



May 28-31, 2021

中国·成都 Chengdu, China

2021年5月28-31日







2021 4th International Conference on

Artificial Intelligence and Big Data

2021 年第四届人工智能与大数据国际会议

May 28-31, 2021 | Chengdu, China

2021年5月28-31日|中国•成都





Conference Venue | 会议地址

No.10, North Renmin Road, Chengdu, China 四川省成都市金牛区人民北路一段 10 号

About ICAIBD

2021 4th International Conference on Artificial Intelligence and Big Data (ICAIBD 2021) is sponsored by IEEE and Sichuan Province Computer Federation. As an IEEE conference started in 2018, the conference has grown with the help and technically support from many local and international universities year by year. In 2020, ICAIBD was awarded the Most Influential Academic Activity of the 1st Sichuan and Chongqing Science and Technology Academic Conference, which was fully recognized by the industry. ICAIBD focus on fostering international communication in the fields of Artificial Intelligence, and get the latest insights from every area of Artificial Intelligence and Big Data theory and practice. This conference has a rich schedule, which will include keynote speeches, invited speeches, poster presentations, oral presentations and online oral presentations, providing a relaxing and multicultural conference atmosphere for experts and scholars.

第四届人工智能与大数据国际会议(ICAIBD 2021)由 IEEE 和四川省计算机协会主办。作为始于 2018 年的 IEEE 会议,ICAIBD 在许多四川本地和国际大学的帮助和技术支持下逐年发展壮大。在 2020 年,ICAIBD 荣获了首届川渝科技学术大会年度最具影响力学术活动奖,得到了行业内的充分认可。ICAIBD 专注于人工智能领域的国际交流,获取人工智能和大数据理论与实践各个领域的最新见解。本次会议日程安排丰富,主题演讲、特邀演讲、海报演讲、口头演讲、在线演讲等,为专家学者提供了轻松、多元文化的会议氛围。

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HONORARY CERTIFICATE 荣誉证书



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Agenda Overview | 日程概览



- * All schedules will process in Beijing local time (GMT+8)
- *日程时间安排均为北京时间。

| Day 1- Wednes | day, 26 May 5 月 26 日 (星期三) | | | |
|--------------------------------------|---|--|--|--|
| 10:00-14:15 | Online Speakers' Test Session 测试环节-线上主旨/特邀报告嘉宾 | ZOOM | | |
| 14:30-16:50 | Online Test Session 线上测试 | ZOOM | | |
| Day 2- Friday, N | /lay 28 5 月 28 日(星期五) | | | |
| 10:00-17:00 | Onsite Sign-up 线下参会者签到 | Hotel Lobby 西藏饭店大堂 | | |
| Day 3- Saturday | /, May 29 5 月 29 日(星期六) | | | |
| 09:00-09:30 | Opening Remarks 开幕式 | Himalaya Hall 喜马拉雅厅- 17F Zoom ID: 915 0117 9894 | | |
| 09:30-12:00 | Keynote Speeches 主旨报告 | Himalaya Hall 喜马拉雅厅- 17F Zoom ID: 915 0117 9894 | | |
| 13:30-14:40 | Keynote & Invited Speeches 主旨/特邀报告 | Tanggula Hall 唐古拉厅- 17F Zoom ID: 915 0117 9894 | | |
| 15:30-17:15 | Onsite Parallel Session 1 线下平行报告 1 | Tanggula Hall 唐古拉厅- 17F | | |
| 15:30-17:15 | Onsite Parallel Session 2 线下平行报告 2 | Namtso Room 纳木措厅- 2F | | |
| Day 4- Sunday, | May 30 5 月 30 日(星期日) | | | |
| 09:30-11:30 | Onsite Parallel Session 3 线下平行报告 3 | Yaamdrok Room 羊卓雍措厅- 2F | | |
| 09:50-11:50 | Onsite Parallel Session 4 线下平行报告 4 | Namtso Room 纳木措厅-2F | | |
| 13:30-18:30 | Online Parallel Sessions 5-10 线上平行报告 5-10 | ZOOM | | |
| Day 5-Monday, May 31 5 月 31 日(星期一) | | | | |
| 10:00-16:30 | Online Parallel Sessions 11-14 线上平行报告 11-14 | | | |
| 17:00-17:20 | Online Closing & Award 线上闭幕式暨颁奖仪式 | ZOOM | | |

Welcome | 欢迎辞



Dear distinguished delegates,

On behalf of the conference Committee, we warmly welcome you to 2021 4th International Conference on Artificial Intelligence and Big Data (ICAIBD 2021). Due to the long-term impact of the COVID-19, in order to increase the communication chance with more scholars in this field and considering the flexibility of conference, this time, ICAIBD will support both online and onsite participation and we are going to witness the unbounded global spread of the disease and each of us is affected. We hope all of you can stay healthy.

During the conference, there will be a variety of speakers to introduce you the developments in the Artificial Intelligence and Big Data theory and practice. The evaluation of all the papers was performed based on the reports from anonymous reviewers, who are qualified in their field. As a result of their hard work, we are pleased to have accepted nearly 130 presentations from universities, institutes and research institutions. Through the following ways, we trust that you will still be able to share the developments and the technologies in these broad areas.

The presentations are divided into 1 poster session and 14 oral parallel sessions with topics including: Artificial Intelligence and Mathematical Computing; Machine Vision and Image Processing; Advanced Information Theory and Neural Network Technology; Software Calculations and Algorithms; Machine Learning and Neural Networks; Big Data Science and Data Engineering; Computer Modeling and Mathematical Calculation; Intelligent Algorithm and Calculation; Image analysis and methods; Advanced Information Theory and Technology; Sentiment Analysis and Deep Learning; Computer Network and Computer Graphics; Artificial Intelligence and Information Management; Computer and Application Engineering.

A word of special welcome is given to our keynote and invited speakers who are pleased to make contributions to our conference and share their new research ideas with us. They are Prof. Hai Jin, Huazhong University of Science and Technology, China; Prof. Yonghui Li, University of Sydney, Australia; Prof. Huajin Tang, ZheJiang University, China; Prof. Anu Gokhale, Illinois State University, USA; Prof. Fumihiko Ino, Osaka University, Japan.

Additionally, our special thanks go to our Honorary Chair, Conference Chairs, Organizing Chair, Program Committee Chairs, and Technical Committee for their excellent work in securing a substantial input of papers from all around the world and in encouraging participation.

With the strong support from all of you, ICAIBD conference is more distinctive. We wish that all guests can gain benefits from this conference and improve their academic performance. Thank each of you for your efforts to make this conference successful.

We wish all of you will have an unforgettable and prefect experience in the conference.

Yours sincerely,

Organizing Chair Song Changyuan, Senior Engineer and Secretary-General Sichuan Province Computer Federation, China

Committee | 委员会



Honorary Chair 名誉主席



Dr. Zhang Jingzhong, Academician of Chinese Academy of Sciences, China 张景中,中国科学院院士,四川省计算机学会名誉理事长,中科院成都计算机应用研究名誉所长,研究员,博导

Conference Chairs 大会主席



Dr. Wang Xiaoyu, Executive director of Sichuan Province Computer Society, China 王晓宇,四川省计算机学会理事长、中国科学院成都计算机应用研究所所长、研究员



Prof. Zhou Jiliu, President of Chengdu University of Information Technology, China

周激流,成都信息工程大学书记、教授

Conference Co-chair 大会联合主席



Dr. Zhou Liping, Vice-President of Sichuan Association for Science and Technology, China 周利平,四川省科学技术协会专职副主席

Organizing Chair 组委会主席



Senior Engineer Song Changyuan,
Secretary-General of Sichuan Province
Computer Federation, China
宋昌元,四川省计算机学会秘书长、
高级工程师

Program Committee Chairs 大会程序委员会主席



Prof. Zhang Yi, Sichuan University, China章 毅,四川大学计算机学院学术院长,四川省计算机学会顾问



Prof. Yang Yan, Southwest Jiaotong University, China

杨 燕,四川省计算机学会副理事长、 西南交通大学信息科学与技术学院副 院长、教授、博导



Prof. Qin Zhiguang, University of Electronic Science and Technology, China 秦志光,四川省计算机学会副理事长、电子科技大学教授、博导、信息与软件工程学院原院长



Prof. Wang Peng, Southwest Minzu University, China

王鹏, 西南民族大学教授、博导

Program Committee Co-Chairs 大会程序委员会联合主席



Prof. Yonghui Li, IEEE Fellow, the University of Sydney, Australia Yonghui Li, 澳大利亚悉尼大学 教授, IEEE 会士



Prof. Yao Liang, Indiana University-Purdue
University Indianapolis, United States
Yao Liang,美国印第安纳大学-普渡大学印第安纳波利斯分校教授

Committee | 委员会



Technical Committee 大会技术委员会

Α

Afsana Begum, Daffodill Internationa University, Bangladesh

Ali Ouni, École de Technologie Supérieure University of Quebec, Canada

Ammar Hawbani, University of Science and Technology of China, China

Anderson Carvalho, Institute of Technology Tralee, Ireland

В

Bing Liu, China Coal Technology & Engineering Group Shanghai Co., Ltd., China Björn Gottfried, University of Bremen, Germany Baha Ihnaini, Wenzhou-Kean University, China Boubakeur Boufama, Windsor University, Canada

C

Chao Mei, Kennesaw State University, USA
Chen Ningjiang, Guangxi University, China
Chi On Chan, Hong Kong Shue Yan University, Hong Kong
Ching-Seh Wu, San Jose State University, United States
Chuanmin Mi, Nanjing University of Aeronautics and
Astronautics, China

D

Diab Abuaiadah, Waikato Institute of Technology, New Zealand

Ε

Ezzeddin M. Elarbi, University of Tripoli, Libya

F

Faguo Wu, Research Institute for Frontier Science, China

G

Gang Lei, Jiangxi Normal University, China Guohua Zhang, Tsinghua University, China

н

Haizan Mohamed Radzi, Universiti Teknology Malaysia, Malaysia

Hanqian Wu, SouthEast University, China Hossam Gaber, Ontario Tech University, Canada Huang Yongjing, Chengdu Textile College, China Hemn Barzan, Wenzhou-Kean University, China Hui Chen, Jiangxi University of Finance and Economics, China Hui Shen, National University of Defence Technology, China

Т

Jie Zhang, Southwest Jiaotong University, China
Jin Li, Sichuan Police College, China
Jing Ren, Ontario Tech University, Canada
Jingjing Yin, Georgia Southern University, United States
Junhee Seok, Korea University, South Korea
Junling Wang, Jiangxi University of Science and
Technology, China
Jiaxing Song, Tsinghua University, China
Jikai Wang, USTC, China
Jingjie Chen, Civil Aviation University of China, China
Jinshui Huang, Southwestern University of Finance and
Economics, China

