

CONFERENCE PROGRAM

**2020 6th International Conference on
Computing and Artificial Intelligence (ICCAI 2020)**

&

**2020 2nd International Conference on
Intelligent Medicine and Image Processing (IMIP 2020)**

April 23-26, 2020 | Tianjin, China

Organized by



Supported by



**Universiti Malaysia
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**天津市图像图形学学会
TIANJIN SOCIETY OF IMAGE AND GRAPHICS**



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Tianjin Stereology Society**

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Welcome Letter

Dear distinguished delegates,

On behalf of the organizing committee, I would like to express my sincere thanks to all of you for participating in 2020 6th International Conference on Computing and Artificial Intelligence (ICCAI 2020) and 2020 2nd International Conference on Intelligent Medicine and Image Processing (IMIP 2020) which will be held during April 23-26, 2020.

The safety and well-being of the participants remain our top priority. On March 11, 2020, the World Health Organization (WHO) declared COVID-19 a pandemic. After careful consideration and in light of the global health emergency and pervasive travel restrictions, the organizing committee has made the difficult decision to change the ICCAI and IMIP 2020 into online meeting and delegates can participate in the video conference under a safe, productive and well-attended atmosphere. Hope everyone can take care and have a good health.

Through this conference, we hope we could engage with all of the participants in a constructive discussion on related conference topics and exchange ideas. We are glad to receive more than 180 submissions from Czech Republic, Germany, Australia, Pakistan, Japan, South Korea, USA, China, Indonesia, Nigeria, Thailand, Egypt, Syria, Taiwan, Sweden, Russia, Philippines and so on. Thanks for their great efforts and excellent works.

I believe that both conferences will provide a timely arena where the experts and scholars from all over the world to present and discuss their recent and development results in all aspects of advanced technology. Also I hope that the conference provides good chances to promote international friendship among the experts and scholars in this field and continues to do so for years to come.

We sincerely hope that all the participants can benefit and have a good time at ICCAI 2020 and IMIP 2020 and greatly appreciated if you attend ICCAI 2021 and IMIP 2021 in Tiangong University, Tianjin, China during April 23-26, 2021. We are looking forward to seeing you again!



Prof. Hiroshi Fujita
Gifu University, Japan
General Chair

Presentation Guideline

Presentation Requirement

- At least one author should present for each abstract/full paper during the session.

Time Zone

- The time shown in this program is **Greenwich Mean Time (GMT+08:00) – China Local Time**. Please set up your laptop time in advance.

Equipment Needed

- A computer with an internet connection (wired connection recommended).
- USB plug-in headset with a microphone (recommended for optimal audio quality).
- Webcam (optional): built-in or USB plug-in.

Environment Requirement

- Quiet Location.
- Stable Internet Connection.
- Proper lighting.

Voice Control Rules during the Presentation

- The host will mute all participants while entering the meeting.
- The host will unmute the speakers' microphone when it is turn for his or her presentation.
- Q&A goes after each speaker, the participant can raise hand for questions, and the host will unmute the questioner.
- After Q&A, the host will mute all participants and welcome next speaker.

Warm Tips for Oral Presentation

- Get your presentation PPT files prepared.
- Regular presentation is 15 minutes including 12 minutes of presentation and 3 minutes of Q&A.
- To effectively control the time and avoid some unexpected situations, it is suggested that you should record your presentation ahead of time, do the live oral presentation online or play the video while it's your turn for presentation.

Step 1: Author records a video introduction with their own image, speaking to the camera, introducing themselves: name, affiliation, brief description of scope of their work

Step 2: Author then switches to their slides and provides a voiceover describing images in each slide

Step 3: Authors need to be able to upload these presentations to a location specified by YOU in advance. Send the video to the staff in advance.

Presentation Guideline

Warm Tips for Poster Presentation

- Electronic Poster: Horizontal A1 Size.
- The duration of each poster is 5 minutes of brief introduction. Poster presenters are requested to transfer the posters in PDF files to the Conference Secretary before April 20, 2020.
- One Best Poster Presentation will be selected from each session, and the result will be announced at the end of the session.

Best Presentation Award

- One Best Presentation will be selected from each oral/poster session, and the result will be announced at the end of the session.

Conference Material

- All presented papers will be issued with soft copy of conference materials: Receipt, Participation and presentation certificate, etc.

Notes

- Log in the meeting room 10 minutes ahead of the session.
- Learn the zoom skills.
- Please kindly keep your Paper ID in mind so that the staff can quickly locate your registration information.
- Your punctual arrival and active involvement in each session will be highly appreciated.
- The conference will be recorded; we will appreciate your proper behavior.

Follow us

- Join in the Wechat chatting group of ICCAI&IMIP for more detailed and updated conference news.

Scanning me:



ZOOM User Guideline

 **Download the ZOOM:** <https://zoom.us/download>

 **Learn the ZOOM skills**

- Please visit:
<https://support.zoom.us/hc/en-us/articles/201362033-Getting-Started-on-Windows-and-Mac>
- GIF guideline: <http://icca.net/zoom.html>; <http://imip.org/zoom.html>

 **How to use ZOOM:**

- Sign up an account.
- Set the language.
- Test computer or device audio.
- Join a meeting: Join the meeting with "meeting ID" provided in the program, tap the name as "paper ID+name", eg.: "A0007-Freya Shi", then click "Join".
- Get familiar with the basic functions: Rename, Chat, Raise Hand, Start Video, and Screen Share, etc.
The most important function is Share Screen, because you will use it for your online presentation.
- On April 23, we will have test session. On that day, we will teach you how to use ZOOM and the functions mentioned above. If you don't know how to use, please do not worry. However, you must download ZOOM and sign it up, then, you can join the conference.

