

## GAI-GE WANG

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**Short Biography:**

I obtained my bachelor degree in Computer Science and Technology from Yili Normal University, Yining, Xinjiang, China, in 2007. My master degree was in the field of Intelligent Planning and Planning Recognition at Northeast Normal University, Changchun, China. In 2010 I began working on my Ph.D for Computational Intelligence Techniques and Its Applications at Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences, Changchun, China. I am currently an associate professor in Department of Computer Science and Technology, College of Information Science and Engineering at Ocean University of China, Qingdao, China. I am a Master's Supervisor. In addition, I was a visiting scholar in Department of Electrical and Computer Engineering, University of Alberta, Canada under the guidance of Prof. Dr. Witold Pedrycz from November 2015 to November 2016.

My research interests are evolutionary computation, swarm intelligence, and big data optimization. I just proposed four bio-inspired metaheuristic algorithms, which are MBO (monarch butterfly optimization), EWA (earthworm optimization algorithm), EHO (elephant herding optimization), and MS (moth search) algorithm.

I am the Principal Investigator of three projects and taken part in many projects, such as National Natural Science Foundation of China, and computer simulation laboratory construction. I have gotten the Second Class Award in Scientific and Technological Award of Jiangsu Province (Natural Science), Jiangsu Province, China, 2018 and Second Class Award in Research Achievements (Science and Technology), Ministry of Education, China, 2017.

I have published **121** papers in total, including **93** journal papers, **5** book chapter/section, and **23** conference papers. **102** papers are indexed by SCI/EI (**82** indexed by SCI, **53** first/corresponding author, **20** indexed by EI). My total IF is **260.511**, and first author/corresponding author is **175.188**. I have edited **one** book in English. My entire publications have been cited over **6200** times (Google Scholar). One of my papers has **336** citations, **21** of my papers have been cited over **100** times, and **17** of my papers have been cited over **50** times. **2** of my papers are selected as Top 0.1% Hot Paper by Web of Science, and **15** of my papers are selected as Top 1% Highly Cited Paper by Web of Science. According to Google Scholar, the latest h-index and i10-index of my publications are **43**

and **85**, respectively. According to Web of Science, the latest h-index and i10-index of my publications are **44** and **72**, respectively. According to Scopus, the latest h-index and i10-index of my publications are **37** and **66**, respectively. One of my paper ranks 1 in the selection of the latest high-impact publications in computer science by Chinese researchers across from Springer Nature in the year 2019. According to the “Top H-Index For Scientists in China” of the website Guide2Research, I rank **107** in China and **3863** over the world. **41** of my papers is selected as the top 1% (**19**), 2% (**3**), 3% (**5**), 4% (**1**), 5% (**1**), 6% (**1**), 7% (**1**), 8% (**2**), 10% (**2**), 12% (**1**), 14% (**2**), 25% (**2**), and 35% (**3**) Highly Cited Paper by Scopus, respectively (till September 24, 2019). **One** of my papers is selected as the most cited articles published by **Information Sciences** since 2013, extracted from Scopus. **One** of my papers is selected as the most cited articles published by **Neurocomputing** since 2012, extracted from Scopus. **One** of my papers is selected as the most cited articles published by **Applied Mathematical Modelling** since 2012, extracted from Scopus. Six of my papers is selected as the top 1% (**1**), 2% (**1**), 3% (**2**), 4% (**1**), and 7% (**1**) Highly Cited Paper published by **Neural Computing & Applications**, respectively. **One** of my papers is selected as the most cited papers from **International Journal on Artificial Intelligence Tools** published in the last 15 years, extracted from the Institute for Scientific Information. **Two** of my papers is selected as the top 1% and 2% Highly Cited Paper published by **Soft Computing**. **One** of my papers is selected as the top 6% Highly Cited Paper published by **Memetic Computing**. **One** of my papers is selected as the most cited papers from **Kybernetes** published in the last 3 years, extracted from Crossref. **One** of my papers is selected as the top 10% Highly Cited Paper published by **Artificial Intelligence Review**. **One** of my papers is selected as the most cited papers from **Journal of Sensor and Actuator Networks**. **One** of my papers is selected as the most cited articles published by **Algorithms** last 24 months. One of my papers is selected as “Top Articles from Outstanding S&T Journals of China-F5000 Frontrunner”. Also, my current RG Score is **34.61**.

I served as Editors-in-Chief of *OAJRC Computer and Communications*, Section Editor of *Current Chinese Computer Science*, Editorial Advisory Board Member of *Communications in Computational and Applied Mathematics (CCAM)*, Associate Editor of *IEEE Access (SCI)* from 2019 and *International Journal of Computer Information Systems and Industrial Management Applications (IJCISIM)* from 2016, and an Editorial Board Member of *Mathematics (SCI)* from 2019, *International Journal of Bio-Inspired Computation (IJBIC, SCI)* from 2016, *Karbala International Journal of Modern Science (KIJOMS)* from 2018, *Journal of Artificial Intelligence and Systems* from 2019, *Journal of Networked and Innovative Computing (JNIC)* from 2019, and *OAJRC Computer and Communications* from 2019, *Metaheuristic Computing and Applications (MCA)* from 2020. I served as Guest-Editor/co-Guest-Editor for many journals including *Journal of Zhengzhou University (Engineering Science)*, *Mathematics*, *Journal of Ambient Intelligence and Humanized Computing*, *International Journal of Bio-Inspired Computation (IJBIC)*, *Future Generation Computer Systems*, *Memetic Computing*, *Operational Research: An International Journal*, *International Journal of Spatio-Temporal Data Science*, *Mathematics*, and *International Journal of World Review of Science, Technology and Sustainable Development*.

Invited to School of Information & Computer at **Anhui Agricultural University**, School of Computer Science and Technology at **Anhui University**, Chongqing Key Laboratory of Big Data and Intelligent Computing, Chongqing Institute of Green and Intelligent Technology, **Chinese Academy of Sciences**, School of Science at **Beijing University of Posts and Telecommunications**, School of Information and Control Engineering at **China University of Mining and Technology**,

College of Science at **Jiangxi University of Science and Technology**, College of Information Science and Technology at **Jilin Agricultural University**, College of Computer and Information Engineering and College of Software at **Henan Normal University**, College of Computer Science and Technology at **Huaqiao University**, College of Engineering at **Shantou University**, Hangzhou Institute of Service Engineering, School of Information Science and Engineering at **Hangzhou Normal University**, College of Computer Science and Technology, College of Software at **Zhejiang University of Technology**, School of Physics and Electronic Engineering at **Hanshan Normal University**, School of Science at **Dalian Maritime University**, College of Information Science and Technology at **Northeast Normal University**, School of Computer Science and Technology, and Key Laboratory of Symbolic Computation and Knowledge Engineering, Ministry of Education at **Jilin University**, Computer and Information Science Department at **University of Macau**, College of Information Science and Technology at **Northeast Normal University**, School of School of Computer and Communication Engineering (School of Electronic Information Engineering) at **Zhengzhou University of Light Industry**, School of Electronica and Information Engineering at **Henan Polytechnic Institute**, School of Computer at **China University of Geosciences (Wuhan)**, School of Computer Science and Network Security at **Dongguan University of Technology**, College of Computer and Information Engineering and College of Software at **Henan Normal University**, College of Information Science and Engineering at **Linyi University**, Computational Intelligence Laboratory at **Zhengzhou University**, College of Computer and Information Engineering and College of Software at **Henan Normal University**, Department of Industrial Engineering and Engineering Management, College of Engineering at **National Tsing Hua University (NTHU)**, Department of Mathematics, College of Science at **National Kaohsiung Normal University (NKNU)**, School of Computer Science and Engineering at **Wuhan Institute of Technology (WIT)**, School of Computer Science and Technology at **University of Science and Technology of China**, School of Information & Computer at **Anhui Agricultural University**, College of Transportation at **Ludong University**, School of Information Engineering at **Nanchang Institute of Technology**, School of Computer Science and Information Technology at **Guangxi Normal University**, Guangxi Higher School Key Laboratory of Complex System and Intelligent Computing at **Guangxi University for Nationalities**, School of Computer Science and Technology at **Taiyuan University of Science and Technology**, School of Software Engineering at **South China University of Technology**, Scientific Research Office at **Huizhou University**, College of Information Science and Technology at **Northeast Normal University**, College of Information Science and Engineering at **Guangxi University for Nationalities**, School of Mathematical Sciences at **Nanjing Normal University** to make academic reports.

I am a Experts of Engineering Technology from Talent Pool on Public Science in Shandong Province, Syndic of SDAI, senior member of SAISE, SCIEI, a member of Technical Advisory Board of India Technical Institute for Engineers (TIE), IEEE, CAA, CCF, CCF YOCSEF Qingdao, ACM, IEEE Computational Intelligence Society, IEEE Computer Society, IEEE Systems, Man, and Cybernetics Society, IEEE Oceanic Engineering Society, IET, ISMOST, MIR Labs, Jiangsu Association of Artificial Intelligence (JSAD), **Invited Speaker** of 2019 Second Conference on Artificial Intelligence of Shandong Province (SDAI 2019), **Invited Speaker** of 2019 First Symposium on Computational Intelligence (Qingdao), **Invited Speaker** of Commemorate the 100th Anniversary of the Birth of Mr. Wenjun Wu and 2019 Symposium for Visiting Scholar of Key Laboratory of Symbolic Computation and Knowledge Engineering, Ministry of Education at Jilin

University, **Invited Speaker** of 2019 Conference on Intelligent System Optimization and Simulation, **Invited Speaker** of 2019 High-end Symposium on Intelligent Optimization; **Invited Speaker** of 2018 5<sup>th</sup> Doctoral Forum Computer Science from Jiangxi Province and Symposium on Artificial Intelligence; **Invited Speaker** of 2018 3<sup>rd</sup> Symposium on Evolutionary Computation: Past, Present, and Future; **Invited Speaker** of 2018 2<sup>nd</sup> Symposium on Computational Intelligence, **Organizer and host** of 2018 2<sup>nd</sup> Symposium on Symposium on Simulation, Optimization and Scheduling of Complex Systems Under Big Data Environments, Publications Co Chair of 2018 Annual Conference of Special Committee of ISOS of CSF, International Advisory Board of SmartTech 2017, Publications Co-Chair of ISCOMI 2019, ISCOMI 2018, and ISCBI 2016, Publications Chairs of CTISC 2020 and ISCOMI 2015, Advisory Committee of I3CS 2016, Section Chair of ICSI 2018, Technical Committee Chair of ICBDA 2018, ICBDA 2016 and ICMMR 2017, **invited speaker, Session Chair**, and Technical Committee Chair of ICBDA 2017, **Session Chair** of 2019 Annual Conference of Special Committee of ISOS of CSF, IEEM 2018 and ICIC 2018, **Invited Speaker** of 2019 Symposium on Intelligent Optimization and Computation, **Invited Speaker** of 2019 Symposium on Computational Intelligence and Optimization Scheduling, **Invited Speaker** of 2018 Symposium on Production Scheduling and Intelligent Optimization, **Invited Speaker** of 2018 3<sup>rd</sup> Symposium on Evolutionary Computation: Past, Present, and Future, **Invited Speaker** of 2018 1<sup>st</sup> Symposium on Simulation, Optimization and Scheduling of Complex Systems Under Big Data Environments, **Invited Speaker** of 2017 Academic Committee of Guangxi Higher School Key Laboratory of Complex System and Intelligent Computing and Forum on the Development of Computational Intelligence Technology, **Invited Speaker** of 2017 1<sup>st</sup> Symposium on Computational Intelligence, and International Program Committee Member in **71** conferences.

More information can be found in the following website.

G-Scholar: <https://scholar.google.com/citations?hl=en&user=jpOuxKUAAAAJ>

Scopus: <https://www.scopus.com/authid/detail.uri?authorId=55303864000>

DLBP: <http://dblp.uni-trier.de/pers/hd/w/Wang:GaiGe>

Guide2Research: <http://www.guide2research.com/u/gai-ge-wang>

ResearcherID/Publons: <https://publons.com/researcher/1637158/gai-ge-wang/>

Baidu Scholar: <http://xueshu.baidu.com/scholarID/CN-B075AIPJ>

ResearchGate: [https://www.researchgate.net/profile/Gai-Ge\\_Wang](https://www.researchgate.net/profile/Gai-Ge_Wang)

SciProfiles: <https://sciprofiles.com/profile/ggw>

Homepage: <http://gaigewang.weebly.com>

## Objective:

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Studying and cooperating with renowned scholars and research team. Willing to further my scientific research ability and broaden my horizon.

## Research Interests:

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Information fusion, soft computing, neural network, computing intelligence, swarm intelligence, nature-inspired metaheuristic methods, such as GA (genetic algorithm), DE (differential evolution), PSO (particle swarm optimization), HS (harmony search), ABC (artificial bee colony), BBO (biogeography-based optimization), CS (cuckoo search), BA (bat algorithm), FA

(firefly algorithm) and more recently MBO (monarch butterfly optimization), EWA (earthworm optimization algorithm), EHO (elephant herding optimization), TLBO (teaching-learning-based optimization), KH (krill herd algorithm), and DSA (differential search algorithm). Real-world engineering optimization, such as scheduling, path planning, unconstrained/constrained optimization, WSN (wireless sensor networks) deployment, and image processing.

### **Research/Work Experience:**

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**Nov. 2017 - Present, Qingdao, Shandong, China**

Now work as an Associate Professor in **Department of Computer Science and Technology, College of Information Science and Engineering, Ocean University of China.**

**Jul. 2013 – Nov. 2017, Xuzhou, Jiangsu, China**

Work as a Lecture in **School of Computer Science and Technology, Jiangsu Normal University.**

**Nov. 2015 - Nov. 2016, Edmonton, Alberta, Canada**

Work as a Visiting Scholar in **Department of Electrical and Computer Engineering, University of Alberta, Canada.** Advisor: Prof. Dr. Witold Pedrycz.

### **Education:**

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**Sep. 2010 - Jul. 2013, Changchun, Jilin, China**

Study as a PhD student in **Electronic Engineering, Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences.** Advisor: Prof. Dr. Lihong Guo.

**Sep. 2007 – Jul. 2010 Changchun, Jilin, China**

Study as a graduate student in **Computer Software and Theory** in School of Information Science and Technology at **Northeast Normal University.** Advisor: Prof. Wenxiang Gu and Prof. Dr. Minghao Yin.

**Sep. 2003 – Jul. 2007 Yining, Xinjiang, China**

Study as an undergraduate of **Computer Science and Technology** in Department of Computer Science and Technology at **Yili Normal University.**

### **Language Skills:**

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Chinese: Native language, fluency in speaking and reading, good competency in writing.

English: CET 6; more than fifteen years of study, speaking and reading fluently, academic discussion and daily communication in English, having published many scientific papers in English; having participated in National English Contest for College Students (NECCS) and getting the first prize twice.

### **Research Awards**

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- Second Class Award in Scientific and Technological Award of Jiangsu Province (Natural Science), Jiangsu Province, China, 2018

- Second Class Award in Research Achievements (Science and Technology), Ministry of Education, China, 2017

## Honors and Awards:

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### Academic Year 2011

National 1<sup>st</sup>-class Scholarship: 30, 000RMB for 3-year Ph.D. study.

### Academic Year 2008-2010

National 1<sup>st</sup>-class Scholarship: 18, 000RMB for 3-year postgraduate study.

Outstanding Postgraduate Student.

### Academic Year 2005-2007

1<sup>st</sup> class Scholarship of Institution

1<sup>st</sup> class of College Outstanding Student

Pacemaker to Merit Student

Outstanding Graduates

### Academic Year 2004 and 2003

1<sup>st</sup> class Scholarship of Institution

1<sup>st</sup> class of College Outstanding Student

The First Prize of National English Contest for College Students (NECCS)

## Projects:

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Since 2007, I have mainly carried out intelligent planning and planning recognition for M.Sc. degree, and information fusion by employing computational intelligence techniques research for doctor degree. I am the Principal Investigator of three projects and taken part in many projects, such as National Natural Science Foundation of China, and computer simulation laboratory construction.

