Systems for Modeling, Analysis, and Control of Complex Systems" The 2010 IEEE Conference on Granular Computing, San Jose, USA, August, 2010.

- \From Human Fresh Search to Cyber-enabled Social Movement Organizations: A Social Computing Perspective" The 2nd ONR (Global O ce of Naval Research, USA) International Workshop on Social Computing and Cultural Modeling, Phuket Island, Thailand, March 2010.

- \Toward Scienti c Games: An ACP-Based Approach" Gameon ASIA, Shanghai, China, March 2010.

- \Social Computing: Concepts, Methods, and Applications" The 2009 IEEE International Conference on Social Computing, Vancouver, Canada, September, 2009.

- \Parallel Control and Management for Intelligent Transportation Systems" The 2009 IFAC International Symposium on Control in Transportation, Long Beach, CA, USA, August, 2009.

- \Parallel Management of Complex Systems: An ACP-Based Approach" The 2009 IEEE/INFORMS International Conference on Service, Operation, Logistics, and Informatics, Chicago, IL, USA, July, 2009.

- \Towards A Research Agenda for Social Computing" The 29th XiangShan Conference on System of Systems for Social Computing: Fundamentals and Applications, Beijing, April 2007.

- \Social Computing: An Introduction" IEEE International Workshop on Social Computing, Taipei, Taiwan, August 2008.

- \Social Computing: Fundamentals and Applications" 2007 Paci c and Asian Workshop on Intelligence and Security Informatics, Chengdu, April 2007.

- \Driving into Intelligent Spaces with Smart Vehicles" IEEE VES 2006, Shanghai, December 2006.

- \Arti cial Transportation Systems: From Computer Simulations to Computational Experiments" IEEE ITSC 2006, Toronto, Canada, September 2006

- \Social Computing for ISI: Arti cial Societies, Computational Experiments, and Parallel Execution" Workshop on Intelligence and Security Informatics, Singapore, April 2006

- \Agent-Based Control for Networked Systems: A Paradigm Shift in a Connected World", IEEE International Conference on Networking, Sensing and Control, Ft. Lauderdale, Florida, USA, April 23, 2006

- \Application Speci c Operating Systems for Real-Time Embedded Systems", International Conference on Industrial Automation, Instruments, and Sensing Technology, a joint conference with the annual conference of Chinese Association of Automation, Shanghai, China, May 2005

- \Linguistic Dynamic Systems for Human-Machine Interface" 2005 ASME/IDETC, Long Beach, CA, over 1,200 people attended the conference, 2005

- \Arti cial Societies, Computational Experiments, and Parallel Systems for Complex Systems" The Annual Conf. of Chinese Association of Science and Technology, Los Angeles, CA, Feb 2005

- \Research Trend and Development in Complex Systems" The Biannual Conf. of Chinese Society of Professors and Scientists, Chicago, IL, April 2005

- \Social Computing: A Digital and Dynamic Integration of Science, Technology, and Social Studies" The 20th National Conference on Science and Technology, Nanyang, Henan, China, August 2005

- \Computational Experiments for Analysis of Complex Systems", The 125th XiangShan Conference on System of Systems for National Security Applications, Beijing, October 2005

- \Driving into Future with Intelligent Transportation Systems", 2005 IEEE International Conference on ITS, Vienna, Austria, October 2005

- \Intelligence and Security Informatics for Networked Societies" National Conf. on Information and Automation Technology, Beijing, China, October 2005

- \Agent-based Control for Intelligent Vehicles" IEEE International Conference on Vehicular Electronics and Safety, Xian, Shanxi, China, October 2005.

- \Linguistic Dynamic Systems and Computing with Words for Complex Systems" The Forum on Information Technology of Chinese Academy of Sciences, Beijing, China, June 1, 2004

- \Intelligent Control and Management for Network-Enabled Devices in a Connected World" The Joint Meeting of Chinese Academy of Sciences and Chinese Academy of Engineering Shenzhen, China, December 21, 2003

- \Progress Report: the Key Laboratory for Complex Systems and Intelligence Science", The Evaluation Meeting of National Key Laboratories, The Ministry of Science and Technology of China, Nanjing, China, July 3, 2003

- \Smart Tires for Smart Cars: Key Technology and Recent Development" The National Conference on Rubber and Tire Technology, Hangzhou, China, November 12, 2002

- \Telematics and Location-based Services{The State of the Art and Future", Int'l Symposium on Navigation Technology and Intelligent Transportation Systems, Nanjing, China, October 28, 2002.

- \OSGi and Services Software: Programming for Connected Lifestyle in a Connected World" Int'l Conference of Youth Computer Scientists and Engineers, Hangzhou, China, July, 2002.

- \OSGi and Agent Technology for Intelligent Networked Appliances", The Annual Conference on Science and Technology of Consumer Appliances, Hangzhou, China, November 27, 2001.

- \Smart Appliances in Smart Houses: Networked Homes and Beyond", The Annual Conference on Science and Technology of Consumer Appliances, Shanghai, China, September 2, 2000.

- \CAST Lab: A cyber-social-physical approach for tra c control and transportation management", Joint Workshop on Intelligent Transportation Systems, Beijing, China, October 10, 1999. Also see: ICSEC Technical Report #1999-12-14, Dec 1999.

- \Linguistic Dynamic Systems: Computing with Words for Dynamic Data Mining", IBM Thomas J. Watson Research Center, May 2000.\Intelligent Control for Network Systems: A Neuro-Fuzzy Network Approach" The Sino-US Joint Symposium for Engineering Research, Beijing, China, October 1999.

- \Modeling, Analysis and Synthesis of Linguistic Dynamic Systems: A Computational Theory" IEEE International Workshop on Architecture for Semiotic Modeling and Situation Control in Large Complex Systems, Monterey, CA, August 1995.

- \Shadow Systems: A New Concept for Nested and Embedded Co-simulation for Intelligent Systems", NASA/UA SERC Annual Symposium, Nov 1994. Also see: RAL Technical Report, University of Arizona, Tucson, Arizona, May 1994.

BOOKS & BOOK CHAPTERS

- Qinglai Wei and Fei-Yue Wang, Reinforcement Learning, Tsinghua University Press, 2021.

- Xiangwen Zhang and Fei-Yue Wang, Intelligent Tires (In Chinese), China Machine Press, 2019.

- Yong Yuan and Fei-Yue Wang. Theory and Method of Blockchain. Tsinghua University Press, 2019.

- Peijun Ye and Fei-Yue Wang. Arti cial Intelligence - Principle and Technology. Tsinghua University Press, 2019.

- Xiangwen Zhang and Fei-Yue Wang. Smart Tires. China Machine Press, 2019.

- Fei-Yue Wang, Hong Mo, Liang Zhao and Runmei Li, Type II Fuzzy Sets and Logic, Tsinghua University Press, 2018

- Jie Zhang and Fei-Yue Wang, Optimal Control | Mathematical Theory and Intelligent Methods, Tsinghua University Press, 2017

- Fei-Yue Wang, Xiaochen Li and Wenji Mao, An ACP-Based Approach to Intelligence and Security Informatics, Intelligent Methods for Cyber Warfare, Springer, 2015.

- Yanwu Yang and Fei-Yue Wang, Stochastic Budget Strategies at the Campaign Level: A Preliminary Investigation, Elsevier Inc., 2014.

- Yanwu Yang and Fei-Yue Wang, A Budget Optimization Framework for Search Advertisements, Elsevier Inc., 2014.

- Yanwu Yang and Fei-Yue Wang, A Stochastic Budget Distribution Model in Search

- Fei-Yue Wang, A Computational Framework for Decision Analysis and Support in ISI: Arti cial Societies, Computational Experiments, and Parallel Systems, LNCS 3917, 2006.

- Zhu W, Thomborson C and Fei-Yue Wang, Applications of Homomorphic Functions to Software Obfuscation, LNCS 3917, 2006.

- Hsinchun Chen, Fei-Yue Wang, Christopher C. Yang, Daniel Zeng, Michael Chau and Kuiyu Chang (Editors), Intelligence and Security Informatics (LNCS), Springer, April 2006.

- Sharad Mehrotra, Daniel D. Zeng, Hsinchun Chen, Bhavani Thuraisingham and Fei-Yue Wang (Editors), Intelligence and Security Informatics (LNCS), Springer, 2006.

- Xianbin Cao, Hong Qiao and Fei-Yue Wang, Xinzheng Zhang, Application of Cooperative Co-evolution in Pedestrian Detection Systems, LNCS 3495, 2005.

- Hong Qiao, Fei-Yue Wang and Xianbin Cao, Application of a Decomposed Support Vector Machine Algorithm in Pedestrian Detection from a Moving Vehicle, LNCS 3495, 2005.

- Guanpi Lai and Fei-Yue Wang, Toward an ITS Speci c Knowledge Engine, LNCS 3495, 2005.

- Xinjian Chen, Jie Tian, Qi Su, Xin Yang and Fei-Yue Wang, A Secured Mobile Phone Based on Embedded Fingerprint Recognition Systems, LNCS 3495, 2005.

- William Zhu, Clark Thomborson and Fei-Yue Wang, A Survey of Software Watermarking, LNCS 3495, 2005.

- Qing Tao, Gao-Wei Wu, Fei-Yue Wang and Jue Wang, Some Marginal Learning Algorithms for Unsupervised Problems, LNCS 3495, 2005.

- Shuming Tang, Fei-Yue Wang and Guanpi Lai, Recent Trends in Research of Intelligent Transportation Systems, Westing Publishing Co., 2005.

- Fei-Yue Wang and Derong Liu, Computational Intelligence: Theory and Applications, World Scienti c Publishing Co., 2005.

- Kantor P., Muresan G., Roberts F., Zeng D., Wang F.-Y., Chen H. and Merkle R. (Eds.), Intelligence and Security Informatics, (LNCS), Springer, 2005.

- Fei-Yue Wang and Yanqing Gao, Advanced Studies in Flexible Manipulators: Modeling, Design, and Control, World Scienti c Publishing Co., Singapore, 2003.

- Fei-Yue Wang and G.N. Saridis, On Successive Approximation of Optimal Control of Stochastic Dynamic Systems, in Modeling Uncertainty,

- M. Dror and F. Szidarovszky (Eds), Boston: Kluwer Academic Publishers, pp.333-356, 2002.

- Fei-Yue Wang and Yuetong Lin, Linguistic Dynamic Systems and Computing with Words for Modeling, Simulation, and Analysis of Complex Systems, in Discrete Event Modeling and Simulation Technologies, ed. H.S. Sarjoughian and F.E. Cellier, pp.75-92, Springer-Verlag: New York, NY, 2001.

- X. Shi, P.J.A. Lever and Fei-Yue Wang, Autonomous Rock Excavation: Intelligent Control Techniques and Experimentation, World Scienti c Publishing Co., River Edge, NJ, 1998.

- Paul J.A. Lever and Fei-Yue Wang, Advances in Robotics and Automation for Hazardous Environment, World Scientic Publishing Co., River Edge, NJ, October 1997.

- Paul Lever and Fei-Yue Wang, Using Fuzzy Behaviors for Fuzzy-Goal-Directed Excavation Tasks, in Intelligent Automation and Soft Computing: Trends in Research, Development, and Applications, edited by M. Jamshidi, et al, TSI Press, Albuquerque, NM, 1994.

- Fei-Yue Wang and Paul Lever, An Intelligent Robotic Vehicle for Lunar and Martian Resource Assessment, in Recent Trends in Mobile Robots, edited by Yuan F. Zheng, World Scienti c Publishing Co., River Edge, NJ, 1994.

- Fei-Yue Wang, Building Knowledge Structure in Neural Nets Using Fuzzy Logic, in Robotics and Manufacturing: Recent Trends in Research, Education and Applications, edited by M. Jamshidi, ASME (American Society of Mechanical Engineers) Press, New York, NY, 1992.

- Fei-Yue Wang, Buckling of Elastic Structures (Chinese), Zhejiang University Press, Hangzhou, 1986.

JOURNAL PAPERS

[1] X. Zheng, H. Tian, Z. Wan, X. Wang, D. D. Zeng, and F.-Y. Wang, \Game starts at gamestop: Characterizing the collective behaviors and social dynamics in the short squeeze episode," *IEEE Transactions on Computational Social Systems*, vol. 9, no. 1, pp. 45{58, 2022.

[2] J. Liang, R. Hare, T. Chang, F. Xu, Y. Tang, F.-Y. Wang, S. Peng, and M. Lei, \Student modeling and analysis in adaptive instructional systems," *IEEE Access*, 2022.

[3] F.-Y. Wang, W. Ding, X. Wang, J. Garibaldi, S. Teng, R. Imre, and C. Olaverri-Monreal, \The dao to desci: Ai for free, fair, and responsibility sensitive sciences," *IEEE Intelligent Systems*, vol. 37, no. 2, pp. 16{22, 2022.

[4] F.-Y. Wang, \Parallel intelligence in metaverses: Welcome to hanoi!" *IEEE Intelligent Systems*, vol. 37, no. 1, pp. 16{20, 2022.

[5] X. Li, H. Duan, Y. Tian, and F.-Y. Wang, \Exploring image generation for uav change detection," *IEEE/CAA Journal of Automatica Sinica*, vol. 9, no. 6, pp. 1061{1072, 2022.

[6] M. Fan, M. Kang, X. Wang, J. Hua, C. He, and F.-Y. Wang, \Parallel crop planning based on price forecast," *International Journal of Intelligent Systems*, vol. 37, no. 8, pp. 4772{4793, 2022.

[7] F.-Y. Wang, \Metavehicles in the metaverse: Moving to a new phase for intelligent vehicles and smart mobility," *IEEE Transactions on Intelligent Vehicles*, vol. 7, no. 1, pp. 1{5, 2022.

[8] D. Cao, X. Wang, L. Li, C. Lv, X. Na, Y. Xing, X. Li, Y. Li, Y. Chen, and F.-Y. Wang, \Future directions of intelligent vehicles: Potentials, possibilities, and perspectives," *IEEE Transactions on Intelligent Vehicles*, vol. 7, no. 1, pp. 7{10, 2022.

[9] Y. Chen, H. Chen, P. Ye, Y. Lv, and F.-Y. Wang, \Acting as a decision maker: Tra c-condition-aware ensemble learning for tra c ow prediction," *IEEE Transactions on Intelligent Transportation Systems*, 2020.

[10] B. Chen, X. Wang, W. Zhang, T. Chen, C. Sun, Z. Wang, and F.-Y. Wang, \Public opinion dynamics in cyberspace on russia-ukraine war: A case analysis with chinese weibo," *IEEE Transactions on Computational Social Systems*, 2022.

[11] F.-Y. Wang, W. Ding, R. Qin, and B. Hu, \Parallel philosophy for metaorganizations with metaoperations: From leibnizx2019;s monad to hanoidao," *IEEE Transactions on Computational Social Systems*, vol. 9, no. 3, pp. 658{666, 2022.

[12] Z. Lv, L. Qiao, Y. Li, Y. Yuan, and F.-Y. Wang, \Blocknet: Beyond reliable spatial digital twins to parallel metaverse," *Patterns*, vol. 3, no. 5, p. 100468, 2022.

[13] M. Zhou, H. Dong, S. Ge, X. Wang, and F.-Y. Wang, \Robot-guided crowd evacuation in a railway hub station in case of emergencies," *Journal of Intelligent & Robotic Systems*, vol. 104, no. 4, pp. 1{14, 2022.

[14] X. Yan, Y. Mao, Y. Ye, H. Yu, and F.-Y. Wang, \Explanation guided cross-modal social image clustering," *Information Sciences*, vol. 593, pp. 1{16, 2022.

[15] Y. Lu, C. Guo, X. Dai, and F.-Y. Wang, \Data-e cient image captioning of ne art paintings via virtual-real semantic alignment training," *Neurocomputing*, vol. 490, pp. 163{180, 2022.

[16] X. Xue, X.-N. Yu, D.-Y. Zhou, X. Wang, Z.-B. Zhou, and F.-Y. Wang, \Computational experiments: Past, present and future," *arXiv preprint arXiv:2202.13690*, 2022.

[17] J. Gao, Z. Huang, Y. Lei, J. Z. Wang, F.-Y. Wang, and J. Zhang, \S^2 FPR: Crowd counting via self-supervised coarse to ne feature pyramid ranking," *arXiv preprint arXiv:2201.04819*, 2022.

[18] L. Yan, W. Zheng, C. Gou, and F.-Y. Wang, \Ipgan: Identity-preservation generative adversarial network for unsupervised photo-to-caricature translation," *Knowledge-Based Systems*, vol. 241, p. 108223, 2022.

[19] Y. Liu, T. Bai, Y. Tian, Y. Wang, J. Wang, X. Wang, and F.-Y. Wang, \Segdq: Segmentation assisted multi-object tracking with dynamic query-based transformers," *Neurocomputing*, vol. 481, pp. 91{101, 2022.

[20] Q. Wei, L. Wang, J. Lu, and F.-Y. Wang, \Discrete-time self-learning parallel control," *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, vol. 52, no. 1, pp. 192{204, 2022.

[21] X. Li, H. Duan, J. Li, Y. Deng, and F.-Y. Wang, \Biological eagle eye-based method for change detection in water scenes," *Pattern Recognition*, vol. 122, p. 108203, 2022.

[22] W. Zheng, L. Yan, C. Gou, and F.-Y. Wang, \Meta-learning meets the internet of things: Graph prototypical models for sensor-based human activity recognition," *Information Fusion*, vol. 80, pp. 1{22, 2022.

[23] F.-Y. Wang, R. Qin, X. Wang, and B. Hu, \Metasocieties in metaverse: Metaeconomics and metamanagement for metaenterprises and metacities," *IEEE Transactions on Computational Social Systems*, vol. 9, no. 1, pp. 2{7, 2022.

[24] X. Li, X. Wang, X. Zheng, Y. Dai, Z. Yu, J. J. Zhang, G. Bu, and F.-Y. Wang, \Supervised assisted deep reinforcement learning for emergency voltage control of power systems," *Neurocomputing*, vol. 475, pp. 69{79, 2022.

[25] X. Li, X. Wang, X. Zheng, J. Jin, Y. Huang, J. J. Zhang, and F.-Y. Wang, \Sadrl: Merging human experience with machine intelligence via supervised assisted deep reinforcement learning," *Neurocomputing*, vol. 467, pp. 300{309, 2022.

[26] J. Lu, Q. Wei, Z. Wang, T. Zhou, and F.-Y. Wang, \Event-triggered optimal control for discrete-time multi-player non-zero-sum games using parallel control," *Information Sciences*, vol. 584, pp. 519{535, 2022.

[27] H. Zhu, H. Shan, Y. Zhang, L. Che, X. Xu, J. Zhang, J. Shi, and F.-Y. Wang, \Convolutional Ordinal Regression Forest for Image Ordinal Estimation," *IEEE Transactions on Neural Networks and Learning Systems*, pp. 1{12, 2021.

[28] M. Zhou, H. Dong, X. Liu, H. Zhang, and F.-Y. Wang, \Integrated Timetable Rescheduling for Multidispatching Sections of High-Speed Railways During Large-Scale Disruptions," *IEEE Transactions on Computational Social Systems*, 2021.

[29] Y. Xia, W. Zheng, Y. Wang, H. Yu, J. Dong, and F.-Y. Wang, \Local and global perception generative adversarial network for facial expression synthesis," *IEEE Transactions on Circuits and Systems for Video Technology*, vol. 32, no. 3, pp. 1443{1452, 2021.

[30] X. Zheng, X. Wang, Z. Li, R. Jing, S. Xu, T. Wang, L. Li, Z. Zhang, Q. Zhang, H. Jiang, Z. Guo, X. Zhang, and F.-Y. Wang, \Donald j. trump's presidency in cyberspace: A case study of social perception and social in uence in digital oligarchy era," *IEEE Transactions on Computational Social Systems*, vol. 8, no. 2, pp. 279{293, 2021.

[31] F.-Y. Wang, \Personality modeling and dynamical programing for digital people: Fuzzy logic and linguistic interface in cpss," *International Journal of Intelligent Control and Systems*, vol. 1, no. 4, pp. 1{6, 2021.

[32] H. Lu, Y. Zhu, Y. Yuan, W. Gong, J. Li, K. Shi, Y. Lv, Z. Niu, and F.-Y. Wang, \Social signal-driven knowledge automation: A focus on social transportation," *IEEE Transactions on Computational Social Systems*, vol. 8, no. 3, pp. 737{753, 2021.

[33] W. Zheng, L. Yan, C. Gou, and F.-Y. Wang, \KM4: Visual reasoning via Knowledge Embedding Memory Model with Mutual Modulation," *Information Fusion*, vol. 67, pp. 14{28, 2021.

[34] W. Zheng, K. Wang, and F.-Y. Wang, \GAN-Based Key Secret-Sharing Scheme in Blockchain," *IEEE Transactions on Cybernetics*, vol. 51, no. 1, pp. 393{404, 2021.

[35] W. Zheng, L. Yan, C. Gou, and F.-Y. Wang, \Fighting re with re: A spatial{frequency ensemble relation network with generative adversarial learning for adversarial image classi cation," *International Journal of Intelligent Systems*, vol. 36, no. 5, pp. 2081{2121, 2021.

[36] K. Tan, L. Yang, X. Liu, Y. Xu, J. Lin, X. Wang, and F.-Y. Wang, \An ivc-based nuclear emergency parallel evacuation system," *IEEE Transactions on Computational Social Systems*, vol. 8, no. 4, pp. 844{855, 2021.

[37] L. Chen, S. Lin, X. Lu, D. Cao, H. Wu, C. Guo, C. Liu, and F.-Y. Wang, \Deep neural network based vehicle and pedestrian detection for autonomous driving: a survey," *IEEE Transactions on Intelligent Transportation Systems*, vol. 22, no. 6, pp. 3234{3246, 2021.

[38] G. Xiong, H. Wu, P. Helo, X. Shang, G. Xiong, R. Qin, and F.-Y. Wang, \A Kind of Change Management Method for Global Value Chain Optimization and Its Case Study," *IEEE Transactions on Computational Social Systems*, 2021.

[39] L. Yan, W. Zheng, F.-Y. Wang, and C. Gou, \Joint image-to-image translation with denoising using enhanced generative adversarial networks," *Signal Processing: Image Communication*, vol. 91, p. 116072, 2021.

[40] Z. Shi, D. Wu, C. Guo, C. Zhao, Y. Cui, and F.-Y. Wang, \FCM-RDpA: TSK fuzzy regression model construction using fuzzy C-means clustering, regularization, Droprule, and Powerball Adabelief," *Information Sciences*, vol. 574, pp. 490{504, 2021.

[41] F.-Y. Wang, I. J. Rudas, D. Wu, X. Wang, Y. Yuan, J. J. Zhang, Y. Li, G. Bennett, and N. Bassiri-Gharb, \Arti cial Identi cation, Blockchain, Cyberphysical Social Systems, Digital Twins, and Parallel Intelligence: Opportunities and Synergies Between the IEEE Council on Radio-Frequency Identi cation and Systems, Man, and Cybernetics Society [Essay]," *IEEE Systems, Man, and Cybernetics Magazine*, vol. 7, no. 2, pp. 61{C4, 2021.