Program-at-a-Glance

Test Session Schedule--April 23, 2020 (Thursday)

Meeting ID: 591-039-3606		Time
Keynote Speech I--Prof. Yiu-ming Cheung, Hong Kong Baptist University, Hong Kong		10:00-10:10
Keynote Speech II--Prof. Hiroshi Fujita, Gifu University, Japan		10:10-10:20
Keynote Speech III--Dr. Ben Chen, Huawei Technologies Co., Ltd, China		10:20-10:30
Keynote Speech IV--Prof. Kiyoshi Hoshino, University of Tsukuba, Japan		10:30-10:40
Invited Speech I--Prof. Tuan D. Pham, Prince Mohammad Bin Fahd University, Saudi Arabia		10:40-10:50
Invited Speech II--Dr. Chao He, Shanghai MicroPort Medical (Group) Co., Ltd., China		10:50-11:00
Invited Speech III--Prof. Mohd Shafry Mohd Rahim, Universiti Teknologi Malaysia, Malaysia		11:00-11:10
Meeting ID: 109-375-668		Time
Poster Session 1 Topic: "Computer Vision and Image Processing Technology" A0019, A0030, A0051, A0087, A0088, A0108, A1008, A0039, A0056, A0016, A2002, A2009 A3001, A3004, A3005, A0081, A2019	Poster Session 2 Topic: "Modern Information Theory and Applied Technology" A0014, A0022, A0029, A0042, A0045 A0055, A0079, A0113, A1002, A1004, A1014 A1016, A0005, A0107, A2011, A1011	11:10-12:00
Break		12:00-13:30
Meeting ID: 481-301-5524		Time
Oral Session 1 Topic: "Machine Learning and Intelligent Computing" A0013, A0021, A0072, A0090, A1010, A0053, A0027, A0038	Oral Session 2 Topic: "Next-generation Neural Network and Applications" A0020, A0034, A0063, A0093, A0100, A2004 A0036, A0106	13:30-14:10
Oral Session 3 Topic: "Data Analysis and Processing" A0092, A0094, A0082, A2021, A0044, A1005 A0115, A1012	Oral Session 4 Topic: "Big Data Science and Information Intelligence" A0073, A0110, A0074, A1013, A0054, A0062 A0083, A1019-A	14:10-14:50
Oral Session 5 Topic: "Target Detection" A0018, A0043, A0058, A0075, A0085, A0101 A0103, A0089	Oral Session 6 Topic: "Image Transformation and Calculation" A0065, A0099, A2003, A1007, A2008, A2014 A0032, A2020	14:50-15:30
Break		15:30-16:00
Oral Session 7 Topic: "Intelligent Identification and Control Technology" A0010, A0033, A0059, A0102, A0097, A0084 A0011, A0104	Oral Session 8 Topic: "Medical Image Analysis and Processing" A2007, A0015, A0041, A0060, A1020, A2017 A2018, A2022	16:00-16:40
Oral Session 9 Topic: "Computer Network and Information Communication System" A0028, A0046, A0049, A0066, A0067, A0109, A0112, A0091	Oral Session 10 Topic: "Computer and Information Science" A0096, A0037, A0048, A1001, A1009, A1022 A0068, A1018, A0057	16:40-17:20
Meeting ID: 481-301-5524 Back up Room for Q&A		17:20-18:00

Tips: Please log in the meeting room in the specific test session on time. Poster presentation test: 3 minutes/per paper; Oral presentation test: 5 minutes/per paper.

Program-at-a-Glance

Formal Session Schedule--April 23, 2020 (Thursday)

Afternoon Conference Meeting ID: 591-039-3606	Time
Poster Session 1 Topic: "Computer Vision and Image Processing Technology" A0019, A0030, A0051, A0087, A0088, A0108, A1008, A0039, A0056, A0016, A2002, A2009 A3001, A3004, A3005, A0081, A2019	13:30-15:00
Break	15:00-15:30
Poster Session 2 Topic: "Modern Information Theory and Applied Technology" A0014, A0022, A0029, A0042, A0045, A0055, A0079, A0113, A1002, A1004, A1014, A1016, A0005, A0107, A2011, A1011	15:30-17:00

Formal Session Schedule--April 24, 2020 (Friday)

Morning Conference Meeting ID: 591-039-3606		Time
Join in the Meeting Room		09:30-10:00
Opening Remarks--Prof. Hiroshi Fujita, Gifu University, Japan		10:00-10:05
Welcome Address--Vice President, Prof. Li Chen, Tiangong University, China		10:05-10:10
Keynote Speech I--Prof. Yiu-ming Cheung, Hong Kong Baptist University, Hong Kong		10:10-10:55
Break (Video Display of Sponsors)		10:55-11:25
Keynote Speech II--Prof. Hiroshi Fujita, Gifu University, Japan		11:25-12:10
Invited Speech I--Prof. Tuan D. Pham, Prince Mohammad Bin Fahd University, Saudi Arabia		12:10-12:30
Afternoon Conference		
Meeting ID: 481-301-5524	Meeting ID: 591-039-3606	Time
Oral Session 1 Topic: "Machine Learning and Intelligent Computing" A0013, A0021, A0072, A0090, A1010, A0053, A0027, A0038	Oral Session 2 Topic: "Next-generation Neural Network and Applications" A0020, A0034, A0063, A0093, A0100, A2004 A0036, A0106	13:30-15:30
Break		15:30-15:50
Oral Session 3 Topic: "Data Analysis and Processing" A0092, A0094, A0082, A2021, A0044, A1005 A0115, A1012	Oral Session 4 Topic: "Big Data Science and Information Intelligence" A0073, A0110, A0074, A1013, A0054, A0062 A0083, A1019-A	15:50-17:50
Meeting ID: 883-820-6559 Back up Room for Q&A		09:00-18:00