### The current charge of research projects:

- Jan. 2016 - Dec. 2018  
Research on information feedback type swarm intelligence algorithm based on the fitness values, National Natural Science Foundation of China (Grant No. 61503165)
- Jul. 2015 - Jun. 2018  
Research on individual updating strategy based on population statistical characteristics, Natural Science Foundation of Jiangsu Province (Grant No. BK20150239)
- Jan. 2017 - Dec. 2018  
Research on threat estimation based on neural networks optimized by metaheuristic algorithms
- Jan. 2014 - Dec. 2015  
Research Fund for the Doctoral Program of Jiangsu Normal University (No. 9213614102)

### The main research projects I have participated in:

- Jan. 2018 - Dec. 2021  
Complex network interference discontinuous finite time control and nonsmooth under uncertainty conditions, National Natural Science Foundation of China (Grant No. 61773185)
- Jan. 2017 - Dec. 2019

Research on fragile watermarking algorithm based on 2D vector map for locating tampered region, National Natural Science Foundation of China (Grant No. 61602248)

- Jan. 2017 - Dec. 2017  
Interactive evolutionary computation based on the support of personalized data and its application, National Natural Science Foundation of China (Grant No. 61673196)
- Jan. 2016 - Dec. 2018  
Multi-level heterologous fusion under the background of credit big data, National Natural Science Foundation of China (Grant No. 71503108)
- Mar. 2010 - Jul. 2013  
Computer simulation laboratory construction
- Sep. 2010 – Apr. 2012  
Key Research Technology of Electric-discharge Non-chain Pulsed DF Laser (Grant No. LXJJ-11-Q80)
- Dec. 2008 – Jul. 2010  
The research of open planning, National Natural Science Foundation of China (Grant No. 60803102)
- Dec. 2007 – Dec. 2008  
The research of dynamically variable objects set graphplan and its mathematical model, National Natural Science Foundation of China (Grant No. 60573067)
- Sep. 2007 – Dec. 2007  
Response planning study, National Natural Science Foundation of China (Grant No. 60473042)

### **Academic Reports**

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Invited to School of Information & Computer at **Anhui Agricultural University**, School of Computer Science and Technology at **Anhui University**, Chongqing Key Laboratory of Big Data and Intelligent Computing, Chongqing Institute of Green and Intelligent Technology, **Chinese Academy of Sciences**, School of Science at **Beijing University of Posts and Telecommunications**, School of Information and Control Engineering at **China University of Mining and Technology**, College of Science at **Jiangxi University of Science and Technology**, College of Information Science and Technology at **Jilin Agricultural University**, College of Computer and Information Engineering and College of Software at **Henan Normal University**, College of Computer Science and Technology at **Huaqiao University**, College of Engineering at **Shantou University**, Hangzhou Institute of Service Engineering, School of Information Science and Engineering at **Hangzhou Normal University**, College of Computer Science and Technology, College of Software at **Zhejiang University of Technology**, School of Physics and Electronic Engineering at **Hanshan Normal University**, School of Science at **Dalian Maritime University**, College of Information Science and Technology at **Northeast Normal University**, School of Computer Science and Technology, and Key Laboratory of Symbolic Computation and Knowledge Engineering, Ministry of Education at **Jilin University**, Computer and Information Science Department at **University of Macau**, College of Information Science and Technology at **Northeast Normal University**, School of School of Computer and Communication Engineering (School of Electronic Information Engineering) at **Zhengzhou University of Light Industry**, School of Electronica and Information

Engineering at **Henan Polytechnic Institute**, School of Computer at **China University of Geosciences (Wuhan)**, School of Computer Science and Network Security at **Dongguan University of Technology**, College of Computer and Information Engineering and College of Software at **Henan Normal University**, College of Information Science and Engineering at **Linyi University**, Computational Intelligence Laboratory at **Zhengzhou University**, College of Computer and Information Engineering and College of Software at **Henan Normal University**, Department of Industrial Engineering and Engineering Management, College of Engineering at **National Tsing Hua University (NTHU)**, Department of Mathematics, College of Science at **National Kaohsiung Normal University (NKNU)**, School of Computer Science and Engineering at **Wuhan Institute of Technology (WIT)**, School of Computer Science and Technology at **University of Science and Technology of China**, School of Information & Computer at **Anhui Agricultural University**, College of Transportation at **Ludong University**, School of Information Engineering at **Nanchang Institute of Technology**, School of Computer Science and Information Technology at **Guangxi Normal University**, Guangxi Higher School Key Laboratory of Complex System and Intelligent Computing at **Guangxi University for Nationalities**, School of Computer Science and Technology at **Taiyuan University of Science and Technology**, School of Software Engineering at **South China University of Technology**, Scientific Research Office at **Huizhou University**, College of Information Science and Technology at **Northeast Normal University**, College of Information Science and Engineering at **Guangxi University for Nationalities**, School of Mathematical Sciences at **Nanjing Normal University** to make academic reports; **Invited Speaker** of 2019 Second Conference on Artificial Intelligence of Shandong Province (SDAI 2019); **Invited Speaker** of 2019 First Symposium on Computational Intelligence (Qingdao); **Invited Speaker** of Commemorate the 100th Anniversary of the Birth of Mr. Wenjun Wu and 2019 Symposium for Visiting Scholar of Key Laboratory of Symbolic Computation and Knowledge Engineering, Ministry of Education at Jilin University; **Invited Speaker** of 2019 Conference on Intelligent System Optimization and Simulation; **Invited Speaker** of 2019 High-end Symposium on Intelligent Optimization; **Invited Speaker** of 2019 Symposium on Intelligent Optimization and Computation; **Invited Speaker** of 2019 Symposium on Computational Intelligence and Optimization Scheduling; **Invited Speaker** of 2018 5<sup>th</sup> Doctoral Forum Computer Science from Jiangxi Province and Symposium on Artificial Intelligence; **Invited Speaker** of 2018 3<sup>rd</sup> Symposium on Evolutionary Computation: Past, Present, and Future; **Invited Speaker** of 2018 2<sup>nd</sup> Symposium on Computational Intelligence, **Organizer and host** of 2018 2<sup>nd</sup> Symposium on Symposium on Simulation, Optimization and Scheduling of Complex Systems Under Big Data Environments; **Invited Speaker** of 2018 3<sup>rd</sup> Symposium on Evolutionary Computation: Past, Present, and Future; **Invited Speaker** of 2018 Symposium on Production Scheduling and Intelligent Optimization, **Invited Speaker** of 2018 1<sup>st</sup> Symposium on Simulation, Optimization and Scheduling of Complex Systems Under Big Data Environments, **Invited Speaker** of 2017 Academic Committee of Guangxi Higher School Key Laboratory of Complex System and Intelligent Computing and Forum on the Development of Computational Intelligence Technology, **Invited Speaker** of 2017 1<sup>st</sup> Symposium on Computational Intelligence, **Invited Speaker**, and **Session Chair** of ICBDA 2017.



## University

## 2020

- School of Information & Computer at **Anhui Agricultural University**, Hefei, Anhui, China, 4 September, 2018, Title: **Study of Metaheuristic Algorithms by Using Information Feedback Models**, Inviter: Professor **X\*\*\*\* Zhang**, Master Supervisor
- School of Information & Computer at **Anhui Agricultural University**, Hefei, Anhui, China, 30 November, 2018, Title: **Study of Metaheuristic Algorithms by Using Information Feedback Models**, Inviter: Associate Professor **Xiaoming Zhang**, Master Supervisor
- School of Computer Science and Technology at **Anhui University**, Hefei, Anhui, China, \* September, 2018, Title: **Study of Metaheuristic Algorithms by Using Information Feedback Models**, Inviter: Professor **Zhaohong Jia**, Master Supervisor
- Chongqing Key Laboratory of Big Data and Intelligent Computing, Chongqing Institute of Green and Intelligent Technology, **Chinese Academy of Sciences**, and College of Chongqing at **University of Chinese Academy of Sciences**, Chongqing, China, \*\* June, 2019, Title: **Research of Ocean Big Data Analysis by Using Intelligent Optimization Algorithms**, Inviter: Professor **Xin Luo**, Ph.D Supervisor
- School of Science at **Beijing University of Posts and Telecommunications**, Beijing, China, 1 June 2020, Title: **Research of Ocean Big Data Analysis by Using Intelligent Optimization Algorithms**, Inviter: Professor **Xinchao Zhao**, **Xingquan Zuo**, Ph.D Supervisor
- School of Information and Control Engineering at **China University of Mining and Technology**, Xuzhou, Jiangsu, China, 19 May 2020, Title: **Research of Ocean Big Data Analysis by Using Intelligent Optimization Algorithms**, Inviter: Professor **Yong Zhang**, Ph.D Supervisor

## 2019

- College of Science at **Jiangxi University of Science and Technology**, Ganzhou, Jiangxi, China, 16 December 2019, Title: **Research of Ocean Big Data Analysis by Using Intelligent Optimization Algorithms**, Inviter: Associate Professor **Zhaolu Guo**, **Xuezhi Yue**, Master Supervisor
- College of Information Science and Technology at **Jilin Agricultural University**, Changchun, Jilin, China, 19 November 2019, Title: **Research of Ocean Big Data Analysis by Using Intelligent Optimization Algorithms**, Inviter: Professor **Helong Yu**, Dean, Ph.D Supervisor
- College of Computer and Information Engineering and College of Software at **Henan Normal University**, Xinxiang, Henan, China, 17 November 2019, Title: **How to Write Scientific Research Paper**, Inviter: Professor **Dong Liu**, Associate Dean, Master Supervisor
- College of Computer Science and Technology at **Huaqiao University**, Xiamen, Fujian, China, 12 November 2019, Title: **Research of Ocean Big Data Analysis by Using Intelligent Optimization Algorithms**, Inviter: Professor **Jin Gou**, Dean, Ph.D Supervisor
- College of Engineering at **Shantou University**, Key Lab of Digital Signal and Image Processing of Guangdong Province, Shantou, Guangdong, China, 11 November 2019, Title: **Research of Ocean Big Data Analysis by Using Intelligent Optimization Algorithms**,

Inviter: Professor **Zhun Fan**, Ph.D Supervisor, Dean of Department of Electronic Engineering, Dean of Key Lab of Digital Signal and Image Processing of Guangdong Province

- Hangzhou Institute of Service Engineering, School of Information Science and Engineering at **Hangzhou Normal University**, Hangzhou, Zhejiang, China, 11 October 2019, Title: **Research of Ocean Big Data Analysis by Using Intelligent Optimization Algorithms**, Inviter: Professor **Yujun Zheng**, Ph.D Supervisor
- College of Computer Science and Technology, College of Software at **Zhejiang University of Technology**, Hangzhou, Zhejiang, China, 11 October 2019, Title: **Research of Big Data Analysis by Using Intelligent Optimization Algorithms**, Inviter: Professor **Liping Wang**, Ph.D Supervisor
- School of Physics and Electronic Engineering at **Hanshan Normal University**, Chaozhou, Guangdong, China, 15 July 2019, Title: **Research of Ocean Big Data Analysis by Using Intelligent Optimization Algorithms**, Inviter: Associate Professor **Yinghan Hong**
- School of Science at **Dalian Maritime University**, Dalian, Liaoning, China, 10 July 2019, Title: **Research of Ocean Big Data Analysis by Using Intelligent Optimization Algorithms**, Inviter: Associate Professor **Xin Wang**
- Qingdao DF Training Centre, Qingdao, Shandong, China, 18 June, 2019, Title: **Opportunity and Challenges of Big Data Age**, Inviter: **Hongjun Liu**
- College of Information Science and Technology at **Northeast Normal University**, Changchun, Jilin, China, 11 June, 2019, Title: **Research of Ocean Big Data Analysis by Using Metaheuristic Algorithms**, Inviter: Professor **Minghao Yin**, Assistant Dean, Ph.D Supervisor
- Qingdao DF Training Centre, Qingdao, Shandong, China, 28 May, 2019, Title: **Opportunity and Challenges of Big Data Age**, Inviter: **Yao Chen**
- Computer and Information Science Department at **University of Macau**, Macau, China, 22 May, 2019, Title: **Research of Ocean Big Data Analysis by Using Intelligent Optimization Algorithms**, Inviter: Associate Professor **Simon James Fong**, Ph.D Supervisor

## 2018

- College of Information Science and Technology at **Northeast Normal University**, Changchun, Jilin, China, 23 November, 2018, Title: **Research of Ocean Big Data Analysis by Using Intelligent Optimization Algorithms**, Inviter: Professor **Minghao Yin**, Assistant Dean, Ph.D Supervisor
- School of School of Computer and Communication Engineering (School of Electronic Information Engineering) at **Zhengzhou University of Light Industry**, Zhengzhou, Henan, China, 20 November, 2018, Title: **Research of Big Data Analysis by Using Intelligent Optimization Metaheuristic Algorithms**, Inviter: Associate Professor **Zengyu Cai**
- School of Electronica and Information Engineering at **Henan Polytechnic Institute**, Anyang, Henan, China, 19 November, 2018, Title: **Research of Big Data Analysis by Using Intelligent Optimization Metaheuristic Algorithms**, Inviter: Associate Professor **Shuxia Li**
- School of Computer at **China University of Geosciences (Wuhan)**, Wuhan, Hubei, China, 16 November, 2018, Title: **Research of Big Data Analysis by Using Intelligent Optimization Metaheuristic Algorithms**, Inviter: Associate Professor **Xuesong Yan**, Master Supervisor

- School of Computer Science and Network Security at **Dongguan University of Technology**, Dongguan, Guangdong, China, 11 October, 2018, Title: **Study of Metaheuristic Algorithms by Using Information Feedback Models**, Inviter: Professor **Qunfeng Liu**
- College of Computer and Information Engineering and College of Software at **Henan Normal University**, Xinxiang, Henan, China, 26 July, 2018, Title: **Research of Big Data Analysis by Using Intelligent Optimization Metaheuristic Algorithms**, Inviter: Professor **Dong Liu**, Associate Dean, Master Supervisor
- College of Information Science and Engineering at **Linyi University**, Xinxiang, Henan, China, 23 July, 2018, Title: **Study of Metaheuristic Algorithms by Using Information Feedback Models**, Inviter: Professor **Wenyin Zhang**, Dean, Master Supervisor
- Computational Intelligence Laboratory at **Zhengzhou University**, Zhengzhou, Henan, China, 23 June, 2018, Title: **Research of Big Data Analysis by Using Intelligent Optimization Metaheuristic Algorithms**, Inviter: Professor **Jing Liang**, Ph.D Supervisor, Associate Editor of Journal of Zhengzhou University (Engineering Science)
- College of Computer and Information Engineering and College of Software at **Henan Normal University**, Xinxiang, Henan, China, 22 June, 2018, Title: **Study of Metaheuristic Algorithms by Using Information Feedback Models**, Inviter: Professor **Xinming Zhang**, Master Supervisor
- Department of Industrial Engineering and Engineering Management, College of Engineering at **National Tsing Hua University (NTHU)**, Hsinchu, Taiwan, China, 1 June, 2018, Title: **Study of Metaheuristic Algorithms by Using Information Feedback Models**, Inviter: Distinguished Professor **Wei-Chang Yeh**, Ph.D Supervisor
- Department of Mathematics, College of Science at **National Kaohsiung Normal University (NKNU)**, Kaohsiung, Taiwan, China, 30 May, 2018, Title: **Study of Metaheuristic Algorithms by Using Information Feedback Models**, Inviter: Professor **Peng-Jen Lai**, Ph.D Supervisor
- School of Computer Science and Engineering at **Wuhan Institute of Technology (WIT)**, Wuhan, Hubei, China, 11 May, 2018, Title: **Research of Big Data Analysis by Using Intelligent Optimization Algorithms**, Inviter: Associate Professor **Dunbo Cai**, Master Supervisor
- School of Computer Science and Technology at **University of Science and Technology of China**, Hefei, Anhui, China, 3 May, 2018, Title: **Study of Metaheuristic Algorithms by Using Information Feedback Models**, Inviter: Associate Professor **Wenjian Luo**, Ph.D Supervisor
- School of Information & Computer at **Anhui Agricultural University**, Hefei, Anhui, China, 2 May, 2018, Title: **Study of Metaheuristic Algorithms by Using Information Feedback Models**, Inviter: Associate Professor **Xiaoming Zhang**, Master Supervisor
- College of Transportation at **Ludong University**, Yantai, Shandong, China, 30 March, 2018, Title: **Research of Big Data Analysis by Using Intelligent Optimization Metaheuristic Algorithms**, Inviter: Associate Professor **Tianhua Jiang**, Master Supervisor

## 2017

- School of Information Engineering at **Nanchang Institute of Technology**, Nanchang, Jiangxi, China, 21 December, 2017, Title: **Research of Big Data Analysis by Using Intelligent Optimization Metaheuristic Algorithms**, Inviter: Associate Professor **Hui Wang**, Master Supervisor
- School of Computer Science and Information Technology at **Guangxi Normal University**, Guilin, Guangxi, China, 17 December, 2017, Title: **Research of Big Data Analysis by Using Intelligent Optimization Algorithms**, Inviter: Associate Professor **Jinyan Wang**, Master Supervisor
- College of Information Science and Engineering, Guangxi Higher School Key Laboratory of Complex System and Intelligent Computing at **Guangxi University for Nationalities**, Nanning, Guangxi, China, 17 December, 2017, Title: **Research of Big Data Analysis by Using Intelligent Optimization Algorithms**, Inviter: Professor **Yongquan Zhou**, Dean, Ph.D Supervisor
- School of Computer Science and Technology at **Taiyuan University of Science and Technology**, Taiyuan, Shanxi, China, 24 November, 2017, Title: **Research of Big Data Analysis by Using Intelligent Optimization Algorithms**, Inviter: Professor **Zhihua Cui**, Assistant Dean, Master Supervisor
- School of Software Engineering at **South China University of Technology**, Guanzhou, Guangdong, China, 19 November, 2017, Title: **Study of Metaheuristic Algorithms by Using Information Feedback Models**, Inviter: Professor **Han Huang**, Ph.D Supervisor
- Scientific Research Office at **Huizhou University**, Huizhou, Guangdong, China, 19 November, 2017, Title: **Research of Big Data Analysis by Using Intelligent Optimization Algorithms**, Inviter: Professor **Zhaoquan Cai**, Dean of Scientific Research Office
- College of Information Science and Technology at **Northeast Normal University**, Changchun, Jilin, China, 15 November, 2017, Title: **Study of Metaheuristic Algorithms by Using Information Feedback Models and Research of Ocean Big Data Analysis by Using Intelligent Optimization Algorithms**, Inviter: Professor **Minghao Yin**, Assistant Dean, Ph.D Supervisor
- School of Education Intelligent Technology at **Jiangsu Normal University**, Xuzhou, Jiangsu, China, 24 May, 2017, Title: **Study of Modern Metaheuristic Algorithms by Using Information Feedback Models**, Inviter: Professor **Xiangjun Zhao**, Dean, Master Supervisor
- College of Information Science and Engineering at **Guangxi University for Nationalities**, Nanning, Guangxi, China, 14 April, 2017, Title: **Study of Modern Metaheuristic Algorithms by Using Information Feedback Models**, Inviter: Professor **Yongquan Zhou**, Dean, Ph.D Supervisor
- School of Mathematical Sciences at **Nanjing Normal University**, Nanjing, Jiangsu, China, 12 April, 2017, Title: **Improving Metaheuristic Algorithms with Information Feedback Models**, Inviter: Associate Professor **Yuehong Sun**, Master Supervisor