[42] W. Zhang, T. Zhou, Q. Lu, X. Wang, C. Zhu, H. Sun, Z. Wang, S. K. Lo, and F.-Y. Wang, \Dynamic Fusion-based Federated Learning for COVID-19 Detection," *IEEE Internet of Things Journal*, vol. 8, no. 21, pp. 15 884{15 891, 2021.

[43] C. Zhao, L. Li, X. Pei, Z. Li, F.-Y. Wang, and X. Wu, \A comparative study of state-of-the-art driving strategies for autonomous vehicles," *Accident Analysis and Prevention*, vol. 150, p. 105937, 2021.

[44] M. Zhao, G. Xiong, M. Zhou, Z. Shen, and F.-Y. Wang, \3D-RVP: A method for 3D object reconstruction from a single depth view using voxel and point," *Neurocomputing*, vol. 430, pp. 94{103, 2021.

[45] F.-Y. Wang, J. Zhu, R. Qin, X. Wang, and B. Hu, \Federated control: Toward information security and rights protection," *IEEE Transactions on Computational Social Systems*, vol. 8, no. 4, pp. 793{798, 2021.

[46] F.-Y. Wang, R. Qin, J. Li, X. Wang, H. Qi, X. Jia, and B. Hu, \Federated management: Toward federated services and federated security in federated ecology," *IEEE Transactions on Computational Social Systems*, vol. 8, no. 6, pp. 1283{1290, 2021.

[47] F.-Y. Wang, W. Zhang, Y. Tian, R. Qin, X. Wang, and B. Hu, \Federated data: Toward new generation of credible and trustable arti cial intelligence," *IEEE Transactions on Computational Social Systems*, vol. 8, no. 3, pp. 538{545, 2021.

[48] F.-Y. Wang, N. Zheng, L. Li, J. Xin, X. Wang, L. Xu, B. Tian, G. Wu, Z. Zhang, C. Wang, and L. Chen, \China's 12-year quest of autonomous vehicular intelligence: The intelligent vehicles future challenge program," *IEEE Intelligent Transportation Systems Magazine*, vol. 13, no. 2, pp. 6{19, 2021.

[49] F.-Y. Wang, R. Qin, Y. Chen, Y. Tian, X. Wang, and B. Hu, \Federated ecology: Steps toward confederated intelligence," *IEEE Transactions on Computational Social Systems*, vol. 8, no. 2, pp. 271{278, 2021.

[50] Y. Xie, M. Wang, X. Liu, Z. Wang, B. Mao, F.-Y. Wang, and X. Wang, \Spatiotemporal retrieval of dynamic video object trajectories in geographical scenes," *Transactions in GIS*, vol. 25, no. 1, pp. 450{467, 2021.

[51] W. Zhang, K. Wang, Y. Wang, L. Yan, and F.-Y. Wang, \A loss-balanced multi-task model for simultaneous detection and segmentation," *Neurocomputing*, vol. 428, pp. 65{78, 2021.

[52] H. Zhang, G. Luo, Y. Tian, K. Wang, H. He, and F.-Y. Wang, \A Virtual-Real Interaction Approach to Object Instance Segmentation in Tra c Scenes," *IEEE Transactions on Intelligent Transportation Systems*, vol. 22, no. 2, pp. 863{875, 2021.

[53] J. Wang, S. Zhang, Q. Liu, S. Du, Y.-C. Guo, N. Zheng, and F.-Y. Wang, \Conditional Uncorrelation and E cient Subset Selection in Sparse Regression," *IEEE Transactions on Cybernetics*, pp. 1{10, 2021.

[54] W. Zheng, L. Yan, C. Gou, Z.-C. Zhang, J. J. Zhang, M. Hu, and F.-Y. Wang, \Learning to learn by yourself: Unsupervised meta-learning with self-knowledge distillation for covid-19 diagnosis from pneumonia cases," *International Journal of Intelligent Systems*, vol. 36, no. 8, pp. 4033{4064, 2021.

[55] K. Liu, Z. Ye, H. Guo, D. Cao, L. Chen, and F.-Y. Wang, \FISS GAN: A Generative Adversarial Network for Foggy Image Semantic Segmentation," *IEEE/CAA Journal of Automatica Sinica*, vol. 8, no. 8, pp. 1428{1439, 2021.

[56] T. Shen, K. Hao, C. Gou, and F.-Y. Wang, \Mass Image Synthesis in Mammogram with Contextual Information Based on GANs," *Computer Methods and Programs in Biomedicine*, vol. 202, p. 106019, 2021.

[57] S. Fan, F. Zhu, S. Chen, H. Zhang, B. Tian, Y. Lv, and F.-Y. Wang, \FII-CenterNet: An anchor-free detector with foreground attention for tra c object detection," *IEEE Transactions on Vehicular Technology*, vol. 70, no. 1, pp. 121{132, 2021.

[58] P. Ye, Y. Chen, F. Zhu, Y. Lv, W. Lu, and F.-Y. Wang, \Bridging the Micro and Macro: Calibration of Agent-Based Model Using Mean-Field Dynamics," *IEEE Transactions on Cybernetics*, pp. 1{10, 2021.

[59] M. M. Hassan, G. Fortino, L. T. Yang, H. Jiang, K.-K. R. Choo, J. J. Zhang, and F.-Y. Wang, \Guest editorial for special issue on blockchain for internet-of-things and cyber-physical systems," *IEEE/CAA Journal of Automatica Sinica*, vol. 8, no. 12, pp. 1867{1867, 2021.

[60] J. Jin, D. Rong, Y. Pang, F. Zhu, H. Guo, X. Ma, and F.-Y. Wang, \PRECOM: A Parallel Recommendation Engine for Control, Operations, and Management on Congested Urban Tra c Networks," *IEEE Transactions on Intelligent Transportation Systems*, 2021.

[61] C. Liu, H. Mo, and F.-Y. Wang, \Analysis and Control of Blood Glucose Situation for Diabetic Patients Based on Interval Type-2 Fuzzy Sets," *International Journal of Fuzzy Systems*, vol. 23, no. 4, pp. 1179{1193, 2021.

[62] L. Ouyang, Y. Yuan, Y. Cao, and F.-Y. Wang, \A novel framework of collaborative early warning for COVID-19 based on blockchain and smart contracts," *Information Sciences*, vol. 570, pp. 124{143, 2021.

[63] F.-Y. Wang, R. Qin, Y. Yuan, and B. Hu, \Nonfungible tokens: Constructing value systems in parallel societies," *IEEE Transactions on Computational Social Systems*, vol. 8, no. 5, pp. 1062{1067, 2021.

[64] J. J. Zhang, F.-Y. Wang, Y. Yuan, G. Xu, H. Liu, W. Gao, S. Jameel, I. Razzak, P. Eklund, S. Ahmed *et al.*, \Guest editorial computational social systems for covid-19 emergency management and beyond," *IEEE Transactions on Computational Social Systems*, vol. 8, no. 4, pp. 928{929, 2021.

[65] Y. Liu, X. Li, T. Bai, K. Wang, and F.-Y. Wang, \Multi-object tracking with hard-soft attention network and group-based cost minimization," *Neurocomputing*, vol. 447, pp. 80{91, 2021.

[66] J. Jin, H. Guo, J. Xu, X. Wang, and F.-Y. Wang, \An End-to-End Recommendation System for Urban Tra c Controls and Management under a Parallel Learning Framework," *IEEE Transactions on Intelligent Transportation Systems*, vol. 22, no. 3, pp. 1616{1626, 2021.

[67] X. Li, P. Ye, J. Jin, F. Zhu, and F.-Y. Wang, \Data Augmented Deep Behavioral Cloning for Urban Tra c Control Operations Under a Parallel Learning Framework," *IEEE Transactions on Intelligent Transportation Systems*, 2021.

[68] J. Lu, Q. Wei, Y. Liu, T. Zhou, and F.-Y. Wang, \Event-Triggered Optimal Parallel Tracking Control for Discrete-Time Nonlinear Systems," *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, 2021.

[69] J. Wang, P. Chen, N. Zheng, B. Chen, J. C. Principe, and F.-Y. Wang, \Associations between MSE and SSIM as cost functions in linear decomposition with application to bit allocation for sparse coding," *Neurocomputing*, vol. 422, pp. 139{149, 2021.

[70] F.-Y. Wang, Y. Li, W. Zhang, G. Bennett, and N. Chen, \Digital twin and parallel intelligence based on location and transportation: A vision for new synergy between the IEEE CRFID and ITSS in Cyberphysical Social Systems," *IEEE Intelligent Transportation Systems Magazine*, vol. 13, no. 1, pp. 249{252, 2021.

[71] X. Wang, X. Zheng, W. Chen, and F.-Y. Wang, \Visual Human-Computer Interactions for Intelligent Vehicles and Intelligent Transportation Systems: The State of the Art and Future Directions," *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, vol. 51, no. 1, pp. 253{265, 2021.

[72] Y. Wang, W. Zhang, T. Shen, H. Yu, and F.-Y. Wang, \Binary thresholding defense against adversarial attacks," *Neurocomputing*, vol. 445, pp. 61{71, 2021.

[73] S. Wang, Z. Chen, W. Zhu, and F.-Y. Wang, \Deep random walk of unitary invariance for large-scale data representation," *Information Sciences*, vol. 554, pp. 1{14, 2021.

[74] S. Wang, J. Housden, T. Bai, H. Liu, J. Back, D. Singh, K. Rhode, Z.-G. Hou, and F.-Y. Wang, \Robotic Intra-Operative Ultrasound: Virtual Environments and Parallel Systems," *IEEE/CAA Journal of Automatica Sinica*, vol. 8, no. 5, pp. 1095{1106, 2021.

[75] Y. Wang, F.-Y. Wang, G. Wang, X. Wang, Y. Wang, and R. Li, \Parallel hospitals: From hospital information system (his) to hospital smart operating system (hsos) (in chinese)," *Acta Automatica Sinica*, vol. 47, no. 11, pp. 2585{2599, 2021.

[76] J. Zhu, F.-Y. Wang, G. Wang, Y. Tian, Y. Yuan, X. Wang, H. Qi, and X. Jia, \Federated control: A distributed control approach towards information security and rights protection (in chinese)," *Acta Automatica Sinica*, vol. 47, no. 8, pp. 1912{1920, 2021.

[77] F.-Y. Wang, \Parallel medicine: from warmness of medicare to medicine of smartness (in chinese)," *Chinese Journal of Intelligent Science and Technology*, vol. 3, no. 1, pp. 1{9, 2021.

[78] J. Li, Y. Yuan, and F.-Y. Wang, \Blockchain-based digital currency: The state of the art and future trends (in chinese)," *Acta Automatica Sinica*, vol. 47, no. 4, pp. 715{729, 2021.

[79] Y. Tian, Y. Shen, Q. Li, and F.-Y. Wang, \Parallel point clouds: Point clouds generation and 3d model evolution via virtual-real interaction (in chinese)," *Acta Automatica Sinica*, vol. 46, no. 12, pp. 2572{2582, 2020.

[80] Y. Lu, C. Guo, Y. Lin, F. Zhuo, and F.-Y. Wang, \Computational aesthetics of ne art paintings: The state of the art and outlook (in chinese)," *Acta Automatica Sinica*, vol. 46, no. 11, pp. 2239{2259, 2020.

[81] Y. Shen, J. Han, L. Li, and F.-Y. Wang, \Ai in game intelligence| from multi-role game to parallel game (in chinese)," *Chinese Journal of Intelligent Science and Technology*, vol. 2, no. 3, pp. 205{213, 2020.

[82] F.-Y. Wang, D. Cao, and Q. Wei, \Reinforcement learning: toward action-knowledge merged intelligent mechanisms and algorithms (in chinese)," *Chinese Journal of Intelligent Science and Technology*, vol. 2, no. 2, pp. 101{106, 2020.

[83] Q. Li and F.-Y. Wang, \Conceptual analysis of mosaic warfare and systems of network-information systems for intelligent countermeasures and future land battles (in chinese)," *Journal of Command and Control*, vol. 6, no. 2, pp. 87{93, 2020.

[84] D. Wu, Z. Zeng, H. Mo, and F.-Y. Wang, \Interval type-2 fuzzy sets and systems: Overview and outlook (in chinese)," *Acta Automatica Sinica*, vol. 46, no. 8, pp. 1539{1556, 2020.

[85] Y. Li, J. Zhang, Y. Tao, W. Wang, Y. Gu, and F.-Y. Wang, \Parallel security: generative adversarial systems for intelligent security in cpss (in chinese)," *Chinese Journal of Intelligent Science and Technology*, vol. 2, no. 2, pp. 194{202, 2020.

[86] Z. Su, F. Liu, R. Yang, and F.-Y. Wang, \Architecture of marine environmental parallel monitoring system based on the lanhai information network (in chinese)," *Acta Automatica Sinica*, vol. 46, no. 8, pp. 1582{1591, 2020.

[87] J. Zhang, P. Xu, and F.-Y. Wang, \Parallel systems and digital twins: A data-driven mathematical representation and computational framework (in chinese)," *Acta Automatica Sinica*, vol. 46, no. 7, pp. 1346{1356, 2020.

[88] S. Liu, D. Shen, X. Shang, H. Zhao, X. Dong, and F.-Y. Wang, \A multi-level tree search algorithm for three dimensional container loading problem (in chinese)," *Acta Automatica Sinica*, vol. 46, no. 6, pp. 1178{1187, 2020.

[89] Y. Yuan and F.-Y. Wang, "Editable blockchain: Models, techniques and methods (in chinese)," *Acta Automatica Sinica*, vol. 46, no. 5, pp. 831{846, 2020.

[90] Y. Bai, Y. Huang, S. Chen, J. Zhang, B. Li, and F.-Y. Wang, "Cloud-edge intelligence: Status quo and future prospective of edge computing approaches and applications in power system operation and control (in chinese)," *Acta Automatica Sinica*, vol. 46, no. 3, pp. 397{410, 2020.

[91] H. Chen, H. Ai, X. Wang, Y. Lv, Y. Chen, and F.-Y. Wang, "Analysis and perception of social signals in social transportation (in chinese)," *Acta Automatica Sinica*, vol. 47, no. 6, pp. 1256{1272, 2020.

[92] J. Cao, S. Wang, B. Li, X. Wang, Z. Ding, and F.-Y. Wang, "Integrating Multisourced Texts in Online Business Intelligence Systems," *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, vol. 50, no. 5, pp. 1638{1648, 2020.

[93] W. Wang, X. Na, D. Cao, J. Gong, J. Xi, Y. Xing, and F.-Y. Wang, "Decision-making in driver-automation shared control: A review and perspectives," *IEEE/CAA Journal of Automatica Sinica*, vol. 7, no. 5, pp. 1289{1307, 2020.

[94] W. Zheng, K. Wang, and F.-Y. Wang, "A novel background subtraction algorithm based on parallel vision and Bayesian GANs," *Neurocomputing*, vol. 394, pp. 178{200, 2020.

[95] W. Zheng, C. Gou, and F.-Y. Wang, "A novel approach inspired by optic nerve characteristics for few-shot occluded face recognition," *Neurocomputing*, vol. 376, pp. 25{41, 2020.

[96] Y. Yuan, S. Wang, D. L. Olson, J. H. Lambert, F.-Y. Wang, C. Rong, A. Stavrou, J. Zhang, Q. Tang, F. Baldimtsi, L. T. Yang, and D. Wu, "Guest Editorial Special Issue on Blockchain and Economic Knowledge Automation," *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, vol. 50, no. 1, pp. 2{8, 2020.

[97] F. Zhu, Y. Lv, Y. Chen, X. Wang, G. Xiong, and F.-Y. Wang, "Parallel Transportation Systems: Toward IoT-Enabled Smart Urban Traffic Control and Management," *IEEE Transactions on Intelligent Transportation Systems*, vol. 21, no. 10, pp. 4063{4071, 2020.

[98] C. Zu, C. Yang, J. Wang, W. Gao, D. Cao, and F.-Y. Wang, "Simulation and field testing of multiple vehicles collision avoidance algorithms," *IEEE/CAA Journal of Automatica Sinica*, vol. 7, no. 4, pp. 1045{1063, 2020.

[99] X.-J. Wang, M.-Z. Kang, X.-R. Fan, L.-L. Yang, B.-G. Zhang, S.-W. Huag, P. DE REFFYE, and F.-Y. Wang, "What are the differences in yield formation among two cucumber (Cucumis sativus L.) cultivars and their F1 hybrid?" *Journal of Integrative Agriculture*, vol. 19, no. 7, pp. 1789{1801, 2020.

[100] Y. Wang, K. Wang, Z. Zhu, and F.-Y. Wang, "Adversarial attacks on Faster R-CNN object detector," *Neurocomputing*, vol. 382, pp. 87{95, 2020.

[101] R. Qin, Y. Yuan, and F.-Y. Wang, "Blockchain-Based Knowledge Automation for CPSS-Oriented Parallel Management," *IEEE Transactions on Computational Social Systems*, vol. 7, no. 5, pp. 1180{1188, 2020.

[102] J. Cao, S. Wang, D. Wen, Z. Peng, P. S. Yu, and F.-Y. Wang, \Mutual clustering on comparative texts via heterogeneous information networks," *Knowledge and Information Systems*, vol. 62, no. 1, pp. 175{202, 2020.

[103] Q. Wei, H. Li, and F.-Y. Wang, \Parallel control for continuous-time linear systems: A case study," *IEEE/CAA Journal of Automatica Sinica*, vol. 7, no. 4, pp. 919{928, 2020.

[104] P. Ye, B. Tian, Y. Lv, Q. Li, and F.-Y. Wang, \On Iterative Proportional Updating: Limitations and Improvements for General Population Synthesis," *IEEE Transactions on Cybernetics*, vol. 22, no. 10, pp. 1{10, 2020.

[105] L. Li, N. Zheng, and F.-Y. Wang, \A Theoretical Foundation of Intelligence Testing and Its Application for Intelligent Vehicles," *IEEE Transactions on Intelligent Transportation Systems*, vol. 51, no. 12, pp. 1{10, 2020.

[106] C. Sun, J. M. U. Vianney, Y. Li, L. Chen, L. Li, F.-Y. Wang, A. Khajepour, and D. Cao, \Proximity based automatic data annotation for autonomous driving," *IEEE/CAA Journal of Automatica Sinica*, vol. 7, no. 2, pp. 395{404, 2020.

[107] Y. Tang, J. Liang, R. Hare, and F.-Y. Wang, \A Personalized Learning System for Parallel Intelligent Education," *IEEE Transactions on* Compu-3344(Y.)-312(ComtonoF13rrd [(Liciono
1(tel)-51(ligenE)-358(T)77(r)51(ansp)51(ortation)-358(Systems)]TJ/F3

1105] L.Pang,. Y04, and F.-Y. Wang, fi(Learning)-3348(k(P)28tems:)-44
iEEEb1(amus)856(of)-35Thrnis(t)]TJ27190.606 -13.549 Td 8(Jour
PPdes,

[116] J. Lou, H. Yu, and F.-Y. Wang, \A Review on Automated Facial Nerve Function Assessment from Visual Face Capture," *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, vol. 28, no. 2, pp. 488{497, 2020.

[117] X. Wu, J. Zhang, and F.-Y. Wang, \Stability-Based Generalization Analysis of Distributed Learning Algorithms for Big Data," *IEEE Transactions on Neural Networks and Learning Systems*, vol. 31, no. 3, pp. 801{812, 2020.

[118] J. Lu, Q. Wei, and F.-Y. Wang, \Parallel control for optimal tracking via adaptive dynamic programming," *IEEE/CAA Journal of Automatica Sinica*, vol. 7, no. 6, pp. 1662{1674, 2020.

[119] J. Lou, Y. Wang, C. Nduka, M. Hamedi, I. Mavridou, F.-Y. Wang, and H. Yu, \Realistic Facial Expression Reconstruction for VR HMD Users," *IEEE Transactions on Multimedia*, vol. 22, no. 3, pp. 730{743, 2020.

[120] Y. Chen, Y. Lv, and F.-Y. Wang, \Tra c Flow Imputation Using Parallel Data and Generative Adversarial Networks," *IEEE Transactions on Intelligent Transportation Systems*, vol. 21, no. 4, pp. 1624{1630, 2020.

[121] L. Chen, Q. Wang, X. Lu, D. Cao, and F.-Y. Wang, \Learning Driving Models from Parallel End-to-End Driving Data Set," *Proceedings of the IEEE*, vol. 108, no. 2, pp. 262{273, 2020.

[122] H. Dong, M. Zhou, Q. Wang, X. Yang, and F.-Y. Wang, \State-of-the-Art Pedestrian and Evacuation Dynamics," *IEEE Transactions on Intelligent Transportation Systems*, vol. 21, no. 5, pp. 1849{1866, 2020.

[123] L. Chen, L. Fan, J. Chen, D. Cao, and F.-Y. Wang, \A Full Density Stereo Matching System Based on the Combination of CNNs and Slanted-Planes," *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, vol. 50, no. 2, pp. 397{408, 2020.

[124] Y. Gao, Y. Ai, B. Tian, L. Chen, J. Wang, D. Cao, and F.-Y. Wang, \Parallel End-to-End Autonomous Mining: An IoT-Oriented Approach," *IEEE Internet of Things Journal*, vol. 7, no. 2, pp. 1011{1023, 2020.

[125] J. Li, Y. Yuan, and F.-Y. Wang, \Analyzing Bitcoin transaction fees using a queueing game model," *Electronic Commerce Research*, vol. 22, pp. 135{155, 2020.

[126] X. Li, Y. Liu, K. Wang, and F.-Y. Wang, \A recurrent attention and interaction model for pedestrian trajectory prediction," *IEEE/CAA Journal of Automatica Sinica*, vol. 7, no. 5, pp. 1361{1370, 2020.

[127] T. Shen, C. Gou, J. Wang, and F.-Y. Wang, \Simultaneous Segmentation and Classi cation of Mass Region from Mammograms Using a Mixed-Supervision Guided Deep Model," *IEEE Signal Processing Letters*, vol. 27, pp. 196{200, 2020.

[128] W. Zhang, K. Wang, Y. Liu, Y. Lu, and F.-Y. Wang, \A parallel vision approach to scene-speci c pedestrian detection," *Neurocomputing*, vol. 394, pp. 114{126, 2020.

[129] H. Zhang, D. Kang, H. He, and F.-Y. Wang, \APLNet: Attention-enhanced progressive learning network," *Neurocomputing*, vol. 371, pp. 166{176, 2020.

[130] H. Zhang, Y. Tian, K. Wang, W. Zhang, and F.-Y. Wang, \Mask SSD: An E ective Single-Stage Approach to Object Instance Segmentation," *IEEE Transactions on Image Processing*, vol. 29, no. 1, pp. 2078{2093, 2020.