Program-at-a-Glance

Formal Session Schedule--April 25, 2020 (Saturday)

Morning Conference		
Meeting ID: 591-039-3606		
Join in the Meeting Room		09:00-09:30
Keynote Speech III--Dr. Ben Chen, Huawei Technologies Co., Ltd, China		09:30-10:15
Keynote Speech IV--Prof. Kiyoshi Hoshino, University of Tsukuba, Japan		10:15-11:00
Break (Video Display of Sponsors)		11:00-11:20
Invited Speech II--Dr. Chao He, Shanghai MicroPort Medical (Group) Co., Ltd., China		11:20-11:40
Invited Speech III--Prof. Mohd Shafry Mohd Rahim, Universiti Teknologi Malaysia, Malaysia		11:40-12:00
Break		12:00-13:30
Afternoon Conference		
Meeting ID: 481-301-5524	Meeting ID: 591-039-3606	Time
Oral Session 5 Topic: "Target Detection" A0018, A0043, A0058, A0075, A0085, A0101 A0103, A0089	Oral Session 6 Topic: "Image Transformation and Calculation" A0065, A0099, A2003, A1007, A2008, A2014 A0032, A2020	13:30-15:30
Break		15:30-15:50
Oral Session 7 Topic: "Intelligent Identification and Control Technology" A0010, A0033, A0059, A0102, A0097, A0084 A0011, A0104	Oral Session 8 Topic: "Medical Image Analysis and Processing" A2007, A0015, A0041, A0060, A1020, A2017 A2018, A2022	15:50-17:50
Meeting ID: 883-820-6559 Back up Room for Q&A		09:00-18:00

Formal Session Schedule--April 26, 2020 (Sunday)

Morning Conference		
Meeting ID: 481-301-5524	Meeting ID: 591-039-3606	Time
Oral Session 9 Topic: "Computer Network and Information Communication System" A0028, A0046, A0049, A0066, A0067, A0109, A0112, A0091	Oral Session 10 Topic: "Computer and Information Science" A0096, A0037, A0048, A1001, A1009, A1022 A0068, A1018, A0057	09:30-11:45
Break		11:30-13:30
Conference Material Collection		13:30-18:00
Meeting ID: 883-820-6559 Back up Room for Q&A		09:30-11:30

Keynote Speaker I



Prof. Yiu-ming Cheung, *IEEE Fellow*
Hong Kong Baptist University, Hong Kong

Yiu-ming Cheung (FIEEE, FIET, FBCS, FRSA, DFIETI) received Ph.D. degree from Department of Computer Science and Engineering at The Chinese University of Hong Kong. Currently, he is a full professor at Department of Computer Science in Hong Kong Baptist University. His research interests include machine learning, pattern recognition, image and video processing, and optimization. He has published over 220 articles in the high-quality conferences and journals. He is the Founding and Past Chairman of IEEE (Hong Kong) Chapter of Computational Intelligence Society, and the Chair of IEEE Computer Society Technical Committee on Intelligent Informatics. He has served as the Guest Editor / Associate Editor in several prestigious international journals, including: IEEE Transactions on Neural Networks and Learning Systems, IEEE Transactions on Cybernetics, Pattern Recognition, and Neurocomputing, to name a few. For details, please refer to: <http://www.comp.hkbu.edu.hk/~ymc>.

Topic: “How to Perform Clustering in the Data Imbalance Environment?”

Abstract—In many practical problems, number of data form difference classes can be quite imbalanced, which could make the performance of the most machine learning methods become deteriorate to a certain degree. As far as we know, the problem of learning from imbalanced data continues to be one of the challenges in the field of data engineering and machine learning, which has attracted growing attentions in recent years. However, most of the researches in the area focus on supervised learning, and imbalanced data clustering in unsupervised environment has yet to be well studied. In this talk, we will first formally describe and compare the class imbalance problem on supervised and unsupervised learning setting. Then, we describe the key challenge of the problem of clustering on imbalanced data, which is called uniform effect. Accordingly, we have proposed a solution called SMCL for this problem. The advantages of SMCL are three-fold: (1) It inherits the advantages of competitive learning and meanwhile is applicable to the imbalanced data clustering; (2) The self-adaptive multi-prototype mechanism uses a proper number of subclusters to represent each cluster with any arbitrary shape; (3) It automatically determines the number of clusters for imbalanced clusters. Finally, some challenging problems in this topic are explored as well.

Keynote Speaker II



Prof. Hiroshi Fujita
Gifu University, Japan

Prof. Hiroshi Fujita received the B.S. and M.S. degrees in electrical engineering from Gifu University, Japan, in 1976 and 1978, respectively, and Ph.D. degree from Nagoya University in 1983. He became a research associate in 1978 and an associate professor in 1986 at Gifu National College of Technology. He was a visiting researcher at the K.Rossmann Radiologic Image Laboratory, University of Chicago, in 1983-1986. He became an associate professor in 1991 and a professor in 1995 in the Faculty of Engineering, Gifu University. He has been a professor and chair of intelligent image information since 2002 at the Graduate School of Medicine, Gifu University. He is now a Research Professor of Gifu University. He is a member of the Society for Medical Image Information (Honorary President), the Institute of Electronics, Information and Communication Engineers (Fellow), its Technical Groups on Medical Image (Adviser), the Japan Society for Medical Image Engineering (Director), and some other societies such as SPIE. He has been also served as scientific committee or program committee members, such as in International Workshop on Digital Mammography (Breast Imaging), SPIE Medical Imaging, and Computer Assisted Radiology and Surgery (CARS). He was worked as a General co-chair of Asian Forum on Medical Imaging 2007 held in Cheju National University, Korea, and as a General Chair of International Workshop for Breast Imaging (IWDM2014, Gifu). He has also worked as a Guest Editor-in-Chief in Special Section Editorial Committee for Medical Imaging, issued in April, 2013, from IEICE Society in Japan, and also as a Guest Editor-in-Chief in the Special Issue on Advanced Image Technologies in Diagnostic Imaging in 2018 in the Journal of Medical Imaging and Health Informatics. His research interests include computer-aided diagnosis system, image analysis and processing, and image evaluation in medicine. He has published over 1000 papers in Journals, Proceedings, Book chapters and Scientific Magazines.