**2013-2016**

- School of Computer Science and Technology at **Jiangsu Normal University**, Xuzhou, Jiangsu, China, 12 November, 2014, Title: **How to Write Scientific Research Paper**, Inviter: Professor **Xiangjun Zhao**, Dean, Master Supervisor
- School of Computer Science and Technology at **Jiangsu Normal University**, Xuzhou, Jiangsu, China, 11 September, 2013, Title: **Advances in Evolutionary Algorithms**, Inviter: Professor **Xiangjun Zhao**, Dean, Master Supervisor

**Conference****2019**

- **Invited Speaker** of 2019 Second Conference on Artificial Intelligence of Shandong Province (SDAI 2019), Heze, Shandong, China, August 2-4, 2019. Title: **Research of Big Data Analysis by Using Metaheuristic Algorithms**
- **Invited Speaker** of 2019 First Symposium on Computational Intelligence (Qingdao), Qingdao, Shandong, China, July 1, 2019. Title: **Research of Big Data Analysis by Using Metaheuristic Algorithms**
- **Invited Speaker** of Commemorate the 100th Anniversary of the Birth of Mr. Wenjun Wu and 2019 Symposium for Visiting Scholar of Key Laboratory of Symbolic Computation and Knowledge Engineering, Ministry of Education at Jilin University, Changchun, Jilin, China, June 10, 2019. Title: **Research of Big Data Analysis by Using Intelligent Optimization Algorithms**
- **Invited Speaker** of 2019 Conference on Intelligent System Optimization and Simulation, Shantou, Guangdong, China, March 29-31, 2019. Title: **Study of Modern Metaheuristic Algorithms by Using Information Feedback Models**
- **Invited Speaker** of 2019 High-end Symposium on Intelligent Optimization, Jinan, Shandong, China, March 23, 2019. Title: **Study of Modern Metaheuristic Algorithms by Using Information Feedback Models**
- **Invited Speaker** of 2019 Symposium on Intelligent Optimization and Computation, Sanya, Hainan, China, March 15, 2019. Title: **Study of Modern Metaheuristic Algorithms by Using Information Feedback Models**
- **Invited Speaker** of 2019 Symposium on Shandong Computer Science for Youth Scholar, Jinan, Shandong, China, January 13, 2019. Title: **Research of Big Data Analysis by Using Intelligent Optimization Algorithms**
- **Invited Speaker** of 2019 Symposium on Computational Intelligence and Optimization Scheduling, Changsha, Hunan, China, January 4-6, 2019. Title: **Study of Modern Metaheuristic Algorithms by Using Information Feedback Models**

**2018**

- **Invited Speaker** of 2018 5<sup>th</sup> Doctoral Forum Computer Science from Jiangxi Province and Symposium on Artificial Intelligence, Nanchang, Jiangxi, China, December 8, 2018. Title: **Study of Modern Metaheuristic Algorithms by Using Information Feedback Models**

- **Invited Speaker** of 2018 3<sup>rd</sup> Symposium on Evolutionary Computation: Past, Present, and Future, Zhengzhou, Henan, China, October 19, 2018. Title: **Study of Modern Metaheuristic Algorithms by Using Information Feedback Models**
- **Invited Speaker** of 2018 2<sup>nd</sup> Symposium on Computational Intelligence, Wuhan, Hubei, China, August 4, 2018. Title: **Study of Modern Metaheuristic Algorithms by Using Information Feedback Models**
- **Organizer and host** of 2018 2<sup>nd</sup> Symposium on Symposium on Simulation, Optimization and Scheduling of Complex Systems Under Big Data Environments, Qingdao, Shandong, China, July 6-8, 2018.
- **Invited Speaker** of 2018 Symposium on Production Scheduling and Intelligent Optimization, and Inauguration Meeting of Nanjing Regional Seminar, Nanjing, Jiangsu, China, June 11-12, 2018. Title: **Study of Modern Metaheuristic Algorithms by Using Information Feedback Models**
- **Invited Speaker** of 2018 1<sup>st</sup> Symposium on Simulation, Optimization and Scheduling of Complex Systems Under Big Data Environments, Foshan, Guangdong, China, April 13-15, 2018. Title: **How to Write Scientific Research Paper**

## 2017

- **Invited Speaker** of 2017 Academic Committee of Guangxi Higher School Key Laboratory of Complex System and Intelligent Computing and Forum on the Development of Computational Intelligence Technology, Nanning, Guangxi, China, December 16-17, 2017. Title: **Research of Big Data Analysis by Using Intelligent Optimization Algorithms**
- **Invited Speaker** of 2017 1<sup>st</sup> Symposium on Computational Intelligence, Changsha, Hunan, China, August 9, 2017. Title: **Study of Modern Metaheuristic Algorithms by Using Information Feedback Models**
- **Invited Speaker**, and **Session Chair** of 2017 IEEE International Conference on Big Data Analysis (ICBDA 2017), Beijing, China, March 10-12, 2017. Title: **Big Data Analysis by Using Metaheuristic Algorithms**

## Publications:

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I have published **121** papers in total, including **93** journal papers, **5** book chapter/section, and **23** conference papers. **102** papers are indexed by SCI/EI (**82** indexed by SCI, **53** first/corresponding author, **20** indexed by EI). My total IF is **260.511**, and first author/corresponding author is **175.188**. I have edited **one** book in English. My entire publications have been cited over **6200** times (Google Scholar). One of my papers has **342** citations, **21** of my papers have been cited over **100** times, and **17** of my papers have been cited over **50** times. **2** of my papers are selected as Top 0.1% Hot Paper by Web of Science, and **15** of my papers are selected as Top 1% Highly Cited Paper by Web of Science. According to Google Scholar, the latest h-index and i10-index of my publications are **43** and **85**, respectively. According to Web of Science, the latest h-index and i10-index of my publications are **44** and **72**, respectively. According to Scopus, the latest h-index and i10-index of my publications are **37** and **66**, respectively. One of my paper ranks 1 in the selection of the latest

high-impact publications in computer science by Chinese researchers across from Springer Nature in the year 2019. According to the “Top H-Index For Scientists in China” of the website Guide2Research, I rank **107** in China and **3863** over the world. **41** of my papers is selected as the top 1% (**19**), 2% (**3**), 3% (**5**), 4% (**1**), 5% (**1**), 6% (**1**), 7% (**1**), 8% (**2**), 10% (**2**), 12% (**1**), 14% (**2**), 25% (**2**), and 35% (**3**) Highly Cited Paper by Scopus, respectively (till September 24, 2019). **One** of my papers is selected as the most cited articles published by **Information Sciences** since 2013, extracted from Scopus. **One** of my papers is selected as the most cited articles published by **Neurocomputing** since 2012, extracted from Scopus. **One** of my papers is selected as the most cited articles published by **Applied Mathematical Modelling** since 2012, extracted from Scopus. Six of my papers is selected as the top 1% (**1**), 2% (**1**), 3% (**2**), 4% (**1**), and 7% (**1**) Highly Cited Paper published by **Neural Computing & Applications**, respectively. **One** of my papers is selected as the most cited papers from **International Journal on Artificial Intelligence Tools** published in the last 15 years, extracted from the Institute for Scientific Information. **Two** of my papers is selected as the top 1% and 2% Highly Cited Paper published by **Soft Computing**. **One** of my papers is selected as the top 6% Highly Cited Paper published by **Memetic Computing**. **One** of my papers is selected as the most cited papers from **Kybernetes** published in the last 3 years, extracted from Crossref. **One** of my papers is selected as the top 10% Highly Cited Paper published by **Artificial Intelligence Review**. **One** of my papers is selected as the most cited papers from **Journal of Sensor and Actuator Networks**. **One** of my papers is selected as the most cited articles published by **Algorithms** last 24 months. One of my papers is selected as “Top Articles from Outstanding S&T Journals of China-F5000 Frontrunner”. Also, my current RG Score is **34.61**.

The summary of all the journal papers can be given below:

	SCI					EI	Others	Total
	FA	CA	FA/CA	Others	Total			
Article in press	1	4	0	6	11	0	0	11
2019	1	1	2	5	9	0	0	9
2018	1	7	2	5	15	2	0	17
2017	0	3	0	2	5	0	2	7
2016	0	1	9	4	14	0	0	14
2015	0	0	0	1	1	2	0	3
2014	2	1	5	4	12	0	0	12
2013	5	1	1	1	8	1	0	9
2012	2	0	0	1	3	5	2	10
Total	12	18	20	29	77	10	4	92

Note: FA means first author, and CA means corresponding author in the above table.

The summary of impact factor of all the journal papers can be given below:

	FA/CA	Others	Total
Article in press	35.665	23.386	59.051
2019	21.251	15.295	36.546
2018	36.919	13.878	50.797
2017	9.919	7.343	17.262
2016	31.589	11.859	43.448

2015	0	2.143	2.143
2014	28.749	9.216	37.965
2013	8.658	1.024	9.682
2012	2.438	1.179	3.617
Total	175.188	85.323	260.511

Note: FA means first author, and CA means corresponding author in the above table.

	FA/CA	Others	Total
Q1	30	9	39
Q2	12	9	21
Q3	5	9	14
Q4	1	3	4
Total	48	30	78

**2020 and ARTICLE IN PRESS: 12 papers in total, EI: 0, SCI: 12 (first/corresponding author 6 papers, others 6 papers), total IF: 59.051 (first/corresponding author: 35.665, others: 23.386)**

- Da Gao, **Gai-Ge Wang\***, Witold Pedrycz. Solving fuzzy job-shop scheduling problem using DE algorithm improved by a selection mechanism. IEEE Transactions on Fuzzy Systems, 2020, in press, doi: [10.1109/TFUZZ.2020.3003506](https://doi.org/10.1109/TFUZZ.2020.3003506) (SCI & EI, IF: 8.759, Q1)
- Sukhwinder Singh Dhillon\*, J. S. Lather, **Gai-Ge Wang**, P. Kaur, Lalitesh Kumar. Monarch butterfly optimized control with robustness analysis for grid tied centralized and distributed power generations. Journal of Ambient Intelligence and Humanized Computing, 2020, in press, doi: [10.1007/s12652-020-01992-2](https://doi.org/10.1007/s12652-020-01992-2) (SCI & EI, IF: 1.910, Q3)
- Juan Li, Dan-dan Xiao, Ting Zhang, Chun Liu\*, Yuan-Xiang Li, **Gai-Ge Wang**. Multi-swarm cuckoo search algorithm with Q-learning model. The Computer Journal, 2020, in press, doi: [10.1093/comjnl/bxz149](https://doi.org/10.1093/comjnl/bxz149) (SCI, IF: 0.980, Q3)
- Xu Tan, Lining Xing\*, Zhaoquan Cai, **Gai-Ge Wang**. Analysis of production cycle-time distribution with a big-data approach. Journal of Intelligent Manufacturing, 2020, in press, doi: [10.1007/s10845-020-01544-7](https://doi.org/10.1007/s10845-020-01544-7) (SCI & EI, IF: 3.535, Q1)
- Jing Sun, Zhuang Miao, Dunwei Gong\*, Xiao-Jun Zeng, Junqing Li, **Gai-Ge Wang**. Interval multi-objective optimization with memetic algorithms. IEEE Transactions on Cybernetics, 2019, in press. doi: [10.1109/TCYB.2019.2908485](https://doi.org/10.1109/TCYB.2019.2908485) (SCI, IF: 10.387, TOP Journal, CCF B, Q1)
- Dexuan Zou\*, **Gai-Ge Wang**, Arun K. Sangaiah, Xiangyong Kong. A memory-based simulated annealing algorithm and a new auxiliary function for the fixed-outline floorplanning with soft blocks. Journal of Ambient Intelligence and Humanized Computing, 2017, in press, doi: [10.1007/s12652-017-0661-7](https://doi.org/10.1007/s12652-017-0661-7) (SCI & EI, IF: 1.910, Q3)
- R. Logesh, V. Subramaniaswamy\*, V. Vijayakumar, Xaio-Zhi Gao, **Gai-Ge Wang**. Hybrid bio-inspired user clustering for the generation of diversified recommendations. Neural Computing & Applications, 2020, 32(7): 2487-2506. doi: [10.1007/s00521-019-04128-6](https://doi.org/10.1007/s00521-019-04128-6) (SCI & EI, IF: 4.664, Q1)



- Wei Li, **Gai-Ge Wang\***, Amir H. Alavi. Learning-based elephant herding optimization algorithm for solving numerical optimization problems. Knowledge-Based Systems, 2020, 195: 105675. doi: [10.1016/j.knosys.2020.105675](https://doi.org/10.1016/j.knosys.2020.105675) (SCI & EI, IF: 5.101, Q1)
- **Gai-Ge Wang**, Xingjuan Cai, Zhihua Cui\*, Geyong Min, Jinjun Chen. High performance computing for cyber physical social systems by using evolutionary multi-objective optimization algorithm. IEEE Transactions on Emerging Topics in Computing, 2020, 8(1): 20-30. doi: [10.1109/TETC.2017.2703784](https://doi.org/10.1109/TETC.2017.2703784) (Top 1% Highly Cited Paper by Web of Science and Scopus) (SCI & EI, IF: 4.989, Q1)
- Yin Zhang, **Gai-Ge Wang\***, Keqin Li, Wei-Chang Yeh, Muwei Jian, Junyu Dong. Enhancing MOEA/D with information feedback models for large-scale many-objective optimization. Information Sciences, 2020, 522: 1-16. doi: [10.1016/j.ins.2020.02.066](https://doi.org/10.1016/j.ins.2020.02.066) (SCI & EI, IF: 5.524, Q1)
- Zi-Min Gu, **Gai-Ge Wang\***. Improving NSGA-III algorithms with information feedback models for large-scale many-objective optimization. Future Generation Computer Systems, 2020, 107: 49-69. doi: [10.1016/j.future.2020.01.048](https://doi.org/10.1016/j.future.2020.01.048) (SCI & EI, IF: 5.768, Q1)
- Jiao-Hong Yi, Li-Ning Xing\*, **Gai-Ge Wang\***, Junyu Dong, Athanasios V. Vasilakos, Amir H. Alavi, Ling Wang. Behavior of crossover operators in NSGA-III for large-scale optimization problems. Information Sciences, 2020, 509: 470-487. doi: [10.1016/j.ins.2018.10.005](https://doi.org/10.1016/j.ins.2018.10.005) (Top 1% Highly Cited Paper by Web of Science and Scopus) (SCI & EI, IF: 5.524, Q1)

**2019: 8 papers in total, EI: 0, SCI: 8 (first/corresponding author 4 papers, others 4 papers), total IF: 36.546 (first/corresponding author: 21.251, others: 15.295)**

- Yanhong Feng, **Jiao-Hong Yi\***, Gai-Ge Wang. Enhanced moth search algorithm for the set-union knapsack problems. IEEE Access, 2019, 7(1): 173774-173785. doi: [10.1109/ACCESS.2019.2956839](https://doi.org/10.1109/ACCESS.2019.2956839) (SCI, IF: 4.098, Q1)
- Yanhong Feng, Xu Yu, **Gai-Ge Wang\***. A novel monarch butterfly optimization with global position updating operator for large-scale 0-1 knapsack problems. Mathematics, 2019, 7(11): 1056. doi: [10.3390/math7111056](https://doi.org/10.3390/math7111056) (SCI, IF: 1.105, Q1)
- Jiao-Hong Yi, Jian Wang\*, **Gai-Ge Wang**. Using monarch butterfly optimization to solve the emergency vehicle routing problem with relief materials in sudden disasters. Open Geosciences, 2019, 11(1): 391-413. doi: [10.1515/geo-2019-0031](https://doi.org/10.1515/geo-2019-0031) (SCI, IF: 0.788, Q4)
- **Gai-Ge Wang\***, Suash Deb, Zhihua Cui. Monarch butterfly optimization. Neural Computing and Applications, 2019, 31(7): 1995-2014. doi: [10.1007/s00521-015-1923-y](https://doi.org/10.1007/s00521-015-1923-y) [MATLAB code](#)  
(Top 0.1% Hot Paper and 1% Highly Cited Paper by Web of Science, Top 1% Highly Cited Paper by Scopus, Top 2% Highly Cited Paper by Neural Computing & Applications, see: <https://citations.springer.com/item?doi=10.1007/s00521-015-1923-y>, rank 1 in the selection of the latest high-impact publications in computer science by Chinese researchers across from Springer Nature in the year 2019, see: <https://www.springernature.com/gp/researchers/campaigns/chinese-research/computer-science>) (SCI & EI, IF: 4.664, Q1)
- Guo-Sheng Hao, Meng-Hiot Lim\*, Yew-Soon Ong, Han Huang, **Gai-Ge Wang**. Domination landscape in evolutionary algorithms and its applications. Soft Computing, 2019, 23(11): 3563-3570. doi: [10.1007/s00500-018-3206-x](https://doi.org/10.1007/s00500-018-3206-x) (SCI & EI, IF: 2.784, Q2)