K

Kazuteru Miyazaki, National Institution for Academic Degrees and University Evaluation, Japan Kertész Attila honlapja, University of Szeged, Hungary Khairulmizam b. Samsudin, UPM, Malaysia Kainan Li, Affiliated Hospital of Chengdu University, China

L

Li Qiang, Southwest University of Science and Technology, China

Lu Zhongmei, GuiZhou Vocational Technology College of Electronics & Information, China

N

M. Ali Akcayol, Gazi University, Turkey Mahsa Mohaghegh, Auckland University of Technology, New Zealand

Meng Hui, Chang'an University, China Ming Gao, Dongbei University of Finance and Economics, China

Minghui Zhao, China Coal Research Institute Shanghai Ltd., China

Mohamed Wiem Mkaouer, Rochester Institute of Technology, USA

Mohd Saberi Mohamad, United Arab Emirates University, United Arab Emirates

Md Altab Hossin, University of Science and Technology of China, China

Mianzhe Han, Kanazawa University, Japan

Committee | 委员会



Ν

Nan Qi, Nanjing University of Aeronautics and Astronautics, China

Norma Alias, Universiti Teknologi Malaysia, Malaysia

0

Ong Pauline, Universiti Tun Hussein Onn Malaysia, Malaysia

Otthein Herzog, Tongji University, China / Universitaet Bremen, Germany

P

Peng Chengbin, Chinese Academy of Sciences, China Peter Chunyu Yau, The University of Newcastle, Hong Kong

Q

Qiang Li, Southwest University of Science and Technology, China

Qing Lei, University of International Business and Economics, China

Qinhui Liu, Harbin Engineering University, China Quang-Vinh Dang, Industrial University of Ho Chi Minh city, Viet Nam

R

Runjie Xu, Nanjing University of Aeronautics and Astronautics, China

S

Salah Bouktif, UAE University, United Arab Emirates Shiping Chen, Sichuan Trade School, China Shuai Gao, Beijing University of Posts and Telecommunications, China

т

Ta-Cheng Chen, National Formosa University, Taiwan Tao Xu, Henan Key Laboratory of Big Data Analysis and Processing, China

Theodoros A. Tsiftsis, Jinan University (Zhuhai Campus), China

Tao Li, Southwest Minzu University, China

W

Wanbo Lu, Southwestern University of Finance and Economics, China

Wei Li, Beijing Institute of Space Electricity & Mechanics, China

Wei Xing, The Francis Crick Institute, UK Wenhui Yi, Xi'an Jiaotong University, China Wei Nai, Tongji Zhejiang College, China

Х

Xi Yu, Chengdu University, China
Xiang Xie, Beijing Institute of Technology, China
Xiaofeng Wang, Xi'an University of Technology, China
Xiaolin Qin, Chinese Academy of Sciences (CAS) /
University of CAS, China
Xiaoyu Lin, Luoyang Opto-Electro Technology
Development Center, China
Xin Hu, Air Force Early Warning Academy, China
Xu Yang, BIT, China
Xueqing Zhao, Xian Polytechnic University, China
Xun Liu, Beijing Institute of Space Electricity &
Mechanics, China

Xiaofei Zhu, Chongqing University of Technology, China Xiaolan Yu, Jincheng College of Sichuan University, China

Υ

Yang Li, Army Engineering University of PLA, China Yang Li, Shandong University of Traditional Chinese Medicine, China

Yi Xu, University of Electronic Science and Technology of China, China

Yongjun Hu, Guangzhou University, China Yongming Chen, Yancheng Institute of Technology, China Yongqing Zhang, Chengdu University of Information Technology, China

Yajie Ma, Wuhan University of Science and Technology, China

Yan Zhang, Chongqing University of Posts and Telecommunications, China Yue Li, Jincheng College of Sichuan University, China Yuki Todo, Kanazawa University, Japan Yuning Feng, Affiliated Hospital of Chengdu University, China

Z

Zelin Wang, Guizhou Survey and Design Co. LTD, China Zhiyun Chen, East China Normal University, China Zheng Wu, Nanjing University of Posts and Telecommunications, China



- * All schedules will process in Beijing local time (GMT+8)
- *日程时间安排均为北京时间。

Day 1- Wednesday, May 26 | 5 月 26 日 (星期三)

Online Speakers' Test Session|测试环节-线上主旨/特邀报告嘉宾 Zoom ID: 915 0117 9894 https://zoom.com.cn/j/91501179894

| Beijing Time | Presenter's Local Time | Presenters |
|--------------|------------------------|---|
| 10:00-10:15 | 12:00-12:15 | Prof. Yonghui Li, University of Sydney, Australia |
| 10:15-10:30 | 20:15-20:30 | Prof. Anu Gokhale, Illinois State University, USA |
| 10:30-10:45 | 11:30-11:45 | Prof. Fumihiko Ino, Osaka University, Japan |
| 10:45-11:00 | 10:45-11:00 | S6-Dr. Md Altab Hossin, University of Science and Technology of China |
| 11:00-11:15 | 11:00-11:15 | S7- Dr. Tham Mau Luen, Univeristi Tunku Abdul Rahman, Malaysia |
| 11:15-11:30 | 11:15-11:30 | S8- Dr. Aznul Qalid Md Sabri, University Malaya, Malaysia |
| 11:30-11:45 | 11:30-11:45 | S11- Dr. Yongjun Hu, Guangzhou University, China |
| 11:45-12:00 | 11:45-12:00 | S14- Dr. Man-fung Lo, The Education University of Hong Kong |
| 14:00-14:15 | 10:00-10:15 | S13- Prof. Mohd Saberi Mohamad, United Arab Emirates University, UAE |
| 14:15-14:30 | 09:15-09:30 | S10-Prof. Abdelaziz Bouras, Qatar University, Qatar |

Online Test Session|线上测试

| ZOOM A | ZOOM В | ZOOM C |
|---|---|---|
| Zoom ID: 929 5001 3545 | Zoom ID: 946 8991 9473 | Zoom ID: 920 7013 4543 |
| Link: https://zoom.com.cn/j/92950013545 | Link: https://zoom.com.cn/j/94689919473 | Link: https://zoom.com.cn/j/92070134543 |

| Link: https://zoom | .com.cn/j/92950013545 | Link: https://zoom.com.cn/j/94689919473 | Link: https://zoom.com.c | :n/j/92070134543 | |
|--------------------|---|---|--------------------------|------------------|--|
| Beijing Time | Presenters | | | ZOOM | |
| | Session 5-Machine Learn | ZOOM A | | | |
| 14:00-14:30 | Session 6-Big Data Scien | ce and Data Engineering | | ZOOM B | |
| | Session 7- Computer Mo | deling and Mathematical Calculation | | ZOOM C | |
| | Session 8- Intelligent Alg | orithm and Calculation | | ZOOM A | |
| 15:00-15:30 | Session 9-Image Analysis and Methods | | | | |
| | Session 10-Advanced Information Theory and Technology | | | | |
| | Session 11- Sentiment A | nalysis and Deep Learning | | ZOOM A | |
| 16:00-16:30 | Session 12- Computer N | etwork and Computer Graphics | | ZOOM B | |
| | Session 13- Artificial Inte | elligence and Information Management | | ZOOM C | |
| 17:00-17:30 | Session 14- Computer a | nd Application Engineering | | ZOOM A | |



- * All schedules will process in Beijing local time (GMT+8)
- *日程时间安排均为北京时间。

Day 2- Friday, May 28 | 5 月 28 日 (星期五)

Onsite Sign-up |线下参会者签到

10:00-17:00

Hotel Lobby (Tibet Hotel)|西藏饭店大堂



Give your **Paper ID** to the staff.

告知工作人员您的文章/听众编号





Sign your name in the attendance list and check meal information.

在签到表签字并反馈用餐信息





Check your **conference kit**, which includes conference bag, name tag, meal voucher, conference program, the receipt of the payment, the USB of paper collection.

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- * All schedules will process in Beijing local time (GMT+8) *日程时间安排均为北京时间。

Day 3- Saturday, May 29 | 5 月 29 日(星期六)

| | Opening & Keynote Speeches 开幕式和主旨报告 |
|------------------------|--|
| | Onsite Venue-Himalaya Hall 喜马拉雅厅- 17F Live Streaming on Zoom ID: 915 0117 9894 Zoom Link: https://zoom.com.cn/j/91501179894 |
| Beijing Time | Presenters |
| Opening Remarks 开幕式 | Dr. Zhang Jingzhong, Academician of Chinese Academy of Sciences, China 张景中博士,中国科学院院士、四川省计算机学会名誉理事长 中科院成都计算机应用研究名誉所长、研究员、博导 Prof. Wang Xiaoyu, Executive director of Sichuan Province Computer Society, China 王晓宇教授,四川省计算机学会理事长、中国科学院成都计算机应用研究所所长、研究员 |
| 09:00-09:30 | Prof. Zhou Jiliu, President of Chengdu University of Information Technology, China 周激流教授,成都信息工程大学书记 Dr. Zhou Liping, Vice-President of Sichuan Association for Science and Technology, China 周利平博士,四川省科学技术协会专职副主席 |
| 09:30-10:10 | Keynote Speech I 主旨报告一 Prof. Hai Jin, IEEE Fellow, CCF Fellow, Huazhong University of Science and Technology, China 金海教授,中国华中科技大学,IEEE 会士,CCF 会士 Speech Title: Towards the Practical Blockchain System: Challenges and Practices |
| 10:10-10:50 | Keynote Speech II (Online) 线上主旨报告二 Prof. Yonghui Li, IEEE Fellow, University of Sydney, Australia Yonghui Li 教授,澳大利亚悉尼大学,IEEE 会士 Speech Title: 5G IoT Networks |
| 10:50-11:20 | Coffee Break & Group Photo Onsite Poster Presentations 线下海报展示 Paper ID: TB1-0009, TB1-0093, TB1-0110, TB1-1007 |
| 11:20-12:00 | Keynote Speech III 主旨报告三 Prof. Huajin Tang, ZheJiang University, China 唐华锦教授,中国浙江大学 Speech Title: Deep Learning in Spiking Neural Networks |
| 12:00-13:30 | Break&Lunch @ Café 午餐@咖啡厅2F |



Keynote & Invited Speeches | 主旨/特邀报告

Onsite Venue-Tanggula Hall|唐古拉厅- 17F Live Streaming on Zoom ID: 915 0117 9894 Zoom Link: https://zoom.com.cn/j/91501179894

| Beijing Time | Presenters | | | |
|--------------|--|--|--|--|
| | Keynote Speech IV (Online) 线上主旨报告四 | | | |
| | Prof. Anu Gokhale, Illinois State University, USA | | | |
| 13:30-14:10 | Anu Gokhale 教授,美国伊利诺伊州立大学 | | | |
| | Speech Title: Information Systems and Business Analytics | | | |
| | Invited Speech I(Online) 线上特邀报告一 | | | |
| | Prof. Fumihiko Ino, Osaka University, Japan | | | |
| 14:10-14:40 | Fumihiko Ino 教授,日本大阪大学 | | | |
| | Speech Title: A Directive-based Approach for Accelerating Large-scale Scientific Applications on the GPU | | | |
| 14:40-15:30 | Coffee Break | | | |