Topic: “The Ultimate Guide to AI in Medical Imaging”

Abstract—Today, it is the third artificial intelligence (AI) boom, and the medical field is no exception. In particular, the “deep learning” technology in AI, which is a type of “machine learning” method in which computers learn by themselves (learning features and rules), has reached a level where the accuracy of image recognition exceeds that of humans. The “singularity” where AI exceeds human intelligence is estimated to be in 2045. In the world of games like Shogi and Go, singularity has already come. Computer-aided detection/diagnosis for medical images, so-called CAD, is rapidly entering the mainstream of practical medicine. It has already become a part of the routine clinical work especially for the detection/diagnosis of breast cancer with mammograms (breast imaging), in which the computer output is used as a “second opinion” in assisting physician’s image interpretation. Recent powerful AI technology including deep learning advances the development and improving performance of CAD to the next stage, sometimes called as AI-CAD. In this talk, the state-of-the-art of AI-CAD and issues to be solved will be reviewed and discussed.

Keynote Speaker III



Dr. Ben Chen

Huawei Technologies Co., Ltd, China

To be Added.

Topic: “Huawei AI Solution - Pervasive Intelligence Benefits All Works of Life”

Abstract—The topic introduces the development trend of AI and how this trend will lead to demands for computing power, energy efficiency, and multi-scenario deployment. Huawei AI solutions use a unique 3D cube computing architecture to improve computing power and energy efficiency, and deploy computing power in all scenarios across the devices, edge, and cloud through accelerator modules, cards, edge stations, servers, and clusters. In addition, Huawei works with partners to develop AI applications to implement intelligent transformation of various industries.

Keynote Speaker IV



Prof. Kiyoshi Hoshino
Tsukuba University, Japan

Prof. Kiyoshi Hoshino received two doctor's degrees; one in Medical Science in 1993, and the other in Engineering in 1996, from the University of Tokyo respectively. From 1993 to 1995, he was an assistant professor at Tokyo Medical and Dental University School of Medicine. From 1995 to 2002, he was an associate professor at University of the Ryukyus. From 2002, he was an associate professor at the Biological Cybernetics Lab of University of Tsukuba. He is now a professor. From 1998 to 2001, he was jointly appointed as a senior researcher of the PRESTO "Information and Human Activity" project of the Japan Science and Technology Agency (JST). From 2002 to 2005, he was a project leader of a SORST project of JST. His research interests include biomedical measurement and modelling, medical engineering, motion capture, computer vision, and humanoid robot design.

Topic: "Eye Tracking and Measurement of Eye Rotation by a Small Camera Installed almost by the Side of the Eye"

Abstract—Because the eyeball is a sphere, the pupil center coordinate is distorted in the dark pupil eye tracking when a camera for capturing the eyeball is placed almost directly to the side. The author first introduces a new eye tracking method that does not reduce the accuracy of estimates even when the pupil camera is almost at the side of the eyeball and that requires only a little calibration. In this method, the user is asked to look at a minimum of six points of light that include the five corners of a pentagon that is slanted towards the inside corner of the eye and the center of gravity of that pentagon. The author second introduces a method to measure rotational eye movement by using a small camera installed almost by the side of the eye in the same manner as the eye tracking. This method uses the characteristic images of the blood vessels in the whites of the eyeball. A template image is selected based on three criteria as follows: (i) the blood vessel must be thick and have good dark/light contrast; (ii) there must not be any external light sources reflected; and (iii) there must not be blood vessels with a similar shape nearby. By continuously tracking the area where the degree of similarity in template matching is maximized, there is little interference from reflections of external light sources so that highly accurate measurement of eye rotation is possible.

Invited Speaker I



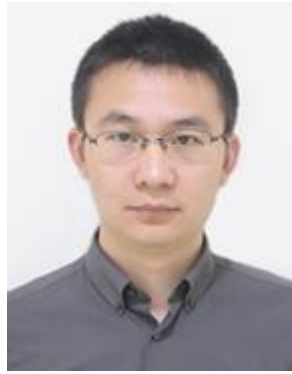
Prof. Tuan D. Pham
Prince Mohammad Bin Fahd University, Saudi Arabia

Tuan D. Pham currently holds positions as Research Professor and Director of the Center for Artificial Intelligence at Prince Mohammad Bin Fahd University, Al Khobar, Saudi Arabia. The Center is co-funded by the Saudi Aramco. He held previous positions as Professor of Biomedical Engineering at Linköping University, Sweden; Professor and Leader of the Aizu Research Cluster for Medical Engineering and Informatics, Head of the Medical Image Processing Laboratory at the University of Aizu, Japan; and the Bioinformatics Research Group Leader, the School of Engineering and Information Technology, the University of New South Wales, Australia. His teaching and research span across several disciplines of computer science and engineering. His current research areas include artificial intelligence, image processing, time series, nonlinear dynamics, novel methods in pattern recognition and machine learning applied to medicine, physiology, biology, and health. He has been actively serving as Section Editor and Associate Editor of several international journals, conference chair, keynote speaker, and invited speaker. Dr. Pham has been internationally recognized by his peers as a highly prolific scientist. Most recently Dr. Pham has originally introduced the concepts of fuzzy recurrence plots and networks for nonlinear data analysis and scalable deep learning of time series.