[131] T. Shen, J. Wang, C. Gou, and F.-Y. Wang, \Hierarchical Fused Model with Deep Learning and Type-2 Fuzzy Learning for Breast Cancer Diagnosis," *IEEE Transactions on Fuzzy Systems*, vol. 28, no. 12, pp. 3204{3218, 2020.

[132] L. Yang, L. Yang, X. Wang, X. Wang, J. J. Zhang, J. J. Zhang, M. Zhou, and F.-Y. Wang, \Pedestrian Choice Modeling and Simulation of Staged Evacuation Strategies in Daya Bay Nuclear Power Plant," *IEEE Transactions on Computational Social Systems*, vol. 7, no. 3, pp. 686{695, 2020.

[133] Z. Shen, Y. Xie, X. Shang, G. Xiong, S. Chen, Y. Yao, Z. Pan, H. Pan, X. Dong, Y. Li, C. Guo, and F.-Y. Wang, \The manufacturing procedure of 3D printed models for endoscopic endonasal transsphenoidal pituitary surgery," *Technology and Health Care*, vol. 28, no. S1, pp. S131{S150, 2020.

[134] T. Liu, B. Tian, Y. Ai, and F.-Y. Wang, \Parallel reinforcement learning-based energy e ciency improvement for a cyber-physical system," *IEEE/CAA Journal of Automatica Sinica*, vol. 7, no. 2, pp. 617{626, 2020.

[135] L. Li, Q. Zhang, X. Wang, J. Zhang, T. Wang, T.-L. Gao, W. Duan, K.-F. Tsoi, and F.-Y. Wang, \Characterizing the Propagation of Situational Information in Social Media during COVID-19 Epidemic: A Case Study on Weibo," *IEEE Transactions on Computational Social Systems*, vol. 7, no. 2, pp. 556{562, 2020.

[136] Z. Min, G. Shichao, L. Jiali, D. Hairong, and F.-Y. Wang, \Field observation and analysis of waiting passengers at subway platform{a case study of beijing subway stations," *Physica A: Statistical Mechanics and its Applications*, vol. 556, p. 124779, 2020.

[137] Z.-D. Li, Q. Zhao, R. Zhang, L.-Z. Liu, X.-F. Yin, X. Zhang, and F.-Y. Wang, \Measurement-device-independent entanglement witness of tripartite entangled states and its applications," *Physical Review Letters*, *Apr*, vol. 124, no. 16, pp:160503, 2020.

[138] T. Liu, Y. Xing, X. Tang, H. Wang, H. Yu, and F.-Y. Wang, \Cyber-physical-social system for parallel driving: From concept to application," *IEEE Intelligent Transportation Systems Magazine*, vol. 13, no. 1, pp. 59{69, 2020.

[139] M. Zhang, L. Chen, F.-Y. Wang, X. Wang, Y. Guo, and T. Yang, \Parallel gastrointestine: An acp-based approach for intelligent operations (in chinese)," *Pattern ecognition and Artificial Intelligence*, vol. 32, no. 12, pp. 1061{1071, 2019.

[140] X. Wang, J. Hua, M. Kang, H. Wang, Y. Yuan, and F.-Y. Wang, \Transparent farm based on blockchain technology (in chinese)," *Chinese Journal of Intelligent Science and Technology*, vol. 1, no. 4, pp. 400{408, 2019.

[141] C. Guo, Y. Lu, Y. Lin, F. Zhuo, and F.-Y. Wang, \Parallel art: artistic creation under human-machine collaboration (in chinese)," *Chinese Journal of Intelligent Science and Technology*, vol. 1, no. 4, pp. 335{341, 2019.

[142] W. Ding, S. Wang, J. Li, Y. Yuan, L. Ouyang, and F.-Y. Wang, \Decentralized autonomous organizations: the state of the art, analysis framework and future trends (in chinese)," *Chinese Journal of Intelligent Science and Technology*, vol. 1, no. 2, pp. 202{213, 2019.

[143] M. Kang, X. Wang, J. Hua, H. Wang, and F.-Y. Wang, \Parallel agriculture: intelligent technology toward smart agriculture (in chinese)," *Chinese Journal of Intelligent Science and Technology*, vol. 1, no. 2, pp. 107{117, 2019.

[144] M. Zhou, H. Dong, H. Xu, Y. Li, and F.-Y. Wang, \Parallel emergency evacuation systems: Basic concept, framework and applications (in chinese)," *Acta Automatica Sinica*, vol. 45, no. 6, pp. 1074{1086, 2019.

[145] S. Zeng, Y. Yuan, X. Ni, and F.-Y. Wang, \Scaling blockchain towards bitcoin: Key technologies, constraints and related issues (in chinese)," *Acta Automatica Sinica*, vol. 45, no. 6, pp. 1015{1030, 2019.

[146] Y. Wang, S. Han, C. Hu, R. Song, T. Yao, D. Cao, and F.-Y. Wang, \Mobile phone signaling data analysis system based on acp approach (in chinese)," *Acta Automatica Sinica*, vol. 45, no. 5, pp. 866{876, 2019.

[147] C. Zhang, Y. Liu, L. Li, N.-N. Zheng, and F.-Y. Wang, \Joint di culty estimation and testees ranking for intelligence evaluation," *IEEE Transactions on Computational Social Systems*, vol. 6stems

[158] X. Han, Y. Yuan, and F.-Y. Wang, \A Fair Blockchain Based on Proof of Credit," *IEEE Transactions on Computational Social Systems*, vol. 6, no. 5, pp. 922{931, 2019.

[159] J. Li, Y. Yuan, and F.-Y. Wang, \A novel GSP auction mechanism for ranking Bitcoin transactions in blockchain mining," *Decision Support Systems*, vol. 124, p. 113094, 2019.

[160] X. Li, K. Wang, Y. Tian, L. Yan, F. Deng, and F.-Y. Wang, \The ParallelEye dataset: A large collection of virtual images for tra c vision research," *IEEE Transactions on Intelligent Transportation Systems*, vol. 20, no. 6, pp. 2072{2084, 2019.

[161] Y. Weng, X. Wang, J. Hua, H. Wang, M. Kang, and F.-Y. Wang, \Forecasting Horticultural Products Price Using ARIMA Model and Neural Network Based on a Large-Scale Data Set Collected by Web Crawler," *IEEE Transactions on Computational Social Systems*, vol. 6, no. 3, pp. 547{553, 2019.

[162] Y. Xia, H. Yu, and F.-Y. Wang, \Accurate and robust eye center localization via fully convolutional networks," *IEEE/CAA Journal of Automatica Sinica*, vol. 6, no. 5, pp. 1127{1138, 2019.

[163] Y. Lin, X. Dai, L. Li, and F.-Y. Wang, \Pattern Sensitive Prediction of Tra c Flow Based on Generative Adversarial Framework," *IEEE Transactions on Intelligent Transportation Systems*, vol. 20, no. 6, pp. 2395{2400, 2019.

[164] L. Li, N.-N. Zheng, and F.-Y. Wang, \On the Crossroad of Arti cial Intelligence: A Revisit to Alan Turing and Norbert Wiener," *IEEE Transactions on Cybernetics*, vol. 49, no. 10, pp. 3618{3626, 2019.

[165] Q. Li, D. W. Gao, H. Zhang, Z. Wu, and F.-Y. Wang, \Consensus-Based Distributed Economic Dispatch Control Method in Power Systems," *IEEE Transactions on Smart Grid*, vol. 10, no. 1, pp. 941{954, 2019.

[166] Y. Liu, K. Wang, X. Li, T. Bai, and F.-Y. Wang, \Progress and outlook of visual tracking: Bibliographic analysis and perspective," *IEEE Access*, vol. 7, pp. 184 581{184 598, 2019.

[167] X. Li, Y. Wang, L. Yan, K. Wang, F. Deng, and F.-Y. Wang, \ParallelEye-CS: A New Dataset of Synthetic Images for Testing the Visual Intelligence of Intelligent Vehicles," *IEEE Transactions on Vehicular Technology*, vol. 68, no. 10, pp. 9619{9631, 2019.

[168] S. Han, D. Cao, L. Li, L. Li, S. Eben Li, N.-N. Zheng, and F.-Y. Wang, \From software-de ned vehicles to self-driving vehicles: A report on CPSS-based parallel driving," *IEEE Intelligent Transportation Systems Magazine*, vol. 11, no. 1, pp. 6{14, 2019.

[169] X. Shang, Z. Shen, G. Xiong, F.-Y. Wang, S. Liu, T. R. Nyberg, H. Wu, and C. Guo, \Moving from mass customization to social manufacturing: a footwear industry case study," *International Journal of Computer Integrated Manufacturing*, vol. 32, no. 2, pp. 194{205, 2019.

[170] X. Shang, D. Shen, F.-Y. Wang, and T. R. Nyberg, \A heuristic algorithm for the fabric spreading and cutting problem in apparel factories," *IEEE/CAA Journal of Automatica Sinica*, vol. 6, no. 4, pp. 961{968, 2019.

[171] X.-B. Meng, M. Zhang, Z.-X. Zhang, R. Wang, Z. Geng, and F.-Y. Wang, \E cient con dence-based hierarchical stereo disparity upsampling for noisy inputs," *IEEE Access*, vol. 7, pp. 4067{4082, 2019.

[172] Q. Rui, Y. Yuan, and F.-Y. Wang, \A novel hybrid share reporting strategy for blockchain miners in PPLNS pools," *Decision Support Systems*, vol. 118, pp. 91{101, 2019.

[173] T. Shen, C. Gou, F.-Y. Wang, Z. He, and W. Chen, \Learning from adversarial medical images for X-ray breast mass segmentation," *Computer Methods and Programs in Biomedicine*, vol. 180, 2019.

[174] Z. Shen, Y. Yao, Y. Xie, C. Guo, X. Shang, X. Dong, Y. Li, Z. Pan, S. Chen, G. Xiong, F.-Y. Wang, and H. Pan, \The process of 3D printed skull models for anatomy education," *Computer Assisted Surgery*, vol. 24, no. sup1, pp. 121{130, 2019.

[175] Z. Shen, X. Shang, M. Zhao, X. Dong, G. Xiong, and F.-Y. Wang, \A learning-based framework for error compensation in 3D printing," *IEEE Transactions on Cybernetics*, vol. 49, no. 11, pp. 4042{4050, 2019.

[176] H. Mo, X. Zhao, and F.-Y. Wang, \Application of Interval Type-2 Fuzzy Sets in Unmanned Vehicle Visual Guidance," *International Journal of Fuzzy Systems*, vol. 21, no. 6, pp. 1661{1668, 2019.

[177] H. Mo, L. Wei, X. Zhao, Y. Zeng, R. Li, and F.-Y. Wang, \Linguistic Dynamic Analysis and Evaluation Based on Partially Connected Type-2 Fuzzy Sets," *International Journal of Fuzzy Systems*, vol. 21, no. 7, pp. 2147{2154, 2019.

[178] S. Wang, C. Huang, J. Li, Y. Yuan, and F.-Y. Wang, \Decentralized construction of knowledge graphs for deep recommender systems based on blockchain-powered smart contracts," *IEEE Access*, vol. 7, pp. 136 951{136 961, 2019.

[179] S. Wang, L. Ouyang, Y. Yuan, X. Ni, X. Han, and F.-Y. Wang, \Blockchain-Enabled Smart Contracts: Architecture, Applications, and Future Trends," *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, vol. 49, no. 11, pp. 2266{2277, 2019.

[180] F.-Y. Wang, \A Re ection of Future in History : Introduction to the Alfred North Whitehead Laureate Lecture," *IEEE/CAA Journal of Automatica Sinica*, vol. 6, no. 3, pp. 609{609, 2019.

[181] S. Wang, W. Ding, J. Li, Y. Yuan, L. Ouyang, and F.-Y. Wang, \Decentralized Autonomous Organizations: Concept, Model, and Applications," *IEEE Transactions on Computational Social Systems*, vol. 6, no. 5, pp. 870{878, 2019.

[182] Y. Xing, C. Lv, H. Wang, H. Wang, Y. Ai, D. Cao, E. Velenis, and F.-Y. Wang, \Driver Lane Change Intention Inference for Intelligent Vehicles: Framework, Survey, and Challenges," *IEEE Transactions on Vehicular Technology*, vol. 68, no. 5, pp. 4377{4390, 2019.

[183] Y. Xing, C. Lv, H. Wang, D. Cao, E. Velenis, and F.-Y. Wang, \Driver activity recognition for intelligent vehicles: A deep learning approach," *IEEE Transactions on Vehicular Technology*, vol. 68, no. 6, pp. 5379{5390, 2019.

[184] G. Xiong, X. Shang, Z. Shen, Q. Wang, X. Liu, G. Xiong, T. R. Nyberg, and F.-Y. Wang, \A kind of lean approach for removing waste from non-manufacturing process with various facilities," , *IEEE/CAA Journal of Automatica Sinica*, vol. 6, no. 1, p. 307{315, 2019.

[185] H. Mo, K. Yan, X. Zhao, Y. Zeng, X. Wang, and F.-Y. Wang, \Type-2 Fuzzy Comprehension Evaluation for Tourist Attractive Competency," *IEEE Transactions on Computational Social Systems*, vol. 6, no. 1, pp. 96{102, 2019.

[186] H. Guo, L. Song, J. Liu, F.-Y. Wang, D. Cao, H. Chen, C. Lv, and P.-K. Luk, \Hazard-evaluation-oriented moving horizon parallel steering control for driver-automation collaboration during automated driving," *IEEE/CAA Journal of Automatica Sinica*, vol. 5, no. 6, pp. 1062{1073, 2018.

[187] Y. Song, X. He, Z. Liu, W. He, C. Sun, and F.-Y. Wang, \Parallel control of distributed parameter systems," *IEEE Transactions on Cybernetics*, vol. 48, no. 12, pp. 3291{3301, 2018.

[188] Y. Hu, X. Wang, and F.-Y. Wang, \A Quantitative Study of Factors In uence on Evacuation in Building Fire Emergencies," *IEEE Transactions on Computational Social Systems*, vol. 5, no. 2, pp. 544{552, 2018.

[189] Z. Huang, X. Ling, P. Wang, F. Zhang, Y. Mao, T. Lin, and F.-Y. Wang, \Modeling real-time human mobility based on mobile phone and transportation data fusion," *Transportation Research Part C: Emerging Technologies*, vol. 96, pp. 251{269, 2018.

[190] R. Qin, Y. Yuan, and F.-Y. Wang, \A Pareto optimal mechanism for demand-side platforms in real time bidding advertising markets," *Information Sciences*, vol. 469, pp. 119{140, 2018.

[191] C. Lv, Y. Liu, X. Hu, H. Guo, D. Cao, and F.-Y. Wang, \Simultaneous observation of hybrid states for cyber-physical systems: A case study of electric vehicle powertrain," *IEEE Transactions on Cybernetics*, vol. 48, no. 8, pp. 2357{2367, 2018.

[192] Y. Xing, C. Lv, L. Chen, H. Wang, H. Wang, D. Cao, E. Velenis, and F.-Y. Wang, \Advances in Vision-Based Lane Detection: Algorithms, Integration, Assessment, and Perspectives on ACP-Based Parallel Vision," *IEEE/CAA Journal of Automatica Sinica*, vol. 5, no. 3, pp. 645{661, 2018.

[193] G. Xiong, F.-Y. Wang, T. R. Nyberg, X. Shang, M. Zhou, Z. Shen, S. Li, and C. Guo, \From mind to products: Towards social manufacturing and service," *IEEE/CAA Journal of Automatica Sinica*, vol. 5, no. 1, pp. 47{57, 2018.

[194] J. J. Zhang, F.-Y. Wang, Q. Wang, D. Hao, X. Yang, D. W. Gao, X. Zhao, and Y. Zhang, \Parallel dispatch: A new paradigm of electrical power system dispatch," *IEEE/CAA Journal of Automatica Sinica*, vol. 5, no. 1, pp. 311{319, 2018.

[195] H. Zhang, K. Wang, Y. Tian, C. Gou, and F.-Y. Wang, \MFR-CNN: Incorporating Multi-Scale Features and Global Information for Tra c Object Detection," *IEEE Transactions on Vehicular Technology*, vol. 67, no. 9, pp. 8019{8030, 2018.

[196] J. J. Zhang, F.-Y. Wang, X. Wang, G. Xiong, F. Zhu, Y. Lv, J. Hou, S. Han, Y. Yuan, Q. Lu, and Y. Lee, \Cyber-physical-social systems: The state of the art and perspectives," *IEEE Transactions on Computational Social Systems*, vol. 5, no. 3, pp. 829{840, 2018.

[197] Y. Xing, C. Lv, Z. Zhang, H. Wang, X. Na, D. Cao, E. Velenis, and F.-Y. Wang, \Identi cation and Analysis of Driver Postures for In-Vehicle Driving Activities and Secondary Tasks Recognition," *IEEE Transactions on Computational Social Systems*, vol. 5, no. 1, pp. 95{108, 2018.

[198] M. Zhou, H. Dong, B. Ning, and F.-Y. Wang, \Recent Development in Pedestrian and Evacuation Dynamics: Bibliographic Analyses, Collaboration Patterns, and Future Directions," *IEEE Transactions on Computational Social Systems*, vol. 5, no. 4, pp. 1034{1048, 2018.

[199] C. Lv, Y. Xing, J. Zhang, X. Na, Y. Li, T. Liu, D. Cao, and F.-Y. Wang, \Levenberg-marquardt backpropagation training of multilayer neural networks for state estimation of a safety-critical cyber-physical system," *IEEE Transactions on Industrial Informatics*, vol. 14, no. 8, pp. 3436{3446, 2018.

[200] Y. Lv, Y. Chen, L. Li, and F.-Y. Wang, \Generative Adversarial Networks for Parallel Transportation Systems," *IEEE Intelligent Transportation Systems Magazine*, vol. 10, no. 3, pp. 4{10, 2018.

[201] C. Marina Martinez, M. Heucke, F.-Y. Wang, B. Gao, and D. Cao, \Driving Style Recognition for Intelligent Vehicle Control and Advanced Driver Assistance: A Survey," *IEEE Transactions on Intelligent Transportation Systems*, vol. 19, no. 3, pp. 666{676, 2018.

[202] Y. Meng, L. Li, F.-Y. Wang, K. Li, and Z. Li, \Analysis of Cooperative Driving Strategies for Nonsignalized Intersections," *IEEE Transactions on Vehicular Technology*, vol. 67, no. 4, pp. 2900{2911, 2018.

[203] M. Kang, X.-R. Fan, J. Hua, H. Wang, X. Wang, and F.-Y. Wang, \Managing traditional solar greenhouse with CPSS: A just-for- t philosophy," *IEEE Transactions on Cybernetics*, vol. 48, no. 12, pp. 3371{3380, 2018.

[204] L. Li, X. Peng, F.-Y. Wang, D. Cao, and L. Li, \A situation-aware collision avoidance strategy for car-following," *IEEE/CAA Journal of Automatica Sinica*, vol. 5, no. 5, pp. 1012{1016, 2018.

[205]

[211] T. Liu, B. Tian, Y. Ai, L. Li, D. Cao, and F.-Y. Wang, \Parallel reinforcement learning: A framework and case study," *IEEE/CAA Journal of Automatica Sinica*, vol. 5, no. 4, pp. 827{835, 2018.

[212] L. Li, S. Wang, and F.-Y. Wang, \An analysis of taxi driver's route choice behavior using the trace records," *IEEE Transactions on Computational Social Systems*, vol. 5, no. 2, p. 576 { 582, 2018.

[213] R. Qin, Y. Yuan, and F.-Y. Wang, \Research on the selection strategies of blockchain mining pools," *IEEE Transactions on Computational Social Systems*, vol. 5, no. 3, pp. 748{757, 2018.

[214] Y. Tian, X. Li, K. Wang, and F.-Y. Wang, \Training and testing object detectors with virtual images," *IEEE/CAA Journal of Automatica Sinica*, vol. 5, no. 2, pp. 539{546, 2018.

[215] X. Shang, F.-Y. Wang, G. Xiong, T. R. Nyberg, Y. Yuan, S. Liu, C. Guo, and S. Bao, \Social manufacturing for high-end apparel customization," *IEEE/CAA Journal of Automatica Sinica*, vol. 5, no. 2, pp. 489{500, 2018.

[216] R. Wang, M. Zhang, X. Meng, Z. Geng, and F.-Y. Wang, \3-D Tracking for Augmented Reality Using Combined Region and Dense Cues in Endoscopic Surgery," *IEEE Journal of Biomedical and Health Informatics*, vol. 22, no. 5, pp. 1540{1551, 2018.

[217] K. Wang, C. Gou, and F.-Y. Wang, \M4CD : A Robust Change Detection Method for Intelligent Visual Surveillance," *IEEE Access*, vol. 6, pp. 15 505{15 520, 2018.

[218] F.-Y. Wang, J. J. Zhang, and X. Wang, \Parallel intelligence: toward lifelong and eternal developmental AI and learning in cyber-physical-social spaces," *Frontiers of Computer Science*, vol. 12, no. 3, pp. 401{405, 2018.

[219] Q. Wang, X. Yang, Z. Huang, S. Ma, Q. Li, D. W. Gao, and F.-Y. Wang, \A novel design framework for smart operating robot in power system," *IEEE/CAA Journal of Automatica Sinica*, vol. 5, no. 2, pp. 531{538, 2018.

[220] X. Zhao, T. Wang, H. Lu, X. Sun, X. Wang, and F.-Y. Wang, \A Bibliographic and Coauthorship Analysis of IEEE T-ITS Literature between 2014 and 2016," *IEEE Transactions on Intelligent Transportation Systems*, vol. 19, no. 9, pp. 2751{2761, 2018.

[221] P. Ye, S. Wang, and F.-Y. Wang, \A General Cognitive Architecture for Agent-Based Modeling in Arti cial Societies," *IEEE Transactions on Computational Social Systems*, vol. 5, no. 1, pp. 176{185, 2018.

[222] P. Ye, T. Wang, and F.-Y. Wang, \A survey of cognitive architectures in the past 20 years," *IEEE Transactions on Cybernetics*, vol. 48, no. 12, pp. 3280{3290, 2018.

[223] X. Wang, R. Jiang, L. Li, Y. Lin, X. Zheng, and F.-Y. Wang, \Capturing Car-Following Behaviors by Deep Learning," *IEEE Transactions on Intelligent Transportation Systems*, vol. 19, no. 3, pp. 910{920, 2018.

[224] S. Wang, J. Wang, X. Wang, T. Qiu, Y. Yuan, L. Ouyang, Y. Guo, and F.-Y. Wang, \Blockchain-Powered Parallel Healthcare Systems Based on the ACP Approach," *IEEE Transactions on Computational Social Systems*, vol. 5, no. 4, pp. 942{950, 2018.

[225] S. Wang, X. Wang, P. Ye, Y. Yuan, S. Liu, and F.-Y. Wang, "Parallel crime scene analysis," *IEEE Transactions on Computational Social Systems*, vol. 5, no. 1, p. 244{255, 2018.