Onsite Parallel Sessions | 线下平行报告

| Session 1 – Artificial Intelligence and Mathematical Computing 平行报告 1 一 人工智能及数学计算 Onsite Venue-Tanggula Hall 唐古拉厅- 17F | | Session 2 – Machine Visior 平行报告 2 一 机器 Onsite Venue- Namtso I | · 祝觉与图像处理 |
|--|----------|---|--------------|
| 15:30-15:45 | TB1-0122 | 15:30-15:45 | TB1-0090 |
| 15:45-16:00 | TB1-0063 | 15:45-16:00 | TB1-0106 |
| 16:00-16:15 | TB1-0086 | 16:00-16:15 | TB1-0135 |
| 16:15-16:30 | TB1-0121 | 16:15-16:30 | TB1-0144 |
| 16:30-16:45 | TB1-0129 | 16:30-16:45 | TB1-0084 |
| 16:45-17:00 TB1-1005 | | 16:45-17:00 | TB1-0151 |
| 17:00-17:15 TB1-0033 | | | |

18:00-19:30 --- Dinner @ Café|晚餐@咖啡厅----2F



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- *日程时间安排均为北京时间。

Day 4- Sunday, May 30 | 5 月 30 日(星期日)

| Onsite Parallel Sessions 线下平行报告 | | | | |
|---|------------------------|---|----------|--|
| Session 3 – Advanced Inform Network Te 平行报告 3 一 先进信息 Onsite Venue-Yaamdrok F | chnology 【理论与神经网络技术 | Session 4 – Software Calc 平行报告 4 一 约 Onsite Venue- Namtso | 软件计算与算法 | |
| 09:30-09:45 | TB1-0066 | 09:30-09:45 TB1-0085 | | |
| 09:45-10:00 | TB1-0127-A | 09:45-10:00 | TB1-0117 | |
| 10:00-10:15 | TB1-0025 | 10:00-10:15 | TB1-0071 | |
| 10:15-10:30 | TB1-0014 | 10:15-10:30 TB1-0108 | | |
| 10:30-10:45 | TB1-0073 | 10:30-10:45 | TB1-0130 | |
| 10:45-11:00 | TB1-0015 | 10:45-11:00 | TB1-0145 | |
| 11:00-11:15 | TB1-0128-A | 11:00-11:15 TB1-01 | | |
| 11:15-11:30 | TB1-0159 | | | |

11:30-13:00--- Break&Lunch @ Café | 午餐@咖啡厅----2F

| Online Parallel Sessions 线上平行报告 | | | | | | |
|---|-------------------|--|--------------------|---|---------------------|-----------------------------|
| ZOOM | ZOOM A ZOOM B | | zoc | ом с | | |
| Zoom ID: 929 5 | 5001 3545 | Zoom ID: 94 | 6 8991 9473 | Zoom ID: 92 | 0 7013 4543 | |
| Link: https://zoom.com | .cn/j/92950013545 | Link: https://zoom.co | m.cn/j/94689919473 | Link: https://zoom.c | om.cn/j/92070134543 | |
| ZOOM A-Se Machine Learning and 机器学习与补 | Neural Networks | Big Data Science and Data Compute Engineering Mathemat | | Big Data Science and Data Computer Modeli Engineering Mathematical Calo | | lodeling and al Calculation |
| 13:00-13:15 | TB1-0051 | 13:00-13:15 | TB1-0044 | 13:00-13:15 | TB1-0017 | |
| 13:15-13:30 | TB1-0034 | 13:15-13:30 | TB1-0096 | 13:15-13:30 | TB1-0046 | |
| 13:30-13:45 | TB1-0089 | 13:30-13:45 | TB1-0137 | 13:30-13:45 | TB1-0049 | |
| 13:45-14:00 | TB1-0059 | 13:45-14:00 | TB1-0022 | 13:45-14:00 | TB1-0107 | |
| 14:00-14:15 | TB1-0124 | 14:00-14:15 | TB1-0041 | 14:00-14:15 | TB1-0152 | |
| 14:15-14:30 | TB1-0021 | 14:15-14:30 | TB1-0043 | 14:15-14:30 | TB1-0103 | |
| 14:30-14:45 | TB1-0064 | 14:30-14:45 | TB1-0050 | 14:30-14:45 | TB1-0126 | |
| 14:45-15:00 | TB1-0091 | 14:45-15:00 | TB1-0140 | 14:45-15:00 | TB1-0061 | |
| 15:00-15:15 | TB1-0112 | 15:00-15:15 | TB1-0003 | 15:00-15:15 | TB1-0146 | |



| ZOOM A-Se | ZOOM A-Session 8 | | ZOOM B-Session 9 ZOOM C-Session 10 | | Session 10 | |
|-----------------------|------------------|--|------------------------------------|----------------------|-----------------------------|--|
| Intelligent Algorithm | and Calculation | Image Analysis and Methods Advanced Inform | | Advanced Information | ation Theory and Technology | |
| 智能算法》 | 智能算法及计算 | | 图像分析与方法 | | 里论与技术 | |
| 16:00-16:15 | TB1-0065 | 16:00-16:15 | TB1-0030 | 16:00-16:15 | TB1-0001 | |
| 16:15-16:30 | TB1-0072 | 16:15-16:30 | TB1-0048 | 16:15-16:30 | TB1-0031 | |
| 16:30-16:45 | TB1-0082 | 16:30-16:45 | TB1-0132 | 16:30-16:45 | TB1-0032 | |
| 16:45-17:00 | TB1-0099 | 16:45-17:00 | TB1-0008 | 16:45-17:00 | TB1-0062 | |
| 17:00-17:15 | TB1-0118 | 17:00-17:15 | TB1-0076 | 17:00-17:15 | TB1-0067 | |
| 17:15-17:30 | TB1-0113 | 17:15-17:30 | TB1-0077 | 17:15-17:30 | TB1-0078 | |
| 17:30-17:45 | TB1-0119 | 17:30-17:45 | TB1-0143 | 17:30-17:45 | TB1-0088 | |
| 17:45-18:00 | TB1-0160 | 17:45-18:00 | TB1-0156 | 17:45-18:00 | TB1-0094 | |
| 18:00-18:15 | TB1-1006 | 18:00-18:15 | TB1-1004 | 18:00-18:15 | TB1-0109 | |
| 18:15-18:30 | TB1-0092 | 18:15-18:30 | TB1-0150 | 18:15-18:30 | TB1-0079 | |



- * All schedules will process in Beijing local time (GMT+8)
- *日程时间安排均为北京时间。

Day 5-Monday, May 31 | 5 月 31 日 (星期一)

| Online Parallel Sessions 线上平行报告 | | | | |
|--|---|---|--|--|
| ZOOM A Zoom ID: 929 5001 3545 Link: https://zoom.com.cn/j/92950013545 ZOOM A-Session 11 Sentiment Analysis and Deep Learning 情感分析与深度学习 | | Link: https://zoom.cc | 6 8991 9473 om.cn/j/94689919473 Session 12 nd Computer Graphics | |
| 10:00-10:15 | TB1-0053 | 10:00-10:15 | TB1-0012 | |
| 10:15-10:30 | TB1-0068 | 10:15-10:30 | TB1-0157 | |
| 10:30-10:45 | TB1-0075 | 10:30-10:45 | TB1-0028 | |
| 10:45-11:00 | TB1-0141 | 10:45-11:00 | TB1-0039 | |
| 11:00-11:15 | TB1-0153 | 11:00-11:15 | TB1-0136 | |
| 11:15-11:30 | TB1-1002 | 11:15-11:30 | TB1-0147 | |
| 11:30-11:45 | TB1-0018 | 11:30-11:45 | TB1-0083 | |
| 11:45-12:00 | TB1-0069 | 11:45-12:00 | TB1-0102 | |
| 12:00-12:15 | TB1-0115 | 12:00-12:15 | TB1-0114 | |
| 12:15-12:30 | TB1-0026 | 12:15-12:30 | TB1-0027 | |
| Artificial Intelligence and | Session 13 Information Management 及信息管理 | ZOOM B-Session 14 Computer and Application Engineering 计算机与应用工程 | | |
| 14:00-14:15 | TB1-0037 | 14:00-14:15 | TB1-0070 | |
| 14:15-14:30 | TB1-0120 | 14:15-14:30 | TB1-0035 | |
| 14:30-14:45 | TB1-0149 | 14:30-14:45 | TB1-0042 | |
| 14:45-15:00 | TB1-0131 | 14:45-15:00 | TB1-0054 | |
| 15:00-15:15 | TB1-0148 | 15:00-15:15 | TB1-0080 | |
| 15:15-15:30 | TB1-0138 | 15:15-15:30 | TB1-0081 | |
| 15:30-15:45 | TB1-0111 | 15:30-15:45 | TB1-0006 | |
| 15:45-16:00 | TB1-0038 | 15:45-16:00 | TB1-0023 | |
| 16:00-16:15 | TB1-0045 | 16:00-16:15 TB1-0016 | | |
| 16:15-16:30 | TB1-0125 | 16:15-16:30 | TB1-0024 | |

17:00-17:20 Closing & Award (Online)

闭幕式暨颁奖仪式 (线上)

Zoom ID: 929 5001 3545 | Link: https://zoom.com.cn/j/92950013545







No.10, North Renmin Road, Chengdu, China 四川省成都市金牛区人民北路一段 10 号

Website: www.tibethotelchengdu.cn

Contact: Mr. Tan Gang Tel: +86-1398-2229-918 Fax: +86-28-83178898

Email: tatatangang@126.com

i Getting Here

From Shuangliu Airport |从机场出发



By Metro (Around 50 mins): Line 10→Taipingyuan Station (transfer to Line 3)→ Chengdu Provincial Gymnasium Station (transfer to Line 1)→People's North Road Station (Exit B)→200m Walk 地铁(大约 50 分钟): 10 号线→太平园站(转 3 号线)→省体育馆(转 1 号线)→人民北路,B 口出,步行 200 米。



By Taxi (Around 50 mins): Around RMB70 fare needed 出租车(大约 40 分钟): 费用大约 70 元

From Chengdu North Railway Station | 从火车北站出发



By Metro: Line 1 \rightarrow People's North Road Station \rightarrow 200mWalk (Around 10 mins needed)



地铁: 1号线(开往科学城方向)→人民北站, B口出,步行 200米,用时 10分钟左右

By Taxi (Around 8 mins): Around RMB10 fare needed 出租车 (大约 8 分钟): 费用大约 10 元

From Chengdu East Railway Station |从成都东站出发



By Metro: Line $2 \rightarrow$ Tianfu Square (transfer to Line 1) \rightarrow People's North Road Station \rightarrow 200mWalk (Around 40 mins needed)

地铁: 2号线→天府广场(转1号线)→人民北路,B口出,步行200米。用时40分钟左右。



By Taxi (Around 30 mins): around RMB30 fare needed

出租车 (大约 30 分钟): 费用大约 30 元

Guideline | 参会指南



Tips for Onsite Attendance 线下参会须知

Oral Presentation | 口头报告

- :. Regular oral presentation: 15 minutes (including Q&A).
- ...Get your presentation PPT or PDF files prepared. Presentations MUST be uploaded at the session room at least 15 minutes before the session starts.
- .: Laptop (with MS-Office & Adobe Reader), projector & screen, laser pointer will be provided in all oral session rooms.