Topic: “Deep Learning of Very Short Time Series Using Fuzzy Recurrence Plots”

Abstract—This talk presents a recently developed technique for increasing feature dimensions of very short time series for effective machine training and classification using long short-term memory (LSTM) neural networks. The generated feature dimensions capture useful attributes of dynamical systems for information processing carried out by an LSTM layer architecture. Applications of the deep learning of very short time series using fuzzy recurrence plots for differentiating early Parkinson’s disease subjects from healthy controls are illustrated and discussed. The presented approach is promising for using real-time data obtained from sensors and wearable devices to detect and monitor patients with neurodegenerative disease. This work was featured in News release by EurekAlert! at the American Association for the Advancement of Science (AAAS), and Post on Parkinson's News Today.

Invited Speaker II



Dr. Chao He
Shanghai MicroPort Medical (Group) Co., Ltd., China

Doctor Chao He, Ph.D. of Mechatronics Engineering, is the Senior Director of Shanghai MicroPort Medical (Group) Co., Ltd. who is responsible for the medical robotic business, as well as the General Manager of MicroPort (Shanghai) MedBot Co., Ltd, the director of Shanghai minimally invasive surgical robot research center, the member of National Standards Committee of Medical Robotics, the member of Health Protection branch of the Ministry of Human Resources and Social Security of People's Republic of China, the master's students supervisor of Shanghai University of Technology. Dr. He has been launching his study in the field of surgical robotics systems since 2007. Dr. He once worked at John Hopkins University and once worked in China Academy of Space Technology, focused on the research of space robotics and medical robotics. During his professional career, Dr. He has published 10 international papers, got 16 authorizations of national invention patent. He has been applying for 40 national invention patents and 9 PCT patents as well.

Topic: "Development and the Forecast of Surgical Robots"

Abstract—Surgical robots are multidisciplinary systems that integrate medicine, mechanics, automation, computers, and artificial intelligence. Since the birth of surgical robot technology, it has shown great clinical application value, not only on the improvement of surgical accuracy and quality, but also enhances the safety and reduces the dependence on doctors' operation skills. More importantly, surgical robot technology combines the powerful information processing capacity and judgment with doctors' abundant experience, enables humans to integrate various digital surgical diagnosis information, computer-aid judgment and monitoring in realizing real-time surgical evaluation or restriction for the first time, thus greatly expanding the doctor's vision and ability in operation and bringing the surgery development to a new stage. Therefore, robot-aid technology is regarded as the 3rd surgical revolution. This report will focus on the most important application - robotic minimally invasive surgery, fully interpret the development history, current research progress and the future prospects of surgical robots

Invited Speaker III



Prof. Mohd Shafry Mohd Rahim
Universiti Teknologi Malaysia, Malaysia

Mohd Shafry Mohd Rahim is currently a Professor and Chair, Office of Undergraduate Studies, Universiti Teknologi Malaysia (UTM). He is also a professor at School of Computing, UTM and also Research Fellow at Media and Game Innovation Centre of Excellence (MaGICX), Institute of Human Centred Engineering (iHumEn), UTM. Prof. Shafry has received a B.Sc. (Hons.) Computer Science and M.Sc. in Computer Science from Universiti Teknologi Malaysia (UTM), Malaysia in 1999 and 2002, respectively. He has received a PhD in Spatial Modelling from Universiti Putra Malaysia (UPM), Malaysia in 2008. His research interests in image processing, image data analytics, computer graphics and medical imaging.

Topic: “Medical Image Segmentation for Analytics”

Abstract—Humans have a strong ability to process millions of data and information to assist in the decision-making process. With new disruptive technology, trillion of data has been flooded into the cloud computing and require analytical process to produce valuable information. Images are one of the data collected using a variety of sensors that carry a lot of valuable information for the decision-making process. Therefore, Medical Image Analytics is a very significant research area to be strengthened in the new era of Big Data to improve healthcare industries with providing reliable information. The most important process in Medical Image Analytics is a image segmentation. Image segmentation is to extract clinically relevant information with intelligent insight. There are several method can be used in the segmentation process. In this discussion, several image segmentation method will be presented. The advantages and disadvantages of each method are described besides examination of each algorithm with its application in Magnetic Resonance Imaging and Computed Tomography image analysis. Each algorithm is explained separately with its ability and features for the analysis of grey-level images. In order to evaluate the segmentation results, some popular benchmark measurements also presented in the final section. In this keynote, the discussion also focus on experiences in Medical Image Analytics and discussing key challenges in various types of data for further research including semantic gaps.

Detailed Program for Poster Session

Poster Session 1: Computer Vision and Image Processing Technology

Time: 13:30-15:00, April 23, 2020 (Thursday)