[226] Y. Yuan and F.-Y. Wang, "Blockchain and Cryptocurrencies: Model, Techniques, and Applications," *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, vol. 48, no. 9, pp. 1421{1428, 2018.

[227] Y. Yuan, F.-Y. Wang, and D. Zeng, "Competitive Analysis of Bidding Behavior on Sponsored Search Advertising Markets," *IEEE Transactions on Computational Social Systems*, vol. 4, no. 3, pp. 179{190, 2017.

[228] S. Han, P. Zhang, F. Shi, and F.-Y. Wang, "Relaying strategy based on estimated information for multi-antenna cooperative networks," *China Communications*, vol. 14, no. 8, pp. 157{165, 2017.

[229] L. Sheng, S. Xiuqin, C. Changjian, Z. Hongxia, S. Dayong, and F.-Y. Wang, "Heuristic algorithm for the container loading problem with multiple constraints," *Computers and Industrial Engineering*, vol. 108, pp. 149{164, 2017.

[230] C. Gou, Y. Wu, K. Wang, K. Wang, F.-Y. Wang, and Q. Ji, "A joint cascaded framework for simultaneous eye detection and eye state estimation," *Pattern Recognition*, vol. 67, pp. 23{31, 2017.

[231] R. Hou, L. Fang, Y. Chang, L. Yang, and F.-Y. Wang, "Named Data Networking over WDM-Based Optical Networks," *IEEE Network*, vol. 31, no. 3, pp. 70{79, 2017.

[232] S. Han, P. Zhang, F. Shi, and F.-Y. Wang, "An SNR-adaptive relaying algorithm for multi-antenna cooperative networks," *China Communications*, vol. 14, no. 10, pp. 228{236, 2017.

[233] R. Qin, Y. Yuan, and F.-Y. Wang, "Exploring the optimal granularity for market segmentation in RTB advertising via computational experiment approach," *Electronic Commerce Research and Applications*, vol. 24, pp. 68{83, 2017.

[234] M. Kang and F.-Y. Wang, "From parallel plants to smart plants: Intelligent control and management for plant growth," *IEEE/CAA Journal of Automatica Sinica*, vol. 4, no. 2, pp. 161{166, 2017.

[235] W. Liu, Z. Li, L. Li, and F.-Y. Wang, "Parking Like a Human: A Direct Trajectory Planning Solution," *IEEE Transactions on Intelligent Transportation Systems*, vol. 18, no. 12, pp. 3388{3397, 2017.

[236] L. Li, Y. Lin, N. Zheng, and F.-Y. Wang, "Parallel learning: A perspective and a framework," *IEEE/CAA Journal of Automatica Sinica*, vol. 4, no. 3, pp. 389{395, 2017.

[237] N.-N. Zheng, Z.-Y. Liu, P.-J. Ren, Y.-Q. Ma, S.-T. Chen, S.-Y. Yu, J.-R. Xue, B.-D. Chen, and F.-Y. Wang, "Hybrid-augmented intelligence: collaboration and cognition," *Frontiers of Information Technology and Electronic Engineering*, vol. 18, no. 2, pp. 153{179, 2017.

[238] F.-Y. Wang, J. Zhang, Q. Wei, X. Zheng, and L. Li, "PDP: Parallel dynamic programming," *IEEE/CAA Journal of Automatica Sinica*, vol. 4, no. 1, pp. 1{5, 2017.

[239] K. Wang, C. Gou, N. Zheng, J. M. Rehg, and F.-Y. Wang, \Parallel vision for perception and understanding of complex scenes: methods, framework, and perspectives," *Artificial Intelligence Review*, vol. 48, no. 3, pp. 299{329, 2017.

[240] B. Wang, X. Ding, and F.-Y. Wang, \Determination of polynomial degree in the regression of drug combinations," *IEEE/CAA Journal of Automatica Sinica*, vol. 4, no. 1, pp. 41{47, 2017.

[241] F.-Y. Wang, N.-N. Zheng, D. Cao, C. M. Martinez, L. Li, and T. Liu, \Parallel driving in CPSS: A uni ed approach for transport automation and vehicle intelligence," *IEEE/CAA Journal of Automatica Sinica*, vol. 4, no. 4, pp. 577{587, 2017.

[242] K. Wang, C. Gou, Y. Duan, Y. Lin, X. Zheng, and F.-Y. Wang, \Generative adversarial networks: Introduction and outlook," *IEEE/CAA Journal of Automatica Sinica*, vol. 4, no. 4, pp. 588{598, 2017.

[243] X. Wang, X. Zheng, X. Zhang, K. Zeng, and F.-Y. Wang, \Analysis of Cyber Interactive Behaviors Using Arti cial Community and Computational Experiments," *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, vol. 47, no. 6, pp. 995{1006, 2017.

[244] Y. Yao, B. Tian, and F.-Y. Wang, \Coupled Multivehicle Detection and Classi cation with Prior Objectness Measure," *IEEE Transactions on Vehicular Technology*, vol. 66, no. 3, pp. 1975{1984, 2017.

[245] J. Zhang, L. Li, and F.-Y. Wang, \A Probabilistic Mechanism Design for Online Auctions," *IEEE Access*, vol. 5, pp. 10 782{10 794, 2017.

[246] J. J. Zhang, D. W. Gao, Y. Zhang, X. Wang, X. Zhao, D. Duan, X. Dai, J. Hao, and F.-Y. Wang, \Social energy: Mining energy from the society," *IEEE/CAA Journal of Automatica Sinica*, vol. 4, no. 3, pp. 466{482, 2017.

[247] P. Ye, X. Hu, Y. Yuan, and F.-Y. Wang, \Population synthesis based on joint distribution inference without disaggregate samples," *JASSS*, vol. 20, no. 4, pp. 16{44, 2017.

[248] Y. Zhao, H. Gao, S. Wang, and F.-Y. Wang, \A Novel Approach for Tra c Signal Control: A Recommendation Perspective," *IEEE Intelligent Transportation Systems Magazine*, vol. 9, no. 3, pp. 127{135, 2017.

[249] Y. Yuan, F.-Y. Wang, and D. Zeng, \Developing a cooperative bidding framework for sponsored search markets-an evolutionary perspective," *Information Sciences*, vol. 369, p. 674{689, 2016.

[250] P. Ye, X. Wang, C. Chen, Y. Lin, and F.-Y. Wang, \Hybrid agent modeling in population simulation: Current approaches and future directions," *Journal of Artificial Societies and Social Simulation*, vol. 19, no. 1, p. 1{20, 2016.

[251] M. Zhou, H. Dong, F.-Y. Wang, Q. Wang, and X. Yang, \Modeling and simulation of pedestrian dynamical behavior based on a fuzzy logic approach," *Information Sciences*, vol. 360, pp. 112{130, 2016.

[252] Y. Duan, Y. Lv, Y.-L. Liu, and F.-Y. Wang, \An e cient realization of deep learning for tra c data imputation," *Transportation Research Part C: Emerging Technologies*, vol. 72, pp. 168{181, 2016.

[253] F.-Y. Wang, X. Wang, L. Li, and L. Li, \Steps toward Parallel Intelligence,"
IEEE/CAA Journal of Automatica Sinica, vol. 3, no. 4, pp. 345{348, 2016.

[254] K. Wang, Y. Liu, C. Gou, and F.-Y. Wang, \A Multi-view Learning Approach to
Foreground Detection for Tra c Surveillance Applications," *IEEE Transactions on
Vehicular Technology*, vol. 65, no. 6, pp. 4144{4158, 2016.

[255] F.-Y. Wang, J. J. Zhang, X. Zheng, X. Wang, Y. Yuan, X. Dai, J. Zhang, and L. Yang,
\Where does AlphaGo go: From church-turing thesis to AlphaGo thesis and beyond,"
IEEE/CAA Journal of Automatica Sinica, vol. 3, no. 2, pp. 113{120, 2016.

[256] F.-Y. Wang, \Control 5.0: From Newton to merton in popper's cyber-social-physical
spaces," *IEEE/CAA Journal of Automatica Sinica*, vol. 3, no. 3, pp. 233{234, 2016.

[257] Q. Zhang, D. D. Zeng, F.-Y. Wang, R. Breiger, and J. A. Hendler, \Brokers or Bridges?
Exploring Structural Holes in a Crowdsourcing System," *Computer*, vol. 49, no. 6, pp.
56{64, 2016.

[258] F.-Y. Wang, L. Yang, X. Cheng, S. Han, and J. Yang, \Network softwarization and
parallel networks: Beyond software-de ned networks," *IEEE Network*, vol. 30, no. 4,
pp. 60{65, 2016.

[259] L. Li, W.-L. Huang, Y. Liu, N.-N. Zheng, and F.-Y. Wang, \Intelligence testing for
autonomous vehicles: A new approach," *IEEE Transactions on Intelligent Vehicles*,
vol. 1, no. 2, pp. 158{164, 2016.

[260] L. Li, Y. Lv, and F.-Y. Wang, \Tra c signal timing via deep reinforcement learning,"
IEEE/CAA Journal of Automatica Sinica, vol. 3, no. 3, pp. 247{254, 2016.

[261] W. Chen, F. Guo, and F.-Y. Wang, \A Survey of Tra c Data Visualization," *IEEE
Transactions on Intelligent Transportation Systems*, vol. 16, no. 6, pp. 2970{2984, 2015.

[262] Y. Lv, Y. Duan, W. Kang, Z. Li, and F.-Y. Wang, \Tra c Flow Prediction with Big
Data: A Deep Learning Approach," *IEEE Transactions on Intelligent Transportation
Systems*, vol. 16, no. 2, pp. 865{873, 2015.

[263] F.-Y. Wang, \Software-de ned systems and knowledge automation: a parallel paradigm
shift from newton to merton," *Acta Automatica Sinica*, vol. 41, no. 1, pp. 1{8, 2015.

[264] B. Li, Y. Chen, and F.-Y. Wang, \Pedestrian detection based on clustered poselet
models and hierarchical and-or grammar," *IEEE Transactions on Vehicular Technology*,
vol. 64, no. 4, pp. 1435{1444, 2015.

[265] F.-Y. Wang, \Cc 5.0: Intelligent command and control systems in the parallel age (in
chinese)," *JOURNAL OF COMMAND AND CONTROL*, vol. 1, no. 1, pp. 107{120,
2015.

[266] F. Qu, Z. Wu, F.-Y. Wang, and W. Cho, \A Security and Privacy Review of VANETs,"
IEEE Transactions on Intelligent Transportation Systems, vol. 16, no. 6, pp. 2985{2996,
2015.

[267] B. Tian, M. Tang, and F.-Y. Wang, \Vehicle detection grammars with partial occlusion
handling for tra c surveillance," *Transportation Research Part C: Emerging
Technologies*, vol. 56, pp. 80{93, 2015.

[268] Y. Li and F.-Y. Wang, \Vehicle detection based on And-Or Graph and Hybrid Image Templates for complex urban tra c conditions," *Transportation Research Part C: Emerging Technologies*, vol. 51, pp. 19{28, 2015.

[269] X. Zheng, D. Zeng, and F.-Y. Wang, \Social balance in signed networks," *Information Systems Frontiers*, vol. 17, no. 5, pp. 1077{1095, 2015.

[270] C. L. P. Chen, G.-X. Wen, Y.-J. Liu, and F.-Y. Wang, \Adaptive consensus control for a class of nonlinear multiagent time-delay systems using neural networks," *IEEE Transactions on Neural Networks and Learning Systems*, vol. 25, no. 6, pp. 1217{1226, 2014.

[271] Q. Wei, F.-Y. Wang, D. Liu, and X. Yang, \Finite-approximation-error-based discrete-time iterative adaptive dynamic programming," *IEEE Transactions on Cybernetics*, vol. 44, no. 12, pp. 2820{2833, 2014.

[272] H. Mo, F.-Y. Wang, M. Zhou, R. Li, and Z. Xiao, \Footprint of uncertainty for type-2 fuzzy sets," *Information Sciences*, vol. 272, pp. 96{110, 2014.

[273] K.-H. Nam, N. Jamilpour, E. Mfoumou, F.-Y. Wang, D. D. Zhang, and P. K. Wong, \Probing mechanoregulation of neuronal di erentiation by plasma lithography patterned elastomeric substrates," *Scientific Reports*, vol. 4, pp. 1{9, 2014.

[274] D. Liu, D. Wang, F.-Y. Wang, H. Li, and X. Yang, \Neural-network-based online HJB solution for optimal robust guaranteed cost control of continuous-time uncertain nonlinear systems," *IEEE Transactions on Cybernetics*, vol. 44, no. 12, pp. 2834{2847, 2014.

[275] Y. Wang, D. Zeng, B. Zhu, X. Zheng, and F.-Y. Wang, \Patterns of news dissemination through online news media: A case study in China," *Information Systems Frontiers*, vol. 16, no. 4, pp. 557{570, 2014.

[276] H. Yao, W. Zhu, and F.-Y. Wang, \Secondary basis unique augmentation matroids and union minimal matroids," *International Journal of Machine Learning and Cybernetics*, vol. 5, no. 6, pp. 955{962, 2014.

[277] K. Zeng, X. Wang, Q. Zhang, X. Zhang, and F.-Y. Wang, \Behavior modeling of internet water army in online forums," in *IFAC Proceedings Volumes (IFAC-PapersOnline)*, vol. 19, 2014, pp. 9858{9863.

[278] J. Wang, W. Zhu, F.-Y. Wang, and G. Liu, \Conditions for coverings to induce matroids," *International Journal of Machine Learning and Cybernetics*, vol. 5, no. 6, pp. 947{954, 2014.

[279] T. Wang, Z. Liu, K. Cui, J. Zhang, F.-Y. Wang, and C. L. Philip Chen, \On mobilizing processes of Cyber Movement Organizations," in *IFAC Proceedings Volumes (IFAC-PapersOnline)*, vol. 19, 2014, pp. 9853{9857.

[280] F.-Y. Wang, D. Zeng, Q. Zhang, J. A. Hendler, and J. Cao, \The chinese human esh web: the rst decade and beyond," *Chinese Science Bulletin*, vol. 59, no. ue: 26, p. 3352{3361, 2014.

[281] J. Zhang, S. Zeng, W. Liu, T. Wang, F.-Y. Wang, and C. L. P. Chen, \A social choice force model for estimating collective action manipulation," in *IFAC Proceedings Volumes (IFAC-PapersOnline)*, vol. 19, 2014, pp. 9847{9852.

[282] Z. Shen, K. Wang, F.-Y. Wang, and C. L. Philp Chen, \GPU based genetic algorithms for the dynamic sub-area division problem of the transportation system," in *IFAC Proceedings Volumes (IFAC-PapersOnline)*, vol. 19, 2014, pp. 5115{5120.

[283] J. Sun, N. Jamilpour, F.-Y. Wang, and P. K. Wong, \Geometric control of capillary architecture via cell-matrix mechanical interactions," *Biomaterials*, vol. 35, no. 10, pp. 3273{3280, 2014.

[284] C. Chen and F.-Y. Wang, \A self-organizing neuro-fuzzy network based on rst order e ect sensitivity analysis," *Neurocomputing*, vol. 118, pp. 21{32, 2013.

[285] W. Duan, Z. Cao, Y. Wang, B. Zhu, D. Zeng, F.-Y. Wang, X. Qiu, H. Song, and Y. Wang, \An ACP approach to public health emergency management: Using a campus outbreak of h1n1 in uenza as a case study," *IEEE Transactions on Systems, Man, and Cybernetics Part A:Systems and Humans*, vol. 43, no. 5, pp. 1028{1041, 2013.

[286] F.-Y. Wang and P. K. Wong, \Intelligent systems and technology for integrative and predictive medicine: An ACP approach," *ACM Transactions on Intelligent Systems and Technology*, vol. 4, no. 2, pp. 1{6, 2013.

[287] P. Su, W. Mao, D. Zeng, and F.-Y. Wang, \An empirical study of cost-sensitive learning in cultural modeling," *Springer Journal on Information Systems and e-Business, Sept*, vol. 11, no. ue: 3, p. 437{455, 2013, .

[288] P. Li, P. Fan, K. Xing, H. Wang, Z. Jiang, and F.-Y. Wang, \Tussle between APs in a location-dependent pricing game," *IEEE Transactions on Wireless Communications*, vol. 11, no. 1, pp. 338{345, 2012.

[289] W. Zhu and F.-Y. Wang, \The fourth type of covering-based rough sets," *Information Sciences*, vol. 201, pp. 80{92, 2012.

[290] Y. Yang, J. Zhang, R. Qin, J. Li, F.-Y. Wang, and W. Qi, \A budget optimization framework for search advertisements across markets," *IEEE Transactions on Systems, Man, and Cybernetics Part A:Systems and Humans*, vol. 42, no. 5, pp. 1141{1151, 2012.

[291] Q. Zhang, F.-Y. Wang, D. Zeng, and T. Wang, \Understanding crowd-powered search groups: A social network perspective," *PLoS ONE*, vol. 7, no. 6, 2012.

[292] X. Zheng, Y. Zhong, D. Zeng, and F.-Y. Wang, \Social in uence and spread dynamics in social networks," *Frontiers of Computer Science in China*, vol. 6, no. 5, pp. 611{620, 2012.

[293] C. Collberg, J. Davidson, R. Giacobazzi, Y. X. Gu, A. Herzberg, and F.-Y. Wang, \Toward digital asset protection," *IEEE Intelligent Systems*, vol. 26, no. 6, pp. 8{13, 2011.

[294] J. Li, S. Tang, X. Wang, W. Duan, and F.-Y. Wang, \Growing arti cial transportation systems: A rule-based iterative design process," *IEEE Transactions on Intelligent Transportation Systems*, vol. 12, no. 2, pp. 322{332, 2011.

[295] F.-Y. Wang, N. Jin, D. Liu, and Q. Wei, \Adaptive dynamic programming for nite-horizon optimal control of discrete-time nonlinear systems with -error bound," *IEEE Transactions on Neural Networks*, vol. 22, no. 1, p. 24{36, 2011.

[296] F.-Y. Wang, \Another look at linear compensator design: A classic control problem revisited," *IEEE Circuits and Systems Magazine*, vol. 11, no. 4, pp. 45{50, 2011.

[297] D. Zeng, D. Wei, M. Chau, and F.-Y. Wang, \Domain-speci c Chinese word segmentation using su x tree and mutual information," *Information Systems Frontiers*, vol. 13, no. 1, pp. 115{125, 2011.

[298] Z. D. Cao, D. J. Zeng, Q. Y. Wang, X. L. Zheng, and F.-Y. Wang, \An epidemiological analysis of the Beijing 2008 Hand-Foot-Mouth epidemic," *Chinese Science Bulletin*, vol. 55, no. 12, pp. 1142{1149, 2010.

[299] C. H. Chen, V. Gau, D. D. Zhang, J. C. Liao, F.-Y. Wang, and P. K. Wong, \Statistical Metamodeling for revealing synergistic antimicrobial interactions," *PLoS ONE*, vol. 5, no. 11, p. 15472, 2010.

[300] F.-Y. Wang, \Parallel control and management for intelligent transportation systems: Concepts, architectures, and applications," *IEEE Transactions on Intelligent Transportation Systems*, vol. 11, no. 3, pp. 630{638, 2010.

[301] F.-Y. Wang, D. Zeng, J. A. Hendler, Q. Zhang, Z. Feng, Y. Gao, H. Wang, and G. Lai, \A study of the human esh search engine: Crowd-powered expansion of online knowledge," *Computer*, vol. 43, no. 8, pp. 45{53, 2010.

[302] F. Qu, F.-Y. Wang, and L. Yang, \Intelligent transportation spaces: Vehicles, tra c, communications, and beyond," *IEEE Communications Magazine*, vol. 48, no. 11, pp. 136{142, 2010.

[303] F.-Y. Wang, \The emergence of intelligent enterprises: From CPS to CPSS," *IEEE Intelligent Systems*, vol. 25, no. 4, pp. 85{88, 2010.

[304] X.-C. Li, W.-J. Mao, D. Zeng, P. Su, and F.-Y. Wang, \Performance evaluation of machine learning methods in cultural modeling," *Journal of Computer Science and Technology*, vol. 24, no. 6, pp. 1010{1017, 2009.

[305] D. Zeng, H. Chen, Z. Cao, F.-Y. Wang, X. Zheng, and Q. Wang, \Disease surveillance based on spatial contact networks: A case study of Beijing 2003 SARS epidemic," *IEEE Intelligent Systems*, vol. 24, no. 6, pp. 77{82, 2009.

[306] X.-D. Wu, X.-Q. Zhu, Q.-J. Chen, and F.-Y. Wang, \Ubiquitous mining with interactive data mining agents," *Journal of Computer Science and Technology*, vol. 24, no. 6, pp. 1018{1027, 2009.

[307] F.-Y. Wang, H. Zhang, and D. Liu, \Adaptive dynamic programming: An introduction," *IEEE Computational Intelligence Magazine*, vol. 4, no. 2, pp. 39{47, 2009.

[308] H. Mo and F.-Y. Wang, \Linguistic dynamic systems based on computing with words and their stabilities," *Science in China, Series F: Information Sciences*, vol. 52, no. 5, pp. 780{796, 2009.

[309] C. Zhang, D. Zeng, J. Li, F.-Y. Wang, and W. Zuo, \Sentiment analysis of chinese documents: From sentence to document level," *Journal of the American Society for Information Science and Technology*, vol. 60, no. 12, pp. 2474{2487, 2009.

[310] H. Li, F. Xia, D. Zeng, F.-Y. Wang, and W. Mao, \Exploring social annotations with application to web page recommendation," *Journal of Computer Science and Technology*, vol. 24, no. 6, p. 1028{1034, 2009-11.

[311] F.-Y. Wang, \Toward a revolution in transportation operations: AI for complex systems," *IEEE Intelligent Systems*, vol. 23, no. 6, pp. 8{13, 2008.

[312] X. Zheng, D. Zeng, H. Li, and F.-Y. Wang, \Analyzing open-source software systems as complex networks," *Physica A: Statistical Mechanics and its Applications*, vol. 387, no. 24, pp. 6190{6200, 2008.

[313] F.-Y. Wang, \Linguistic dynamic systems for computing with words and granular computing," *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, vol. 5009 LNAI, p. 18, 2008.

[314] D. Zeng, F.-Y. Wang, X. Zheng, Y. Yuan, G. Chen, and J. Chen, \Intelligent-commerce research in China," *IEEE Intelligent Systems*, vol. 23, no. 6, pp. 14{18, 2008.

[315] N. Zhang, F.-Y. Wang, F. Zhu, D. Zhao, and S. Tang, \DynaCAS: Computational experiments and decision support for ITS," *IEEE Intelligent Systems*, vol. 23, no. 6, pp. 19{23, 2008.

[316] D. D. Zeng, H. Chen, and F.-Y. Wang, \Guest editors' introduction: Special section on intelligence and security informatics," *IEEE Transactions On Knowledge And Data Engineering*, vol. 20, no. 8, p. 1009{1012, 2008.