- Mohamed Abdel-Basset\*, **Gai-Ge Wang**, Arun Kumar Sangaiah, Ehab Rushdy. Krill herd algorithm based on cuckoo search for solving engineering optimization problems. *Multimedia Tools and Applications*, 2019, 78(4): 3861-3884. doi: [10.1007/s11042-017-4803-x](https://doi.org/10.1007/s11042-017-4803-x) (SCI, IF: 2.101, Q2)
- Zhifeng Hao, Wei-Chang Yeh\*, Jing Wang, **Gai-Ge Wang**, Bin Sun. A quick inclusion-exclusion technique. *Information Sciences*, 2019, 486: 20-30. doi: [10.1016/j.ins.2019.02.004](https://doi.org/10.1016/j.ins.2019.02.004) (SCI & EI, IF: 5.524, Q1)
- **Gai-Ge Wang\***, Amir H. Gandomi, Amir H. Alavi, Dunwei Gong. A comprehensive review of krill herd algorithm: variants, hybrids and applications. *Artificial Intelligence Review*, 2019, 55(1): 119-148. doi: [10.1007/s10462-017-9559-1](https://doi.org/10.1007/s10462-017-9559-1) (Top 1% Highly Cited Paper by Scopus, Top 10% Highly Cited Paper by Artificial Intelligence Review, see: <https://citations.springer.com/item?doi=10.1007/s10462-017-9559-1>) (SCI, IF: 5.095, Q1)
- **Gai-Ge Wang**, Ying Tan\*. Improving metaheuristic algorithms with information feedback models. *IEEE Transactions on Cybernetics*, 2019, 49(2): 542-555. doi: [10.1109/TCYB.2017.2780274](https://doi.org/10.1109/TCYB.2017.2780274) (Top 1% Highly Cited Paper by Web of Science) (SCI, IF: 10.387, TOP Journal, CCF B, Q1)

**2018: 17 papers in total, EI: 2, SCI: 15 (first/corresponding author 10 papers, others 5 papers), total IF: 50.797 (first/corresponding author: 36.919, others: 13.878)**

- Yanhong Feng, **Gai-Ge Wang\***, Wenbin Li, Ning Li. Multi-strategy monarch butterfly optimization algorithm for discounted {0-1} knapsack problem. *Neural Computing and Applications*, 2018, 30(10): 3019-3036. doi: [10.1007/s00521-017-2903-1](https://doi.org/10.1007/s00521-017-2903-1) (Top 6% Highly Cited Paper by Scopus) (SCI & EI, IF: 4.664, Q1)
- Foxiang Liu, Yuehong Sun\*, **Gai-Ge Wang**, Tingting Wu. An artificial bee colony algorithm based on dynamic penalty and Lévy flight for constrained optimization problems. *Arabian Journal for Science and Engineering*, 2018, 43(12): 7189-7208. doi: [10.1007/s13369-017-3049-2](https://doi.org/10.1007/s13369-017-3049-2) (SCI & EI, IF: 1.518, Q3)
- K Srikanth, Lokesh Kumar Panwar, Bijaya Ketan Panigrahi, Enrique Herrera-Viedma, Arun Kumar Sangaiah\*, **Gai-Ge Wang**. Meta-heuristic framework: quantum inspired binary grey wolf optimizer for unit commitment problem. *Computers & Electrical Engineering*, 2018, 70: 243-260. doi: [10.1016/j.compeleceng.2017.07.023](https://doi.org/10.1016/j.compeleceng.2017.07.023) (Top 10% Highly Cited Paper by Scopus) (SCI & EI, IF: 2.189, Q2)
- **Gai-Ge Wang\***, Suash Deb, Xinchao Zhao, Zhihua Cui. A new monarch butterfly optimization with an improved crossover operator. *Operational Research: An International Journal*, 2018, 18(3): 731-755. doi: [10.1007/s12351-016-0251-z](https://doi.org/10.1007/s12351-016-0251-z) (SCI & EI, IF: 1.485, Q2)
- Jiao-Hong Yi, Suash Deb, Junyu Dong, Amir H. Alavi, **Gai-Ge Wang\***. An improved NSGA-III algorithm with adaptive mutation operator for big data optimization problems. *Future Generation Computer Systems*, 2018, 88: 571-585. doi: [10.1016/j.future.2018.06.008](https://doi.org/10.1016/j.future.2018.06.008) (SCI & EI, IF: 5.768, Q1)
- De-Xuan Zou, Suash Deb, **Gai-Ge Wang\***. Solving IIR system identification by a variant of particle swarm optimization. *Neural Computing and Applications*, 2018, 30(3): 685-698. doi: [10.1007/s00521-016-2338-0](https://doi.org/10.1007/s00521-016-2338-0) (Top 35% Highly Cited Paper by Scopus) (SCI & EI, IF: 4.664, Q1)

- Muhammad Asim, Wali Khan Mashwani\*, Ozgur Yeniay, Muhmmad Asif Jan, Hazrat Hussian, **Gai-Ge Wang**. Hybrid genetic algorithms for global optimization problems. Hacettepe Journal of Mathematics and Statistics, 2018, 47(3): 539-551. doi: [10.15672/HJMS.2017.473](https://doi.org/10.15672/HJMS.2017.473) (SCI, IF: 0.605, Q3)
- **Gai-Ge Wang\***, Suash Deb, Leandro dos Santos Coelho. Earthworm optimization algorithm: a bio-inspired metaheuristic algorithm for global optimization problems. International Journal of Bio-Inspired Computation. 2018, 12(1): 1-22. doi: [10.1504/IJBIC.2015.10004283](https://doi.org/10.1504/IJBIC.2015.10004283) MATLAB code (Top 1% Highly Cited Paper by Web of Science) (SCI, IF: 3.395, Q1)
- Zhihua Cui, Fei Xue, Xingjuan Cai\*, Yang Cao, **Gai-Ge Wang**, Jinjun Chen. Detection of malicious code variants based on deep learning. IEEE Transactions on Industrial Informatics, 2018, 14(7): 3187-3196. doi: [10.1109/TII.2018.2822680](https://doi.org/10.1109/TII.2018.2822680) (Top 0.1% Hot Paper and 1% Highly Cited Paper by Web of Science, Top 1% Highly Cited Paper by Web of Science) (SCI & EI, IF: 7.377, Q1)
- Yanhong Feng, Juan Yang, Yichao He, **Gai-Ge Wang\***. Monarch butterfly optimization algorithm with differential evolution for the discounted {0-1} knapsack problem. Acta Electronica Sinica, 2018, 46(6): 1343-1350. doi: [10.3969/j.issn.0372-2112.2018.06.010](https://doi.org/10.3969/j.issn.0372-2112.2018.06.010) (Top Journal in China, EI) (冯艳红, 杨娟, 贺毅朝, 王改革\*. 差分进化帝王蝶优化算法求解折扣{0-1}背包问题. 电子学报, 2018, 46(6): 1343-1350. doi: [10.3969/j.issn.0372-2112.2018.06.010](https://doi.org/10.3969/j.issn.0372-2112.2018.06.010))
- Yanhong Feng, **Gai-Ge Wang\***, Ling Wang. Solving randomized time-varying knapsack problems by a novel global firefly algorithm. Engineering with Computers, 2018, 34(3): 621-635. doi: [10.1007/s00366-017-0562-6](https://doi.org/10.1007/s00366-017-0562-6) (SCI & EI: 3.551, Q1)
- Yanhong Feng, **Gai-Ge Wang\***, Junyu Dong, Ling Wang. Opposition-based learning monarch butterfly optimization with Gaussian perturbation for large-scale 0-1 knapsack problem. Computers & Electrical Engineering, 2018, 67: 454-468. doi: [10.1016/j.compeleceng.2017.12.014](https://doi.org/10.1016/j.compeleceng.2017.12.014) (SCI & EI, IF: 2.189, Q2)
- **Gai-Ge Wang\***. Moth search algorithm: a bio-inspired metaheuristic algorithm for global optimization problems. Memetic Computing, 2018, 10(2): 151-164. doi: [10.1007/s12293-016-0212-3](https://doi.org/10.1007/s12293-016-0212-3) (Top 1% Highly Cited Paper by Web of Science and Scopus, top 6% highly cited paper of Memetic Computing, see <https://citations.springer.com/item?doi=10.1007/s12293-016-0212-3>) (SCI & EI, IF: 2.674, Q2)
- Shifeng Chen, Rong Chen\*, **Gai-Ge Wang**, Jian Gao, Arun K. Sangaiah. An adaptive large neighborhood search heuristic for dynamic vehicle routing problems. Computers & Electrical Engineering, 2018, 67: 596-607. doi: [10.1016/j.compeleceng.2018.02.049](https://doi.org/10.1016/j.compeleceng.2018.02.049) (SCI & EI, IF: 2.189, Q2)
- Yanhong Feng, **Gai-Ge Wang\***. Binary moth search algorithm for discounted {0-1} knapsack problem. IEEE Access, 2018, 6: 10708-10719. doi: [10.1109/ACCESS.2018.2809445](https://doi.org/10.1109/ACCESS.2018.2809445) (SCI & EI, IF: 4.098, Q1)
- Guo-Sheng Hao\*, **Gai-Ge Wang**, Zhao-Jun Zhang, De-Xuan Zou. Optimization of the high order problems in evolutionary algorithms: an application of transfer learning. International Journal of Wireless and Mobile Computing, 2018, 14(1): 56-63. doi: [10.1504/IJWMC.2018.089991](https://doi.org/10.1504/IJWMC.2018.089991) (EI)

- Rizk M. Rizk-Allaha, Ragab A. El-Sehiemy, **Gai-Ge Wang\***. A novel parallel hurricane optimization algorithm for secure emission/economic load dispatch solution. *Applied Soft Computing*, 2018, 63: 206-222. doi: [10.1016/j.asoc.2017.12.002](https://doi.org/10.1016/j.asoc.2017.12.002) (SCI & EI, IF: 4.873, Q1)

**2017: 7 papers in total, EI: 0, SCI: 5 (first/corresponding author 3 papers, others 2 papers), total IF: 17.262 (first/corresponding author: 9.919, others: 7.343)**

- Guo-Sheng Hao\*, Maoyun Yang, Yuqiang Han, Yongquan Dong, Ping Ling, Yali Liu, **Gai-Ge Wang**. Construction and application of the lexis semantic interpretation space based on corpus. *Journal of Jiangsu University of Science and Technology (Nature Science Edition)*, 2017, 31(6): 806-813. doi: [10.3969/j.issn.1673-4807.2017.06.020](https://doi.org/10.3969/j.issn.1673-4807.2017.06.020) (EI)  
(郝国生, 杨茂云, 韩玉强, 董永权, 凌萍, 刘亚丽, **王改革**. 基于语料库的语义解释空间构建及其应用. *江苏科技大学学报(自然科学版)*, 2017, 31(6): 806-813. doi: [10.3969/j.issn.1673-4807.2017.06.020](https://doi.org/10.3969/j.issn.1673-4807.2017.06.020))
- Xuanguo Nan, Lingling Bao, Xiaosa Zhao, Xiaowei Zhao, Arun Kumar Sangaiah, **Gai-Ge Wang\***, Zhiqiang Ma\*. EPuL: an enhanced positive-unlabeled learning algorithm for the prediction of pupylation sites. *Molecules*, 2017, 22(9): 1463. doi: [10.3390/molecules22091463](https://doi.org/10.3390/molecules22091463) (SCI, IF: 3.098, Q2)
- Bachir Bentouati, Saliha Chettih, Ragab El Sehiemy, **Gai-Ge Wang**. Elephant Herding Optimization for solving non-convex economic load dispatch problem. *Journal of Electrical and Electronic Engineering*, 2017, 10(1): 31-36.
- Yanhong Feng, **Gai-Ge Wang\***, Suash Deb, Mei Lu, Xiang-Jun Zhao. **Solving 0-1 knapsack problem by a novel binary monarch butterfly optimization**. *Neural Computing and Applications*, 2017, 28(7): 1619-1634. doi: [10.1007/s00521-015-2135-1](https://doi.org/10.1007/s00521-015-2135-1) (Top 4% Highly Cited Paper by Scopus) (SCI & EI, IF: 4.664, Q1)
- Zhihua Cui, Bin Sun, **Gai-Ge Wang**, Yu Xue, Jinjun Chen\*. **A novel oriented cuckoo search algorithm to improve DV-Hop performance for cyber-physical systems**. *Journal of Parallel and Distributed Computing*, 2017, 103: 42-52. doi: [10.1016/j.jpdc.2016.10.011](https://doi.org/10.1016/j.jpdc.2016.10.011) (Top 1% Highly Cited Paper by Web of Science, Top 1% Highly Cited Paper by Scopus) (SCI & EI, IF: 1.819, CCF B, Q2)
- Rizk M. Rizk-Allah, Ragab A. El-Sehiemy, Suash Deb, **Gai-Ge Wang\***. A novel fruit fly framework for multi-objective shape design of tubular linear synchronous motor. *Journal of Supercomputing*, 2017, 73(3): 1235-1256. doi: [10.1007/s11227-016-1806-8](https://doi.org/10.1007/s11227-016-1806-8) (Top 5% Highly Cited Paper by Scopus) (SCI & EI, IF: 2.157, Q2)
- Ke Liu, Dunwei Gong\*, Fanlin Meng, Huanhuan Chen, **Gai-Ge Wang**. Gesture segmentation based on a two-phase estimation of distribution algorithm. *Information Sciences*, 2017, 394-395: 88-105. doi: [10.1016/j.ins.2017.02.021](https://doi.org/10.1016/j.ins.2017.02.021) (Top 8% Highly Cited Paper by Scopus) (SCI & EI, IF: 5.524, Q1)

**2016: 14 papers in total, EI: 0, SCI: 14 (first/corresponding author 10 papers, others 4 papers), total IF: 43.448 (first/corresponding author: 31.589, others: 11.859)**

- Hai-Cheng Chu, **Gai-Ge Wang**, Der-Jiunn Deng\*. The social networking investigation of metadata of forensic artifacts of a typical WeChat session under Windows. *Security and Communication Networks*, 2016, 9(18): 5698-5709. doi: [10.1002/sec.1729](https://doi.org/10.1002/sec.1729) (SCI & EI, IF: 1.376, Q3)
- Dexuan Zou\*, **Gai-Ge Wang**, Gai Pan, Hongwei Qi. A modified simulated annealing algorithm and an excessive area model for the floorplanning with fixed-outline constraints. *Frontiers of Information Technology & Electronic Engineering*, 2016, 17(11): 1228-1244. doi: [10.1631/FITEE.1500386](https://doi.org/10.1631/FITEE.1500386) (SCI & EI, IF: 1.033, Q3)  
(邹德旋\*, 王改革, 潘改, 齐红伟. 基于修正模拟退火算法及溢出面积模型的固定边界布图规划. *Frontiers of Information Technology & Electronic Engineering*, 2016, 17(11): 1228-1244. doi: [10.1631/FITEE.1500386](https://doi.org/10.1631/FITEE.1500386))
- **Gai-Ge Wang\***, Suash Deb, Xiao-Zhi Gao, Leandro dos Santos Coelho. A new metaheuristic optimization algorithm motivated by elephant herding behavior. *International Journal of Bio-Inspired Computation*, 2016, 8(6): 394-409. doi: [10.1504/IJBIC.2016.10002274](https://doi.org/10.1504/IJBIC.2016.10002274) MATLAB code (Top 1% Highly Cited Paper by Scopus) (SCI, IF: 3.395, Q1)
- Yanhong Feng, **Gai-Ge Wang\***, Xiao-Zhi Gao. A novel hybrid cuckoo search algorithm with global harmony search for 0-1 Knapsack problems. *International Journal of Computational Intelligence Systems*, 2016, 9(6): 1174-1190. doi: [10.1080/18756891.2016.1256577](https://doi.org/10.1080/18756891.2016.1256577) (Top 25% Highly Cited Paper by Scopus) (SCI & EI, IF: 2.153, Q3)
- **Gai-Ge Wang\***, Amir H. Gandomi, Xin-She Yang, Amir H. Alavi. A new hybrid method based on krill herd and cuckoo search for global optimization tasks. *International Journal of Bio-Inspired Computation*, 2016, 8(5): 286-299. doi: [10.1504/IJBIC.2016.10000414](https://doi.org/10.1504/IJBIC.2016.10000414) (Top 2% Highly Cited Paper by Scopus) (SCI, IF: 3.395, Q1)
- Dexuan Zou\*, Steven Li, **Gai-Ge Wang**, Zongyan Li, Haibin Ouyang. An improved differential evolution algorithm for the economic load dispatch problems with or without valve-point effects. *Applied Energy*, 2016, 181: 375-390. doi: [10.1016/j.apenergy.2016.08.067](https://doi.org/10.1016/j.apenergy.2016.08.067) (Top 3% Highly Cited Paper by Scopus) (SCI & EI, IF: 8.426, TOP Journal, Q1)
- **Gai-Ge Wang\***, Suash Deb, Amir H. Gandomi, Zhaojun Zhang, Amir H. Alavi. Chaotic cuckoo search. *Soft Computing*, 2016, 20(9): 3349-3362. doi: [10.1007/s00500-015-1726-1](https://doi.org/10.1007/s00500-015-1726-1) (Top 1% Highly Cited Paper by Scopus, Top 2% Highly Cited Paper by Soft Computing, see: <https://citations.springer.com/item?doi=10.1007/s00500-015-1726-1>) (SCI & EI, IF: 2.784, Q2)
- **Gai-Ge Wang\***, Amir H. Gandomi, Amir H. Alavi, Suash Deb. A hybrid method based on krill herd and quantum-behaved particle swarm optimization. *Neural Computing and Applications*, 2016, 27(4): 989-1006. doi: [10.1007/s00521-015-1914-z](https://doi.org/10.1007/s00521-015-1914-z) (Top 1% Highly Cited Paper by Scopus, Top 4% Highly Cited Paper by Neural Computing & Applications, see: <https://citations.springer.com/item?doi=10.1007/s00521-015-1914-z>) (SCI & EI, IF: 4.664, Q1)
- **Gai-Ge Wang\***, Amir H. Gandomi, Amir H. Alavi, Suash Deb. A multi-stage krill herd algorithm for global numerical optimization. *International Journal on Artificial Intelligence Tools*, 2016, 25(2):