Greenwich Mean Time (GMT+08:00) – China Local Time

Meeting ID: 591-039-3606

Session Chair: Dr. Yanbei Liu, Tiangong University, China

01	A0019	Chinese Named Entity Recognition based on BERT with Whole Word Masking Chao Liu , Cui Zhu and Wenjun Zhu Beijing University of Technology, China	13:30-13:35
02	A0030	An Automatic Encoding and Decoding Method for Differentiating Alzheimer's Disease with Functional MRI Yanwu Yang , Xutao Guo, Na Gao, Chenfei Ye and Heather T. Ma Harbin Institute of Technology, Shenzhen, China	13:35-13:40
03	A0051	Face Recognition Method for Enterprise Workstations based on Convolutional Neural Network Optimization algorithm Naiyuan Tian , Xiangyun Zhang, Tian Liu and Chenming Zhao Zhejiang University, China	13:40-13:45
04	A0087	"Generalization or Instantiation?"---Estimating the Relative Abstractness between Images and Text Qibin Zheng , Ren Xiaoguang, Yi Liu and Wei Qin Army Engineering University of PLA, China	13:45-13:50
05	A0088	Cutting piece and CAD Matching Method based on Feature Retrieval and Shape Segmentation Lei Geng, Changshun Yin , Zhitao Xiao, Fang Zhang and Jun Wu Tiangong University, China	13:50-13:55
06	A0108	Urban Driving Based on Condition Imitation Learning and Multi-period Information Fusion Bolun Ge , Bin Yang and Quanzeng Wang Hefei University of Technology, China	13:55-14:00
07	A1008	FCDnet: Fusion Canny-edge Operator Image Denoising Based on CNN Yichang Liu and Huiling Gen Beijing University of Technology, China	14:00-14:05
08	A0039	Missing Frame Detection of Surveillance Videos based on Deep Learning in Forensic Science Zefeng Zhang , Hao Feng, Shaoyou Pan, Muyang Yi and Hongtao Lu Academy of Forensic Science, China	14:05-14:10
09	A0056	Research on Navigation and Path Planning of Mobile Robot Based on Vision Sensor Ying-Ze Mu , Chao-Yi Dong, Qi-Ming Chen, Bo-Chen Li and Zhi-Qiang Fan Inner Mongolia University of Technology, China	14:10-14:15

Detailed Program for Poster Session

10	A0016	Liver Tumor Image Enhancement and CDK1 Gene Mutation Prediction Method Yang Zhou , Huiyan Jiang and Yan Zhang Northeastern University, China	14:15-14:20
11	A2002	A Framework of Student's-t Mixture Model for Accurate and Robust Point Set Registration Zhiyong Zhou , Guangqiang Chen, Guohua Fan, Jiansong Ji and Yakang Dai Suzhou Institute of Biomedical Engineering and Technology, Chinese Academy of Sciences, China	14:20-14:25
12	A2009	A Severity Diagnosis Method for Heart Disease based on Fusion Rough Sets Jiixin A. Sun , Xiaoxiang B. Huang, Yongmei C. Hu and Zhiping D. Liu Sun Yat-sen University, China	14:25-14:30
13	A3001	An Right Ventricle Segmentation Method based on U-Net with Weighted Convolution and Dense Connection Yu Miao, Chun-Xia Shen , Wei-Li Shi, Ke Zhang, Zhen-Gang Jiang and Hua-Min Yang Changchun University of Science and Technology, China	14:30-14:35
14	A3004	Compound Kushen Injection combined with Chemotherapy in Advanced Gastric Cancer: A Systematic Review and Meta-Analysis Yifan Su , Dehui Li, Huanfang Fan and Chunxia Sun Hebei Provincial Hospital of TCM, China	14:35-14:40
15	A3005	Detection of Artificial Tooth Cracks based on Optical Coherence Tomography Shi Boya , Tang Yan, Lian Xiaoli, Bai Xijing and Meng Zhuo Tiangong University, China	14:40-14:45
16	A0081	Multi-hop Memory Network with Graph Neural Networks Encoding for Proactive Dialogue Hao Yuan University of Chinese Academy of Sciences, China	14:45-14:50
17	A2019	Vacuum Ambulance for Transporting Accessible Patient Marta Blahova and Martin Hromada Tomas Bata University in Zlín, Czech Republic	14:50-14:55



Break Time: 15:00-15:30

Detailed Program for Poster Session

Poster Session 2: Modern Information Theory and Applied Technology

Time: 15:30-17:00, April 23, 2020 (Thursday)

Greenwich Mean Time (GMT+08:00) – China Local Time

Meeting ID: 591-039-3606

Session Chair: Prof. Fang Zhang, Tiangong University, China

18	A0014	Bond Recommendation based on Heterogeneous Network Embedding Jiazhe Zhang , Cui Zhu, Wenjun Zhu Beijing University of Technology, China	15:30-15:35
19	A0022	Meta-Heuristic Search based Model for Task Offloading and Time Allocation in Mobile Edge Computing Yufan Xu, Yan Wang and Junyao Yang Beihang University, China	15:35-15:40
20	A0029	Reinforcement Learning based Routing in EH-WSNs with Dual Alternative Batteries Tian Zhao , Luyao Wang and Kwan-Wu Chin Beijing University of Technology, China	15:40-15:45
21	A0042	Attention-Based Joint Representation Learning Network for Short text Classification Xinyue Liu and Yexuan Tang Dalian University of Technology, China	15:45-15:50
22	A0045	ACOL-GAN: Learning Clustering Generative Adversarial Networks through Graph-based Activity Regularization Songyuan Wu , Liyao Jiao and Qingqiang Wu Xiamen University, China	15:50-15:55
23	A0055	A Systematic Review on Software Project Scheduling and Task Assignment Approaches Taskeen Fatima , Farooque Azam, Muhammad Waseem Anwar and Yawar Rasheed National University of Sciences and Technology (NUST), Pakistan	15:55-16:00
24	A0079	Deep Learning for Algorithmic Trading: Enhancing MACD Strategy Ying Lei , Qinke Peng and Yiqing Shen Xi'an Jiaotong University, China	16:00-16:05
25	A1002	Adaptive Spatial Clustering for Multi-Dimensional Data and Its Cloud Model Representation Bin Gao , Xinhai Zhang, Xiaobin Xu and Yifeng Liu Beijing University of Technology, China	16:05-16:10
26	A0113	A Predictor Based on Parallel LSTM for Burst Network Traffic Flow Huang Lin, Wang Diangang, Liu Xiao, Zhuo Yongning and Zeng Yong University of Electronic Science and Technology of China, China	16:10-16:15
27	A1004	Research on relation extraction method of Chinese electronic medical records based on BERT Shengxin Gao , Jinlian Du and Xiao Zhang Beijing University of Technology, China	16:15-16:20