Poster Presentation | 海报展示

- ... Posters (A1 size) are required to be condensed and attractive. The characters should be large enough so that they are visible for 1 meter apart.
- : Please note that during the poster session, the author should stay by your poster to explain, discuss and answer questions.
- .. Please hand the poster to the staff when you sign in. They will help you hang it up before the poster session starts.

Important Notes | 注意事项

.. Please enter the meeting room at least 15 minutes before your session. Your punctual arrival and active involvement will be highly appreciated.

请至少在会议开始前15分钟进入会议室,并积极参与会议各环节。

... Please wear your name tag for all the conference activities. Lending it to others is not allowed. If you have any companying person, please do inform our staff in advance.

会议期间请佩戴代表证进入会场。请勿将代表证转借给他人。 如果您有陪同人员,请提前告知工作人员。

.. Please keep all your belongings (laptop and camera etc.) at any time. The conference organizer does not assume any responsibility for the loss of personal belongings.

请随身携带贵重物品(笔记本电脑和相机等)。本会议不对个人物品的丢失承担任何责任。

- .: Please show name tag and meal coupons when dining.
 就餐时请同时出示代表证与餐券。
- ∴ For epidemic prevention and control, please wear a mask and enter the venue with the Chengdu "Tianfu Health" green code.

为防控新冠疫情,请佩戴口罩并持成都"天府健康通"绿码进入会场。



Open WeChat and scan the "Tianfu Health" applet 使用微信扫描小程序码,即可获取天府健康通



Tips for Online Attendance 网络参会须知

Before the conference | 网络会议前

∴Time Zone|时区

Beijing, China (GMT+8)

You're suggested to set up the time on your computer in advance.

∴ Platform: ZOOM |线上参会平台: ZOOM

Download

- 1. https://zoom.com.cn/download (Chinese authors' option)
- 2. https://zoom.us/download

∴Zoom Guideline | ZOOM 操作指南:

http://icaibd.org/zoom/

Equipment Needed|设备及环境需求

- A computer with internet connection and camera
- Headphones
- Stable internet connection
- A guiet place and Proper background

∴Test Your Presentation | 网络测试

Date: Wednesday, May 26, 2021

Prior to the formal meeting, presenters shall join the test room to ensure everything is on the right track. Please check your test time on this program.

Every presenter or listener enter the ZOOM, please rename as **SESSION NUMBER+PAPER ID+YOUR NAME.** For example:

Presenters: S1+ TB1-001+Tom

Listeners: L001+Tom

∴If you have any question during the conference, you could add the Wechat, our staff will help to solve the questions. 如果您对会议有其他问题可以添加微信。



During the conference | 网络会议中

:: Voice Control Rules | 会议声控规则

- The host will mute all participants while entering the meeting.
- Speakers can unmute microphone when it is turn for his or her presentation.
- Q&A goes after each speaker, the participant can raise questions.

∴Oral Presentation | 报告注意事项

- Timing: a maximum of 15 minutes in total, including 2-3 minutes for Q&A. Please make sure your presentation is well timed.
- Please join the meeting room 10 minutes in advance.
- ICAIBD encourages all presenters to make live oral presentations. For technical problems such as network instability, we suggest you email a record video/slide to conference secretary as backup before/on May 24. 2021.

∴Conference Recording | 会议录制声明

- The whole conference will be recorded. We appreciate you proper behavior and appearance.
- The recording will be used for conference program and paper publication requirements.
 The video recording will be destroyed after the conference and it cannot be distributed to or shared with anyone else, and it shall not be used for commercial nor illegal purpose. It will only be recorded by the staff and presenters have no rights to record.

Speakers | 报告嘉宾





Keynote Speech I|主旨报告一

Prof. Hai Jin, IEEE Fellow, CCF Fellow, Huazhong University of Science and Technology, China 金海教授,中国华中科技大学,IEEE 会士,CCF 会士

Presentation Time: 09:30-10:10 | Saturday, May 29 (GMT+8)

Onsite Venue-Himalaya Hall|喜马拉雅厅- 17F Live Streaming on Zoom ID: 915 0117 9894

Zoom Link: https://zoom.com.cn/j/91501179894

Title: Towards the Practical Blockchain System: Challenges and Practices

Abstract: Blockchain is the fascinating distributed ledger technology, which holds out the promise of disintermediation, transparency, and openness. An increasing number of businesses, academics and even governments are starting to view blockchain systems as the cornerstone of trust the Web 3.0 era (next generation value Internet). This presentation will first trace the source and the current development status of blockchain systems in various application areas. Secondly, a roadmap of the major theoretical and practical challenging issues faced by these blockchain systems will be laid out. Finally, I will give a glimpse of harnessing the super-abundant opportunities of blockchain systems in the future landscape.

BIO: Hai Jin is a Fellow of IEEE, Fellow of CCF, and a life member of the ACM. He is a Cheung Kung Scholars Chair Professor of computer science and engineering at Huazhong University of Science and Technology (HUST) in China. Jin received his PhD in computer engineering from HUST in 1994. In 1996, he was awarded a German Academic Exchange Service fellowship to visit the Technical University of Chemnitz in Germany. Jin worked at The University of Hong Kong between 1998 and 2000, and as a visiting scholar at the University of Southern California between 1999 and 2000. He was awarded Excellent Youth Award from the National Science Foundation of China in 2001. Jin is the chief scientist of National 973 Basic Research Program Project of Virtualization Technology of Computing System, and Cloud Security.

His research interests include computer architecture, virtualization technology, cluster computing and cloud computing, peer-to-peer computing, network storage, and network security. He has co-authored more than 20 books and published over 900 research papers.





Keynote Speech II (Online)|线上主旨报告二

Prof. Yonghui Li, IEEE Fellow, University of Sydney, Australia Yonghui Li 教授,澳大利亚悉尼大学,IEEE 会士

Presentation Time: 10:10-10:50 | Saturday, May 29 (GMT+8)

Presenter Local Time: 12:10-12:50 | Saturday, May 29 (GMT+10)

Live Streaming on Zoom ID: 915 0117 9894 Zoom Link: https://zoom.com.cn/j/91501179894

Title: 5G IoT Networks

Abstract: Connected smart objects, platforms and environments have been identified as the next big technology development, enabling significant society changes and economic growth. The entire physical world will be connected to the Internet, referred to as Internet of Things (IoT). The intelligent IoT network for automatic interaction and processing between objects and environments will become an inherent part of areas such as electricity, transportation, industrial control, utilities management, healthcare, water resources management and mining. Wireless networks are one of the key enabling technologies of the IoT. They are likely to be universally used for last mile connectivity due to their flexibility, scalability and cost effectiveness. The attributes and traffic models of IoT networks are essentially different from those of conventional communication systems, which are designed to transmit voice, data and multimedia. IoT access networks face many unique challenges that cannot be addressed by existing network protocols; these include support for a truly massive number of devices, the transmission of huge volumes of data burst in large-scale networks over limited bandwidth, and the ability to accommodate diverse traffic patterns and quality of service (QoS) requirements. Some IoT applications have much stringent latency and reliability requirements which cannot be accommodated by existing wireless networks. Addressing these challenges requires the development of new wireless access technologies, underlying network protocols, signal processing techniques and security protocols. In this talk, I will present the IoT network development, architecture, key challenges, requirements, potential solutions and recent research progress in this area, particularly in 5G.

BIO: Yonghui Li is a Professor and Director of Wireless Engineering Laboratory, in School of Electrical and Information Engineering, the University of Sydney. He is the recipient of the prestigious Australian Research Council (ARC) Queen Elizabeth II Fellowship in 2008 and ARC Future Fellowship in 2012. His current research interests are in the area of wireless communications, Internet of Things, Wireless networks, 5G and wireless AI. He participated in \$500million Australian national Smart Grid Smart City project, the world first large-scale demonstration project. He has published more than 200 papers in IEEE journals and conferences. Several of his journal papers have been included in ESI highly cited papers. According to google scholar, his research works have been cited more than 7000 times. Now he is an editor for IEEE Transactions on Communications and IEEE Transactions on Vehicular Technology. He also served as a guest editor for several special issues of IEEE journals, such as IEEE JSAC special issue on Millimeter Wave Communications, IEEE Communications Magazine on Wireless AI, IEEE Access. He received the best paper awards from IEEE International Conference on Communications (ICC) 2014, IEEE PIMRC 2017 and IEEE Wireless Days Conferences (WD) 2014.

Speakers | 报告嘉宾





Keynote Speech III|主旨报告三

Prof. Huajin Tang, ZheJiang University, China 唐华锦教授,中国浙江大学

Presentation Time: 11:20-12:00 | Saturday, May 29 (GMT+8)

Onsite Venue-Himalaya Hall|喜马拉雅厅- 17F Live Streaming on Zoom ID: 915 0117 9894

Zoom Link: https://zoom.com.cn/j/91501179894

Title: Deep Learning in Spiking Neural Networks

Abstract: In recent years neuromorphic computing has become an important methodology to emulate brain style intelligence. There has been rapid progress in computational theory, learning algorithms, signal processing and circuit design and implementation. By using neural spikes as signals and using spike timing based learning algorithms, neuromorphic computational models and hardware have achieved promising real-time learning performance. This talk will start from introducing the computational principles and architecture found in neural systems, and present the recent deep learning methods in spiking neural networks.