1550030. doi: [10.1142/S021821301550030X](https://doi.org/10.1142/S021821301550030X) (Top 1% Highly Cited Paper by International Journal on Artificial Intelligence Tools, see: <http://www.worldscientific.com/action/showMostCitedArticles?journalCode=ijait>) (SCI, IF: 0.849, Q4)

- **Gai-Ge Wang\***, Suash Deb, Amir H. Gandomi, Amir H. Alavi. Opposition-based krill herd algorithm with Cauchy mutation and position clamping. *Neurocomputing*, 2016, 177: 147-157. doi: [10.1016/j.neucom.2015.11.018](https://doi.org/10.1016/j.neucom.2015.11.018) (Top 1% Highly Cited Paper by Web of Science, Top 4% Highly Cited Paper by Scopus) (SCI & EI, IF: 4.072, Q1)
- **Gai-Ge Wang\***, Mei Lu, Yong-Quan Dong, Xiang-Jun Zhao. Self-adaptive extreme learning machine. *Neural Computing and Applications*, 2016, 27(2): 291-303. doi: [10.1007/s00521-015-1874-3](https://doi.org/10.1007/s00521-015-1874-3) (Top 14% Highly Cited Paper by Scopus, Top 7% Highly Cited Paper by Neural Computing & Applications, see: <https://citations.springer.com/item?doi=10.1007/s00521-015-1874-3>) (SCI & EI, IF: 4.664, Q1)
- **Gai-Ge Wang\***, Amir H. Gandomi, Xiangjun Zhao, HaiCheng Eric Chu. Hybridizing harmony search algorithm with cuckoo search for global numerical optimization. *Soft Computing*, 2016, 20(1): 273-285. doi: [10.1007/s00500-014-1502-7](https://doi.org/10.1007/s00500-014-1502-7) (Top 1% Highly Cited Paper by Scopus and Web of Science, Top 1% Highly Cited Paper by Soft Computing, see: <https://citations.springer.com/item?doi=10.1007/s00500-014-1502-7>) (SCI & EI, IF: 2.784, Q2)
- **Gai-Ge Wang\***, HaiCheng Eric Chu, Seyedali Mirjalili. Three-dimensional path planning for UCAV using an improved bat algorithm. *Aerospace Science and Technology*, 2016, 49: 231-238. doi: [10.1016/j.ast.2015.11.040](https://doi.org/10.1016/j.ast.2015.11.040) (Top 3% Highly Cited Paper by Scopus) (SCI & EI, IF: 2.829, Q1)
- Jiao-Hong Yi, Jian Wang\*, **Gai-Ge Wang**. Improved probabilistic neural networks with self-adaptive strategies for transformer fault diagnosis problem. *Advances in Mechanical Engineering*, 2016, 8(1): 1-13. doi: [10.1177/1687814015624832](https://doi.org/10.1177/1687814015624832) (Top 25% Highly Cited Paper by Scopus) (SCI, IF: 1.024, Q4)

**2015: 3 papers in total, EI: 2, SCI: 1 (first/corresponding author 0 paper, others 1 paper), total IF: 2.143 (first/corresponding author: 0, others: 2.143)**

- Hai-Cheng Chu, **Gai-Ge Wang**, Jong Hyuk Park\*. The digital fingerprinting analysis concerning google calendar under ubiquitous mobile computing era. *Symmetry*, 2015, 7(2): 383-394. doi: [10.3390/sym7020383](https://doi.org/10.3390/sym7020383) (SCI, IF: 2.143, Q2)
- Zhi-Yong Li, Jiao-Hong Yi, **Gai-Ge Wang\***. A new swarm intelligence approach for clustering based on krill herd with elitism strategy. *Algorithms*, 2015, 8(4): 951-964. doi: [10.3390/a8040951](https://doi.org/10.3390/a8040951) (Top 35% Highly Cited Paper by Scopus, Highly cited paper of Algorithms last 24 months, see [http://www.mdpi.com/journal/algorithms/most\\_cited](http://www.mdpi.com/journal/algorithms/most_cited)) (EI)
- Hai-Cheng Chu, Ching-Hsien Hsu, Ming-Hao Yin, **Gai-Ge Wang\***. The digital traces uncovering of generic Gmail/Facebook Instant messaging sessions via the IE browser as probative evidences. *Journal of Computers*, 26 (2): 2-10. (pdf) (EI)

**2014: 12 papers in total, EI: 0, SCI: 12 (first/corresponding author 8 papers, others 4 papers), total IF: 37.965 (first/corresponding author: 28.749, others: 9.216)**

- **Gai-Ge Wang\***, Lihong Guo, Amir H. Gandomi, Guo-Sheng Hao, Heqi Wang. Chaotic krill herd algorithm. *Information Sciences*, 2014, 274: 17-34. doi: [10.1016/j.ins.2014.02.123](https://doi.org/10.1016/j.ins.2014.02.123) (Top 1% Highly Cited Paper by Web of Science and Scopus) (SCI & EI, IF: 5.524, CCF B, Q1)
- **Gai-Ge Wang\***, Amir H. Gandomi, Amir H. Alavi. An effective krill herd algorithm with migration operator in biogeography-based optimization. *Applied Mathematical Modelling*, 2014, 38(9-10): 2454-2462. doi: [10.1016/j.apm.2013.10.052](https://doi.org/10.1016/j.apm.2013.10.052) (Top 1% Highly Cited Paper by Web of Science and Scopus, highly cited paper of *Applied Mathematical Modelling*, see <https://www.journals.elsevier.com/applied-mathematical-modelling/most-cited-articles>) (SCI & EI, IF: 2.841, TOP Journal, Q1)
- **Gai-Ge Wang\***, Amir H. Gandomi, Amir H. Alavi. Stud krill herd algorithm. *Neurocomputing*, 2014, 128: 363-370. doi: [10.1016/j.neucom.2013.08.031](https://doi.org/10.1016/j.neucom.2013.08.031) (Top 1% Highly Cited Paper by Web of Science and Scopus, highly cited paper of *Neurocomputing*, see <https://www.journals.elsevier.com/neurocomputing/most-cited-articles>) (SCI & EI, IF: 4.072, Q1)
- Lihong Guo, **Gai-Ge Wang\***, Amir H. Gandomi, Amir H. Alavi, Hong Duan. A new improved krill herd algorithm for global numerical optimization. *Neurocomputing*, 2014, 138: 392-402. doi: [10.1016/j.neucom.2014.01.023](https://doi.org/10.1016/j.neucom.2014.01.023) (Top 1% Highly Cited Paper by Scopus) (SCI & EI, IF: 4.072, Q1)
- **Gai-Ge Wang\***, Lihong Guo, Heqi Wang, Hong Duan, Luo Liu, Jiang Li. Incorporating mutation scheme into krill herd algorithm for global numerical optimization. *Neural Computing and Applications*, 2014, 24(3-4): 853-871. doi: [10.1007/s00521-012-1304-8](https://doi.org/10.1007/s00521-012-1304-8) (Top 1% Highly Cited Paper by Web of Science and Scopus) (SCI & EI, IF: 4.664, Q1)
- **Gai-Ge Wang\***, Amir H. Gandomi, Guo-Sheng Hao. Hybrid krill herd algorithm with differential evolution for global numerical optimization. *Neural Computing and Applications*, 2014, 25(2): 297-308. doi: [10.1007/s00521-013-1485-9](https://doi.org/10.1007/s00521-013-1485-9) (Top 1% Highly Cited Paper by Scopus, Top 2% Highly Cited Paper by *Neural Computing & Applications*, see: <https://citations.springer.com/item?doi=10.1007/s00521-013-1485-9>) (SCI & EI, IF: 4.664, Q1)
- **Gai-Ge Wang\***, Amir H. Gandomi, Xin-She Yang, Amir H. Alavi. A novel improved accelerated particle swarm optimization algorithm for global numerical optimization. *Engineering Computations*, 2014, 31(7): 1198-1220. doi: [10.1108/EC-10-2012-0232](https://doi.org/10.1108/EC-10-2012-0232) (Top 3% Highly Cited Paper by Scopus) (SCI & EI, IF: 1.246, Q3)
- Yan-Hong Feng\*, **Gai-Ge Wang**, Qingjiang Feng, Xiang-Jun Zhao. An effective hybrid cuckoo search algorithm with improved shuffled frog leaping algorithm for 0-1 knapsack problems. *Computational Intelligence and Neuroscience*, Vol. 2014, Article ID 857254, 17 pages, 2014. doi: [10.1155/2014/857254](https://doi.org/10.1155/2014/857254) (SCI & EI, IF: 2.154, Q2)
- **Gai-Ge Wang\***, Lihong Guo, Hong Duan, Heqi Wang. A new improved firefly algorithm for global numerical optimization. *Journal of Computational and Theoretical Nanoscience*, 2014, 11(2): 477-485. doi: [10.1166/jctn.2014.3383](https://doi.org/10.1166/jctn.2014.3383) (Top 2% Highly Cited Paper by Scopus) (SCI & EI, IF: 1.666, Q2)

- Zhaojun Zhang\*, **Gai-Ge Wang**, Kuansheng Zou, Jianhua Zhang. A solution quality assessment method for swarm intelligence optimization algorithms. *The Scientific World Journal*, Vol. 2014, Article ID 183809, 9 pages, 2014. doi: [10.1155/2014/183809](https://doi.org/10.1155/2014/183809) (SCI, IF: 1.219, Q2)
- Alireza M. Bayazidi, **Gai-Ge Wang**, Hamed Bolandi, Amir H. Alavi\*, Amir H. Gandomi. Multigene genetic programming for estimation of elastic modulus of concrete. *Mathematical Problems in Engineering*, Vol. 2014, Article ID 474289, 10 pages, 2014. doi: [10.1155/2014/474289](https://doi.org/10.1155/2014/474289) (SCI & EI, IF: 1.179, Q3)
- Seyedali Mirjalili\*, **Gai-Ge Wang**, and Leandro Coelho. Binary Optimization Using Hybrid Particle Swarm Optimization and Gravitational Search Algorithm. *Neural Computing and Applications*, 25(6): 1423-1435, 2014. doi: [10.1007/s00521-014-1629-6](https://doi.org/10.1007/s00521-014-1629-6) (Top 3% Highly Cited Paper by Scopus, Top 3% Highly Cited Paper by Neural Computing & Applications, see: <https://citations.springer.com/item?doi=10.1007/s00521-014-1629-6>) (SCI & EI, IF: 4.664, Q1)

**2013: 9 papers in total, EI: 1, SCI: 8 (first/corresponding author 7 papers, others 1 papers), total IF: 9.682 (first/corresponding author: 8.658, others: 1.024)**

- **Gai-Ge Wang**, Lihong Guo, Hong Duan, Luo Liu, Heqi Wang. Target threat assessment using glowworm swarm optimization and BP neural network. *Journal of Jilin University (Engineering and Technology Edition)*, 2013, 43(4): 1064-1069. doi: [10.7964/jdxbgxb201304035](https://doi.org/10.7964/jdxbgxb201304035) (EI)  
(王改革, 郭立红, 段红, 王鹤淇, 刘遯. 基于萤火虫算法优化 BP 神经网络的目标威胁估计. *吉林大学学报(工学版)*, 2013, 43(4): 1064-1069. doi: [10.7964/jdxbgxb201304035](https://doi.org/10.7964/jdxbgxb201304035))
- **Gai-Ge Wang**, Lihong Guo\*, Hong Duan, Heqi Wang, Luo Liu, Mingzhen Shao. Hybridizing harmony search with biogeography based optimization for global numerical optimization. *Journal of Computational and Theoretical Nanoscience*, 2013, 10(10): 2312-2322. doi: [10.1166/jctn.2013.3207](https://doi.org/10.1166/jctn.2013.3207) (Top 3% Highly Cited Paper by Scopus) (SCI & EI, IF: 1.666, Q2)
- **Gai-Ge Wang**, Lihong Guo\*. A novel hybrid bat algorithm with harmony search for global numerical optimization. *Journal of Applied Mathematics*, Vol. 2013, Article ID 696491, 21 pages, 2013. doi: [10.1155/2013/696491](https://doi.org/10.1155/2013/696491) (Top 1% Highly Cited Paper by Web of Science and Scopus) (SCI, IF: 0.720, Q3)
- **Gai-Ge Wang**, Lihong Guo\*, Amir H. Gandomi, Lihua Cao, Amir Hossein Alavi, Hong Duan, Jiang Li. Lévy-flight krill herd algorithm. *Mathematical Problems in Engineering*, Vol. 2013, Article ID 682073, 14 pages, 2013. doi: [10.1155/2013/682073](https://doi.org/10.1155/2013/682073) (Top 2% Highly Cited Paper by Scopus) (SCI & EI, IF: 1.179, Q3)
- **Gai-Ge Wang\***, Amir H. Gandomi, Amir H. Alavi. A chaotic particle-swarm krill herd algorithm for global numerical optimization. *Kybernetes*, 2013, 42(6): 962-978. doi: [10.1108/K-11-2012-0108](https://doi.org/10.1108/K-11-2012-0108) (Top 1% Highly Cited Paper by Scopus, Highly cited paper of *Kybernetes*, see <http://www.emeraldinsight.com/action/showMostCitedArticles?journalCode=k>) (SCI & EI, IF: 1.381, Q3)
- **Gai-Ge Wang**, Lihong Guo\*, Hong Duan. Wavelet neural network using multiple wavelet functions in target threat assessment. *The Scientific World Journal*, Vol. 2013, Article ID 632437, 7 pages, 2013. doi: [10.1155/2013/632437](https://doi.org/10.1155/2013/632437) (SCI, IF: 1.219, Q2)



- **Gai-Ge Wang**, Lihong Guo\*, Amir H. Gandomi, Amir H. Alavi, Hong Duan. Simulated annealing-based krill herd algorithm for **global** optimization. *Abstract and Applied Analysis*, Vol. 2013, Article ID 213853, 11 pages, 2013. doi: [10.1155/2013/213853](https://doi.org/10.1155/2013/213853) (SCI, IF: 1.274, Q1)
- Xiaobin Li, Jiansheng Qian\*, **Gai-Ge Wang**. Fault prognostic based on hybrid method of state judgment and regression. *Advances in Mechanical Engineering*, vol. 2013, Article ID 149562, 10 pages, 2013. doi: [10.1155/2013/149562](https://doi.org/10.1155/2013/149562) (SCI, IF: 1.024, Q4)
- Lihong Guo, **Gai-Ge Wang\***, Heqi Wang, Dinan Wang. An effective hybrid firefly algorithm with harmony search for global numerical optimization. *The Scientific World Journal*, Vol. 2013, Article ID 125625, 9 pages, 2013. doi: [10.1155/2013/125625](https://doi.org/10.1155/2013/125625) (Top 12% Highly Cited Paper by Scopus) (SCI, IF: 1.219, Q2)

**2012: 10 papers in total, EI: 5, SCI: 3 (first/corresponding author 2 papers, others 1 papers), total IF: 3.617 (first/corresponding author: 2.438, others: 1.179)**

- Luo Liu, Lihong Guo\*, Hui Xiao, Jianjun Wang, **Gai-Ge Wang**. Software reliability growth model based on SAA-DFNN. *Journal of Jilin University (Engineering and Technology Edition)*, 2012, 42(5): 1225-1230. doi: [10.13229/j.cnki.jdxbgxb2012.05.011](https://doi.org/10.13229/j.cnki.jdxbgxb2012.05.011) (EI)  
(刘遯, 郭立红\*, 肖辉, 王建军, **王改革**. 基于结合模拟退火算法的动态模糊神经网络的软件可靠性增长模型. *吉林大学学报(工学版)*, 2012, 42(5): 1225-1230. doi: [10.13229/j.cnki.jdxbgxb2012.05.011](https://doi.org/10.13229/j.cnki.jdxbgxb2012.05.011))
- **Gai-Ge Wang**, Lihong Guo\*, Hong Duan, Heqi Wang, Luo Liu, Mingzhen Shao. Path planning for uninhabited combat aerial vehicle using hybrid meta-heuristic DE/BBO algorithm. *Advanced Science, Engineering and Medicine*, 2012, 4(6): 550-564. doi: [10.1166/ asem.2012.1223](https://doi.org/10.1166/ asem.2012.1223)
- **Gai-Ge Wang**, Lihong Guo\*, Hong Duan, Luo Liu, Heqi Wang. Dynamic deployment of wireless sensor networks by biogeography based optimization algorithm. *Journal of Sensor and Actuator Networks*, 2012, 1(2): 86-96. doi: [10.3390/ jsan1020086](https://doi.org/10.3390/ jsan1020086) (Highly cited paper of *Journal of Sensor and Actuator Networks*, see [http://www.mdpi.com/journal/jsan/most\\_cited](http://www.mdpi.com/journal/jsan/most_cited))
- **Gai-Ge Wang**, Lihong Guo\*, Hong Duan, Luo Liu, Heqi Wang. A modified firefly algorithm for UCAV path planning. *International Journal of Hybrid Information Technology*, 2012, 5(3): 123-144.(PDF) (EI)
- Jia-Wei Zhang, **Gai-Ge Wang\***. Image matching using a bat algorithm with mutation. *Applied Mechanics and Materials*, 2013, 203: 88-93. doi: [10.4028/www.scientific.net/AMM.203.88](https://doi.org/10.4028/www.scientific.net/AMM.203.88) (Top 1% Highly Cited Paper by Scopus) (EI)
- **Gai-Ge Wang**, Lihong Guo\*, Hong Duan, Luo Liu, Heqi Wang, Jianbo Wang. A hybrid meta-heuristic DE/CS algorithm for UCAV path planning. *Journal of Information and Computational Science*, 5(16): 4811-4818. (Top 4% Highly Cited Paper by Scopus) (EI)
- **Gai-Ge Wang**, Lihong Guo\*, Hong Duan, Heqi Wang, Luo Liu, Mingzhen Shao. A hybrid meta-heuristic DE/CS algorithm for UCAV three-dimension path planning. *The Scientific World Journal*, Vol. 2012, Article ID 583973, 11 pages, 2012. doi: [10.1100/2012/583973](https://doi.org/10.1100/2012/583973) (SCI, IF: 1.219, Q2)
- Hong Duan, Wei Zhao\*, **Gai-Ge Wang**, Xuehua Feng. Test-sheet composition using analytic hierarchy process and hybrid metaheuristic algorithm TS/BBO. *Mathematical Problems in Engineering*, Vol. 2012, Article ID 712752, 22 pages, 2012. doi: [10.1155/2012/712752](https://doi.org/10.1155/2012/712752) (Top 7% Highly Cited Paper by Scopus) (SCI & EI, IF: 1.179, Q3)