[317] S. S. Chawathe, H. Huang, and F.-Y. Wang, \Protecting transportation infrastructure," *IEEE Intelligent Systems*, vol. 22, no. 5, pp. 8{11, 2007.

[318] X. Zhang, F.-Y. Wang, and L. Li, \Optimal selection of piezoelectric substrates and crystal cuts for SAW-based pressure and temperature sensors," *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, vol. 54, no. 6, pp. 1207{1215, 2007.

[319] F.-Y. Wang, D. Zeng, K. M. Carley, and W. Mao, \Social computing: From social informatics to social intelligence," *IEEE Intelligent Systems*, vol. 22, no. 2, pp. 79{83, 2007.

[320] W. Zhu and F.-Y. Wang, \On three types of covering-based rough sets," *IEEE Transactions on Knowledge and Data Engineering*, vol. 19, no. 8, pp. 1131{1143, 2007.

[321] F.-Y. Wang, \Toward a paradigm shift in social computing: The ACP approach," *IEEE Intelligent Systems*, vol. 22, no. 5, pp. 65{67, 2007.

[322] L. Yang and F.-Y. Wang, \Driving into intelligent spaces with pervasive communications," *IEEE Intelligent Systems*, vol. 22, no. 1, pp. 12{15, 2007.

[323] F.-Y. Wang, \Driving into the Future with ITS," *IEEE Intelligent Systems*, vol. 21, no. 3, pp. 94{95, 2006.

[324] F.-Y. Wang, D. Zeng, and L. Yang, \Smart cars on smart roads: An IEEE intelligent transportation systems society update," *IEEE Pervasive Computing*, vol. 5, no. 4, pp. 68{69, 2006.

[325] F.-Y. Wang, \On the Modeling, Analysis, Control and Management of Complex Systems (in Chinese)," *COMPLEX SYSTEMS AND COMPLEXITY SCIENCE*, no. 02, pp. 26{34, 2006.

[326] B. Ning, T. Tang, Z. Gao, F. Yan, F.-Y. Wang, and D. Zeng, \Intelligent Railway Systems in China," *IEEE Intelligent Systems*, vol. 21, no. 5, pp. 80{83, 2006.

[327] S. Tang and F.-Y. Wang, \A PCI-based evaluation method for level of services for tra c operational systems," *IEEE Transactions on Intelligent Transportation Systems*, vol. 7, no. 4, pp. 494{499, 2006.

[328] S. Tang, F.-Y. Wang, and Q. Miao, \ITSC 05: Current issues and research trends," *IEEE Intelligent Systems*, vol. 21, no. 2, pp. 96{102, 2006.

[329] L. Li, F.-Y. Wang, and Q. Zhou, \Integrated longitudinal and lateral tire/road friction modeling and monitoring for vehicle motion control," *IEEE Transactions on Intelligent Transportation Systems*, vol. 7, no. 1, pp. 1{19, 2006.

[330] L. Li and F.-Y. Wang, \Cooperative driving at blind crossings using intervehicle communication," *IEEE Transactions on Vehicular Technology*, vol. 55, no. 6, pp. 1712{1724, 2006.

[331] F.-Y. Wang, \On the Modeling Analysis Control and Management of Complex Systems (In Chinese)," *Complex Systems and Complexity Science*, vol. 3, no. 2, pp. 26{34, 2006.

[332] R. Lu, D. Zeng, and F.-Y. Wang, \AI research in China: 50 years down the road," *IEEE Intelligent Systems*, vol. 21, no. 3, pp. 91{93, 2006.

[333] Y. Li, H. He, B. Xiao, C. Wang, and F.-Y. Wang, \CWME: A framework of group support system for emergency responses," *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, vol. 3975 LNCS, p. 706, 2006.

[334] F.-Y. Wang, \Toward a uni ed mathematical and computational framework for control and mechanics," *Zidonghua Xuebao/Acta Automatica Sinica*, vol. 32, no. 2, pp. 318{320, 2006.

[335] L. Li, J. Song, F.-Y. Wang, W. Niehsen, and N.-N. Zheng, \Ivs 05: New developments and research trends for intelligent vehicles," *IEEE Intelligent Systems*, vol. 20, no. 4, p. 10{14, 2005.

[336] P. Mirchandani and F.-Y. Wang, \RHODES to intelligent transportation systems," *IEEE Intelligent Systems*, vol. 20, no. 1, pp. 10{15, 2005.

[337] F.-Y. Wang, \Agent-based control for networked tra c management systems," *IEEE Intelligent Systems*, vol. 20, no. 5, pp. 92{96, 2005.

[338] Y. Yao, F.-Y. Wang, J. Wang, and D. Zeng, \Rule + Exception Strategies for Security Information Analysis," *IEEE Intelligent Systems*, vol. 20, no. 5, pp. 52{57, 2005.

[339] Y. Yao, F.-Y. Wang, and J. Wang, \Rule+exception strategies for knowledge management and discovery," *LNAI*, vol. 3642, p. 69{78, 2005.

[340] F.-Y. Wang, \On the abstraction of conventional dynamic systems: From numerical analysis to linguistic analysis," *Information Sciences*, vol. 171, no. 1-3, pp. 233{259, 2005.

[341] Q. Tao, G.-W. Wu, F.-Y. Wang, and J. Wang, \Posterior probability support vector machines for unbalanced data neural networks," *IEEE Transactions on Neural Networks*, vol. 16, no. ue: 6, p. 1561{1573, 2005.

[342] F.-Y. Wang, \An e cient coordinate frame calibration method for 3-D measurement by multiple camera systems," *IEEE Transactions on Systems, Man and Cybernetics Part C: Applications and Reviews*, vol. 35, no. 4, pp. 453{464, 2005.

[343] F.-Y. Wang and M. Liu, \The coming of CSP: automated assembly processes for high-volume chip scale packaging," *IEEE Robotics Automation Magazine*, vol. 11, no. 1, pp. 59{69, 2004.

[344] M.-K. Liu, F.-Y. Wang, and D. Zeng, \Web caching: A way to improve web QoS," *Journal of Computer Science and Technology*, vol. 19, no. 2, pp. 113{127, 2004.

[345] F.-Y. Wang, \Parallel system methods for management and control of complex systems," *CONTROL AND DECISION.*, vol. 19, no. 5, pp. 485{489,514, 1 2004.

[346] Wang, F.-Y., \Agent-based control for fuzzy behavior programming in robotic excavation," *IEEE Transactions on Fuzzy Systems*, vol. 12, no. 4, pp. 540{548, 2004.

[347] F.-Y. Wang, \Computational Theory and Methods for Complex Systems Research (In Chinese)," *China Basic Science*, vol. 3, no. 2, pp. 26{34, 2004.

[348] Wang, F.-Y., \Computational Experiments for Behavior Analysis and Decision Evaluation of Complex Systems (In Chinese)," *Journal of System Simulation*, vol. 16, no. 5, pp. 893{897, 2004.

[349] S. Nan-Ning Zheng, H. Cheng, Q. Li, G. Lai, and F.-Y. Wang, \Toward intelligent driver-assistance and safety warning systems," *IEEE Intelligent Systems*, vol. 19, no. 2, p. 8{11, 2004.

[350] F.-Y. Wang, \Arti cial societies, computational expermients, and parallel systems:a discussion on computational theory of complex social-economic systems (in chinese)," *COMPLEX SYSTEMS AND COMPLEXITY SCIENCE*, no. 4, pp. 25{35, 2004.

[351] H. Chen, F.-Y. Wang, and D. Zeng, \Intelligence and security informatics for homeland security: Information, communication, and transportation," *IEEE Transactions on Intelligent Transportation Systems*, vol. 5, no. 4, pp. 329{341, 2004.

[352] F.-Y. Wang, \A simple and analytical procedure for calibrating extrinsic camera parameters," *IEEE Transactions on Robotics and Automation*, vol. 20, no. 1, pp. 121{124, 2004.

[353] F.-Y. Wang, Y. Gao, and M. Zhou, \A Modi ed Reachability Tree Approach to Analysis of Unbounded Petri Nets," *IEEE Transactions on Systems, Man, and Cybernetics, Part B: Cybernetics*, vol. 34, no. 1, pp. 303{308, 2004.

[354] D. Zeng, F.-Y. Wang, and M. Liu, \E cient web content delivery using proxy caching techniques," *IEEE Transactions on Systems, Man and Cybernetics Part C: Applications and Reviews*, vol. 34, no. 3, pp. 270{280, 2004.

[355] F.-Y. Wang and S. Tang, \Arti cial societies for integrated and sustainable development of metropolitan systems," *IEEE Intelligent Systems*, vol. 19, no. 4, pp. 82{87, 2004.

[356] F.-Y. Wang, Z.Wang, G. Shan, L. Li, and C. Wang, \Research in development of intelligent tire technology: the state of the art," *Journal of Tire Technology*, vol. 23, no. 1, p. 10{15, 2003.

[357] Z.-W. Gao and F.-Y. Wang, \New results on doubly coprime fractional representations of generalized dynamical systems," *IEEE Transactions on Automatic Control*, vol. 48, no. 2, pp. 299{303, 2003.

[358] F.-Y. Wang, X. Wang, L. Li, and P. Mirchandani, \Creating a Digital-Vehicle Proving Ground," *IEEE Intelligent Systems*, vol. 18, no. 2, pp. 12{15, 2003.

[359] F.-Y. Wang, \The exact and unique solution for phase-lead and phase-lag compensation," *IEEE Transactions on Education*, vol. 46, no. 2, pp. 258{262, 2003.

[360] W. Zhu and F.-Y. Wang, \Reduction and axiomization of covering generalized rough sets," *Information Sciences*, vol. 152, no. SUPPL, pp. 217{230, 2003.

[361] F.-Y. Wang, S. Tang, Y. Sui, and X. Wang, \Toward Intelligent Transportation Systems for the 2008 Olympics," *IEEE Intelligent Systems*, vol. 18, no. 6, pp. 8{11, 2003.

[362] F.-Y. Wang, \Meanings must re ects facts: A review on computational intelligent in design and manufacturing," *Automatica Sinica*, vol. 29, no. 6, p. 1027{1031, 2003.

[363] F.-Y. Wang, P. B. Mirchandani, and Z. Wang, \The VISTA Project and Its Applications," *IEEE Intelligent Systems*, vol. 17, no. 6, pp. 72{75, 2002.

[364] Y. T. Lin, F.-Y. Wang, P. B. Mirchandani, L. Wu, Z. X. Wang, C. Yeo, and M. Do, \Implementing adaptive driving systems for intelligent vehicles by using neuro-fuzzy networks," *Transportation Research Record*, no. 1774, pp. 98{105, 2001.

[365] T. Nan, F.-Y. Wang, F. W. Ciarallo, and G. Qin, \Neuro-fuzzy networks: Adaptive fuzzy modeling and control," *International Journal of Computer and Information Science*, vol. 1, no. 1, p. 1{21, 2001.

[366] P. Zhou, F.-Y. Wang, W. Chen, and P. Lever, \Optimal construction and control of exible manipulators: A case study based on LQR output feedback," *Molecular Diagnosis*, vol. 5, no. 4, pp. 59{77, 2000.

[367] P. Chen, T. Toyota, Y. Lin, and F.-Y. Wang, \Failure diagnosis of machinery by self-reorganization of symptom parameters in time domain using genetic algorithms," *International Journal of Intelligent Control and Systems*, vol. 3, no. 4, p. 571{586, 1999.

[368] L. Wu, Y. Xu, and F.-Y. Wang, \Supervised learning of longitudinal driving behavior for intelligent vehicles using neuro-fuzzy networks: Initial experimental results," *International Journal of Intelligent Control and Systems*, vol. 3, no. 4, p. 443{464, 1999.

[369] F.-Y. Wang, \Outline of a computational theory for linguistic dynamic systems: Toward computing with words," *International Journal of Intelligent Control and Systems*, vol. 2, no. 2, p. 211{224, 1998.

[370] F.-Y. Wang, D. Ziyu Huang, and P. Lever, \Re nement and generation of decision rules through training and augmentation of neural networks," *International Journal of Intelligent Control and Systems*, vol. 2, no. 3, p. 329{360, 1998.

[371] F.-Y. Wang, J. L. Russell, and Z. Liu, \Minimum-weight design of exible arms for speci ed fundamental frequency," *Journal of Robotic Systems*, vol. 14, no. 1, pp. 49{57, 1997.

[372] X. Shi, F.-Y. Wang, and P. J. A. Lever, \Experimental results of robotic excavation using fuzzy behavior control," *Control Engineering Practice*, vol. 4, no. 2, pp. 145{152, 1996.

[373] X. Shi, P. J. A. Lever, and F.-Y. Wang, \Fuzzy behavior integration and action fusion for robotic excavation," *IEEE Transactions on Industrial Electronics*, vol. 43, no. 3, pp. 395{402, 1996.

[374] P. J. Lever and F.-Y. Wang, \Intelligent excavator control system for lunar mining system," *Journal of Aerospace Engineering*, vol. 8, no. 1, pp. 16{24, 1995.

[375] P. J. Lever, F.-Y. Wang, D. D. Chen, and X. Shi, \Autonomous robotic mining excavation using fuzzy logic and neural networks," *Journal of Intelligent and Fuzzy Systems*, vol. 3, no. 1, p. 31{42, 1995.

[376] F.-Y. Wang and H. Kim, \Implementing adaptive fuzzy logic controllers with neural networks: A design paradigm," *Journal of Intelligent and Fuzzy Systems*, vol. 3, no. 2, pp. 165{180, 1995.

[377] F.-Y. Wang and J. L. Russell, \Optimum Shape Construction of Flexible Manipulators with Total Weight Constraint," *IEEE Transactions on Systems, Man, and Cybernetics*, vol. 25, no. 4, pp. 605{614, 1995.

[378] F.-Y. Wang, \Optimum design of vibrating cantilevers: A classical problem revisited," *Journal of Optimization Theory and Applications*, vol. 84, no. 3, p. 635{652, 1995.

[379] F.-Y. Wang and X. Fan, \Cell-to-cell mapping method for time-optimal trajectory planning of multiple robot arm systems," *Journal of Optimization Theory and Applications*, vol. 86, no. 2, p. 347{368, 1995.

[380] P. Lever, F.-Y. Wang, and X. Shi, \An intelligent task control system for dynamic mining environments," *AIME Transactions on Mining, Metallurgy and Exploration*, vol. 174, no. 1, p. 165{174, 1994.

[381] G. Saridis and F.-Y. Wang, *Suboptimal control of nonlinear stochastic systems*. Control-Theory and Advanced Technology, 1994, vol. 10.

[382] F.-Y. Wang and P. J. A. Lever, \A cell mapping method for general optimum trajectory planning of multiple robotic arms," *Robotics and Autonomous Systems*, vol. 12, no. 1-2, pp. 15{27, 1994.

[383] F.-Y. Wang, \On the Extremal Fundamental Frequencies of One-Link Flexible Manipulators," *The International Journal of Robotics Research*, vol. 13, no. 2, pp. 162{170, 1994.

[384] F.-Y. Wang, M. Mittmann, and G. N. Saridis, \Coordination speci cation for CIRSSE robotic platform system using Petri net transducers," *Journal of Intelligent Robotic Systems*, vol. 9, no. 3, pp. 209{233, 1994.

[385] F.-Y. Wang, K. Gildea, H. Jungnitz, and D. Chen, \Protocol design and performance analysis for manufacturing message speci cation: A petri net approach," *IEEE Transactions on Industrial Electronics*, vol. 41, no. 6, p. 641{653, 1994.

[386] F.-Y. Wang and O. Kwan, \In uence of rotatory inertia, shear deformation and loading on vibration behaviors of exible manipulators," *Journal of Sound and Vibration*, vol. 171, no. 4, p. 433{452, 1994.

[387] F.-Y. Wang, \Task Translation and Integration Speci cation in Intelligent Machines and ERRATUM: Correction to `Task Translation and Integration Speci cation in Intelligent Machines'," *IEEE Transactions on Robotics and Automation*, vol. 9, no. 3, pp. 257{271, 1993.

[388] F.-Y. Wang, P. J. A. Lever, and B. Pu, \A robotic vision system for object identi cation and manipulation using synergetic pattern recognition," *Robotics and Computer Integrated Manufacturing*, vol. 10, no. 6, pp. 445{459, 1993.

[389] F.-Y. Wang and J. L. Russell, \Minimum-weight robot arm for a speci ed fundamental frequency," in *Proceedings - IEEE International Conference on Robotics and Automation*, vol. 3, 1993, pp. 490{495.

[390] L. Schooley, B. Zeigler, F. Cellier, and F.-Y. Wang, \High-autonomy control of space resource processing plants," *IEEE Control Systems Magazine*, vol. 13, no. 3, p. 29{39, 1993.

[391] F.-Y. Wang, K.J.Kyriakopoulos, A. Tsolkas, and G. Saridis, \A petri-net coordination model for an intelligent mobile robot," *IEEE Transactions on Systems, Man, and Cybernetics*, vol. 21, no. 4, p. 777{789, 1991.

[392] F.-Y. Wang and Y. Zhou, \On the vibration modes of 3-dimensional micropolar elastic plates," *Journal of Sound and Vibration*, vol. 146, no. 1, p. 1{16, 1991.

[393] F.-Y. Wang, \Two-dimensional theories deduced from three-dimensional theory for a transversely isotropic body| ii. plane problems," *International Journal of Solids and Structures*, vol. 28, no. 2, p. 161{177, 1991.

[394] F.-Y., Wang, \On the solutions of eringen's micropolar plate equations and of other approximate equations," *International Journal of Engineering Science*, vol. 28, no. 9, p. 919{925, 1990.

[395] F.-Y. Wang and G. Saridis, \A coordination theory for intelligent machines," *The IFAC Journal Automatica*, vol. 26, no. 5, p. 833{844, 1990.

[396] F.-Y. Wang, \Monte carlo analysis of nonlinear vibration of rectangular plates with random geometric imperfections," *International Journal of Solids and Structures*, vol. 26, no. 1, p. 99{109, 1990.

[397] F.-Y., Wang, \Two-dimensional theories deduced from three-dimensional theory for a transversely isotropic body{i. plate problems," *International Journal of Solids and Structures*, vol. 26, no. 4, p. 455{470, 1990.

[398] F.-Y. Wang and M. J. Balas, \Doubly coprime fractional representations of generalized dynamical systems," *IEEE Transactions on Automatic Control*, vol. 34, no. 7, pp. 733{734, 1989.

[399] F.-Y. Wang and K.Gildea, \Alan rubenstein a colored petri net model for connection management services in mms," *ACM SIGCOMM Computer Communication Review*, vol. 19, no. 3, p. 76{98, 1989.

Conference Papers

[1] W. Zheng, L. Yan, C. Gou, and F.-Y. Wang, \Two heads are better than one: Hypergraph-enhanced graph reasoning for visual event ratiocination," in *International Conference on Machine Learning, PMLR*, 2021, p. 12747{12760.

[2] X. Li, H. Duan, H. Mo, and F.-Y. Wang, \A novel visual perception framework for unmanned aerial vehicles: Challenges and approaches," in *2021 China Automation Congress (CAC)*, 2021, pp. 8359{8363.

[3] X. Li, Q. Zhu, N. Qi, J. Huang, Y. Yuan, and F.-Y. Wang, \Blockchain consensus algorithms: A survey," in *2021 China Automation Congress (CAC)*, 2021, pp. 4053{4058.

[4] X. Dai, C. Zhao, X. Li, X. Wang, and F.-Y. Wang, \Tra c signal control using o ine reinforcement learning," in *2021 China Automation Congress (CAC)*, 2021, pp. 8090{8095.

[5] J. Lu, T. Bai, Q. Wei, T. Zhou, and F.-Y. Wang, \Parallel control-based event-triggered optimal control for constrained discrete-time nonlinear systems," in *2021 China Automation Congress (CAC)*, 2021, pp. 8284{8288.

[6] S. Fan, Q. Dong, F. Zhu, Y. Lv, P. Ye, and F.-Y. Wang, \Scf-net: Learning spatial contextual features for large-scale point cloud segmentation," in *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, June 2021, pp. 14 504{14 513.

[7] W. Zheng, L. Yan, F.-Y. Wang, and C. Gou, \Progressive knowledge-embedded uni ed perceptual parsing for scene understanding," in *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) Workshops*, June 2021, pp. 1633{1642.

[8] T. Qu, G. Xiong, X. Dong, W. Li, H. Tao, J. Yan, Z. Shen, and F.-Y. Wang, \Missile defense decision-making under incomplete information using the arti cial neural network," in *2021 IEEE 17th International Conference on Automation Science and Engineering (CASE)*, 2021, pp. 1825{1830.

[9] W. Zheng, L. Yan, F.-Y. Wang, and C. Gou, \Learning from the Negativity: Deep Negative Correlation Meta-Learning for Adversarial Image Classi cation," *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, vol. 12572 LNCS, pp. 531{540, 2021.

[10] Y. Zhang, X. Li, F.-Y. Wang, B. Wei, and L. Li, \A comprehensive review of one-stage networks for object detection," in *2021 IEEE International Conference on Signal Processing, Communications and Computing (ICSPCC)*, 2021, pp. 1{6.

[11] Z. Wei, Z. Li, C. Wang, Y. Chen, Q. Miao, Y. Lv, and F.-Y. Wang, \Recurrent attention unit: A simple and e ective method for tra c prediction," in *2021 IEEE International Intelligent Transportation Systems Conference (ITSC)*, 2021, pp. 1272{1277.

[12] X. Chen, G. Xiong, Y. Lv, Y. Chen, B. Song, and F.-Y. Wang, \A collaborative communication-qmix approach for large-scale networked tra c signal control," in *2021 IEEE International Intelligent Transportation Systems Conference (ITSC)*, 2021, pp. 3450{3455.

[13] J. Xi, F. Zhu, Y. Chen, Y. Lv, C. Tan, and F.-Y. Wang, \Ddrl: A decentralized deep reinforcement learning method for vehicle repositioning," in *2021 IEEE International Intelligent Transportation Systems Conference (ITSC)*, 2021, pp. 3984{3989.

[14] W. Zheng, L. Yan, C. Gou, and F.-Y. Wang, \Knowledge is power: Hierarchical-knowledge embedded meta-learning for visual reasoning in artistic domains," in *Proceedings of the 27th ACM SIGKDD Conference on Knowledge Discovery amp; Data Mining*, ser. KDD '21.   New York, NY, USA: Association for Computing Machinery, 2021, p. 2360{2368.

[15] L. Yan, W. Zheng, F.-Y. Wang, and C. Gou, \Weakly supervised sketch based person search," in *Proceedings of the 2021 International Conference on Multimedia Retrieval*, ser. ICMR '21. New York, NY, USA: Association for Computing Machinery, 2021, p. 491{495.