BIO: Huajin Tang received the B.Eng. degree from Zhejiang University, China in 1998, received the M.Eng. degree from Shanghai Jiao Tong University, China in 2001, and received the Ph.D. degree from the National University of Singapore, in 2005. He was an R&D engineer with STMicroelectronics, Singapore from 2004 to 2006. From 2006 to 2008, he was a Post-Doctoral Fellow with the Queensland Brain Institute, University of Queensland, Australia. He was Head of the Robotic Cognition Lab at Institute for Infocomm Research, Singapore from 2008 to 2015. Since 2014 he is a professor with Sichuan University. He is currently a professor with Zhejiang University, China. His research interests include neuromorphic computing, neuromorphic hardware and cognitive systems, robotic cognition, etc. His research work on Brain GPS has been reported by MIT Technology Review in 2015. He received 2011 Role Model Award of Institute for Infocomm Research Singapore, 2016 IEEE Trans. on Neural Networks and Learning Systems Outstanding Paper Award, 2019 IEEE Computational Intelligence Magazine Outstanding Paper Award. He has served as an Associate Editor of IEEE Trans. on Neural Networks and Learning Systems, IEEE Trans. on Cognitive and Developmental Systems and Frontiers in Neuromorphic Engineering, and Neural Networks (2020-). He was the Program Chair or General Chair for IEEE CIS-RAM (2015, 2017), ISNN 2019 and IEEE Symposium on Neuromorphic Cognitive Computing. From 2019 he is elected as a Board-of-Governor member of International Neural Network Society (INNS).





Keynote Speech IV (Online)|线上主旨报告四

Prof. Anu Gokhale, Illinois State University, USA Anu Gokhale 教授,美国伊利诺伊州立大学

Presentation Time: 13:30-14:10 | Saturday, May 29 (GMT+8) Presenter Local Time: 23:30-00:10 | Friday, May 28 (GMT-6)

Live Streaming on Zoom ID: 915 0117 9894

Zoom Link: https://zoom.com.cn/j/91501179894

Title: Information Systems and Business Analytics

Abstract: Information systems combined with latest developments in data analytics strategies have created unprecedented opportunities for enhancing competitive advantage. Enterprises are expected to increase spending on information systems geared to utilize data for business intelligence purposes. Databases include both structured and unstructured information characterized by the five Vs – volume, velocity, variety, veracity, and value. There exists tremendous potential to glean key insights for business advantage from the vast data that is available today and new data that is being constantly generated. Algorithms used in analyzing big data vary significantly based on the problem of study and its goals and objectives. The talk will address the issues and processes associated with data analytics applied to business information systems, applicable algorithms to enhance functionality and predictive analytics, and discuss how data-driven decisions support product/service innovation and improved operational success.

BIO: Dr. Anu A. Gokhale is a Distinguished Professor and Coordinator of the Computer Systems Technology program at Illinois State University (ISU). Gokhale was named Fulbright Distinguished Chair in STEM+C at the University of Pernambuco, Brazil, 2016-17; was a Faculty Fellow in Israel and Fulbright Specialist in Cybersecurity at Gujarat Technological University, India in summer 2017; and a Visiting Professor in College of Business at Shandong University in Jinan, China during spring 2017 where she focused on data analytics and e-commerce. The current NSF funded project is in Computing Education for the 21st Century. Originally from India, she has a master's in physics-electronics from the College of William & Mary, and a doctorate from Iowa State University. Dr. Gokhale authored a second edition of her book Introduction to Telecommunications, which has an international edition in Chinese. She continues to be an invited keynote speaker at various conferences, latest ones include: 2020 International Conference on Information and Computer Technologies, San Jose, USA; 2019 International Conference on Computer Science and Artificial Intelligence, Beijing, China; 2018 International Conference on Frontiers of Educational Technologies, Moscow, Russia; 2017 International Conference on Knowledge Engineering and Applications, London, UK; 2016 International Conference on Communication and Information Systems, Bangkok, Thailand; and 2015 International Conference on Information Technology, Amman, Jordan. As an active volunteer in IEEE, she has served as R4 Educational Activities Chair, Women in Engineering Coordinator, Chair of International Electro/Information Technology 2010 Conference, and MGA representative to the Educational Activities Board. She was honored with the IEEE Third Millennium Medal and 2019 Region 4 Outstanding Professional Award

Speakers | 报告嘉宾





Invited Speech I(Online)|线上特邀报告一

Prof. Fumihiko Ino, Osaka University, Japan Fumihiko Ino 教授,日本大阪大学

Presentation Time: 14:10-14:40 | Saturday, May 29 (GMT+8)
Presenter Local Time: 15:10-15:40 | Saturday, May 29 (GMT+9)

Live Streaming on Zoom ID: 915 0117 9894

Zoom Link: https://zoom.com.cn/j/91501179894

Title: A Directive-based Approach for Accelerating Large-scale Scientific Applications on the GPU

Abstract: In this talk, we will present a directive-based programming framework for accelerating large-scale scientific applications on the graphics processing unit (GPU). Our framework, named PACC, is an extension of OpenACC directives, which are useful for generating out-of-core GPU code from sequential CPU code. Our extension further facilitates code development by automatically generating complicated code required for software pipelining, data decomposition, and temporal blocking. Out-of-core performance results will be presented for discussion.

BIO: Fumihiko Ino received the B.E., M.E., and Ph.D. degrees in information and computer sciences from Osaka University, Osaka, Japan, in 1998, 2000, and 2004, respectively. He is currently an Professor in the Graduate School of Information Science and Technology at Osaka University. His research interests include parallel and distributed systems, software development tools, and performance evaluation.



Session 1 - Artificial Intelligence and Mathematical Computing 平行报告 1 — 人工智能及数学计算

Time: Saturday, May 29 | 5 月 29 日(星期六) Onsite Venue-Tanggula Hall|唐古拉厅- 17F

Session Chair: Dr. Xiaolin Qin Chengdu Institute of Computer Applications, Chinese Academy of Sciences, China

| 15:30-15:45 | TB1-0122 | Research on the Impact of Digital Interactive Media on the Stock Market Based on Big Data Text Jinshui Huang , Jujun Qian and Yangqing Liu Southwestern University of Finance and Economics, China |
|-------------|----------|--|
| 15:45-16:00 | TB1-0063 | Static Analysis of Source Code Vulnerability Using Machine Learning Techniques: A Survey Jingjing Wang, Minhuan Huang, Yuanping Nie and Jin Li National Key Laboratory of Science and Technology on Information System Security, China |
| 16:00-16:15 | TB1-0086 | Incorporating Pre-trained Model into Neural Machine Translation Tailai An , Jiaxing Song and Weidong Liu Tsinghua university, China |
| 16:15-16:30 | TB1-0121 | Self-Adaptive Word Segmentation Model in Military Domain Based on Conditional Random Field Kexiang Guo, Hengjun Wang, Zhixu Bai and Yejie Xue Zhengzhou Information Science and Technology Institute, China |
| 16:30-16:45 | TB1-0129 | A Novel Large Neighborhood Search for solving Green Vehicle Routing Problem Xiaohui Li, Peifan Li , Yi Zhao, Yuan Dong and Ping Wang Chang'an University, China |
| 16:45-17:00 | TB1-1005 | Tracing Asian Giant Hornet: From a Data-Driven Perspective Yuanyuan Deng , Linqing Zeng, Qi Fu and Haoxuan Li Sichuan University, China |
| 17:00-17:15 | TB1-0033 | Research and Exploration of Land Use in Core Area of Urban Central Rail Transit Station Based on Al Technology Yuan He, Hong Yuan, Qiang Yao and Zelin Wang Southwest Jiaotong University; Chongqing College of Architecture and Technology, China |
| | | |

18:00-19:30 - Dinner @ Café|晚餐@咖啡厅-2F



Session 2 - Machine Vision and Image Processing 平行报告 2 — 机器视觉与图像处理

Time: Saturday, May 29 | 5 月 29 日(星期六) Onsite Venue- Namtso Room|纳木措厅- 2F

Session Chair: Dr. Yi Chen, University of Toyama, Japan

| 15:30-15:45 | TB1-0090 | Channel Attention Residual Network for Diagnosing Pneumonia Zhaoxia Guo , Jianjun Zhang, Yiming Zuo, Peishun Liu, Ruichun Tang and Xiaoxia Li Ocean University of China, China |
|-------------|----------|---|
| 15:45-16:00 | TB1-0106 | Multi-classification of fNIRS Signals in Four body parts Motor Imagery Tasks Measured From Motor Cortex Yuan Li , Hui Shen, Yang Yu and Dewen Hu National University of Defence Technology, China |
| 16:00-16:15 | TB1-0135 | Fast Welding Defect Inspection On Digital Radiography Images Using Saliency Detection Yi Zhao, Pu Zhao , XiaoHui Li and JinPing Zhai Chang'an University, China |
| 16:15-16:30 | TB1-0144 | Research on Detection and Identification Technology of Intelligent Devices in Cyberspace: A Survey Le Yao, Honglin Zhuang, Zhechao Lin, Jiaxiang Gu, Fang Wang and Qinbo Chen Academy of Military Sciences PLA China, China |
| 16:30-16:45 | TB1-0084 | New Mechanism of Visual Motion Direction Detection based on McCulloch-Pitts Neuron Model Yi Chen, Zheng Tang and Hiroyoshi Todo University of Toyama, Japan |
| 16:45-17:00 | TB1-0151 | Medical Records Classification Model Based on Textimage Dual-Mode Fusion Yang Chen, Xinyue Zhang and Tao Li Southwest Minzu University, China |

18:00-19:30 - Dinner @ Café|晚餐@咖啡厅-2F



Session 3 – Advanced Information Theory and Neural Network Technology 平行报告 3 一 先进信息理论与神经网络技术

Time: Sunday, May 30 | 5 月 30 日(星期日) Onsite Venue-Yaamdrok Room|羊卓雍措厅- 2F

Session Chair: Dr. Bruno Abrahao, New York University Shanghai, China

| 09:30-09:45 | TB1-0066 | Research on Interval Estimation of Trip Fuel Consumption based on Irregularly Distributed Samples Guodong Liang, Jingjie Chen and Jiaxue Liu Civil Aviation University of China, China |
|-------------|------------|--|
| 09:45-10:00 | TB1-0127-A | 3-D Feature Based Online Multimedia Traffic Classification from Quality of Service Perspective Zheng Wu and Yuning Dong Nanjing University of Posts and Telecommunications, China |
| 10:00-10:15 | TB1-0025 | Multi Resolution Prediction Model Based on Wavelet Analysis and Neural Network Zhang Chengzhao and Heping Pan Chengdu Polytechnic, China |
| 10:15-10:30 | TB1-0014 | Exponential Synchronization of Switched Inertial Reaction-Diffusion Neural Networks With Time Varying Delays Via Intermittent Control Jiefei Yan, Meng Hui, Jiahuang Zhang, Chen Wei and Ning Yao Chang'an University, China |
| 10:30-10:45 | TB1-0073 | Predicting Trend of High Frequency CSI 300 Index: Based on Empirical Mode Decomposition and BP Neural Network Guangyan Gan, Xueyu Zhou and Haoxuan Li Sichuan University, China |
| 10:45-11:00 | TB1-0015 | Finite-time projective synchronization of stochastic complex-valued neural networks with time varying delays Jiahuang Zhang, Meng Hui, Chen Wei, Jiefei Yan and Ning Yao Chang'an University, China |
| 11:00-11:15 | TB1-0128-A | Cloud Detection Using Full Convolutional Neural Network based on Attention Mechanism for Infrared Remote Sensing Images Liyuan Li Shanghai Institute of Technical Physics of the Chinese Academy of Sciences, China |
| 11:15-11:30 | TB1-0159 | Semantic Analysis on Product Review Headlines Based on Review Association Mechanism and Convolutional Neural Network Yanghao Xiao, Xueyu Zhou and Haoxuan Li Sichuan University, China |