- **Gai-Ge Wang**, Lihong Guo\*, Hong Duan, Luo Liu, Heqi Wang. A bat algorithm with mutation for UCAV path planning. The Scientific World Journal, Article ID 418946, 15 pages, 2012. doi: [10.1100/2012/418946](https://doi.org/10.1100/2012/418946) (**Top 8% Highly Cited Paper by Scopus**) (**SCI, IF: 1.219, Q2**)
- **Gai-Ge Wang**, Lihong Guo\*, Hong Duan, Luo Liu, Heqi Wang. The model and algorithm for the target threat assessment based on Elman\_AdaBoost strong predictor. Acta Electronica Sinica, 2012, 40(5): 901-906. doi: [10.3969/j.issn.0372-2112.2012.05.007](https://doi.org/10.3969/j.issn.0372-2112.2012.05.007) (Top Journal in China) (“**Top Articles from Outstanding S&T Journals of China - F5000 Frontrunner**”, <http://f5000.istic.ac.cn/f5000/paper?code=R006201205007>) (**EI**)  
(王改革, 郭立红\*, 段红, 刘遯, 王鹤淇. 基于 Elman\_AdaBoost 强预测器的目标威胁评估模型及算法. 电子学报, 2012, 40 (5): 901-906. doi: [10.3969/j.issn.0372-2112.2012.05.007](https://doi.org/10.3969/j.issn.0372-2112.2012.05.007)) (**2015 年入选科技部“精品期刊顶尖论文平台-领跑者 5000”-F5000**, <http://f5000.istic.ac.cn/f5000/paper?code=R006201205007>)

### Book chapter (5 papers in total, SCI: 1, EI: 2)

- S. S. Dhillon\*, Surabhi Agarwal, **Gai-Ge Wang**, J. S. Lather. Automatic generation control of interconnected power systems using elephant herding optimization, Lecture Notes in Electrical Engineering, Vol 607, Springer Singapore, Singapore, 2020, pp. 9-18.
- **Gai-Ge Wang**, Amir H. Gandomi, Amir H. Alavi, and Yong-Quan Dong. A hybrid meta-heuristic method based on firefly algorithm and krill herd. Samui P (ed), Handbook of Research on Advanced Computational Techniques for Simulation-Based Engineering. IGI, Hershey, PA, USA, 2016, pp 521-540. doi: [10.4018/978-1-4666-9479-8.ch019](https://doi.org/10.4018/978-1-4666-9479-8.ch019)
- **Gai-Ge Wang**, Suash Deb and Sabu M. Thampi. A discrete krill herd method with multilayer coding strategy for flexible job-shop scheduling problem. In: Berretti, S, Thampi, S M and Srivastava, P R (Eds.), Advances in Intelligent Systems and Computing, Vol 384. Springer International Publishing, 2015, pp 201-215. doi: [10.1007/978-3-319-23036-8\\_18](https://doi.org/10.1007/978-3-319-23036-8_18) (**Top 10% Highly Cited Paper by Scopus**)
- **Gai-Ge Wang**, Amir H. Gandomi, Amir H. Alavi. Study of Lagrangian and evolutionary parameters in krill herd algorithm. In: Fister I, Fister Jr I (eds) Adaptation and Hybridization in Computational Intelligence, Vol 18. Adaptation, Learning, and Optimization. Springer International Publishing, 2015, pp 111-128. doi:[10.1007/978-3-319-14400-9\\_5](https://doi.org/10.1007/978-3-319-14400-9_5)
- Guo-Sheng Hao, Chang-Shuai Chen, **Gai-Ge Wang**, Yong-Qing Huang, De-Xuan Zhou, Zhao-Jun Zhang. Efficiency and Effectiveness Metrics in Evolutionary Algorithms and Their Application. In: Huang D-S, Jo K-H, Hussain A (eds) Intelligent Computing Theories and Methodologies, vol 9226. Lecture Notes in Computer Science. Springer International Publishing, 2015, pp 1-12. doi: [10.1007/978-3-319-22186-1\\_1](https://doi.org/10.1007/978-3-319-22186-1_1)

### Conferences (23 papers in total, SCI: 2, EI: 10)

- **Gai-Ge Wang\***, Danyu Bai, Wenyin Gong, Xuesong Yan, Teng Ren, Xiaobo Liu, Ling Wang. Particle-swarm krill herd algorithm. In: The IEEE International Conference on Industrial Engineering and Engineering Management (IEEM 2018), Bangkok, Thailand, December 16-19, 2018. IEEE, pp 1073-1080. doi: [10.1109/IEEM.2018.8607812](https://doi.org/10.1109/IEEM.2018.8607812)
- Guo-Sheng, Hao Ze-Hui Yi, Lin Wan, Qiu-Yi Shi, Ya-Li Liu, **Gai-Ge Wang**. Comparison of two swarm intelligence algorithms: from the viewpoint of learning. In: International Conference on

Intelligent Computing (ICIC 2018), Wuhan, China, August 15-18, 2018. Springer, pp 821-827. doi: [10.1007/978-3-319-95957-3\\_87](https://doi.org/10.1007/978-3-319-95957-3_87)

- **Gai-Ge Wang\***, Guo-Sheng Hao, Zhihua Cui. An enhanced monarch butterfly optimization with self-adaptive butterfly adjusting and crossover operators. In: Ninth International Conference on Swarm Intelligence (ICSI 2018), Shanghai, China, June 17-22, 2018. Springer, pp 432-444. doi: [10.1007/978-3-319-93815-8\\_41](https://doi.org/10.1007/978-3-319-93815-8_41)
- Xiaobin Li\*, Yongquan Dong, **Gai-Ge Wang**, Mo Hou. Prior polarity dictionary derived from SentiWordNet based on random forest algorithm. In: Proceedings of the 2017 2nd International Conference on Automation, Mechanical Control and Computational Engineering (AMCCE 2017), Beijing, China, March 25-26, 2017. Atlantis Press, pp 818-824. doi: [10.2991/amcce-17.2017.145](https://doi.org/10.2991/amcce-17.2017.145)
- Guo-Sheng Hao\*, Na Guo, **Gai-Ge Wang**, Zhaojun Zhang, De-Xuan Zou. Scheme of big-data supported interactive evolutionary computation. In: 2017 2nd International Conference on Information Technology and Management Engineering (ITME 2017), Beijing, China, January 15-16, 2017. pp 14-19. doi: [10.12783/dtce/itme2017/7958](https://doi.org/10.12783/dtce/itme2017/7958)
- Guo-Sheng Hao\*, Qiuyi Shi, **Gai-Ge Wang**, Zhaojun Zhang, De-Xuan Zou. Comparison of GA-based algorithms: a viewpoint of learning scheme. In: 2017 2nd International Conference on Communications, Information Management and Network Security (CIMNS 2017), Phuket, Thailand, August 6-7, 2017. pp 288-293. doi: [10.12783/dtce/cimns2017/17433](https://doi.org/10.12783/dtce/cimns2017/17433)
- Guo-Sheng Hao\*, **Gai-Ge Wang**, Zhaojun Zhang, De-Xuan Zou. Comparison of PSO and ABC: from a viewpoint of learning. In: 2017 2nd International Conference on Artificial Intelligence: Techniques and Applications (AITA 2017), Shenzhen, China, September 17-18, 2017. pp 108-112. doi: [10.12783/dtce/aita2017/15999](https://doi.org/10.12783/dtce/aita2017/15999)
- **Gai-Ge Wang**, Guo-Sheng Hao, Shi Cheng, Zhihua Cui. An improved monarch butterfly optimization with equal partition and F/T mutation. In: Eight International Conference on Swarm Intelligence (ICSI 2017), Fukuoka, Japan, July 27-August 01, 2017. Springer, pp 106-115. doi: [10.1007/978-3-319-61824-1\\_12](https://doi.org/10.1007/978-3-319-61824-1_12)
- **Gai-Ge Wang**, Guo-Sheng Hao, Shi Cheng, Yuhui Shi, Zhihua Cui. An improved brain storm optimization algorithm based on graph theory. In: 2017 IEEE Congress on Evolutionary Computation (CEC 2017), Donostia-San Sebastián, Spain, June 5-8, 2017. IEEE, pp 509-515. doi: [10.1109/CEC.2017.7969354](https://doi.org/10.1109/CEC.2017.7969354)
- **Gai-Ge Wang**, Mei Lu, Xiang-Jun Zhao. An improved bat algorithm with variable neighborhood search for global optimization. In: 2016 IEEE Congress on Evolutionary Computation (CEC 2016), Vancouver, Canada, July 25-29, 2016. IEEE, pp 1773-1778. doi: [10.1109/CEC.2016.7744003](https://doi.org/10.1109/CEC.2016.7744003)
- **Gai-Ge Wang**, Xiao-Zhi Gao, Kai Zenger, Leandro dos Santos Coelho. A novel metaheuristic algorithm inspired by rhino herd behavior. In: The 9th Eurosim Congress on Modelling and Simulation (EUROSIM 2016), Oulu, Finland, September 12-16, 2016. IEEE, pp 961-966. doi: [10.1109/EUROSIM.2016.186](https://doi.org/10.1109/EUROSIM.2016.186)
- Shi Cheng, Quande Qin, Junfeng Chen, **Gai-Ge Wang**, Yuhui Shi. Brain storm optimization in objective space algorithm for multimodal optimization problems. In: The Seventh International Conference on Swarm Intelligence (ICSI 2016), Bali, Indonesia, June 25-30, 2016. Springer, pp 469-478. doi: [10.1007/978-3-319-41000-5\\_47](https://doi.org/10.1007/978-3-319-41000-5_47)

- **Gai-Ge Wang**, Guo-Sheng Hao, Shi Cheng, Quande Qin. A discrete monarch butterfly optimization for Chinese TSP problem. In: The Seventh International Conference on Swarm Intelligence (ICSI 2016), Bali, Indonesia, June 25-30, 2016. Springer, pp 165-173. doi: [10.1007/978-3-319-41000-5\\_16](https://doi.org/10.1007/978-3-319-41000-5_16)
- Guo-Sheng Hao, Chang-Shuai Chen, **Gai-Ge Wang**, Ping Ling, Ya-Li Liu, Zhao-Jun Zhang, De-Xuan Zou, Yong-Qing Huang. Offline determinations of parameter values in genetic algorithm. In: 2015 11th International Conference on Natural Computation (ICNC 2015), Bali, Indonesia, August 15-17, 2015. IEEE, pp 239-244. doi: [10.1109/ICNC.2015.7377997](https://doi.org/10.1109/ICNC.2015.7377997)
- **Gai-Ge Wang**, Suash Deb, Leandro dos Santos Coelho. Elephant Herding Optimization. In: 2015 3rd International Symposium on Computational and Business Intelligence (ISCBI 2015), Bali, Indonesia, December 7-8, 2015. IEEE, pp 1-5. doi: [10.1109/ISCBI.2015.8](https://doi.org/10.1109/ISCBI.2015.8) [MATLAB code](#) (Top 1% Highly Cited Paper by Scopus)
- **Gai-Ge Wang**, Suash Deb, Amir H. Gandomi, Amir H. Alavi. A hybrid PBIL-based krill herd algorithm. In: 2015 3rd International Symposium on Computational and Business Intelligence (ISCBI 2015), Bali, Indonesia, December 7-8, 2015. IEEE, pp 39-44. doi: [10.1109/ISCBI.2015.14](https://doi.org/10.1109/ISCBI.2015.14)
- De-Xuan Zou, Guo-Sheng Hao, Gai Pan, **Gai-Ge Wang**. An improved simulated annealing algorithm and area model for fixed-outline floorplanning with hard modules. In: 2015 3rd International Symposium on Computational and Business Intelligence (ISCBI 2015), Bali, Indonesia, December 7-8, 2015. IEEE, pp 21-25. doi: [10.1109/ISCBI.2015.11](https://doi.org/10.1109/ISCBI.2015.11)
- **Gai-Ge Wang**, Xinchao Zhao, Suash Deb. A novel monarch butterfly optimization with greedy strategy and self-adaptive crossover operator. In: the 2015 2nd Intl. Conference on Soft Computing & Machine Intelligence (ISCM 2015), Hong Kong, November 23-24, 2015. IEEE, pp 45-50. doi: [10.1109/ISCM.2015.19](https://doi.org/10.1109/ISCM.2015.19) [MATLAB code](#)
- Yanhong Feng, **Gai-Ge Wang**. An improved hybrid encoding firefly algorithm for randomized time-varying Knapsack problems. In: the 2015 2nd Intl. Conference on Soft Computing & Machine Intelligence (ISCM 2015), Hong Kong, November 23-24, 2015. IEEE, pp 9-14. doi: [10.1109/ISCM.2015.24](https://doi.org/10.1109/ISCM.2015.24)
- De-Xuan Zou, Suash Deb, **Gai-Ge Wang**. IIR system identification using an improved particle swarm optimization algorithm. In: the 2015 2nd Intl. Conference on Soft Computing & Machine Intelligence (ISCM 2015), Hong Kong, November 23-24, 2015. IEEE, pp 1-8. doi: [10.1109/ISCM.2015.13](https://doi.org/10.1109/ISCM.2015.13)
- **Gai-Ge Wang**, Bao Chang, Zhaojun Zhang. A multi-swarm bat algorithm for global optimization. In: 2015 IEEE Congress on Evolutionary Computation (CEC 2015), Sendai, Japan, May 25-28, 2015. IEEE, pp 480-485. doi: [10.1109/CEC.2015.7256928](https://doi.org/10.1109/CEC.2015.7256928)
- **Gai-Ge Wang**, Suash Deb, Amir H. Gandomi, Zhaojun Zhang, Amir H. Alavi. Novel cuckoo search with chaos theory and elitism scheme. In: 2014 International Conference on Soft Computing and Machine Intelligence (ISCM 2014), New Delhi, India, 26-27 Sept. 2014. pp 64-69. doi: [10.1109/ISCM.2014.8](https://doi.org/10.1109/ISCM.2014.8)
- Mo Hou, Mao-Yun Yang, Shu-Yun Qiao, **Gai-Ge Wang**, Li-Qun Gao. Study on characteristic dimension and sparse factor in Non-negative Matrix Factorization algorithm. In: The 26th Chinese Control and Decision Conference (2014 CCDC), Changsha, China, May 31-June 2, 2014. pp 2957-2961. doi: [10.1109/CCDC.2014.6852679](https://doi.org/10.1109/CCDC.2014.6852679)

**Book**

- **Gai-Ge Wang**, Amir H. Alavi. *Evolutionary Computation*. 2019, 424 pages, MDPI, Basel, Switzerland. ISBN 978-3-03921-928-5 (Pbk), 978-3-03921-929-2 (PDF). doi: [10.3390/books978-3-03921-929-2](https://doi.org/10.3390/books978-3-03921-929-2) (This book is a printed edition of the Special Issue *Evolutionary Computation* that was published in *Mathematics*)

**Professional Activities:**

I served as Editors-in-Chief of *OAJRC Computer and Communications*, Section Editor of *Current Chinese Computer Science*, Editorial Advisory Board Member of *Communications in Computational and Applied Mathematics (CCAM)*, Associate Editor of *IEEE Access (SCI)* from 2019 and *International Journal of Computer Information Systems and Industrial Management Applications (IJCISIM)* from 2016, and an Editorial Board Member of *Mathematics (SCI)* from 2019, *International Journal of Bio-Inspired Computation (IJBIC, SCI)* from 2016, *Karbala International Journal of Modern Science (KIJOMS)* from 2018, *Journal of Artificial Intelligence and Systems* from 2019, *Journal of Networked and Innovative Computing (JNIC)* from 2019, *OAJRC Computer and Communications* from 2019, *Metaheuristic Computing and Applications (MCA)* from 2020. I served as Guest-Editor/co-Guest-Editor for many journals including *Journal of Zhengzhou University (Engineering Science)*, *Mathematics*, *Journal of Ambient Intelligence and Humanized Computing*, *International Journal of Bio-Inspired Computation (IJBIC)*, *Future Generation Computer Systems*, *Memetic Computing*, *Operational Research: An International Journal*, *International Journal of Spatio-Temporal Data Science*, *Mathematics*, and *International Journal of World Review of Science, Technology and Sustainable Development*.