[16] C. Luo, G. Xiong, Z. Li, Z. Shen, L. Wan, M. Zhou, and F.-Y. Wang, \Ordinal optimization for optimal orientation problems in 3d printing," *IFAC-PapersOnLine*, vol. 53, no. 5, pp. 97{102, 2020, 3rd IFAC Workshop on Cyber-Physical Human Systems CPHS 2020.

[17] X. Li, F. Zhu, and F.-Y. Wang, \Deep behavioral cloning for tra c control with virtual expert demonstration under a parallel learning framework," *IFAC-PapersOnLine*, vol. 53, no. 5, pp. 176{181, 2020, 3rd IFAC Workshop on Cyber-Physical Human Systems CPHS 2020.

[18] L. Yang, K. Tan, X. Liu, X. Wang, and F.-Y. Wang, \Grouping methods for facilitating emergency evacuations," *IFAC-PapersOnLine*, vol. 53, no. 5, pp. 845{850, 2020, 3rd IFAC Workshop on Cyber-Physical Human Systems CPHS 2020.

[19] S. Wang, X. Tu, H. Chai, Q. Sun, J. Wu, H. Cai, and F.-Y. Wang, \Blockchain-powered parallel ntech regulatory sandbox based on the acp approach," *IFAC-PapersOnLine*, vol. 53, no. 5, pp. 863{867, 2020, 3rd IFAC Workshop on Cyber-Physical Human Systems CPHS 2020.

[20] C. Guo, T. Bai, Y. Lu, Y. Lin, G. Xiong, X. Wang, and F.-Y. Wang, \Skywork-davinci: A novel cpss-based painting support system," in *2020 IEEE 16th International Conference on Automation Science and Engineering (CASE)*, Hong Kong, 2020.

[21] S. Du, H. Guo, Y. Chen, Y. Lin, X. Meng, L. Wen, and F.-Y. Wang, \GPO: Global Plane Optimization for Fast and Accurate Monocular SLAM Initialization," in *Proceedings - IEEE International Conference on Robotics and Automation*, 2020, pp. 6254{6260.

[22] S. Fan, F. Zhu, H. Zhang, Y. Lv, X. Wang, G. Xiong, and F.-Y. Wang, \Improving Road Detection Results Based on Ensemble Learning and Key Samples Focusing," in *2020 IEEE 23rd International Conference on Intelligent Transportation Systems, ITSC 2020*, 2020.

[23] X. Gong, Y. Tang, X. Liu, S. Jing, W. Cui, J. Liang, and F.-Y. Wang, \K-9 Arti cial Intelligence Education in Qingdao: Issues, Challenges and Suggestions," in *2020 IEEE International Conference on Networking, Sensing and Control, ICNSC 2020*, 2020.

[24] X. Li, Z. Guo, X. Dai, Y. Lin, J. Jin, F. Zhu, and F.-Y. Wang, \Deep Imitation Learning for Tra c Signal Control and Operations Based on Graph Convolutional Neural Networks," in *2020 IEEE 23rd International Conference on Intelligent Transportation Systems, ITSC 2020*, 2020.

[25] J. Li, M. Lan, Y. Tang, S. Chen, F.-Y. Wang, and W. Wei, \A Blockchain-based Educational Digital Assets Management System," in *IFAC-PapersOnLine*, vol. 53, no. 5, 2020, pp. 47{52.

[26] L. Yan, W. Zheng, F.-Y. Wang, and C. Gou, \Weakly supervised person search," in *Proceedings - 2020 IEEE 7th International Conference on Data Science and Advanced Analytics, DSAA 2020*, 2020, pp. 188{196.

[27] L. Yan, W. Zheng, C. Gou, and F.-Y. Wang, \Feature Aggregation Attention Network for Single Image Dehazing," in *Proceedings - International Conference on Image Processing, ICIP*, vol. 2020-Octob, 2020, pp. 923{927.

[28] W. Zhang, F. Zhu, Y. Chen, X. Wang, G. Xiong, and F.-Y. Wang, \Di erential Time-variant Tra c Flow Prediction Based on Deep Learning," in *2020 IEEE 23rd International Conference on Intelligent Transportation Systems, ITSC 2020*, 2020.

[29] M. Zhang, Z. Zhang, X. Wang, H. Yu, Y. Xia, K. Tan, and F.-Y. Wang, \From ar to ai: Augmentation technology for intelligent surgery and medical treatments." Elsevier, 2020, vol. 53, no. 5, pp. 792{796.

[30] W. Zheng, L. Yan, C. Gou, and F.-Y. Wang, \Graph Attention Model Embedded with Multi-Modal Knowledge for Depression Detection," in *Proceedings - IEEE International Conference on Multimedia and Expo*, vol. 2020-July, 2020.

[31] Zheng, W and Yan, L and Gou, C and F.-Y.,Wang, \Webly supervised knowledge embedding model for visual reasoning," in *Proceedings of the IEEE Computer Society Conference on Computer Vision and Pattern Recognition*, 2020, pp. 12 442{12 451.

[32] W. Zheng, L. Yan, F.-Y. Wang, and C. Gou, \Learning from the Guidance: Knowledge Embedded Meta-learning for Medical Visual Question Answering," *Communications in Computer and Information Science*, vol. 1332, pp. 194{202, 2020.

[33] W. Zheng, L. Yan, C. Gou, and F.-Y. Wang, \JND-GAN: Human-vision-systems inspired generative adversarial networks for image-to-image translation," *Frontiers in Artificial Intelligence and Applications*, vol. 325, pp. 2816{2823, 2020.

[34] W. Zheng, L. Yan, F.-Y. Wang, and C. Gou, \Learning from the Past: Meta-Continual Learning with Knowledge Embedding for Jointly Sketch, Cartoon, and Caricature Face Recognition," in *MM 2020 - Proceedings of the 28th ACM International Conference on Multimedia*, 2020, pp. 736{743.

[35] W. Zheng, F.-Y. Wang, and C. Gou, \Nonparametric Di erent-Feature Selection Using Wasserstein Distance," in *Proceedings - International Conference on Tools with Artificial Intelligence, ICTAI*, 2020, pp. 982{988.

[36] W. Zheng, L. Yan, C. Gou, and F.-Y. Wang, \Federated meta-learning for fraudulent credit card detection," in *IJCAI International Joint Conference on Artificial Intelligence*, vol. 2021-Janua, 2020, pp. 4654{4660.

[37] S. Wang, H. Lu, X. Sun, Y. Yuan, and F.-Y. Wang, \A Novel Blockchain Oracle Implementation Scheme Based on Application Speci c Knowledge Engines," in *Proceedings - IEEE International Conference on Service Operations and Logistics, and Informatics 2019, SOLI 2019*, 2019, pp. 258{262.

[38] S. Zeng, Y. Yuan, and F.-Y. Wang, \A decentralized social networking architecture enhanced by blockchain," in *Proceedings - IEEE International Conference on Service Operations and Logistics, and Informatics 2019, SOLI 2019*, 2019, pp. 269{273.

[39] W. Zheng, L. Yan, C. Gou, W. Zhang, and F.-Y. Wang, \A relation network embedded with prior features for few-shot caricature recognition," in *Proceedings - IEEE International Conference on Multimedia and Expo*, vol. 2019-July, 2019, pp. 1510{1515.

[40] W. Zheng, L. Yan, W. Zhang, C. Gou, and F.-Y. Wang, \Guided Cyclegan Via Semi-Dual Optimal Transport for Photo-Realistic Face Super-Resolution," in *Proceedings - International Conference on Image Processing, ICIP*, vol. 2019-Septe, 2019, pp. 2851{2855.

[41] X. Gong, L. Zhao, R. Tang, Y. Guo, X. Liu, J. He, F.-Y. Wang, Y. Tang, W. Shi, X. Niu, and X. Wang, \AI education system for primary and secondary schools," in *ASEE Annual Conference and Exposition, Conference Proceedings*, 2019.

[42] X. Han, Y. Yuan, and F.-Y. Wang, \A Blockchain-based Framework for Central Bank Digital Currency," in *Proceedings - IEEE International Conference on Service Operations and Logistics, and Informatics 2019, SOLI 2019*, 2019, pp. 263{268.

[43] J. Li, Y. Yuan, and F.-Y. Wang, \Bitcoin Fee Decisions in Transaction Con rmation Queueing Games under Limited Multi-Priority Rule," in *Proceedings - IEEE International Conference on Service Operations and Logistics, and Informatics 2019, SOLI 2019*, 2019, pp. 134{139.

[44] Z. Li, G. Xiong, Y. Chen, Y. Lv, B. Hu, F. Zhu, and F.-Y. Wang, \A Hybrid Deep Learning Approach with GCN and LSTM for Tra c Flow Prediction," in *2019 IEEE Intelligent Transportation Systems Conference, ITSC 2019*, 2019, pp. 1929{1933.

[45] Z. Li, G. Xiong, X. Zhang, Z. Shen, C. Luo, X. Shang, X. Dong, G.-B. Bian, X. Wang, and F.-Y. Wang, \A GPU based parallel genetic algorithm for the orientation optimization problem in 3d printing," in *Proceedings - IEEE International Conference on Robotics and Automation*, vol. 2019-May, 2019, pp. 2786{2792.

[46] T. Liu, B. Tian, Y. Ai, L. Chen, F. Liu, D. Cao, N. Bian, and F.-Y. Wang, \Dynamic States Prediction in Autonomous Vehicles: Comparison of Three Di erent Methods," in *2019 IEEE Intelligent Transportation Systems Conference, ITSC 2019*, 2019, pp. 3750{3755.

[47] E. Lodhi, F. Zhu, Z. Lodhi, Q. Saleem, G. Xiong, and F.-Y. Wang, \Design and implementation of RFID based smart shopping booth," in *Proceedings - 2019 6th International Conference on Information Science and Control Engineering, ICISCE 2019*, 2019, pp. 1017{1021.

[48] X. Ni, Y. Yuan, and F.-Y. Wang, \Behavioral Management for Employees based on Blockchain and Smart Contracts," in *Proceedings - IEEE International Conference on Service Operations and Logistics, and Informatics 2019, SOLI 2019*, 2019, pp. 248{252.

[49] L. Ouyang, Y. Yuan, and F.-Y. Wang, \A Blockchain-based Framework for Collaborative Production in Distributed and Social Manufacturing," in *Proceedings - IEEE International Conference on Service Operations and Logistics, and Informatics 2019, SOLI 2019*, 2019, pp. 76{81.

[50] Z. Shen, X. Shang, Y. Li, Y. Bao, X. Zhang, X. Dong, L. Wan, G. Xiong, and F.-Y. Wang, \PredNet and CompNet: Prediction and high-precision compensation of in-plane shape deformation for additive manufacturing," in *IEEE International Conference on Automation Science and Engineering*, vol. 2019-Augus, 2019, pp. 462{467.

[51] R. Qin, Y. Yuan, and F.-Y. Wang, \Exploring Optimal Revenue Models for DSPs in Real Time Bidding Advertising," in *Proceedings - IEEE International Conference on Service Operations and Logistics, and Informatics 2019, SOLI 2019*, 2019, pp. 181{185.

[52] J. Li, S. Wang, X. Ni, Y. Yuan, and F.-Y. Wang, \How Reporting Policies In uence Employee Performance: An Empirical Study," in *2018 IEEE International Conference on Systems, Man, and Cybernetics (SMC)*, 2018, pp. 2485{2490.

[53] R. Qin, Y. Yuan, and F.-Y. Wang, \Optimal Share Reporting Strategies for Blockchain Miners in PPLNS Pools," in *2018 IEEE International Conference on Systems, Man, and Cybernetics (SMC)*, 2018, pp. 3367{3372.

[54] L. Cao, C. Gou, K. Wang, G. Xiong, and F.-Y. Wang, \Gaze-Aided Eye Detection via Appearance Learning," in *Proceedings - International Conference on Pattern Recognition*, vol. 2018-Augus, 2018, pp. 1965{1970.

[55] Y. Chen, Y. Lv, X. Wang, and F.-Y. Wang, \Tra c Flow Prediction with Parallel Data," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, 2018, pp. 614{619.

[56] S. Han, H. Ma, X. Wang, H. Liu, D. Cao, and F.-Y. Wang, \CPSS-based Signal Forwarding Method at Relays for Full-duplex Cooperative Vehicular Networks," in *IEEE Intelligent Vehicles Symposium, Proceedings*, 2018, pp. 1057{1062.

[57] J. Hua, X. Wang, M. Kang, H. Wang, and F.-Y. Wang, \Blockchain Based Provenance for Agricultural Products: A Distributed Platform with Duplicated and Shared Bookkeeping," in *IEEE Intelligent Vehicles Symposium, Proceedings*, vol. 2018-June, 2018, pp. 97{101.

[58] J. Li, Y. Yuan, S. Wang, and F.-Y. Wang, \Transaction Queuing Game in Bitcoin BlockChain," in *IEEE Intelligent Vehicles Symposium, Proceedings*, vol. 2018-June, 2018, pp. 114{119.

[59] X. Li, Y. Wang, K. Wang, L. Yan, and F.-Y. Wang, \The ParallelEye-CS Dataset: Constructing Arti cial Scenes for Evaluating the Visual Intelligence of Intelligent Vehicles," in *IEEE Intelligent Vehicles Symposium, Proceedings*, vol. 2018-June, 2018, pp. 37{42.

[60] Y. Li, L. Yang, S. Han, X. Wang, and F.-Y. Wang, \When LPWAN Meets ITS: Evaluation of Low Power Wide Area Networks for V2X Communications," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, vol. 2018-Novem, 2018, pp. 473{478.

[61] Y. Li, S. Han, L. Yang, F.-Y. Wang, and H. Zhang, \Lora on the move," in *Performance Evaluation of LoRa in V2X Communications, The 2018 IEEE Intelligent Vehicles Symposium(IV), Changshu*, Suzhou, China, 2018, p. 1107 { 1111.

[62] T. Liu, C. Yang, C. Hu, H. Wang, L. Li, D. Cao, and F.-Y. Wang, \Reinforcement Learning-Based Predictive Control for Autonomous Electri ed Vehicles," in *IEEE Intelligent Vehicles Symposium, Proceedings*, vol. 2018-June, 2018, pp. 185{190.

[63] C. Luo, Z. Shen, S. Evangelou, G. Xiong, X. Wang, Y. Lv, X. Dong, F. Zhu, and F.-Y. Wang, \A Control Strategy Combined Thermostat Control with DC-Link Voltage Control for Series Hybrid Electric Vehicles," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, vol. 2018-Novem, 2018, pp. 294{299.

[64] X. Ni, S. Zeng, X. Han, Y. Yuan, and F.-Y. Wang, \Organizational Management using Software-de ned Robots based on Smart Contracts," in *IEEE Intelligent Vehicles Symposium, Proceedings*, vol. 2018-June, 2018, pp. 274{279.

[65] L. Ouyang, F. Zhu, G. Xiong, H. Zhao, F.-Y. Wang, and T. Liu, \Short-term traﬃc ﬂow forecasting based on wavelet transform and neural network," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, vol. 2018-March, 2018, pp. 1{6.

[66] R. Qin, Y. Yuan, S. Wang, and F.-Y. Wang, \Economic Issues in Bitcoin Mining and Blockchain Research," in *IEEE Intelligent Vehicles Symposium, Proceedings*, vol. 2018-June, 2018, pp. 268{273.

[67] S. Wang, Y. Yuan, X. Wang, J. Li, R. Qin, and F.-Y. Wang, \An Overview of Smart Contract: Architecture, Applications, and Future Trends," in *IEEE Intelligent Vehicles Symposium, Proceedings*, vol. 2018-June, 2018, pp. 108{113.

[68] S. Wang, X. Ni, Y. Yuan, F.-Y. Wang, X. Wang, and L. Ouyang, \A Preliminary Research of Prediction Markets Based on Blockchain Powered Smart Contracts," in *Proceedings - IEEE 2018 International Congress on Cybermatics: 2018 IEEE Conferences on Internet of Things, Green Computing and Communications, Cyber, Physical and Social Computing, Smart Data, Blockchain, Computer and Information Technology, iThings/Gree*, 2018, pp. 1287{1293.

[69] Y. Xing, J. Tang, H. Liu, C. Lv, D. Cao, E. Velenis, and F.-Y. Wang, \End-to-End Driving Activities and Secondary Tasks Recognition Using Deep Convolutional Neural Network and Transfer Learning," in *IEEE Intelligent Vehicles Symposium, Proceedings*, vol. 2018-June, 2018, pp. 1626{1631.

[70] T. Yao, X. Yao, S. Han, Y. Wang, D. Cao, and F.-Y. Wang, \Memetic algorithm with adaptive local search for Capacitated Arc Routing Problem," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, vol. 2018-March, 2018, pp. 836{841.

[71] S. Zeng, X. Ni, Y. Yuan, and F.-Y. Wang, \A Bibliometric Analysis of Blockchain Research," in *IEEE Intelligent Vehicles Symposium, Proceedings*, vol. 2018-June, 2018, pp. 102{107.

[72] X. Wang, Y. Zhang, S. Yu, X. Liu, and F.-Y. Wang, \Computerized Adaptive English Ability Assessment Based on Deep Learning," *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, vol. 10799 LNCS, pp. 158{171, 2018.

[73] C. Gou, Y. Wu, F.-Y. Wang, and Q. Ji, \Coupled cascade regression for simultaneous facial landmark detection and head pose estimation," in *2017 IEEE International Conference on Image Processing (ICIP)*, 2017, pp. 2906{2910.

[74] S. Han, F. Zhu, Y. Wang, D. Cao, G. Xiong, and F.-Y. Wang, \Modiﬁed K-best receiver for multi-antenna vehicular networks," in *2017 IEEE 20th International Conference on Intelligent Transportation Systems (ITSC)*, 2017, pp. 1{6.

[75] Y. Chen, Y. Lv, X. Wang, and F.-Y. Wang, \A convolutional neural network for traﬃc information sensing from social media text," in *2017 IEEE 20th International Conference on Intelligent Transportation Systems (ITSC)*, 2017, pp. 1{6.

[76] C.-W. Chang, C. Lv, H. Wang, H. Wang, D. Cao, E. Velenis, and F.-Y. Wang, \Multi-point turn decision making framework for human-like automated driving," in *2017 IEEE 20th International Conference on Intelligent Transportation Systems (ITSC)*, 2017, pp. 1{6.

[77] P. Ye and F.-Y. Wang, \Hybrid calibration of agent-based travel model using traﬃc counts and AVI data," in *2017 IEEE 20th International Conference on Intelligent Transportation Systems (ITSC)*, 2017, pp. 457{462.

[78] S. Han, Y. Wang, T. Yao, F. Zhu, G. Xiong, D. Cao, and F.-Y. Wang, \Relaying algorithm based on soft estimated information for cooperative V2X networks," in *2017 IEEE 20th International Conference on Intelligent Transportation Systems (ITSC)*, 2017, pp. 509{514.

[79] S. Han, P. Zhang, F. Shi, D. Cao, and F.-Y. Wang, \Low-complexity detection for multi-antenna diﬀerential unitary space-time modulation systems," in *2017 IEEE/CIC International Conference on Communications in China (ICCC)*, 2017, pp. 1{5.

[80] X. Dai, R. Fu, Y. Lin, F.-Y. Wang, and L. Li, \Deeptrend: A deep hierarchical neural network for traﬃc ﬂow prediction," in *2017 IEEE 20th International Conference on Intelligent Transportation Systems (ITSC Workshop*, Yakahama, Japan, 2017, pp. 16｜-19.

[81] S. Han, F.-Y. Wang, Y. Wang, D. Cao, and L. Li, \Parallel vehicles based on the ACP theory: Safe trips via self-driving," in *IEEE Intelligent Vehicles Symposium, Proceedings*, 2017, pp. 20{25.

[82] X. Li, K. Wang, Y. Tian, L. Yan, and F.-Y. Wang, \The paralleleye dataset: Constructing large-scale artiﬁcial scenes for traﬃc vision research," in *2017 IEEE 20th International Conference on Intelligent Transportation Systems (ITSC Workshop*, Yakahama, Japan, 2017, pp. 16{19,.

[83] J. Li, X. Ni, Y. Yuan, R. Qin, X. Wang, and F.-Y. Wang, \The impact of reserve price on publisher revenue in real-time bidding advertising markets," in *2017 IEEE International Conference on Systems, Man, and Cybernetics, SMC 2017*, 2017, pp. 1256{1261.

[84] J. Li, Y. Yuan, X. Zhao, and F.-Y. Wang, \Research on Information Structure of Programmatic Advertising Markets," vol. 50, no. 1, 2017, pp. 13 587{13 592.

[85] Y.-L. Lin, L. Li, X.-Y. Dai, N.-N. Zheng, and F.-Y. Wang, \Master general parking skill via deep learning," in *IEEE Intelligent Vehicles Symposium, Proceedings*, 2017, pp. 941{946.

[86] X. Liu, X. Gong, F.-Y. Wang, R. Sun, Y. Gao, Y. Zhang, J. Zhou, and X. Deng, \A new framework of science and technology innovation education for k-12 in Qingdao, China," in *2017 ASEE International Forum*, 2017.

[87] R. Qin, X. Ni, Y. Yuan, J. Li, and F.-Y. Wang, \Revenue models for demand side platforms in real time bidding advertising," in *2017 IEEE International Conference on Systems, Man, and Cybernetics, SMC 2017*, vol. 2017-Janua, 2017, pp. 438{443.

[88] R. Qin, Y. Yuan, and F.-Y. Wang, \Improving Auction Mechanisms for Online Real-Time Bidding Advertising with a Two-stage Resale Model," vol. 50, no. 1, 2017, pp. 13 575{13 580.

[89] X. Wang, Y. Zhang, S. Yu, X. Liu, Y. Yuan, and F.-Y. Wang, \E-learning recommendation framework based on deep learning," in *2017 IEEE International Conference on Systems, Man, and Cybernetics, SMC 2017*, vol. 2017-Janua, 2017, pp. 455{460.

[90] S. Zeng, J. Li, X. Ni, Y. Yuan, and F.-Y. Wang, \Research on Social Marketing Strategies with An Agent-based Propagation Model," vol. 50, no. 1, 2017, pp. 13 581{13 586.

[91] R. Qin, Y. Yuan, and F.-Y. Wang, \Optimizing the revenue for ad exchanges in header bidding advertising markets," in *2017 IEEE International Conference on Systems, Man, and Cybernetics, SMC 2017*, vol. 2017-Janua, 2017, pp. 432{437.

[92] W. Zhang, K. Wang, H. Qu, J. Zhao, and F.-Y. Wang, \Scene-speci c pedestrian detection based on parallel vision," in *2017 IEEE 20th International Conference on Intelligent Transportation Systems (ITSC Workshop*, Yakahama, Japan, 2017, pp. 16{19,.

[93] W. Zheng, F.-Y. Wang, and K. Wang, \An ACP-based approach to color image encryption using DNA sequence operation and hyper-chaotic system," in *2017 IEEE International Conference on Systems, Man, and Cybernetics, SMC 2017*, vol. 2017-Janua, 2017, pp. 461{466.