11:30-13:00 - Break&Lunch @ Café | 午餐@咖啡厅-2F



Session 4 - Software Calculations and Algorithms 平行报告 4 一 软件计算与算法

Time: Sunday, May 30 | 5 月 30 日(星期日) Onsite Venue- Namtso Room | 纳木措厅- 2F

Session Chair: Prof. Run-Hua Shi, North China Electronic Power University, China

| 09:30-09:45 | TB1-0085 | Reachability Analysis of Linear Systems with Rational Eigenvalues Xinyu Ge and Shiping Chen University of Chinese Academy of Sciences, China |
|-------------|----------|--|
| | | Recursive Least Squares Policy Control with Echo State Network |
| 09:45-10:00 | TB1-0117 | Chunyuan Zhang, Chao Liu, Qi Song and Jie Zhao |
| 03.43-10.00 | 101-0117 | Hainan University, China |
| | | A Novel Microblog Sentiment Classification Method Based on Top-k |
| | | Pooling |
| 10:00-10:15 | TB1-0071 | Binyan Zhang, Xiaofei Zhu, Xianying Huang and Wanping Liu |
| | | Chongqing University of Technology, China |
| | | An Overview of Landslide Detection: Deep Learning and Machine |
| | | Learning Approaches |
| 10:15-10:30 | TB1-0108 | Hong Zhang, Mingzhe Liu, Tao Wang, Xin Jiang, Bingqi Liu and |
| 10.13-10.30 | 191-0109 | Pengyu Dai |
| | | Chengdu University of Technology, China |
| | | Improved Grey Wolf Optimization Algorithm for Solving Cloud |
| | TB1-0130 | Manufacturing Scheduling Problem With Limit Logistics Resource |
| 10:30-10:45 | | Xiaohui Li, Xueru Wang , Yi Zhao, Yuan Dong and Ping Wang |
| | | Chang'an University, China |
| | | An Adaptive Clustering Algorithm Based on Circular Units |
| | | Fang Wang, Yongqiang Xie, Zhihui Hu, Kai Zhang and Yunchao |
| 10:45-11:00 | TB1-0145 | Zhang |
| 10.43-11.00 | 181-0145 | Academy of Military Sciences, Institute of Systems Engineering, |
| | | China |
| | | A Fast-mining Method for Target Behavior Pattern Based on |
| | | Trajectory Data |
| 11:00-11:15 | TB1-0134 | Qiaowen Jiang, Yu Liu, Shun Sun and Daning Tan |
| | | Naval Aviation University, China |
| | | Ivavai Aviation Oniversity, China |

11:30-13:00 - Break&Lunch @ Café|午餐@咖啡厅-2F



Session 5 - Machine Learning and Neural Networks 平行报告 5 一 机器学习与神经网络

Time: Sunday, May 30 | 5 月 30 日(星期日) Zoom ID: 929 5001 3545 Link: https://zoom.com.cn/j/92950013545

Session Chair: Assoc. Prof. Wenhui Yi, Xi'an Jiaotong University, China

| 13:00-13:15 | TB1-0051 | Real Time Face Mask Detection System using Transfer Learning with Machine Learning Method in the Era of Covid-19 Pandemic Sohaib Asif , Wenhui Yi, Tao Yi, Jinhai Si and Kamran Amjad Central South University, China |
|-------------|----------|--|
| 13:15-13:30 | TB1-0034 | Traffic Signal Control Based on Deep Reinforcement Learning with Simplified State and Reward Definitions Salah Bouktif, Abderraouf Cheniki , Ali Ouni and Hesham El Sayed University of Boumerdes, Algeria |
| 13:30-13:45 | TB1-0089 | Studying the Reinforcement Learning Techniques for the Problem of Intrusion Detection Quang-Vinh Dang and Thanh-Hai Vo Industrial University of Ho Chi Minh city |
| 13:45-14:00 | TB1-0059 | An Ensemble Machine Learning Method for the Prediction of Heart Disease Sohaib Asif, Wenhui Yi, Tao Yi, Jinhai Si and Jin Hou Central South University, China |
| 14:00-14:15 | TB1-0124 | The Method of Selecting the Evaluation Model for the State of Children's Growth Based on Machine Learning Yubin Chen, Dancheng Li, Ning Wang , Changyuan Wu and Zhong Wang Northeastern University, China |
| 14:15-14:30 | TB1-0021 | The Interpretability of Quantum-inspired Neural Network Shikai Song, Yuexian Hou and Guangcheng Liu Tianjin University, China |
| 14:30-14:45 | TB1-0064 | An Automatic Detection Method of Bird's Nest on Electric Tower Based on Attention Full Convolutional Neural Networks Wuzhong Dong, Lie Wu, Qi Wang and Sen Cheng Sichuan Electric Power Design & Consulting Co., Ltd, China |
| 14:45-15:00 | TB1-0091 | Few-shot Learning for Rolling Bearing Fault Diagnosis Based on Residual Convolutional Neural Network Zihao Cui , Xiangwei Kong and Peifeng Hao Northeastern University, China |
| 15:00-15:15 | TB1-0112 | Graph Neural Network Recommendation Model Based on Long- and Short-Term Interests Qi Feng, Yuan Tan, Ming Zhou, Guangjun Zeng and Zhe Chen National University Of Defense Technology, China |



Session 6 - Big Data Science and Data Engineering 平行报告 6 一 大数据科学及数据工程

Time: Sunday, May 30 | 5 月 30 日(星期日) Zoom ID: 946 8991 9473 Link: https://zoom.com.cn/j/94689919473

Session Chair: Dr. Md Altab Hossin, University of Science and Technology of China, China

| 13:00-13:15 | TB1-0044 | Technical Architecture of Big Data Cloud Platform for Intelligent Washing Factory Chuanxing Zheng Guizhou University of Commerce, China |
|-------------|----------|--|
| 13:15-13:30 | TB1-0096 | Analysis of the security strategy of computer network data under the background of big data Xiaolan Yu Jincheng College of Sichuan University, China |
| 13:30-13:45 | TB1-0137 | A Novel Algorithm using Content-based filtering Technology in Apache Spark for Big Data Analysis Yolamu Kamukwamba and Liu Chunxiao Bohai University, China |
| 13:45-14:00 | TB1-0022 | Weighted Cross-Product Constraint Transformation to Optimize Spatial Structure of Data Siqing Wang, Deqi Li, Xin Zhang and Shutao Zhang China University of Geosciences, China |
| 14:00-14:15 | TB1-0041 | Overview: The Databases of Chemical Components of Traditional Chinese Medicine Yang Li, Xiaomeng Li, Ping Ma and Jingang Ma Shandong University of Traditional Chinese Medicine, China |
| 14:15-14:30 | TB1-0043 | Early warning and Prevention of non-compliance of Internal Control Information Disclosure based on data Mining Na Liu and Lianxi Wang South China Business College of Guangdong University of Foreign Studies, China |
| 14:30-14:45 | TB1-0050 | A Novel Scheme for Crawling and Mining of Housing Transaction data Luyao Chen and Tao Xu Henan University, China |
| 14:45-15:00 | TB1-0140 | Application of Data Mining in Predicting College Graduates Employment Shouwu He, Xiaoying Li and Jia Chen Guilin University of Technology at Nanning, China |
| 15:00-15:15 | TB1-0003 | How to Realize Precision Marketing In Catering Industry Through Big Data Siyang Liu Fordham University, China |



Session 7 - Computer Modeling and Mathematical Calculation 平行报告 7 一 计算机建模与数学计算

Time: Sunday, May 30 | 5 月 30 日(星期日) Zoom ID: 920 7013 4543

Link: https://zoom.com.cn/j/92070134543

Session Chair: Dr. Tham Mau Luen, Univeristi Tunku Abdul Rahman, Malaysia

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| | | Complex-valued Vectors for Word Representation |
| 13:00-13:15 | TB1-0017 | Guangcheng Liu and Yuexian Hou |
| | | Tianjin University, China |
| 13:15-13:30 | TB1-0046 | A Method of Load Forecasting Based on Temporal Convolutional Network Ganghong Zhang , Wenbin Chen, Chao Huo, Huifeng Bai and Jian Gao, Jinhong He, Shuaiying Ma and Tonglei Liu |
| | | Beijing Smart Chip Microelectronics Technology Company Limited, China |
| 13:30-13:45 | TB1-0049 | Dynamically Mixed Group Convolution to Lighten Convolution Operation Hang Wei, Zulin Wang and Gengxin Hua Beihang University, China |
| 13:45-14:00 | TB1-0107 | Zipf Matrix Factorization: Matrix Factorization with Matthew Effect Reduction Hao Wang Ratidar.com, China |
| 14:00-14:15 | TB1-0152 | An Electromagnetic Situation Calculation Method based on Edge Computing and Cloud Computing Zhe Li and Le Yang China Academy of Launch Vehicle Technology, China |
| 14:15-14:30 | TB1-0103 | Modeling and Algorithm Research on Stowage of Emergency Rescue Vehicles on Ro-Ro Ship Can Han, Qinhui Liu, Tong Hao, Qiang Xu, Jingqiao Liu, Qiangkun Li and Han Shi Harbin Engineering University, China |
| 14:30-14:45 | TB1-0126 | PID Parameter Optimization of Secondary Cooling Water Distribution Model for Continuous Casting Based on Improved Artificial Bee Colony Algorithm Zheng Wu Northeastern University, China |
| 14:45-15:00 | TB1-0061 | Modeling and Simulation of Wide Area Backup Protection System Based on UPPAA Xiong Haijun, Ye Xinyu , Jiang He and Wang Yao North China Electric Power University, China |
| 15:00-15:15 | TB1-0146 | Automatic Market Prediction System Via An Ensembled Model Jinxi Liu, Xiaohan Dou, Peng Yang and Jingyao Fan Jilin University, China |



Session 8 – Intelligent Algorithm and Calculation 平行报告 8 — 智能算法及计算

Time: Sunday, May 30 | 5 月 30 日(星期日) Zoom ID: 929 5001 3545 Link: https://zoom.com.cn/j/92950013545