**Editorial Boards of international journals**

- *IEEE Access* (IEEE, **SCI-indexed**) - Associate Editor, since 2019
- *Mathematics* (MDPI, **SCI-indexed**) - Editorial Board Member, since 2019
- *International Journal of Bio-Inspired Computation* (Inderscience, **SCI-indexed**) - Editorial Board Member, since 2016
- *Metaheuristic Computing and Applications (MCA)* (Techno-Press) - Editorial Board Member, since 2020
- *Journal of Networked and Innovative Computing (JNIC)* (Machine Intelligence Research Labs) - Editorial Board Member, since 2019
- *Current Chinese Computer Science* (Bentham Science) - Section Editor, since 2019
- *OAJRC Computer and Communications* (Open Access Journal Research Centre (OAJRC)) - Editors-in-Chief, Editorial Board Member, Jan 2019 – Dec 2019
- *Journal of Artificial Intelligence and Systems* (IEC Science) - Editorial Board Member, since 2019
- *Communications in Computational and Applied Mathematics (CCAM)* - Editorial Advisory Board Member, since 2019

- *Karbala International Journal of Modern Science* (Elsevier, Digital Commons-from 2019) - Editorial Board Member, since 2018
- *International Journal of Computer Information Systems and Industrial Management Applications* (Machine Intelligence Research Labs) - Associate Editor, since 2016

### Editor/co-editor of special issues

#### 2019

- Special issue on Evolutionary Computation 2020, **Mathematics – MDPI (SCI)**
- Special issue on Multi-objective Optimization Algorithm and Its Application, Journal of Zhengzhou University (Engineering Science) - **Zhengzhou University Press**

#### 2018

- Special issue on Evolutionary Computation, **Mathematics - MDPI (SCI)**

#### 2017

- Special issue on Fusion of Computational Intelligence Paradigms for Medical Imaging towards Smarter Health Care Systems, **Journal of Ambient Intelligence and Humanized Computing - Springer (SCI/EI)**
- Special issue on Remote Sensing Big Data: Theory, Methods and Applications, **International Journal of Spatio-Temporal Data Science - Inderscience**
- Special issue on Recent and Future Trends of Sustainable Technologies, **International Journal of World Review of Science, Technology and Sustainable Development - Inderscience**

#### 2016

- Special issue on New Trends in Many-Objective Optimization, **International Journal of Bio-Inspired Computation - Inderscience (SCI)**
- Special issue on Bio-Inspired Computing Paradigms in Security and Privacy for Smart City, **Future Generation Computer Systems - Elsevier (SCI)**
- Special issue on Novel Swarm Intelligence Algorithms, **Memetic Computing - Springer (SCI)**
- Special issue on Soft Computing and Machine Intelligence (Int Symposium on Computational and Business Intelligence, ISCBI 2015), **Operational Research: An International Journal - Springer (SCI)**

### Regular Reviewer for 155 Journals

#### IEEE (12)

1. IEEE Access - **IEEE (SCI & EI)**
2. IEEE Internet of Things Journal - **IEEE (SCI)**
3. IEEE Journal of Biomedical and Health Informatics - **IEEE (SCI)**
4. IEEE/ACM Transactions on Computational Biology and Bioinformatics - **IEEE (SCI, EI)**
5. IEEE/CAA Journal of Automatica Sinica - **IEEE (SCI, EI)**

6. IEEE Transactions on Circuits and Systems II: Express Briefs - **IEEE (SCI)**
7. IEEE Transactions on Evolutionary Computation - **IEEE (SCI)**
8. IEEE Transactions on Industrial Informatics - **IEEE (SCI)**
9. IEEE Transactions on Systems Man Cybernetics: Systems - **IEEE (SCI)**
10. IEEE Transactions on Big Data - **IEEE**
11. IEEE Transactions on Emerging Topics in Computational Intelligence - **IEEE**
12. IEEE Transactions on Network Science and Engineering - **IEEE**

**Elsevier (35)**

1. Aerospace Science and Technology - **Elsevier (SCI, EI)**
2. Applied Mathematical Modelling - **Elsevier (SCI, EI)**
3. Applied Mathematics and Computation (AMC) - **Elsevier (SCI, EI)**
4. Applied Soft Computing - **Elsevier (SCI, EI)**
5. Artificial Intelligence in Medicine - **Elsevier (SCI, EI)**
6. BioSystems - **Elsevier (SCI)**
7. Chaos, Solitons & Fractals - **Elsevier (SCI)**
8. Computer Methods in Applied Mechanics and Engineering - **Elsevier (SCI, SSCI, EI)**
9. Computers & Education - **Elsevier (SCI, SSCI, EI)**
10. Computers and Electronics in Agriculture - **Elsevier (SCI, EI)**
11. Computers & Industrial Engineering - **Elsevier (SCI, EI)**
12. Cortex - **Elsevier (SCI)**
13. Digital Signal Processing - **Elsevier (SCI, EI)**
14. Engineering Applications of Artificial Intelligence - **Elsevier (SCI, EI)**
15. Electronic Journal of Biotechnology - **Elsevier (SCI)**
16. Energy Reports - **Elsevier (SCI, EI)**
17. Expert Systems with Applications - **Elsevier (SCI, EI)**
18. Future Generation Computer Systems - **Elsevier (SCI)**
19. ISA Transactions - **Elsevier (SCI, EI)**
20. Information Sciences - **Elsevier (SCI, EI)**
21. Journal of Computational Science - **Elsevier (SCI)**
22. Journal of Computational and Applied Mathematics - **Elsevier (SCI)**
23. Knowledge-Based Systems - **Elsevier (SCI, EI)**
24. Mathematics and Computers in Simulation - **Elsevier (SCI)**
25. Neurocomputing - **Elsevier (SCI, EI)**
26. Physica A: Statistical Mechanics and its Applications - **Elsevier (SCI)**
27. Soft Computing Letters - **Elsevier**

28. Swarm and Evolutionary Computation - **Elsevier (SCI)**
29. Telematics and Informatics - **Elsevier (SCI, EI)**
30. Robotics and Autonomous Systems - **Elsevier (SCI, EI)**
31. Applied Computing and Informatics - **Elsevier**
32. Engineering Science and Technology: an International Journal - **Elsevier**
33. International Journal of Electrical Power & Energy Systems (IJEPES) - **Elsevier**
34. Journal of Computational Design and Engineering - **Elsevier (ESCI, Scopus)**
35. Karbala International Journal of Modern Science - **Elsevier**

### **Springer Nature (25)**

1. Complex & Intelligent Systems – **Springer**
2. Cluster Computing - **Springer (SCI, EI)**
3. Electrical Engineering - **Springer (SCI, EI)**
4. Engineering with Computers - **Springer (SCI, EI)**
5. Journal of Ambient Intelligence and Humanized Computing - **Springer (SCI, EI)**
6. Journal of Bionic Engineering - **Springer (SCI, EI)**
7. Journal of the Operational Research Society - **Springer (SCI)**
8. Journal of Zhejiang University-SCIENCE A - **Springer (SCI, EI)**
9. Knowledge and Information Systems - **Springer (SCI)**
10. Memetic Computing - **Springer (SCI, EI)**
11. Multimedia Tools and Applications - **Springer (SCI, EI)**
12. Neural Computing & Applications - **Springer (SCI, EI)**
13. Natural Computing - **Springer (SCI, EI)**
14. Operational Research: An International Journal - **Springer (SCI)**
15. OR Spectrum - **Springer (SCI)**
16. Sādhanā - **Springer (SCI, EI)**
17. Signal, Image and Video Processing - **Springer (SCI, EI)**
18. Soft Computing - **Springer (SCI, EI)**
19. SpringerPlus - **Springer (SCI)**
20. Swarm Intelligence - **Springer (SCI)**
21. The Journal of Supercomputing - **Springer (SCI, EI)**
22. Evolving Systems (EI) - **Springer**
23. International Journal of Applied and Computational Mathematics - **Springer**
24. OPSEARCH - **Springer**
25. SN Applied Sciences - **Springer**

### **Taylor & Francis (11)**

1. Connection Science - **Taylor & Francis (SCI, EI)**



2. Engineering Optimization - **Taylor & Francis (SCI, EI)**
3. Intelligent Automation and Soft Computing (Autosoft Journal) - **Taylor & Francis & TSI Press (SCI)**
4. International Journal of Computational Intelligence Systems - **Taylor & Francis & Atlantis Press (SCI)**
5. International Journal of Energy Research - **Taylor & Francis (SCI, EI)**
6. International Journal of Production Research - **Taylor & Francis (SCI, EI)**
7. Journal of Electromagnetic Waves and Applications - **Taylor & Francis (SCI, EI)**
8. Journal of Experimental & Theoretical Artificial Intelligence - **Taylor & Francis (SCI, EI)**
9. Mechanics of Advanced Materials and Structures - **Taylor & Francis (SCI)**
10. Cogent Social Sciences - **Taylor & Francis (ESCI)**
11. Cogent Engineering - **Taylor & Francis (EI)**

### **World Scientific Publishing Company (3)**

1. International Journal of Pattern Recognition and Artificial Intelligence - **World Scientific Publishing Company (SCI)**
2. International Journal of Information Technology & Decision Making - **World Scientific Publishing Company (SCI)**
3. International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems - **World Scientific Publishing Company (SCI)**

### **MDPI (8)**

1. Applied Sciences - **MDPI (SCI)**
2. Entropy - **MDPI (SCI)**
3. International Journal of Environmental Research and Public Health – **MDPI (SCI)**
4. Mathematics – **MDPI (SCI)**
5. Symmetry - **MDPI (SCI)**
6. Algorithms - **MDPI (EI)**
7. Information - **MDPI (EI)**
8. Mathematical and Computational Applications - **MDPI**

### **IET-Institution of Engineering & Technology (4)**

1. IET Generation, Transmission & Distribution - **Institution of Engineering & Technology (SCI, EI)**
2. IET Microwaves, Antennas & Propagation - **Institution of Engineering & Technology (SCI, EI)**
3. IET Networks - **Institution of Engineering & Technology**
4. The Journal of Engineering - **Institution of Engineering & Technology**

**Inderscience (4)**

1. International Journal of Bio-Inspired Computation (IJBIC) - **Inderscience Publishers (SCI)**
2. International Journal of Automation and Control (IJAAC) - **Inderscience Publishers (EI)**
3. International Journal of Wireless and Mobile Computing (IJWMC) - **Inderscience Publishers (EI)**
4. International Journal of Mathematical Modelling and Numerical Optimisation - **Inderscience Publishers**

**Wiley (8)**

1. Energy Science & Engineering - **Wiley (SCI, EI)**
2. Expert Systems - **Wiley (SCI, EI)**
3. International Journal of Communication Systems - **Wiley-Blackwell (SCI, EI)**
4. Security and Communication Networks - **Wiley (SCI, EI)**
5. Statistical Analysis and Data Mining - **Wiley (SCI, EI)**
6. Structural Design of Tall and Special Buildings - **Wiley (SCI, EI)**
7. Water and Environment Journal - **Wiley (SCI, EI)**
8. Intelligent Systems in Accounting, Finance and Management - **Wiley (ESCI)**

**Oxford University Press (2)**

1. Briefings in Bioinformatics - **Oxford University Press (SCI)**
2. The Computer Journal - **Oxford University Press (SCI)**

**MIT Press (1)**

1. Neural Computation – **MIT Press (SCI)**

**Emerald Group Publishing Limited (2)**

1. Kybernetes - **Emerald Group Publishing Limited (SCI)**
2. International Journal of Intelligent Computing and Cybernetics - **Emerald Group Publishing Limited (ESCI, Scopus)**

**Public Library Science (1)**

1. PLoS ONE - **Public Library Science (SCI)**

**SAGE (3)**

1. International Journal of Distributed Sensor Networks - **SAGE (SCI, EI)**
2. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering - **SAGE (SCI)**
3. Simulation: Transactions of the Society for Modeling and Simulation International - **SAGE (SCI)**

**IGI Global (1)**

1. Journal of Organizational and End User Computing (JOEUC) - **IGI Global (SCI)**

**Hindawi (5)**

1. Mathematical Problems in Engineering - **Hindawi Publishing Corporation (SCI, EI)**
2. Journal of Applied Mathematics - **Hindawi Publishing Corporation**
3. Journal of Optimization - **Hindawi Publishing Corporation (ESCI)**
4. The Scientific World Journal - **Hindawi Publishing Corporation**
5. Applied Computational Intelligence and Soft Computing - **Hindawi Publishing Corporation**

**Others (29)**

1. Asian Journal of Mathematics and Computer Research - **International Knowledge Press**
2. Applied Mathematics & Information Sciences - **Natural Sciences Publishing**
3. CAAI Transactions on Intelligence Technology - **Chinese Association for Artificial Intelligence (CAAI)**
4. China Mechanical Engineering (中国机械工程) - **China Mechanical Engineering Society (Scopus)**
5. Control and Decision (控制与决策) - **Northeast University Press (EI)**
6. Control Engineering of China (控制工程) - **Northeast University Press**
7. Control Theory and Applications (控制理论与应用) - **South China University of Technology Press**
8. Current Medical Imaging Reviews - **Bentham Science Publishers**
9. Current Science - **Current Science Association and Indian Academy of Sciences (SCIE)**
10. Defence Science Journal - **Defense Scientific Information and Documentation Centre (SCIE)**
11. Discrete and Continuous Dynamical Systems-Series S - **American Institute of Mathematical Sciences (SCIE)**
12. Hacettepe Journal of Mathematics and Statistics - **Hacettepe University (SCIE)**
13. International Journal of Electrical and Computer Engineering (IJECE) - **Institute of Advanced Engineering and Science (IAES)**
14. International Journal of Emerging Electric Power Systems - **Walter de Gruyter GmbH (EI)**
15. International Journal of Engineering & Technology - **Science Publishing Corporation Inc.**
16. International Journal of Sensors, Wireless Communications and Control - **Bentham Science Publishers**
17. Journal of Computational Methods in Sciences and Engineering (JCMSE) - **IOS (ESCI)**
18. Journal of Intelligent Systems - **Walter de Gruyter GmbH (EI)**
19. Journal of Internet Technology - **National Dong Hwa University (SCIE)**
20. Journal of Jimei University (Natural Science) (集美大学学报(自然科学版)) - **Jimei University Press**
21. Journal of Shenzhen University Science and Engineering (深圳大学学报(理工版)) - **Shenzhen University Press**
22. Journal of Xidian University (西安电子科技大学学报) - **Xidian University Press (EI)**
23. Journal of Zhejiang University (Engineering Science) (浙江大学学报(工学版)) - **Zhejiang University Press (EI)**
24. Journal of Zhengzhou University (Engineering Science) (郑州大学学报(工学版)) - **Zhengzhou University Press**

25. KSII Transactions on Internet and Information Systems - **Korean Society for Internet Information (KSII) (SCIE)**
26. Majlesi Journal of Electrical Engineering – **Islamic Azad University Press**
27. Mathematical Biosciences and Engineering – **AIMS Press (SCIE)**
28. Pattern Recognition and Artificial Intelligence (模式识别与人工智能) - **Science Press**
29. Structural Engineering and Mechanics, An International Journal - **Techno-Press (SCIE)**

### **Membership in Professional Societies and International Conferences:**

I am an Expert of Engineering Technology from Talent Pool on Public Science in Shandong Province, Syndic of Shandong Association of Artificial Intelligence (SDAI), senior member of South Asia Institute of Science and Engineering (SAISE), SCIENCE and Engineering Institute (SCIEI), a member of Technical Advisory Board of India Technical Institute for Engineers (TIE), IEEE, Chinese Association of Automation (CAA), China Computer Federation (CCF), CCF YOCSEF Qingdao, ACM, IEEE Computational Intelligence Society (IEEE CIS), IEEE Computer Society, IEEE Systems, Man, and Cybernetics (IEEE SMC) Society, IEEE Oceanic Engineering Society (IEEE OES), The Institution of Engineering and Technology (IET), the International Society for Metaheuristic Optimization in Science and Technology (ISMOST), Machine Intelligence Research Labs (MIR Labs), Jiangsu Association of Artificial Intelligence (JSAI), **Session Chair** of 2019 Annual Conference of Special Committee of ISOS of CSF, Publications Co Chair of 2018 Annual Conference of Special Committee of ISOS of CSF, International Advisory Board of SmartTech 2017, Publications Co Chair of ISCOMI 2019, Section Chair of IEEM 2018, ICSI 2018, ISCOMI 2018, and ISCBI 2016, Publications Chairs of CTISC 2020 and ISCOMI 2015, Advisory Committee of I3CS 2016, Technical Committee Chair of ICBDA 2018, ICBDA 2016 and ICMMR 2017, Technical Committee Chair, **Session Chair**, and **invited speaker** of ICBDA 2017, and International Program Committee Member in 71 conferences, such as BIC-TA 2020, ACAIT 2020, IEEE CEC 2020, DMBD 2020, NCAA 2020, CAoNS 2020, EDACI 2019, WICT 2019, NaBIC 2019, SoCPaR 2019, BIC-TA 2019, ISDA 2019, EDACI 2019, ICTSCI 2019, ICIC 2019, DMBD 2019, JCICE 2019, BIC-TA 2018, SIPR 2018, ISCOMI 2019, IIC 2018, ISMII 2018, ISCOMI 2018, JCICE 2018, ICSI 2018, ICACCI 2018, DMBD 2018, PEC 2018, IEEE CEC 2018, ICIC 2018, SCDM 2018, SmartTech 2017, CEC 2017, DMBD 2017, ICSI 2017, SSCI2016, SoCPaR 2016, CASoN 2016, HIS 2016, WICT 2016, ISDA 2016, ICSEA2016, DMBD 2016, PEC 2016, ICSI 2016, ICACI 2016, ICACCI 2016, IEEE CEC 2016, SCDM 2015, ISCBI 2015, ISCOMI 2015, IEEE CEC 2015, IIC 2015, IBICA 2015, IAS 2015, CASoN 2015, WICT 2015, EME 2015, IEEE CEC 2014, CASoN 2014, NaBIC 2014, SoCPaR 2014, ISCOMI 2014, ISCBI 2014, ISDA 2014, WICT 2014, IEEE CEC 2013, NaBIC 2013, and WICT 2013.