[94] R. Qin, Y. Yuan, J. Li, and F.-Y. Wang, \Optimizing the segmentation granularity for RTB advertising markets with a two-stage resale model," in *2016 IEEE International Conference on Systems, Man, and Cybernetics (SMC)*, 2016, pp. 1191{1196.

[95] J. Li, X. Ni, Y. Yuan, R. Qin, and F.-Y. Wang, \Optimal allocation of ad inventory in real-time bidding advertising markets," in *2016 IEEE International Conference on Systems, Man, and Cybernetics (SMC)*, 2016, pp. 3021{3026.

[96] J. Zhang, L. Li, and F.-Y. Wang, \A probabilistic price mechanism design for online auctions," in *2016 IEEE International Conference on Systems, Man, and Cybernetics (SMC)*, 2016, pp. 4860{4865.

[97] J. Cao, S. Wang, F. Qiao, H. Wang, F.-Y. Wang, and P. S. Yu, \User-guided large attributed graph clustering with multiple sparse annotations," *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, vol. 9651, pp. 127{138, 2016.

[98] Y.-Y. Chen, Y. Lv, Z. Li, and F.-Y. Wang, \Long short-Term memory model for tra c congestion prediction with online open data," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, 2016, pp. 132{137.

[99] S. Chen, F. Zhu, and F.-Y. Wang, \An erlang-based simulation approach of arti cial transportation systems," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, 2016, pp. 24{28.

[100] X. Dong, J. Zhou, H. Bin, R. Jukka, G. Xiong, F.-Y. Wang, and F. Zhu, in *19th IEEE International Conference on Intelligent Transportation Systems (ITSC 2016), Rio de Janeiro*, Brazil, 2016, p. 1{4.

[101] Y. Duan, Y. Lv, and F.-Y. Wang, \Travel time prediction with LSTM neural network," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, 2016, pp. 1053{1058.

[102] Y. Gao, F.-Y. Wang, W. Sun, X. Dong, X. Liu, and S. Li, \A CDIO-based social manufacturing laboratory: Prototype for CPSS-based production processes," in *ASEE Annual Conference and Exposition, Conference Proceedings*, 2016.

[103] Y. Duan, Y. Lv, and F.-Y. Wang, \Performance evaluation of the deep learning approach for tra c ow prediction at di erent times," in *2016 IEEE International Conference on Service Operations and Logistics, and Informatics (SOLI).* IEEE, 2016, pp. 223{227.

[104] C. Gou, Y. Wu, K. Wang, F.-Y. Wang, and Q. Ji, \Learning-by-synthesis for accurate eye detection," in *Proceedings - International Conference on Pattern Recognition*, vol. 0, 2016, pp. 3362{3367.

[105] C. Gou, Y. Wu, F.-Y. Wang, and Q. Ji, \Shape augmented regression for 3D face alignment," *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, vol. 9914 LNCS, pp. 604{615, 2016.

[106] R. Qin, Y. Yuan, and F.-Y. Wang, \Exploring optimal frequency caps in real time bidding advertising," in *Proceedings - 2016 IEEE International Conferences on Big Data and Cloud Computing, BDCloud 2016, Social Computing and Networking, SocialCom 2016 and Sustainable Computing and Communications, SustainCom 2016*, 2016, pp. 385{392.

[107] F.-Y. Wang, L.-Q. Yang, J. Yang, Y. Zhang, S. Han, and K. Zhao, \Urban intelligent parking system based on the parallel theory," in *2016 International Conference on Computing, Networking and Communications, ICNC 2016*, 2016.

[108] R. Qin, Y. Yuan, and F.-Y. Wang, \Optimizing market segmentation granularity in RTB advertising: A computational experimental study," in *Proceedings - 2016 IEEE International Conferences on Big Data and Cloud Computing, BDCloud 2016, Social Computing and Networking, SocialCom 2016 and Sustainable Computing and Communications, SustainCom 2016*, 2016, pp. 401{407.

[109] J. Wang, C. Man, Y. Zhao, and F.-Y. Wang, \An answer recommendation algorithm for medical community question answering systems," in *Proceedings - 2016 IEEE International Conference on Service Operations and Logistics, and Informatics, SOLI 2016*, 2016, pp. 139{144.

[110] Y. Yuan and F.-Y. Wang, \Towards blockchain-based intelligent transportation systems," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, 2016, pp. 2663{2668.

[111] Y. Zhao, J. Wang, F.-Y. Wang, X. Shi, and Y. Lv, \Paragraph vector based retrieval model for similar cases recommendation," in *Proceedings of the World Congress on Intelligent Control and Automation (WCICA)*, vol. 2016-Septe, 2016, pp. 2220{2225.

[112] Y. Zhao, F.-Y. Wang, J. Wang, X. Shi, and Q. Zhang, \Knowledge automation in online medical inquiry platforms," in *Proceedings of the INFORMS International 2016 Annual Meeting (INFORMS 2016), Waikoloa Village*, Hawaii, USA, 2016.

[113] X. Gang, W. Kang, F.-Y. Wang, F. Zhu, Y. Lv, X. Dong, J. Riekki, and S. Pirttikangas, \Continuous Travel Time Prediction for Transit Signal Priority Based on a Deep Network," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, vol. 2015-Octob, 2015, pp. 523{528.

[114] H. Mo, F.-Y. Wang, and F.H.Zhu, \Time-varying universe based linguistic dynamic analysis of timing design for paralle tra c light," in *2015 International Conference on*

Informative and Cybernetics for Computational Social Systems (ICCSS, Chengdu, China, 2015, pp. 13{15,.

[115] Y. F. Zhao, F.-Y. Wang, H. Gao, F. H. Zhu, Y. S. Lv, and P. J. Ye, in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, vol. 2015-Octob, 2015, pp. 1183{1188.

[116] C. Gou, K. Wang, B. Li, and F.-Y. Wang, \Vehicle license plate recognition based on class-speci c ERs and SaE-ELM," in *2014 17th IEEE International Conference on Intelligent Transportation Systems, ITSC 2014*, 2014, pp. 2956{2961.

[117] Y. Liu, K. Wang, and F.-Y. Wang, \Visual vehicle tracking based on conditional random elds," in *2014 17th IEEE International Conference on Intelligent Transportation Systems, ITSC 2014*, 2014, pp. 3106{3111.

[118] X. Wang, K. Zeng, X.-L. Zhao, and F.-Y. Wang, \Using Web data to enhance tra c situation awareness," in *2014 17th IEEE International Conference on Intelligent Transportation Systems, ITSC 2014*, 2014, pp. 195{199.

[119] K. Zeng, X. Wang, Q. Zhang, X. Zhang, and F.-Y. Wang, \Behavior modeling of internet water army in online forums," in *IFAC Proceedings Volumes (IFAC-PapersOnline)*, vol. 19, 2014, pp. 9858{9863.

[120] Y.-F. Zhao, Q.-J. Kong, H. Gao, F.-H. Zhu, and F.-Y. Wang, \Parallel management for tra c signal control," in *2014 17th IEEE International Conference on Intelligent Transportation Systems, ITSC 2014*, 2014, pp. 2888{2893.

[121] W. Huang, Z. Yu, F. Zhu, L. Yang, and F.-Y. Wang, \Applicability of short range wireless networks in V2I applications," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, 2013, pp. 231{236.

[122] Q.-J. Kong, F.-Y. Wang, F. Zhu, and G. Xiong, \An overview of arti cial transportation systems," in *Proceedings of 2013 IEEE International Conference on Service Operations and Logistics, and Informatics, SOLI 2013*, 2013, pp. 253{258.

[123] Y. Li, F.-Y. Wang, B. Li, B. Tian, F. Zhu, G. Xiong, and K. Wang, \A multi-scale model integrating multiple features for vehicle detection," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, 2013, pp. 399{403.

[124] R. Qin, Y. Yang, F.-Y. Wang, and D. Zeng, \Boundary value problems for stochastic budget distribution in search advertisements," in *Proceedings of 2013 IEEE International Conference on Service Operations and Logistics, and Informatics, SOLI 2013*, 2013, pp. 225{230.

[125] Z. Shen, K. Wang, and F.-Y. Wang, \Application of vector ordinal optimization to the transportation systems with agent based modeling," in *Proceedings of 2013 IEEE International Conference on Automation Science and Engineering*, Madison, USA, 2013, pp. 17{20,.

[126] Y. Yao, X. Gang, K. Wang, F. Zhu, and F.-Y. Wang, \Vehicle detection method based on active basis model and symmetry in ITS," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, 2013, pp. 614{618.

[127] Z. Shen, K. Wang, and F.-Y. Wang, \GPU based Non-dominated Sorting Genetic Algorithm-II for multi-objective tra c light signaling optimization with agent based

modeling," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, 2013, pp. 1840{1845.

[128] Y. Hu, X. Liu, F.-Y. Wang, and C. Cheng, \An overview of agent-based evacuation models for building res," in *Proceedings of 2012 9th IEEE International Conference on Networking, Sensing and Control, ICNSC 2012*, 2012, pp. 382{386.

[129] S. Li, Z. Shen, and F.-Y. Wang, \A weighted pattern recognition algorithm for short-term tra c ow forecasting," in *Proceedings of 2012 9th IEEE International Conference on Networking, Sensing and Control, ICNSC 2012*, 2012, pp. 1{6.

[130] G. Xiong, J. Hou, F.-Y. Wang, T. R. Nyberg, J. Zhang, and M. FU, \Parallel system method to improve safety and reliability of nuclear power plant," in *Proceedings of the 8th World Congress on Intelligent Control and Automation (WCICA 2011*, Taipei, China, 2011, p. 237{242.

[131] G. Yuan and F.-Y. Wang, \Recognizing vehicle-contours with a compositional deformable model," in *Proceedings of 2011 IEEE International Conference on Vehicular Electronics and Safety, ICVES 2011*, 2011, pp. 232{237.

[132] F. Zhu, F.-Y. Wang, R. Li, Y. Lv, and S. Chen, \Modeling and analyzing transportation systems based on ACP approach," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, 2011, pp. 2136{2141.

[133] C.-J. Cheng, F. Cui, and F.-Y. Wang, \An investigation of Parallel Management Information System technology based on Service-Oriented Architecture," in *Proceedings of 2010 IEEE International Conference on Service Operations and Logistics, and Informatics, SOLI 2010*, 2010, pp. 342{345.

[134] F. Cui, C. Cheng, F.-Y. Wang, W. Wei, L. Li, and Y. Zou, \Accelerated gpu computing technology for parallel management systems," in *8th World Congress on Intelligent Control and Automation (WCICA*, Jinan, China, 2010, pp. 5343| -5347.

[135] M. Hong, F.-Y. Wang, X. Zhiquan, and C. Qian, \Linguistic dynamic systems based on type-2 fuzzy sets and their stabilities*," in *the 29th Chinese Control Conference*, Beijing, China, 2010, p. 801{804.

[136] X. Li, W. Mao, D. Zeng, and F.-Y. Wang, \Automatic construction of domain theory for attack planning," in *ISI 2010 - 2010 IEEE International Conference on Intelligence and Security Informatics: Public Safety and Security*, 2010, pp. 65{70.

[137] C. Nie, D. Zeng, X. Zheng, F.-Y. Wang, and H. Zhao, \Modeling open source software bugs with complex networks," in *Proceedings of 2010 IEEE International Conference on Service Operations and Logistics, and Informatics, SOLI 2010*, 2010, pp. 375{379.

[138] Y. Ou, S. Tang, and F.-Y. Wang, \Computational experiments for studying impacts of land use on tra c systems," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, 2010, pp. 1813{1818.

[139] J. Peng, D. Zeng, H. Zhao, and F.-Y. Wang, \Collaborative ltering in social tagging systems based on joint item-tag recommendations," in *International Conference on Information and Knowledge Management, Proceedings*, 2010, pp. 809{818.

[140] D. Sang, B. Lv, H. He, J. He, and F.-Y. Wang, \Analysis of neural interaction in motor cortex during reach-to-grasp task based on Dynamic Bayesian Networks," in *2010*

Annual International Conference of the IEEE Engineering in Medicine and Biology Society, EMBC'10, 2010, pp. 4140{4143.

[141] Z. Shen, F.-Y. Wang, C.-J. Cheng, and W.-N. Zhong, \A fuzzy model on how the management a ects a worker's state," in *Proceedings of 2010 IEEE International Conference on Service Operations and Logistics, and Informatics, SOLI 2010*, 2010, pp. 58{63.

[142]

[153] W. Youzhong, D. Zeng, Z. Xiaolong, and F.-Y. Wang, \Propagation of online news: Dynamic patterns," in *2009 IEEE International Conference on Intelligence and Security Informatics, ISI 2009*, 2009, pp. 257{259.

[154] X. Zhang and F.-Y. Wang, \Design and simulation of the tire pressure sensor based on the SAW resonator and the tire capacitor impedance," in *IEEE Intelligent Vehicles Symposium, Proceedings*, 2009, pp. 1173{1178.

[155] X. Zheng, C. D., W. Z., Q., and F.-Y. Wang, \Exploring evolutionary patterns of sars networks," in *Proceedings of the 2009 Biosurveillance and Biosecurity Workshop*, Taipei, 2009, pp. 24{25,.

[156] X. Zheng, D. Zeng, A. Sun, Y. Luo, Q. Wang, and F.-Y. Wang, \Inferring missing infectious links: A case study using 2003 beijing sars outbreak data," in *Proceedings of the 2009 Biosurveillance and Biosecurity Workshop, Taipei*, 2009, pp. 24{25,.

[157] J. Zhou, K. Wang, S. Tang, and F.-Y. Wang, \Trajectory learning and analysis based on kernel density estimation," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, 2009, pp. 178{183.

[158] F.-Y. Wang, \Social Computing: Fundamentals and applications," in *2008 IEEE International Conference on Intelligence and Security Informatics*, 2008, pp. xxxv{xxxviii.

[159] L. Bin, F.-Y. Wang, Y. Qingming, and G. Hui, \Closing the control loop in intelligent spaces systems: control over wireless networks with a packet loss perspective," in *2008 IEEE/ASME International Conference on Mechatronics and Embedded Systems and Applications, MESA 2008*, 2008, pp. 186{191.

[160] C.-L. Hsieh, J. Zhan, D. Zeng, and F.-Y. Wang, \Preserving privacy in joining recommender systems," in *Proceedings of the 2nd International Conference on Information Security and Assurance, ISA 2008*, 2008, pp. 561{566.

[161] J. Li, S. Tang, and F.-Y. Wang, \An investigation on ATS from the perspective of complex systems," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, 2008, pp. 20{24.

[162] Q. Yao, H. Gao, B. Liu, and F.-Y. Wang, \MODEL - Moving object detection and localization in wireless networks based on small-scale fading," in *SenSys'08 - Proceedings of the 6th ACM Conference on Embedded Networked Sensor Systems*, 2008, pp. 451{452.

[163] X. Zheng, D. Zeng, A. Sun, Y. Luo, Q. Wang, and F.-Y. Wang, \Network-based analysis of Beijing SARS data," *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, vol. 5354 LNBI, pp. 64{73, 2008.

[164] L. Li, F.-Y. Wang, and Y. Zhang, \Cooperative driving at lane closures," in *IEEE Intelligent Vehicles Symposium, Proceedings*, 2007, pp. 1156{1161.

[165] Z. Li, F. He, Q. Yao, and F.-Y. Wang, \Signal controller design for agent-based tra c control system," in *2007 IEEE International Conference on Networking, Sensing and Control, ICNSC'07*, 2007, pp. 199{204.

[166] J. Li, S. Tang, X. Wang, and F.-Y. Wang, \A software architecture for Arti cial Transportation Systems - principles and framework," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, 2007, pp. 229{234.

[167] B. Liu, F.-Y. Wang, J. Geng, Q. Yao, H. Gao, and B. Zhang, \Intelligent spaces: An overview," in *2007 IEEE International Conference on Vehicular Electronics and Safety, ICVES*, 2007.

[168] W. Mao, D. Zeng, L. Zhang, D. Wei, and F.-Y. Wang, \Social modeling and reasoning for security informatics," *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, vol. 4430 LNCS, pp. 321{322, 2007.

[169] Y. Li, F. Zhu, Y. Ai, and F.-Y. Wang, \On automatic and dynamic camera calibration based on tra c visual surveillance," in *IEEE Intelligent Vehicles Symposium, Proceedings*, 2007, pp. 358{363.

[170] X. Qiao, K.-F. Wang, Y. Sun, W.-L. Huang, and F.-Y. Wang, \A genetic algorithms based optimization for TTCAN," in *2007 IEEE International Conference on Vehicular Electronics and Safety, ICVES*, 2007.

[171] X. Qiao, Z. Wang, Y. Sun, F. He, and F.-Y. Wang, \A CAN and OSEK NM based siren for automobiles," in *2007 IEEE International Conference on Networking, Sensing and Control, ICNSC'07*, 2007, pp. 868{873.

[172] Y. Sun, W.-L. Huang, S.-M. Tang, X. Qiao, and F.-Y. Wang, \Design of an OSEK/VDX and OSGi-based embedded software platform for vehicular applications," in *2007 IEEE International Conference on Vehicular Electronics and Safety, ICVES*, 2007.

[173] L. Zhao and F.-Y. Wang, \The design of self-organizing fuzzy neural networks based on GA-ECPSO and MBP," in *Conference Proceedings - IEEE International Conference on Systems, Man and Cybernetics*, 2007, pp. 1618{1623.

[174] K. Wang, H. Huang, Y. Li, and F.-Y. Wang, \Research on lane-marking line based camera calibration," in *2007 IEEE International Conference on Vehicular Electronics and Safety, ICVES*, 2007.

[175] K. Wang, Q. Yao, X. Qiao, S. Tang, and F.-Y. Wang, \Moving object re ning in tra c monitoring applications," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, 2007, pp. 540{545.

[176] C. X. Wei, X. B. Cao, Y. W. Xu, H. Qiao, and F.-Y. Wang, \The treelike assembly classi er for pedestrian detection," *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, vol. 4430 LNCS, pp. 232{237, 2007.

[177] Q. Yao, F.-Y. Wang, H. Gao, K. Wang, and H. Zhao, \Location estimation in ZigBee network based on ngerprinting," in *2007 IEEE International Conference on Vehicular Electronics and Safety, ICVES*, 2007.

[178] L. Zhao and F.-Y. Wang, \Design for self-organizing fuzzy neural networks using a novel hybrid learning algorithm," in *2007 IEEE Congress on Evolutionary Computation, CEC 2007*, 2007, pp. 2972{2979.

[179] D. Zeng, L. Zhang, D. Wei, and F.-Y. Wang, \A web portal for terrorism activities in China," *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, vol. 4430 LNCS, pp. 307{308, 2007.

[180] L. Zhao and F.-Y. Wang, \Design for recurrent fuzzy neural networks using MSC-MFS and PSO-MBP," in *Conference Proceedings - IEEE International Conference on Systems, Man and Cybernetics*, 2007, pp. 1602{1607.

[181] W. Zhu and F.-Y. Wang, \Properties of the third type of covering-based rough sets," in *Proceedings of the Sixth International Conference on Machine Learning and Cybernetics, ICMLC 2007*, vol. 7, 2007, pp. 3746{3751.

[182] L. Zhao and F.-Y. Wang, \Short-term fuzzy tra c ow prediction using self-organizing TSK-type fuzzy neural network," in *2007 IEEE International Conference on Vehicular Electronics and Safety, ICVES*, 2007.

[183] D. Chen, X. B. Cao, Y. W. Xu, H. Qiao, and F.-Y. Wang, \A SVM-based classi er with shape and motion features for a pedestrian detection system," in *IEEE Intelligent Vehicles Symposium, Proceedings*, 2006, pp. 331{335.

[184] F. He, Q. Miao, Y. Li, F.-Y. Wang, and S. Tang, \Modeling and analysis of arti cial transportation system based on multi-agent technology," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, 2006, pp. 1120{1124.

[185] F. He, F.-Y. Wang, and S. Tang, \An agent-based controller for vehicular automation," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, 2006, pp. 771{776.

[186] Z. Li, F.-Y. Wang, Q. Miao, and F. He, \An urban tra c control system based on mobile multi-agents," in *2006 IEEE International Conference on Vehicular Electronics and Safety, ICVES*, 2006, pp. 103{108.

[187] Z. Li, K. Wang, L. Li, and F.-Y. Wang, \A review on vision-based pedestrian detection for intelligent vehicles," in *2006 IEEE International Conference on Vehicular Electronics and Safety, ICVES*, 2006, pp. 57{62.

[188] Q. Miao, Z. Wang, F.-Y. Wang, S. Tang, and F. He, \An implementation of arti cial transportation systems based on JXTA," in *2006 IEEE International Conference on Vehicular Electronics and Safety, ICVES*, 2006, pp. 93{97.

[189] Y. Sun, F.-Y. Wang, Z.-X. Wang, X. Qiao, and K.-F. Wang, \A scheduling algorithm for vehicular application speci c embedded operating systems," in *Conference Proceedings - IEEE International Conference on Systems, Man and Cybernetics*, vol. 3, 2006, pp. 2535{2540.

[190] S. Tang, F.-Y. Wang, G. Wang, X. Jia, and F. Liu, \Development and research of intelligent transportation systems in china's tenth ve-year plan," in *Proceedings of 2006 IEEE International Conference on Intelligent Transportation Systems Conference*, Toronto, Ont., Canada, 2016, pp. 17{20,.

[191] K. Wang, Z. Li, Y. Sun, X. Qiao, and F.-Y. Wang, \An embedded system for vision-based driving environment perception," in *Proceedings of the 2nd IEEE/ASME International Conference on Mechatronic and Embedded Systems and Applications, MESA 2006*, 2006.

[192] J. Xu, W.-S. Yu, and F.-Y. Wang, \Ramp metering based on adaptive critic designs," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, 2006, pp. 1531{1536.

[193] Y. W. Xu, X. B. Cao, H. Qiao, and F.-Y. Wang, \A cascaded classi er for pedestrian detection," in *IEEE Intelligent Vehicles Symposium, Proceedings*, 2006, pp. 336{343.

[194] W. Zhu and F.-Y. Wang, \Relationships among three types of covering rough sets," in *2006 IEEE International Conference on Granular Computing*, 2006, pp. 43{48.

[195] F. Zhu, Z. Wang, F.-Y. Wang, and S. Tang, \Modeling interactions in arti cial

[206] Y. Li, F.-Y. Wang, F. He, and Z. Li, \OSGi-based service gateway architecture for intelligent automobiles," in *IEEE Intelligent Vehicles Symposium, Proceedings*, vol. 2005, 2005, pp. 861{865.

[207] L. Li, F.-Y. Wang, and Q. Zhou, \An LMI approach to robust vehicle steering controller design," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, vol. 2005, 2005, pp. 90{95.

[208] Y. Lin and F.-Y. Wang, \Modular structure of fuzzy system modeling using wavelet networks," in *2005 IEEE Networking, Sensing and Control, ICNSC2005 - Proceedings*, vol. 2005, 2005, pp. 671{676.