Detailed Program for Poster Session

28	A1014	A Text Classification Model Base On Region Embedding AND LSTM Ying Li and Ming Ye Southwest University, China	16:20-16:25
29	A1016	Collaborative Filtering and Leaders' Advice Based Recommendation System For Cold Start Users Xuchao and Cuiguangcai Changchun University of Science and Technology, China	16:25-16:30
30	A0005	An Intrusion Detection Feature Selection Method Based on Improved Fireworks Algorithm Shuangyue Niu , Xiang Ji, Jingmei Li, Di Xue and Weifei Wu Harbin Engineering University, China	16:30-16:35
31	A0107	Voice Conversion Towards Arbitrary Speakers with Limited Data Ying Zhang , Wenjun Zhang and Dandan Song Tsinghua University, China	16:35-16:40
32	A2011	Research on Performance of Indoor LoRaWAN Network Based on NS3 Xiao Ma , Weimin Hou, Jia Su and Haining Li Hebei University of Science and Technology, China	16:40-16:45
33	A1011	Attention-based Graph Convolution Collaborative Filtering Xiao Han and Xiaobin Xu Beijing University of Technology, China	16:45-16:50

Detailed Program for Oral Session

Oral Session 1: Machine Learning and Intelligent Computing

Time: 13:30-15:30, April 24, 2020 (Friday)

Greenwich Mean Time (GMT+08:00) – China Local Time

Meeting ID: 481-301-5524

Session Chair: Assoc. Prof. Weiwei Du, Kyoto Institute of Technology, Japan

34	A0013	Is your Marriage Reliable? Divorce Analysis with Machine Learning Algorithms Jue Kong and Tianrui Cha Chang'an University, China	13:30-13:45
35	A0021	Multi-tenant Machine Learning Platform Based on Kubernetes Chun-Hsiang Lee, Zhaofeng Li , Xu Lu, Tiyun Chen and Saisai Yang, Chao Wu Zhejiang Post and Telecom Engineering Construction Co Ltd. , China	13:45-14:00
36	A0072	A Semi-Supervised Learning Framework for TRIZ-based Chinese Patent Classification Lixiao Huang , Jiasi Yu, Yongjun Hu and Huiyou Chang Sun Yat-sen University, China	14:00-14:15
37	A0090	Region2vec: An Approach for Urban Land Use Detection by Fusing Multiple Features Mingjun Xiang Beijing University of Posts and Telecommunications, China	14:15-14:30
38	A1010	A Compatible ECG Diagnosis Cloud Computing Framework and Prototype Application Zhen Zhang , Hongqiang Li, Xiaoqing Wei, Rize Jin and Tae-Sun Chung Tiangong University, China	14:30-14:45
39	A0053	A Single Task Migration Strategy Based on Ant Colony Algorithm in Mobile-Edge Computing Juan Fang and Weihao Xu Beijing University of Technology, China	14:45-15:00
40	A0027	Polarity Discrimination of Evaluation Words in The Product's Review Wang Xiaoye, Jiang Kaiwen and Zhou Xiaowen Tianjin University of Technology, China	15:00-15:15
41	A0038	Offloading Strategy for Edge Computing Tasks Based on Cache Mechanism Juan Fang and Wenzheng Zeng Beijing University of Technology, China	15:15-15:30

Detailed Program for Oral Session

Oral Session 2: Next-generation Neural Network and Applications

Time: 13:30-15:30, April 24, 2020 (Friday)

Greenwich Mean Time (GMT+08:00) – China Local Time

Meeting ID: 591-039-3606

Session Chair: Assoc. Prof. Yaohua Wang, National University of Defense Technology, China

42	A0020	Detecting Deepfake Video by Learning Two-level features with Two-stream Convolutional Neural Network Zheng Zhao , Penghui Wang and Wei Lu Xidian University, China	13:30-13:45
43	A0034	Squeeze-and-Excitation Convolutional Neural Network for Classification of Malignant and Benign Lung Nodules Ying Chen , Weiwei Du, Xiaojie Duan, Yanhe Ma and Hong Zhang Tiangong University, China	13:45-14:00
44	A0063	An Improved Text Classification Model Based on Memory Convolution Neural Network Yiyao Wang , Lihua Tian and Chen Li Xi'an Jiaotong University, China	14:00-14:15
45	A0093	Optical Flow Estimation using a Non-local Convolutional Network Liping Zhang , Zongqing Lu and Qingmin Liao Tsinghua Shenzhen International Graduate School, China	14:15-14:30
46	A0100	Traffic Condition Prediction of Urban Roads Based on Neural Network Ruyi Zhu University of Science and Technology of China, China	14:30-14:45
47	A2004	Automatic Classification of Plasmodium for Malaria Diagnosis based on Ensemble Neural Network Lulin Shi , Zhen Guan, Chunzi Liang and Haihang you Chinese Academy of Sciences, China	14:45-15:00
48	A0036	Study on Prediction of Legal Judgments Based on the CNN-BiGRU Model Chenlu Wang and Xiaoning Jin Beijing University of Technology, China	15:00-15:15
49	A0106	A High Energy-efficiency Inference Accelerator Exploiting Sparse CNNs Ning Li , Leibo Liu and Shaojun Wei Tsinghua University, China	15:15-15:30



Break Time: 15:30-15:50

Detailed Program for Oral Session

Oral Session 3: Data Analysis and Processing

Time: 15:50-17:50, April 24, 2020 (Friday)