Session Chair: Dr. Aznul Qalid Md Sabri, University Malaya, Malaysia

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| 16:00-16:15 | TB1-0065 | Research on Path Planning of AUV Based on Improved Ant Colony Algorithm Shaokun Yan Jiangsu Automation Research Institute, China |
| 16:15-16:30 | TB1-0072 | Incremental learning algorithm based on graph regularized non-negative matrix factorization with sparseness constraints Jintao Wang, Meng Zhang, Xusheng Hu and Tianwei Ni Wanjiang University of Technology, China |
| 16:30-16:45 | TB1-0082 | Optimization and Integration of Logistics Facilities Resources Based on Genetic-Simulated Annealing Hybrid Algorithm Qingran Ji, Fan-Chao Meng, Hongzhen Zheng and Dianhui Chu Harbin Institute of Technology, China |
| 16:45-17:00 | TB1-0099 | Optimization of assembly scheduling based on an improved adaptive genetic algorithm Shanliang Xue, Liuyan Wu , Guangxin Chen, Sijia Cheng and Yong Yuan Nanjing University of Aeronautics and Astronautics, China |
| 17:00-17:15 | TB1-0118 | Locally Linear Embedding Based on Seagull Optimization Algorithm with T-distribution Parameters Minhui Ye, Zan Yang , Hanwei Jiang, Shuhan Zhou, Wei Nai, Dan Li and Yidan Xing Tongji Zhejiang College, China |
| 17:15-17:30 | TB1-0113 | A Intrusion Detection Algorithm Based on Improved Slime Mould Algorithm and Weighted Extreme Learning Machine Tang Xiong, Ge Lina, Zhang Guifen and Qin Donghong GuangXi University for Nationalities, China |
| 17:30-17:45 | TB1-0119 | Elastic Network Regression Based on Differential Evolution Dragonfly Algorithm with T-Distribution Parameters Jiayi Zhang, Wei Nai , Kairui Luo, Peiran Leng, Zan Yang, Dan Li and Chi Zhang Tongji Zhejiang College, China |



| 17:45-18:00 | TB1-0160 | Traffic Anomaly Detection Algorithm Based on Improved Salp Swarm Optimal Density Peak Clustering Xin Li, Peng Yi, Yiming Jiang and Xiangyu Lu PLA Strategic Support Force Information Engineering University, China |
|-------------|----------|---|
| 18:00-18:15 | TB1-1006 | Highway Traffic Flow Prediction Based on Optimized KNN of Spark Zhang Liping, Feng Yongxiang, Li Leixiao and Bai Xiaoman Inner Mongolia University of Technology, China |
| 18:15:18:30 | TB1-0092 | Analysis of Microblog User Influence Based On Multivariate Interaction Counting Framework Model Zhikai Wang and Xuemin Zi Tianjin University of Technology and Education, China |

Session 9 - Image Analysis and Methods 平行报告 9 — 图像分析与方法

Time: Sunday, May 30 | 5 月 30 日(星期日) Zoom ID: 946 8991 9473 Link: https://zoom.com.cn/j/94689919473

| 16:00-16:15 | TB1-0030 | Application of active learning in carbonate lithologic identification Biao Yuan , Zhongyuan Wu, Kai Zhang, Deqi Li and Qiaoyu Ma China University of Geosciences, Beijing, China |
|-------------|----------|---|
| 16:15-16:30 | TB1-0048 | An Application for Identification of Malignant Weeds in Cereal Fields Based on Neural Network Chao Zhang, Kai Fu, Zengguanqi Duan, Yansong Zhai, Ziping Tian and Jing Huang Jilin University, China |
| 16:30-16:45 | TB1-0132 | Railway Driver Behavior Recognition Based on Deep Learning Li He and Jie Zhang Southwest Jiaotong University, China |
| 16:45-17:00 | TB1-0008 | First-Order Meta-Learning in Node Classification with Graph Convolutional Network Jing Cao, Yi Xu and Xuening Song University of Electronic Science and Technology of China, China |
| 17:00-17:15 | TB1-0076 | A Neuron for Velocity Detection Based on Inhibitory Mechanism in Retina Ganglion Mianzhe Han, Yuki Todo and Zheng Tang Kanazawa University, Japan |
| 17:15-17:30 | TB1-0077 | Fusion Algorithm for Foggy Image Enhancement Based On Transmittance Weight Factor Wei Sun , Meng Zhang and Jintao Wang Wanjiang University of Technology, China |



| 17:30-17:45 | TB1-0143 | Improved Genetic Algorithm Otsu for Power Transmission Line Foreign Body Image Segmentation Zhou Hao , Zhang Hongmin, Li Shunyuan and Li Pingping Chongqing University of Technology, China |
|-------------|----------|---|
| 17:45-18:00 | TB1-0156 | PO-SLAM: A Novel Monocular Visual SLAM with Points and Objects Xiaohan Li, Shiqi Lin, Meng Xu, Deyun Dai and Jikai Wang University of Science and Technology of China |
| 18:00-18:15 | TB1-1004 | An Image Defog Network based on Multi-Scale Feature Extraction and Weighting Chen Yu, Cai Qiong, Qianqian Huang, GuoQing Chen and Xingbao Fu Wuhan Institute of Technology, China |
| 18:15:18:30 | TB1-0150 | Sentiment Assessment of Brand Advertising on Gender Issues on Social Network: A Case Study of Femvertising on Sina Weibo in China Yuan Chen, Zhisheng Zhang and Zhijie Xia Southeast University, China |

Session 10 - Advanced Information Theory and Technology 平行报告 10 一 先进信息理论与技术

Time: Sunday, May 30 | 5 月 30 日(星期日) Zoom ID: 920 7013 4543 Link: https://zoom.com.cn/j/92070134543

Session Chair: Prof. Abdelaziz Bouras, Qatar University, Qatar

| 16:00-16:15 | TB1-0001 | Micro-course Evaluation Index System based on User Experience Yu Sun, Dongmei Yang and Yaowen Xia Yunnan Normal University, China |
|-------------|----------|--|
| 16:15-16:30 | TB1-0031 | SAFS: Social-Article Features-Stacking Model for Fake News Detection Xiaojun Wu and Jimin Wang Peking University, China |
| 16:30-16:45 | TB1-0032 | An Interpretable Regularization Method Based on Minimizing Mutual Information Nan Xie and Yuexian Hou Tianjin University, China |
| 16:45-17:00 | TB1-0062 | Studying the Fuzzy Clustering Methods to Understand Employee Performance Quang-Vinh Dang, Minh-Tuan Truong and Minh-Hoang Huynh Industrial University of Ho Chi Minh City, Vietnam |
| 17:00-17:15 | TB1-0067 | A VCT Discovery Algorithm of Renju Zhikun Zhao , Fan Zhang, Quansheng Wu and Yuan Zhang Shandong University of Finance and Economics, China |



| 17:15-17:30 | TB1-0078 | Rounding Shift Channel Post-Training Quantization using Layer Search Mengmeng Xu, Mingxin Zhao, Xuemin Zheng, Liyuan Liu, Shuangming Yu and Nanjian Wu University of Chinese Academy of Sciences, China | | | |
|-------------|----------|---|--|--|--|
| 17:30-17:45 | TB1-0088 | HyperEA: Hyperbolic Entity Alignment between Knowledge Graphs Shuai Gao Beijing University of Posts and Telecommunications, China | | | |
| 17:45-18:00 | TB1-0094 | Enhancing Collaborative Filtering Recommendation by User Interest Probability Jing Yu, Jingjing Shi, Yunwen Chen, Wenhai Liu, Kai Liu and Zhijun Xie Datagrand Company, China | | | |
| 18:00-18:15 | TB1-0109 | Research on Named Entity Recognition Technology of Knowledge Graph for Flipped Classroom Yifeng Li, Yuan Tan, Ming Zhou, Guangjun Zeng and Zhe Chen National University Of Defense Technology, China | | | |
| 16:00-16:15 | TB1-0079 | Microservice Anomaly Detection based on Tracing Data using Semi- supervised Learning Min Li, Dingyong Tang, Zepeng Wen and Yunchang Cheng China Academy of Engineering Physics Institute of Computer Application, China | | | |

Session 11 - Sentiment Analysis and Deep Learning 平行报告 11 — 情感分析与深度学习

Time: Monday, May 31 | 5 月 31 日(星期一) Zoom ID: 929 5001 3545 Link: https://zoom.com.cn/j/92950013545

Session Chair: Dr. Yongjun Hu, Guangzhou University, China

| 10:00-10:15 | TB1-0053 | Quantum-inspired Model based on Convolutional Neural Network for Sentiment Analysis Si Li and Yuexian Hou Tianjin University, China |
|-------------|----------|--|
| 10:15-10:30 | TB1-0068 | Live comments emotional analysis based on EE-RNN Pengcheng Tan, Hongguang Xu and Ke Xu Harbin Institute of Technology, Shen Zhen, China |
| 10:30-10:45 | TB1-0075 | Sentiment Classification Algorithm of Danmaku Comment Based on Modified Bayes Model Ziyi Wang and Guanying Huang Leshan Normal University, China |



| | | Aspect Extraction in Sentiment Analysis Based on Emotional Affect Using Supervised Approach | |
|-------------|----------|---|--|
| 10:45-11:00 | TB1-0141 | Jaafar Zubairu Maitama, Norisma Idris, Asad Abdi and Andrew Thomas | |
| | | Bimba | |
| | | University of Malaya, Malaysia | |
| | | Research on Semantic Sentiment Analysis Based on BiLSTM | |
| 11.00 11.15 | TD1 0153 | · | |
| 11:00-11:15 | TB1-0153 | Chenyue Zhang and Lizhi Liu | |
| | | Wuhan Institute of Technology, China | |
| | | PHARN: A Probabilistic Graph Model Based Hierarchical Affective | |
| 11:15-11:30 | TB1-1002 | Reasoning Network for Conversational Sentiment Analysis | |
| 11.13 11.30 | 101 1002 | Peng Guo, Yuexian Hou and Xiujun Gong | |
| | | Tianjin University, China | |
| | | Applying Deep Learning to Autonomous Vehicles: A Survey | |
| 11:30-11:45 | TB1-0018 | Jing Ren, Sk Sami Al Jabar and Hossam Gaber | |
| | | Ontario Tech University, Canada | |
| | | Research on Bearing Fault Diagnosis Base on Deep Learning | |
| 11:45-12:00 | TB1-0069 | Weipeng Xu | |
| | | Shanghai Co., Ltd. China Coal Technology and Engineering Group, China | |
| | | IoT-based Disaster Detection Model Using Social Networks and Machine | |
| | | Learning | |
| 12:00-12:15 | TB1-0115 | Khalid Alfalgi and Martine Bellaiche | |
| | | Polytechnique de Montreal, Canada | |
| | | Comparative Study on Different Dimension Reduction Methods in | |
| | TB1-0026 | · · · | |
| 12:15-12:30 | | Remote Sensing Ground Object Recognition | |
| | | Lei Kang, Xin Zhang, Kai Zhang and Biao Yuan | |
| | | China University of Geosciences, Beijing, China | |