[209] Y. Sun and F.-Y. Wang, \A design architecture for OSEK/VDX-based vehicular application speci c embedded operating systems," in *IEEE Intelligent Vehicles Symposium, Proceedings*, vol. 2005, 2005, pp. 882{887.

[210] Y. Lin and F.-Y. Wang, \Predicting chaotic time series using adaptive wavelet-fuzzy inference system," in *IEEE Intelligent Vehicles Symposium, Proceedings*, vol. 2005, 2005, pp. 888{893.

[211] F.-Y. Wang, \Global monitoring and security assistance based on next generation internet for public and safety enhancement," in *Proceedings of 2005 IEEE International Conference on Intelligent Transportation Systems (ITSC'05*, Vienna, Austria, 2005, pp. 16{16,.

[212] F.-Y. Wang and S. Tang, \A framework for arti cial transportation systems: From computer simulations to computational experiments," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, vol. 2005, 2005, pp. 1130{1134.

[213] F.-Y. Wang, \Agent-based control strategies for smart and safe vehicles," in *2005 IEEE International Conference on Vehicular Electronics and Safety Proceedings*, vol. 2005, 2005, pp. 331{332.

[214] H. Zhang, F.-Y. Wang, and Y. Ai, \An OSGi and agent based control system architecture for smart home," in *2005 IEEE Networking, Sensing and Control, ICNSC2005 - Proceedings*, vol. 2005, 2005, pp. 13{18.

[215] H. Zhang and F.-Y. Wang, \A review of Petri Net based modeling and veri cation for embedded real-time systems," in *Proceedings of the ASME International Design Engineering Technical Conferences and Computers and Information in Engineering Conference - DETC2005*, vol. 4, 2005, pp. 257{264.

[216] X. Zhang, Z. Wang, W. Li, D. He, and F.-Y. Wang, \A fuzzy logic controller for an intelligent tires system," in *IEEE Intelligent Vehicles Symposium, Proceedings*, vol. 2005, 2005, pp. 875{881.

[217] H. Zhang and F.-Y. Wang, \A scheduling algorithm of time-triggered period tasks for distributed embedded system," in *Proceedings of the ASME International Design Engineering Technical Conferences and Computers and Information in Engineering Conference - DETC2005*, vol. 4, 2005, pp. 55{60.

[218] Q. Zhou, F.-Y. Wang, and L. Li, \Robust sliding mode control of 4WS vehicles for automatic path tracking," in *IEEE Intelligent Vehicles Symposium, Proceedings*, vol. 2005, 2005, pp. 819{826.

[219] D.-Z. He, F.-Y. Wang, W. Li, and X.-W. Zhang, \Hybrid earliest deadline rst /preemption threshold scheduling for real-time systems," in *Proceedings of 2004 International Conference on Machine Learning and Cybernetics*, vol. 1, 2004, pp. 433{438.

[220] F.-Y. Wang, G. Lai, and S. Tang, \An application speci c knowledge engine for researches in intelligent transportation systems," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, 2004, pp. 841{846.

[221] X. Zhang, F.-Y. Wang, Z. Wang, W. Li, and D. He, \Intelligent tires based on wireless passive surface acoustic wave sensors," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, 2004, pp. 960{964.

[222] Q. Zhou and F.-Y. Wang, \Driver assisted fuzzy control of yaw dynamics for 4WD vehicles," in *IEEE Intelligent Vehicles Symposium, Proceedings*, 2004, pp. 425{430.

[223] F.-Y. Wang and C.-H. Wang, \Agent-based control systems for operation and management of intelligent network-enabled devices," in *SMC'03 Conference Proceedings. 2003 IEEE International Conference on Systems, Man and Cybernetics. Conference Theme - System Security and Assurance (Cat. No.03CH37483)*, vol. 5, 2003, pp. 5028{5033 vol.5.

[224] D. Chen, J. Zhang, J. Wang, and F.-Y. Wang, \Freeway tra c stream modeling based on principal curves," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, vol. 1, 2003, pp. 368{372.

[225] G. Lai and F.-Y. Wang, \A new safety warning system based on implementation of digital vehicle/highway technology," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, vol. 2, 2003, pp. 1776{1779.

[226] L. Li and F.-Y. Wang, \Parking guidance system for front wheel steering vehicles using trajectory generation," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, vol. 2, 2003, pp. 1770{1775.

[227] L. Li, F.-Y. Wang, G. Lai, and F. Wu, \Online autonomous guidance system for remote experiments in control engineering," in *Proceedings of the IEEE International Conference on Systems, Man and Cybernetics*, vol. 3, 2003, pp. 2444{2449.

[228] L. Li and F.-Y. Wang, \An integrated design framework for driver/ passenger-oriented trajectory planning," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, vol. 2, 2003, pp. 1764{1769.

[229] G. Qin, A. Ge, and F.-Y. Wang, \On-board fault diagnosis system of automated manual transmission control system," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, vol. 2, 2003, pp. 932{937.

[230] L. Li and F.-Y. Wang, \Trajectory generation for driving guidance of front wheel steering vehicles," in *IEEE Intelligent Vehicles Symposium, Proceedings*, 2003, pp. 231{236.

[231] S. Tang and F.-Y. Wang, \A new measure for evaluating level of service for tra c operational systems," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, vol. 1, 2003, pp. 130{135.

[232] F.-Y. Wang, X. Wang, L. Li, P. Mirchandani, and Z. Wang, \Design and construction of a digital vehicle proving ground," in *Proceedings of IEEE 2003 Intelligent Vehicles Symposium*, Columbus, OH, USA, 2003, pp. 9{11,.

[233] F.-Y. Wang, \Integrated intelligent control and management for urban tra c systems," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, vol. 2, 2003, pp. 1313{1317.

[234] F.-Y. Wang, G. Lai, and P. Mirchandani, \Deployment of digital vehicle/highway technology for safety enhancement," in *IEEE Intelligent Vehicles Symposium, Proceedings*, 2003, pp. 204{207.

[235] L.-X. Zhu and F.-Y. Wang, \Component-based constructing approach for application speci c embedded operating systems," in *Proceedings of 2003 IEEE Intelligent Transportation Systems*, vol. 12, Oct. 12-15, Shanghai, China, 2003, p. 1338{1343.

[236] L. Chen and F.-Y. Wang, \A neuro-fuzzy system approach for forecasting short-term freeway tra c ows," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, 2002, pp. 747{751.

[237] H. Gao, L. Li, R. Liu, and F.-Y. Wang, \Changeable phases signal control of an isolated intersection," *Proceedings of the IEEE International Conference on Systems, Man and Cybernetics*, vol. 5, pp. 436{439, 2002.

[238] X. Gong and F.-Y. Wang, \Three improvements on KNN-NPR for tra c ow forecasting," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, vol. 2002-Janua, 2002, pp. 736{740.

[239] L. Li and F.-Y. Wang, \The automated lane-changing model of intelligent vehicle highway systems," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, vol. 2002-Janua, 2002, pp. 216{218.

[240] L. Li, H. Gao, R. Liu, and F.-Y. Wang, \Control signal coordination of two adjacent tra c intersections," *Proceedings of the IEEE International Conference on Systems, Man and Cybernetics*, vol. 6, pp. 255{260, 2002.

[241] L. Li and F.-Y. Wang, \Vehicle trajectory generation for optimal driving guidance," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, vol. 2002-Janua, 2002, pp. 231{235.

[242] X.-M. Liu and F.-Y. Wang, \Study of city area tra c coordination control on the basis of agent," in *IEEE Conference on Intelligent Transportation Systems, Proceedings, ITSC*, vol. 2002-Janua, 2002, pp. 758{761.

[243] X. Liu and F.-Y. Wang, \An agent-based study of coordination control for metropolitan area tra c ow," in *Proceedings of IEEE International Conference on Intelligent Transportation Systems*, Singapore, Sept, 2002, pp. 3{6,.

[244] S. Tang, X. Gong, and F.-Y. Wang, \Tra c incident detection algorithm based on non-parameter regression," in *Proceedings of 2002 IEEE International Conference on Intelligent Transportation Systems*, Singapore, 2002, pp. 3{6,.

[245] F.-Y. Wang and T. Yang, \From conventional dynamic systems to linguistic dynamic systems," *Proceedings of the IEEE International Conference on Systems, Man and Cybernetics*, vol. 7, pp. 403{408, 2002.

[246] F.-Y. Wang, Y.T.Lin, X. Huang, Z. Wang, S. Jian, and Q. Wu, \Smart control for smart consumer appliances: a neuro-fuzzy-based approach," in *Proc. of Int'l Appliance Technical Conference*, Columbus, Ohio, USA, March, 2001, p. 25{28.

[247] M. Fu, C. Yeo, Y. Lin, and F.-Y. Wang, \WAVES: Towards real time laboratory experiments in cyberspace," *Proceedings of the IEEE International Conference on Systems, Man and Cybernetics*, vol. 5, pp. 3470{3474, 2001.

[248] X. Gong, D. Chen, X.-M. Liu, S. Tang, and F.-Y. Wang, \Initial investigation on traﬃc ﬂow characteristics of beijing no. 3 loop highway," in *Proceedings of 2001 IEEE International Conference On Systems*, vol. 4, Man, and Cybernetics, Tucson, AZ, USA, 2001, p. 2511{2515.

[249] G. Lai, M. Liu, F.-Y. Wang, and D. Zeng, \Web caching: Architectures and performance evaluation survey," in *Proceedings of the IEEE International Conference on Systems, Man and Cybernetics*, vol. 5, 2001, pp. 3039{3044.

[250] J. Li and F.-Y. Wang, \An adaptive algorithm for processing both periodic and aperiodic messages in intelligent home gateway," in *Proceedings of the IEEE International Conference on Systems, Man and Cybernetics*, vol. 5, 2001, pp. 3479{3482.

[251] X. Liu, D. Chen, X. Gong, S. Tang, W. Xu, F. Wu, and F.-Y. Wang, \Study on the loop control structure of traﬃc ﬂow based on self-organization theory," *Proceedings of the IEEE International Conference on Systems, Man and Cybernetics*, vol. 2, pp. 1377{1383, 2001.

[252] M. Liu, F.-Y. Wang, D. Zeng, and L. Yang, \An overview of world wide web caching," in *Proceedings of the IEEE International Conference on Systems, Man and Cybernetics*, vol. 5, 2001, pp. 3045{3050.

[253] S. A. Nobe and F.-Y. Wang, \An overview of recent developments in automated lateral and longitudinal vehicle controls," in *Proceedings of the IEEE International Conference on Systems, Man and Cybernetics*, vol. 5, 2001, pp. 3447{3452.

[254] F.-Y. Wang and Y. Huang, \A non-trial-and-error method for phase-lead and phase-lag compensator design," in *Proceedings of the IEEE International Conference on Systems, Man and Cybernetics*, vol. 3, 2001, pp. 1654{1660.

[255] Q. Wu, F.-Y. Wang, and Y. Lin, \A mobile-agent based distributed intelligent control system architecture for home automation," in *Proceedings of the IEEE International Conference on Systems, Man and Cybernetics*, vol. 3, 2001, pp. 1648{1653.

[256] M. Fu, C. Yeo., Y. Lin, and F.-Y. Wang, \Waves: Web-based audio/video educational systems for real-time laboratory experiments," *IEEE Symposium on Advance in Control Education*, vol. 33, no. ue: 31, p. 205{212, 2000.

[257] F.-Y. Wang, Y. Lin, and J. B. Pu, \Linguistic dynamic systems and computing with words for complex systems," *Proceedings of the IEEE International Conference on Systems, Man and Cybernetics*, vol. 4, pp. 2399{2404, 2000.

[258] F.-Y. Wang, Y. Lin, Q. Wu, P. M. Fu, and C. Yeo, \Architecture and implementation of intelligent control systems for smart consumer appliances via Internet," *Proceedings of the IEEE International Conference on Systems, Man and Cybernetics*, vol. 1, pp. 599{602, 2000.

[259] F.-Y. Wang, \Network-based neuro-fuzzy control systems for smart consumer electronics," in *Proceedings of 5th US-Sino Conf on Science and Technology*, Beijing, 1999.

[260] J. Xiao, F.-Y. Wang, and W.N.Chen, \Optimization of mass and rigidity distributions for exible manipulators," in *Proceedings of 14th International Conference on Computers and Their Applications*, Cancun, Mexico, 1999.

[261] P. Zhou, F.-Y. Wang, and P.Lever, \Concurrent optimization of structure and controller of exible robotic arms," in *Proceedings of 14th International Conference on Computers and Their Applications*, Cancun, Mexico, 1999.

[262] P. Zhou and F.-Y. Wang, \Mechatronics-based integrated construction and control of exible manipulators," in *Proceedings of the 14th World Congress of International Federation of Automatic Control*, Beijing, China, 1999.

[263] P. Zhou, F.-Y. Wang, and P.Lever, \Mechatronics for optimal design of exible robotic arms," in *Proceedings of the 14th World Congress of International Federation of Automatic Control*, Beijing, China, 1999.

[264] F.-Y. Wang and G. Saridis, \On dynamic error back propagation for neuro-fuzzy networks," in *Fifth International Conference on Fuzzy Theory and Technology*, Research Triangle Park, NC, 1997, pp. 1{5,.

[265] F.-Y. Wang, \Outline for a computational theory of linguistic dynamic systems," in *First International Workshop on Semiotic Analysis and Design of Intelligent Systems*, Research Triangle Park, NC, 1997, pp. 1{5,.

[266] Z. Shan, H.-m. Kim, and F.-Y. Wang, \Plant identi cation and performance optimization for neuro-fuzzy networks," in *Proceedings of the IEEE International Conference on Systems, Man and Cybernetics*, vol. 4, 1996, pp. 2607{2612.

[267] X. Shi, P. J. A. Lever, and F.-Y. Wang, \Experimental robotic excavation with fuzzy logic and neural networks," in *Proceedings - IEEE International Conference on Robotics and Automation*, vol. 1, 1996, pp. 957{962.

[268] F.-Y. Wang and H. Zhang, \A computational approach for linguistic systems and its application to hybrid control systems," in *Proceedings of 1996 IEEE International Conference on Systems, Man and Cybernetics*, Beijing, China, 1996, pp. 14{17,.

[269] F.-Y. Wang, P. Zhou, and P. Lever, \Dynamic e ects of rotatory inertia and shear deformation on exible manipulators," in *Proceedings of the IEEE International Conference on Systems, Man and Cybernetics*, vol. 3, 1996, pp. 2315{2320.

[270] P. X. Zhou, M. S. Williams, and F.-Y. Wang, \On the closed-loop design of exible robotic links," in *Proceedings of the IEEE International Conference on Systems, Man and Cybernetics*, vol. 3, 1996, pp. 1712{1717.

[271] X. Shi, F.-Y. Wang, and P. J. A. Lever, \Task and behavior formulations for robotic rock excavation," in *IEEE International Symposium on Intelligent Control - Proceedings*, 1995, pp. 248{253.

[272] F.-Y. Wang, \Modeling, analysis and synthesis of linguistic dynamic systems: A computational theory," in *Proc. of IEEE International Workshop on Architecture for Semiotic Modeling and Situation Control in Large Complex Systems*, Monterrey, CA, 1995.

[273] F.-Y. Wang and J. L. Russell, \A new approach to optimum exible link design," in *Proceedings of 1995 IEEE International Conference on Robotics & Automation*, Nagoya, Japan, 1995, p. 931{936.

[274] H.-M. Kim and F.-Y. Wang, \Design of adaptive neuro-fuzzy controllers," in *Proceedings of IEEE International Conference on Systems, Man and Cybernetics*, vol. 2, 1994, pp. 1809{1814 vol.2.

[275] F.-Y. Wang, M.Marefat, P. J. Lever, and L. Schooley, \An intelligent robotic vehicle for lunar/martian applications," in *Proc. of 4th International Conference on Engineering, Construction, and Operations in Space*, Albuquerque, NM, 1994.

[276] P. J.A.Lever, F.-Y. Wang, and D.Q.Chen, \A fuzzy control system for an automated mining excavator," in *Proceedings of 1994 IEEE International Conference on Robotics and Automation*, vol. 4, San Diego, CA, 1994, pp. 8{13,.

[277] P. Lever, F.-Y. Wang, X. Shi, and D. Chen, \A fuzzy-behavior-based approach for controlling mining excavator bucket/rock interactions," in *Proceedings of 1994 IEEE Industry Applications Society Annual Meeting*, vol. 3, Denver, CO, USA, 1994, p. 2126{2133.

[278] P. Lever and F.-Y. Wang, \Intelligent excavation control for a lunar mining system," in *Proc. of 4th International Conference on Robotics for Challenging Environments*, Albuquerque, NM, 1994, p. 97{105.

[279] F.-Y. Wang and D. D. Chen, \Learning laws for neural-network implementation of fuzzy control systems," in *Proceedings of the IEEE International Conference on Systems, Man and Cybernetics*, vol. 2, 1994, pp. 1803{1808.

[280] F.-Y. Wang, H.-m. Kim, and M. Zhou, \Dynamic back propagation for neuro-fuzzy networks," in *Proc of IEEE International Conference on Electronics and Information Technology*, Beijing, China, 1994.

[281] F.-Y. Wang and P. Lever, \On-line trajectory planning for autonomous robotic excavation based on a force/torque sensor measurements," in *Proceedings of 1994 IEEE International Conference on Multi-Sensor Fusion and Intelligent Systems*, Las Vegas, NV, USA, 1994, p. 371{378.

[282] C. Askew, M. Sundareshan, and F.-Y. Wang, \A neural network pattern classi cation approach for payload adaptive regulation of exible manipulators," in *Proceedings of American Control Conference*, San Francisco, CA, USA, 1993, p. 2518{2519.

[283] F.-Y. Wang and T.R.Chen, \Structure and motion estimation by optical ow for exible bodies," in *Proc. of 9th International CAD/CAM, Robotics and Factories of the Future Conference*, Newark, NJ, 1993.

[284] F.-Y. Wang, P.Lever, L. Schooley, and M. Marefat, \Development of an intelligent robotic vehicle system for lunar/martian applications," in *Proc. of the 1st Chinese World Congress on Intelligent Control and Intelligent Automation*, Beijing, China, 1993.

[285] F.-Y. Wang, \Optimum design of exible robot arms: A mechatronic approach," in *Proc. of the First Chinese World Congress on Intelligent Control and Intelligent Automation*, Beijing, China, 1993.

[286] F.-Y. Wang and J. L. Russell, \Minimum-weight robot arm for a speci ed fundamental frequency," in *Proceedings - IEEE International Conference on Robotics and Automation*, vol. 3, 1993, pp. 490{495.

[287] F.-Y. Wang, \Finding the maximum bandwidth of a exible arm," in *Proceedings of the IEEE Conference on Decision and Control*, vol. 1, 1993, pp. 619{620.

[288] F.-Y. Wang and B. Pu, \Planning time-optimal trajectory for coordinated robot arms," in *Proceedings of 1993 IEEE Conference on Robotics and Automation*, Atlanta, Georgia, USA, 1993, p. 245{250.

[289] F.-Y. Wang, \Adaptive design of fuzzy control systems using neural networks," in *Proc. of the First Chinese World Congress on Intelligent Control and Intelligent Automation*, Beijing, China, 1993.

[290] F.-Y. Wang and B. Pu, \Time-optimal trajectory generation for coordinated robotic manipulators using cell-to-cell mapping method," in *Proceedings of SPIE - The International Society for Optical Engineering*, vol. 1612, 1992, pp. 115{122.

[291] F.-Y. Wang and T. Yi, \Modeling and control of rotating robotic space platforms," in *Proceedings of IEEE Int'l Conf. on Decision and Control*, Tucson, AZ, 1992.

[292] F.-Y. Wang and B. Pu, \Optimal trajectory generation for coordinated robotic manipulators using cell-to-cell mapping method," in *Proc. of SPIE Conference on Intelligent Robotic Systems*, Boston, MA, 1992.

[293] H. Xie and F.-Y. Wang, \Modeling, analysis, and performance evaluation of cim systems using petri nets," in *Proceedings of Japan-US Symposium on Flexible Automation*, San Francisco, CA, 1992.

[294] F.-Y. Wang, \Supervisory control for concurrent discrete event dynamic systems based on petri nets," in *[1992] Proceedings of the 31st IEEE Conference on Decision and Control*. IEEE, 1992, pp. 1196{1197.

[295] F.-Y. Wang, O. Kwan, and T.-Y. Yi, \Dynamic modeling of rotating exible platforms," in *[1992] Proceedings of the 31st IEEE Conference on Decision and Control*. IEEE, 1992, pp. 1315{1316.

[296] F.-Y. Wang and J. L. Russell, \Optimum shape construction of exible manipulators with tip loads," in *[1992] Proceedings of the 31st IEEE Conference on Decision and Control*. IEEE, 1992, pp. 311{316.

[297] F.-Y. Wang and G. Saridis, \Suboptimal control for nonlinear stochastic systems," in *[1992] Proceedings of the 31st IEEE Conference on Decision and Control*. IEEE, 1992, pp. 1856{1861.

[298] F.-Y. Wang and S. G.N., \Coordination structures for speci cation of integration in intelligent machines," in *Proceedings of 1991 IEEE International Conference on Robotics and Automation*, vol. 3, Sacramento, CA, USA, Apr, 1991, p. 9{11.

[299] F.-Y. Wang, H. Jungnitz, and K. Gildea, \Performance analysis of mms using gspn," in *Proceedings. 1991 IEEE International Conference on Robotics and Automation*. IEEE Computer Society, 1991, pp. 1573{1574.

[300] F.-Y. Wang, \A modi ed reachability tree for petri nets," in *Conference Proceedings 1991 IEEE International Conference on Systems, Man, and Cybernetics.* IEEE, 1991, pp. 329{334.

[301] F.-Y. Wang and G.N.Saridis, \Petri net transducers for task translation in intelligent machines," in *Proceedings of IFAC International Workshop on Discrete Event Systems Theory and Applications in Manufacturing and Social Phenomena*, Shen Yang, China, 1991, p. 86{90.

[302] F.-Y. Wang, S.Jagdale, and H. Xie, \Speci cation and veri cation of a cim system," in *Proceedings of IFAC International Symposium on Distributed Intelligent Systems (DIS'91*, Washington, D.C, 1991.

[303] F.-Y. Wang and G. Saridis, \Task plan generation for intelligent machines," in *Proceedings. 5th IEEE International Symposium on Intelligent Control 1990.* IEEE, 1990, pp. 677{682.

[304] F.-Y. Wang and G. K., \Manufacturing message speci cation design and analysis using petri nets," in *Proc. of International Workshop on Formal Methods in Engng Design, Manufacturing, and Assembly*, Colorado, CO, 1990.

[305] F.-Y. Wang and G. Saridis, \A model for coordination of intelligent machines using petri nets," in *Pro. Third IEEE International Symposium on Intelligent Control*, Arlington, VA, USA, 1988, p. 28{33.