**Membership in Professional Societies**

1. Experts of Engineering Technology from Talent Pool on Public Science in Shandong Province, January 1, 2019 - January 1, 2022;
2. AC (Academic Committee) and Vice President of CCF Young Computer Scientists and Engineering Forum (CCF YOCSEF), Qingdao, May 1, 2019 - April 30, 2020;
3. Member of Technical Advisory Board of India Technical Institute for Engineers (TIE), since August 10, 2018;
4. Syndic of Shandong Association of Artificial Intelligence (SDAI), since August 7, 2018;
5. Member of Task Force on Artificial Immune Systems of Evolutionary Computation Technical Committee, IEEE Computational Intelligence Society, Nature-inspired Problem Solving, since 8 June, 2018 (<http://staff.ustc.edu.cn/~wjluo/ieee-cis-ais/>)
6. Member of Chinese Association of Automation (CAA), since May 25, 2018
7. Member of Qingdao Section, YOCSEF of China Computer Federation (CCF), since April 21, 2018;
8. Member and Deputy Secretary General of Special Committee of Intelligent Simulation Optimization and Scheduling of Chinese Association for System Simulation, since May 20, 2018;
9. Member of Academic Committee of Guangxi Higher School Key Laboratory of Complex System and Intelligent Computing, since December 16, 2017;  
(see: <http://csic.gxun.edu.cn/info/1035/1166.htm> & <http://csic.gxun.edu.cn/zzjg/xswyh.htm>)
10. Member of Special Committee of Intelligent System of Jiangsu Association of Artificial Intelligence (JSAI), since December 16, 2017;
11. Member of Jiangsu Association of Artificial Intelligence (JSAI), since August 19, 2017
12. Member of IEEE Computer Society, since May 11, 2018;
13. Member of IEEE Systems, Man, and Cybernetics Society (IEEE SMC), since May 11, 2017;
14. Member of IEEE Oceanic Engineering Society (IEEE OES), since May 11, 2017;
15. Member of The Institution of Engineering and Technology (IET), since May 10, 2017;
16. Member of Machine Intelligence Research Labs (MIR Labs), since May 7, 2017;
17. Member of China Computer Federation (CCF), since April 28, 2017;
18. Member of ACM, since April 28, 2017;
19. Member of Special Committee of Intelligent Optimization and Application of Jiangsu Association of Automation, since 2017;
20. Member of IEEE, since 2015;
21. Member of IEEE Computational Intelligence Society (IEEE CIS), since 2015;
22. Senior Member of SAISE, since 2015;
23. Senior Member of SCIEI, since 2016;
24. Member of SCIEI, since 2015;

25. Member of International Society for Metaheuristic Optimization in Science and Technology (ISMOST), February 28, 2013 – December 31, 2020.

### Membership in Conferences

1. Program Chairs of 2020 2nd International Conference on Advances in Computer Technology, Information Science and Communications (CTISC 2020), Suzhou, China, March 20-22, 2020.
2. **Session Chair** of the 2019 Annual Conference of Special Committee of Intelligent Simulation Optimization and Scheduling (ISOS) of China Simulation Federation, Wuhan, China, May 17-19, 2019.
3. Publications Co Chair of 2018 Annual Conference and Inaugural Meeting of Special Committee of Intelligent Simulation Optimization and Scheduling (ISOS) of China Simulation Federation (CSF), Changsha, China, September 14-16, 2018.
4. Program Chairs and International Program Committee Member of 2019 3rd International Conference on Intelligent Systems, Metaheuristics & Swarm Intelligence (ISMSI 2019), Male, Maldives, March 23-24, 2019.
5. Publications Co Chair and International Program Committee Member of 2018 IEEE 5th Intl. Conference on Soft Computing & Machine Intelligence (ISCFMI 2018), Nairobi, Kenya, November 21-22, 2018.
6. Technical Committee Chair of 2018 IEEE 3rd International Conference on Big Data Analysis (ICBDA 2018), Shanghai, China, March 9-12, 2018.
7. Section Chair and International Program Committee Member of The Ninth International Conference on Swarm Intelligence (ICSI 2018), Shanghai, China, June 17-22, 2018.
8. Publications Co Chair of the 2016 4<sup>th</sup> International Symposium on Computational and Business Intelligence (ISCBI 2016), Olten, Switzerland, September 5-7, 2016.
9. Advisory Committee of International Conference on Computing and Communication Systems (IC3S'16), Shillong, Meghalaya, India, March 17-20, 2016.
10. International Advisory Board and International Program Committee Member of International Conference on Smart Technologies in Computer and Communication (SmartTech 2017), Amity University Rajasthan, Jaipur, India, March 27-29, 2017.
11. Technical Committee Chair of 2017 IEEE 2nd International Conference on Big Data Analysis (ICBDA 2017), Beijing, China, March 10-12, 2017.
12. Technical Committee Chair of 2016 IEEE International Conference on Big Data Analysis (ICBDA 2016), Hangzhou, China, March 12-14, 2016.
13. Technical Committee Chair of 2017 4th International Conference on Mechanics and Mechatronics Research (ICMMR 2017), Xi'an, China, June 20-24, 2017.
14. Publications Chairs of the 2015 2nd Intl. Conference on Soft Computing & Machine Intelligence (ISCFMI 2015), Hong Kong, November 23-24, 2015.
15. **Session Chair** of the 2018 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM 2018), Bangkok, Thailand, December 16-19, 2018.
16. **Session Chair**, and International Program Committee Member of the 2018 Fourteenth

- International Conference on Intelligent Computing (ICIC 2018), Wuhan, China, August 15-18, 2018.
17. International Program Committee Member of the 15th International Conference on Bio-inspired Computing: Theories and Applications (BIC-TA 2020), Qingdao, China, October 23-25, 2020.
  18. International Program Committee Member of the 4th Asian Conference on Artificial Intelligence Technology (ACAIT 2020), Chongqing, China, July 19-24, 2020.
  19. International Program Committee Member of the 2020 IEEE Congress on Evolutionary Computation (IEEE CEC 2020), Glasgow, UK, July 19-24, 2020.
  20. International Program Committee Member of the Fifth International Conference on Data Mining and Big Data (DMBD 2020), Belgrade, Serbia, July 14-20, 2020.
  21. International Program Committee Member of the 2020 International Conference on Neural Computing for Advanced Applications (NCAA 2020), Shenzhen, China, July 3-5, 2020.
  22. International Program Committee Member of International Conference on Computational Aspects of Network Science (CAoNS 2020), Thessaloniki, Greece, October 19-21, 2020.
  23. International Program Committee Member of the Explainable Data Analytics in Computational Intelligence (EDACI 2019) at 2019 IEEE Symposium Series on Computational Intelligence (IEEE SSCI 2019), Xiamen, China, December 6-8, 2019.
  24. International Program Committee Member of the 9th World Congress on Information and Communication Technologies (WICT 2019), Gunupur, India, December 16-18, 2019.
  25. International Program Committee Member of the 11th International Conference on Soft Computing and Pattern Recognition (SoCPaR 2019), Hyderabad, India, December 13-15, 2019.
  26. International Program Committee Member of the 11th World Congress on Nature and Biologically Inspired Computing (NaBIC 2019), Hyderabad, India, December 13-15, 2019.
  27. International Program Committee Member of the 14th International Conference on Bio-Inspired Computing: Theories and Application (BIC-TA 2019), Zhengzhou, China, November 22 - 25, 2019.
  28. International Program Committee Member of the 19th International Conference on Intelligent Systems Design and Applications (ISDA 2019), Pretoria, South Africa, December 3-5, 2019.
  29. International Program Committee Member of the 2019 IEEE Symposium on Explainable Data Analytics in Computational Intelligence (EDACI 2019), Xiamen, China, December 6 - 9, 2019.
  30. International Program Committee Member of the 2019 International Conference on Sustainable Technologies for Computational Intelligence (ICTSCI 2019), Jaipur, Rajasthan, India, March 29 - 30, 2019.
  31. International Program Committee Member of the 2019 Fourteenth International Conference on Intelligent Computing (ICIC 2019), Nanchang, Jiangxi, China, August 3-6, 2019.
  32. International Program Committee Member of the Fourth International Conference on Data Mining and Big Data (DMBD 2019), Chiang Mai, Thailand, July 26-30, 2019.
  33. International Program Committee Member of International Joint Conference on Information and Communication Engineering (JCICE 2019), Shenzhen, Guangdong, China, March 21-24, 2019.
  34. International Technical Program Committee Member of the 13th International Conference on Bio-

- inspired Computing: Theories and Applications (BIC-TA 2018), November 2-4, 2018, Beijing, China.
35. International Technical Program Committee Member of 4th International Conference on Signal Processing and Pattern Recognition (SIPR 2018), Dubai, UAE, August 25-26, 2018.
  36. International Technical Program Committee Member of the 2018 International Conference on Intelligent and Interactive Computing (IIC 2018), Malacca, Malaysia, August 8-9, 2018.
  37. International Technical Committee Member of the 2018 4th International Symposium on Mechatronics and Industrial Informatics (ISMII 2018), Guilin, China, July 13-15, 2018.
  38. International Program Committee Member of International Joint Conference on Information and Communication Engineering (JCICE 2018), Shanghai, China, April 27-29, 2018.
  39. International Program Committee Member of the 2018 International Conference on Advances in Computing, Communications and Informatics (ICACCI 2018) , Bangalore, Karnataka, India, September 19-22, 2018.
  40. International Program Committee Member of the Third International Conference on Data Mining and Big Data (DMBD 2018), Shanghai, China, June 17-22, 2018.
  41. International Program Committee Member of the 3<sup>rd</sup> International Conference on Pervasive and Embedded Computing (PEC 2018), Porto, Portugal, July 29-30, 2018.
  42. International Program Committee Member of the 2018 IEEE Congress on Evolutionary Computation (IEEE CEC 2018), Rio de Janeiro, Brazil, July 8-13, 2018.
  43. International Program Committee Member of the Third International Conference on Soft Computing and Data Mining 2018 (SCDM 2018), Le Granduer Palm Resort, Malaysia, February 5-7, 2018.
  44. International Program Committee Member of the 17th International Conference on Intelligent Systems Design and Applications (ISDA 2017), Delhi, India, December 14-16, 2017.
  45. International Program Committee Member of the 2017 IEEE Congress on Evolutionary Computation (IEEE CEC 2017), Donostia - San Sebastián, Spain, June 5-8, 2017.
  46. International Program Committee Member of the Second International Conference on Data Mining and Big Data (DMBD 2017), Fukuoka, Japan, July 27-August 01, 2017.
  47. International Program Committee Member of the Eight International Conference on Swarm Intelligence (ICSI 2017), Fukuoka, Japan, July 27-August 01, 2017.
  48. International Program Committee Member of the 8th International Conference on Computational Aspects of Social Network 2016 (CASoN 2016), Vellore, India, December 19-21, 2016.
  49. International Program Committee Member of the 2016 IEEE Symposium Series on Computational Intelligence (IEEE SSCI2016), Athens, Greece, December 6-9, 2016.
  50. International Program Committee Member of the 8th International Conference on Soft Computing and Pattern Recognition (SoCPaR 2016), Vellore, India, December 19-21, 2016.
  51. International Program Committee Member of the 16th International Conference on Hybrid Intelligent Systems (HIS 2016), Marrakech, Morocco, November 21-23, 2016.
  52. International Program Committee Member of 6th World Congress on Information and Communication Technologies (WICT 2015), Porto, Portugal, December 14-16, 2016



53. International Program Committee Member of the 16th International Conference on Intelligent Systems Design and Applications (ISDA 2016), Porto, Portugal, December 14-16, 2016.
54. International Program Committee Member of the 2016 International Conference on Software Engineering and Application (ICSEA2016), Guilin, China, August 5-7, 2016.
55. International Program Committee Member of the International Conference on Data Mining and Big Data (IC-DMBD 2016), Bali, Indonesia, June 25-30, 2016.
56. International Program Committee Member of the 2016 6<sup>th</sup> International Conference on Pervasive and Embedded Computing (PEC 2016), Lisbon, Portugal, July 25-27, 2016.
57. International Program Committee Member of the 2016 4<sup>th</sup> International Symposium on Computational and Business Intelligence (ISCBI 2016), Olten, Switzerland, September 5-7, 2016.
58. International Program Committee Member of the Seventh International Conference on Swarm Intelligence (ICSI 2016), Bali, Indonesia, June 25-30, 2016.
59. International Program Committee Member of the Eighth International Conference on Advanced Computational Intelligence (ICACI 2016), Chiang Mai, Thailand, February 14-16, 2016.
60. International Program Committee Member of the 2016 International Conference on Advances in Computing, Communications and Informatics (ICACCI 2016), Jaipur, India, September 21-24, 2016.
61. International Program Committee Member of the 2016 IEEE Congress on Evolutionary Computation (IEEE CEC 2016), Vancouver, Canada, July 25-29, 2016.
62. International Program Committee Member of the Second International Conference on Soft Computing and Data Mining (SCDM-2015), Malacca, Malaysia, September 1-2, 2015.
63. International Program Committee Member of the 2015 3rd International Symposium on Computational and Business Intelligence (ISCBI 2015), Bali, Indonesia, December 7-8, 2015.
64. International Program Committee Member of the 2015 2nd Intl. Conference on Soft Computing & Machine Intelligence (ISCMi 2015), Hong Kong, November 23-24, 2015.
65. International Program Committee Member of the 2015 IEEE Congress on Evolutionary Computation (IEEE CEC 2015), Sendai, Japan, May 25-28, 2015.
66. International Program Committee Member of International Conference on Intelligent and Interactive Computing (IIC 2015), Malacca, Malaysia, August 11-12, 2015.
67. International Program Committee Member of 2015 International Conference on Energy and Mechanical Engineering (EME 2015), Wuhan, China, October 17-18, 2015.
68. International Program Committee Member of 7th International Conference on Computational Aspects of Social Network 2015 (CASoN 2015), Pietermaritzburg, South Africa, December 1-3, 2015.
69. International Program Committee Member of The 11th International Conference on Information Assurance and Security (IAS 2015), Bhubaneswar, India, December 5-6, 2015.
70. International Program Committee Member of 6th International Conference on Innovations in Bio-Inspired Computing and Applications (IBICA 2015), Kochi, India, December 16-18, 2015.
71. International Program Committee Member of 5th World Congress on Information and Communication Technologies (WICT 2015), Dubai, United Arab Emirates, November 29 -

December 01, 2015.

72. International Program Committee Member of the 2014 IEEE Congress on Evolutionary Computation (IEEE CEC 2014), Beijing, China, July 6-11, 2014.
73. International Program Committee Member of the 6th Int Conference on Computational Aspects of Social Networks (CASoN 2014), Porto, Portugal, July 30-August 1, 2014.
74. International Program Committee Member of the Sixth World Congress on Nature and Biologically Inspired Computing (NaBIC 2014), Porto, Portugal, July 30-August 1, 2014.
75. International Program Committee Member of the 6th International Conference of Soft Computing and Pattern Recognition (SoCPaR 2014), Tunis, Tunisia, August 11-14, 2014.
76. International Program Committee Member of the International Conference on Soft Computing & Machine Intelligence (ISCM I 14), International Neural Network Society (INNS), New Delhi, India, September 26-27, 2014.
77. International Program Committee Member of the 14th International Conference on Intelligent Systems Design and Applications (ISDA 2014), Okinawa, Japan, November 27–30, 2014.
78. International Program Committee Member of the 2nd Int Symposium on Computational and Business Intelligence (ISCBI 2014), New Delhi, India, December 7-8, 2014.
79. International Program Committee Member of the 4th World Congress on Information and Communication Technologies (WICT 2014), Malacca, Malaysia, December 8-11, 2014.
80. International Program Committee Member of the 2013 IEEE Congress on Evolutionary Computation (IEEE CEC 2013), Cancun, Mexico, June 20-23, 2013.
81. International Program Committee Member of the 5th World Congress on Nature and Biologically Inspired Computing (NaBIC 2013), Fargo, North Dakota, USA, August 12-14, 2013.
82. International Program Committee Member of the 3rd World Congress on Information and Communication Technologies (WICT 2013), Hanoi, Vietnam, December 15-18, 2013.

### **Personal Information:**

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Name: GAI-GE WANG

Gender: Male

Date of Birth: 22 Jan., 1984

Marital Status: Married

Country of Citizenship: P.R. China

IT skill: Familiar with computer hardware and software architecture. Proficient developer of MATLAB/C/C++ Programming and Windows Programming. Skilled in MATLAB and C/C++. Making full use of reference manager software EndNote. Learned well-known classical and modern intelligent optimization algorithms and able to develop new algorithms to improve efficiency. Skilled in applying these intelligent algorithms to solve practical engineering optimization problems and implementing them in MATLAB/C/C++.

Sports: badminton, swimming

Others: violin, guitar, cooking

**References:**

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Prof. Dr. Lihong Guo (Dean)  
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Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences  
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Prof. Dr. Minghao Yin (Dean)  
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Dr. Amir H. Gandomi  
Department of Civil Engineering,  
The University of Akron  
**E-mail: a.h.gandomi@gmail.com**  
**ag72@uakron.edu**

**I hereby declare that the information provided in this C.V. is true, complete and correct to the best of my knowledge and belief.**

**Signature: GAI-GE WANG**  
**Date: July 8, 2020**