Session 12 - Computer Network and Computer Graphics 平行报告 12 一 计算机网络与计算机图形学

Time: Monday, May 31 | 5 月 31 日(星期一) Zoom ID: 946 8991 9473 Link: https://zoom.com.cn/j/94689919473

Session Chair: Assoc. Prof. Minghui Zhao China Coal Technology & Engineering Group Shanghai Co., Ltd., China

| | TD1 0013 | Investigating the Efficiency of a Three-Dimensional Facial Tracker Using | |
|-------------|----------|--|--|
| 10.00 10.15 | | Stereo Camera Arrangements | |
| 10:00-10:15 | TB1-0012 | Faleh AlQahtani, Jasmine Banks, Vinod Chandran and Jinglan Zhang | |
| | | Queensland University of Technology, Australia | |
| | | Deep Learning Approach for Breast Ultrasound Image Segmentation | |
| 10:15-10:30 | TB1-0157 | Yahya Alzahrani and Boubakeur Boufama | |
| | | University of Windsor, Canada | |



| 10:30-10:45 | TB1-0028 | Feature Extraction of Hyperspectral Image Structure Based on Spatial-Spectral Fusion Shutao Zhang, Xin Zhang, Kai Zhang and Biao Yuan China University of Geosciences, China | | |
|-------------|----------|---|--|--|
| 10:45-11:00 | TB1-0039 | An End-to-End Practice of Remote Sensing Object Detection with NVIDIA Embedded System Jingyao Huang, Hao Su, Xun Liu, Wei Li, Yi Cai and Lingxue Wang Beijing Institute of Technology, China | | |
| 11:00-11:15 | TB1-0136 | Visual saliency prediction of Global Attention based on relevance perception Chenzhou Deng, Xiangyang Chen and Cao Qianqian Wuhan Institute of Technology, China | | |
| 11:15-11:30 | TB1-0147 | Multi-transformation Consistency Regularization for Semi-supervised Medical Image Segmentation Yi Zhang, Bin Zhou, Lei Chen, Yulin Wu and Hongchao Zhou Shandong University, China | | |
| 11:30-11:45 | TB1-0083 | A Double Stream Module in Backbone for Object Detection Network Xuanfang He, Yan Ding, Yating Yuan, Weidong Liang, Xinliang Huang and Jiayuan Shan Beijing Institute of Technology, China | | |
| 11:45-12:00 | TB1-0102 | Encrypted Traffic Classification Based on Traffic Reconstruction Qianli Ma, Wei Huang, Yanliang Jin and Jianhua Mao Shanghai University, China | | |
| 12:00-12:15 | TB1-0114 | A Deep Intrusion Detection System in Lambda Architecture Based on Edge Cloud Computing For IoT Rubayyi Alghamdi and Martine Bellaiche E´cole Polytechnique de Montre´al, Canada | | |
| 12:15-12:30 | TB1-0027 | Hyperspectral Object Recognition Based on Optimized Gabor Spatial-Spectral Feature Quanwei Xu, Xiaoqing Hu, Kai Zhang and Biao Yuan China University of Geosciences, Beijing, China | | |



Session 13 - Artificial Intelligence and Information Management 平行报告 13 一 人工智能及信息管理

Time: Monday, May 31 | 5 月 31 日(星期一) Zoom ID: 929 5001 3545 Link: https://zoom.com.cn/j/92950013545

Session Chair: Prof. Mohd Saberi Mohamad, United Arab Emirates University, UAE

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|-------------|----------|---|--|--|--|
| 14:00-14:15 | TB1-0037 | Research on VSLAM of UAV in Coal Mine Based on ROS Minghui Zhao, Qijun Chen and Shihong Zhang School of Electronics and Information Engineering, Tongji University, China; China Coal Technology & Engineering Group Shanghai Co., Ltd., China | | | |
| 14:15-14:30 | TB1-0120 | Blockchain-based infrastructure for Artificial Intelligence with quantum resistant Bo Yuan , Faguo Wu, Wangjie Qiu, Wendi Wang, Hong Zhu and Dongxu Zhou Beihang University, China | | | |
| 14:30-14:45 | TB1-0149 | Robot Mapping and Navigation System Based on Multi - Sensor Fusion Bo Zhang and Jie Zhang Southwest Jiaotong University, China | | | |
| 14:45-15:00 | TB1-0131 | Intelligent Control System of Coal Mine Main Transportation Based on Machine Vision Yongqing Lv, Ning Liu, Cungen Xi and Minghui Zhao China Coal Technology & Engineering Group Shanghai Co., Ltd., China | | | |
| 15:00-15:15 | TB1-0148 | A Model Hybrid Recommendation Approach based on Knowledge Graph Convolution Networks Zhen Hou , Tong Li, Huilin Fu, Qidong Liu, Zehui Zhang and Mengjie Hu Yunnan University, China | | | |
| 15:15-15:30 | TB1-0138 | Multi-behavior Recommendation Based on Simplified Graph Convolutional Networks Hongfei Yu , Xinhua E, Xiaoli Li, Kang Wang and Siyang Zhang Beijing University of Technology, China | | | |
| 15:30-15:45 | TB1-0111 | Research on System Log Anomaly Detection Combining Two-way Slice GRU and GA-Attention Mechanism Shijing Gu, Yuchun Chu, Wenbin Zhang, Peishun Liu, Qilin Yin and Qi Li Ocean University of China | | | |
| 15:45-16:00 | TB1-0038 | Movement Stimulation through Social Media: The Tweeted Perspective and Road Safety Movement in Bangladesh Afsana Begum, Md. Alamgir Hossain, A.U. M. Tuhin, M. K. Sohel, Md Fakrul Abedin Bhuiyan and A. H. Sarwar Daffodil International University, Dhaka, Bangladesh | | | |



| | TB1-0045 | Hierarchical Cost-Sensitive Techniques for Class Imbalance Learning |
|-------------|----------|---|
| 16:00-16:15 | | Huan Xu |
| | | TianJin Petroleum Vocational and Technical College, China |
| | TB1-0125 | Research on the Interaction Design of Mobile APP for Second-hand |
| 16.15 16.20 | | Luxury Goods Transaction |
| 16:15-16:30 | | Wen Qi and Pengpeng Yang |
| | | Donghua University, China |

Session 14 - Computer and Application Engineering 平行报告 14 一 计算机与应用工程

Time: Monday, May 31 | 5 月 31 日(星期一) Zoom ID: 946 8991 9473 Link: https://zoom.com.cn/j/94689919473

Session Chair: Dr. Man-fung Lo, The Education University of Hong Kong

| 14:00-14:15 | TB1-0070 | Clinical Application of Artificial Intelligence in Rehabilitation Robots for Balance Disorders Yuning Feng, Kainan Li and Yuan Bo Affiliated Hospital of Chengdu University, China | | | | |
|-------------|----------|---|--|--|--|--|
| 14:15-14:30 | TB1-0035 | A Method of Equipment Safety Certification Based on Daily Cycle Activity Nan Ye, Runjie Xu , Fangling Sun and Chenhao Sun Nanjing University of Aeronautics and Astronautics, China | | | | |
| 14:30-14:45 | TB1-0042 | Design of Electronic Device Life Test Monitoring System based on Optical Character Recognition Technology Jiawei Ji and He Lv Beihang University, China | | | | |
| 14:45-15:00 | TB1-0054 | CrossNet: Computing-Friendly Lightweight Anchor-Free Detector Yuncong Yao, Qiang Wang, Jiren Mai and Wankou Yang Southeast University, China | | | | |
| 15:00-15:15 | TB1-0080 | Window-Based Dynamic Streaming Tensor Analysis Based on CP Decomposition Xuemei Zhong, Junhua Chen, Lei Zhang and Yan Zhang Chongqing University of Posts and Telecommunications, China | | | | |
| 15:15-15:30 | TB1-0081 | A Multi-objective Task-Driven Vehicle Routing Problem with Recirculating Delivery and its Solution Approaches Lei Wang, Fanchao Meng, Xiaochuan Min and Dianhui Chu Harbin Institute of Technology, China | | | | |
| 15:30-15:45 | TB1-0006 | Removal of Rain Streaks in Air Using GAN Pin Cao, Jie Zhang, Peng Zou, Donglin Li, Wuchang Li, Chengli Zhong, Le Ma and He Cui Southwest Jiaotong University, China | | | | |



| | TB1-0023 | Lithology Classification System for Well Logging Based on Bidirectional |
|-------------|----------|--|
| 15:45-16:00 | | Gated Recurrent Unit |
| 13.43-10.00 | | Rui Zhou, Xiaoqing Hu, Biao Yuan and Quanwei Xu |
| | | China University of Geosciences, China |
| | TB1-0016 | Network Characteristics and Risk Analysis of Logistics Sharing Economy |
| 16:00-16:15 | | Ming Dai, Runjie Xu , Jian Du, Yuchang Liu and Hongwei Xing |
| | | Nanjing Boya Blockchain Research Institute Co., Lt, China |
| | | Shear Wave Velocity Prediction of Carbonate Reservoirs Based on CatBoost |
| 16:15-16:30 | TB1-0024 | Chengcheng Zhong, Fengjie Geng, Xin Zhang, Zitong Zhang, Zhongyuan Wu |
| | | and Yanan Jiang |
| | | China University of Geosciences, Beijing, China |

17:00-17:20---Closing & Award (Online) 闭幕式暨颁奖仪式 (线上)

Zoom ID: 929 5001 3545 | Link: https://zoom.com.cn/j/92950013545

Onsite Poster Presentations | 线下海报展示



Posters | 海报

Time: Saturday, May 29 | 5 月 29 日(星期六) Onsite Venue-Himalaya Hall | 喜马拉雅厅- 17F

| TB1-0009 | Study on Common Factors Identification of Aerospace Quality Problems Based on Similarity Fengsheng JIA, Yuming WANG, Jiaqi YOU Aerospace Standardization Institute of China, China |
|----------|--|
| TB1-0093 | CRW-NER: Exploiting multiple embeddings for Chinese named entity recognition Aiguo Chen, Chenglong Yin Jiangnan University, China |
| TB1-0110 | Semi-supervised Text Classification Based On Graph Attention Neural Networks Jian Huang, Nana Tao , Hui Chen, Qingshan Deng, Wei Wang, Jing Wang Jiangxi University of Finance and Economics, China |
| TB1-1007 | Research on Employee Turnover Prediction Based on Machine Learning Algorithms Jia Yuan Chengdu Institute of Public Administration, China |

MEMO