Greenwich Mean Time (GMT+08:00) – China Local Time

Meeting ID: 481-301-5524

Session Chair: Dr. Xiaobin Xu, Beijing University of Technology, China

50	A0092	HeapMerge: A New Strategy for Top-k Aggregation Queries Jian Wang University of Science and Technology of China, China	15:50-16:05
51	A0094	A Comparative Study of Speculative Retrieval for Multi-modal Data Trails: Towards User-friendly Human-Vehicle Interactions Yaohua Wang , Zhengtao Huang, Rongze Li, Xinyu Yin, Min Luo, Zheng Zhang and Xu Sun National University of Defense Technology, China	16:05-16:20
52	A0082	A Study of Population Diversity using an Enhanced Brain Storm Optimization Samuel Nartey Kofie and Samson Hansen Sackey Hohai University, China	16:20-16:35
53	A2021	GridMask Based Data Augmentation For Bengali Handwritten Grapheme Classification Jiayue Yang Australian National University, Australia	16:35-16:50
54	A0044	Research on Prediction Model of College Students' Growth based on Mobile Location Data Mining Yanshu Liu and Can Yi Hunan Mass Media College, China	16:50-17:05
55	A1005	A Distributed Anomaly Filtering Algorithm for Heterogeneous Data Based on City Computing Shiwei Wang, Yangyang Li, Xiaobin Xu and Guijie Yue Beijing University of Technology, China	17:05-17:20
56	A0115	Aspect-Based Opinion Mining of Student's Reviews on Online Courses Zenun Kastrati , Blend Arifaj, Arianit Lubishtani, Fitim Gashi and Engjël Nishliu Linnaeus University, Sweden	17:20-17:35
57	A1012	Frequently-used Properties of the Floor Function Xingbo Wang Foshan University, China	17:35-17:50

Detailed Program for Oral Session

Oral Session 4: Big Data Science and Information Intelligence

Time: 15:50-17:50, April 24, 2020 (Friday)

Greenwich Mean Time (GMT+08:00) – China Local Time

Meeting ID: 591-039-3606

Session Chair: Prof. Juan Fang, Beijing University of Technology, China

58	A0073	mRNA big data analysis of hepatoma carcinoma between different genders Jianzhi Deng , Yuehan Zhou, Xiaohui Cheng, Tianyu Li and Chuling Qin Guilin University of Technology, China	15:50-16:05
59	A0110	Efficient Optimized Strategy of Big Data Retrieval Jinfeng Dou, Lei Chu , Jiabao Cao, Yang Qiu and Baolin Zhao Ocean University of China, Chian	16:05-16:20
60	A0074	Biological big data analysis of Competing Endogenous RNA network and mRNA biomarker in Liver cancer Jianzhi Deng , Yuehan Zhou, Xiaohui Cheng, Tianyu Li and Chuling Qin Guilin University of Technology, China	16:20-16:35
61	A1013	Research on Search Intent Prediction for Big Data of National Grid System Standards Hu Xueyong, Yang Yang and Zhou Baoxian Tianjin University of Science & Technology, China	16:35-16:50
62	A0054	Research on the application of augmented reality in SSVEP-BCI Yao Wang, Kun Li , Xiang Zhang, Jinhai Wang and Ran Wei Tiangong University, China	16:50-17:05
63	A0062	Sorting Robots Cluster Evacuation Based on Deep Q Network and Danger Potential Field Ze-Hua Liu , Rui-Jie Jiang, Lv-Xue Li, Yu-Ran Zhu and Zheng Mao Beijing University of Technology, China	17:05-17:20
64	A0083	BERT-based Mental Model, a Better Fake News Detector Jia Ding , Yongjun Hu and Huiyou Chang Sun Yat-sen University, China	17:20-17:35
65	A1019-A	A Novel Large-Scale Model for Real Time Sentiment Analysis using Online Shop Reviews and Comments Fereshteh Ghorbanian and Mehrdad Jalali Islamic Azad University, Iran	17:35-17:50

Detailed Program for Oral Session

Oral Session 5: Target Detection

Time: 13:30-15:30, April 25, 2020 (Saturday)

Greenwich Mean Time (GMT+08:00) – China Local Time

Meeting ID: 481-301-5524

Session Chair: Dr. Shaona Wang, Tiangong University, China

66	A0018	Detection of Eupatorium Adenophorum based on Deep Learning Yi Jiang , Junhua Zhang and Jiaqing Wang Yunnan University, China	13:30-13:45
67	A0043	Intrusion Detection of Abnormal Objects for Railway Scenes Using Infrared Images Yi Liu , Han Dong and Yundong Li North China University of Technology, China	13:45-14:00
68	A0058	A Novel Data Mining Approach for Detection of Polio Disease Using Spatio-temporal Analysis Suleman Khan , Farooque Azam, Muhammad Waseem Anwar and Yawar Rasheed, Mudassar Saleem and Nouman Ejaz National University of Sciences and Technology (NUST), Pakistan	14:00-14:15
69	A0075	Detection of Ears of Rice in field based on SSD Shu Bai-yi , Mu Jiong, Yu Hao-yang, Wang Hong-jie and Yang Jie Sichuan Agricultural University, China	14:15-14:30
70	A0085	A New Object Detection Algorithm Based on YOLOv3 for Lung Nodules Kejia Xu , Hong Jiang and Wenfang Tang East China Normal University, China	14:30-14:45
71	A0101	A Malware Detection Method Based on Rgb Image Jinrong Chen , Xiaoqi Jia and Chongming Zhao Chinese Academy of Sciences, China	14:45-15:00
72	A0103	Auxiliary Edge Detection for Semantic Image Segmentation Wenrui Liu , Zongqing Lu and He Xu Tsinghua Shenzhen International Graduate School, China	15:00-15:15
73	A0089	An Efficient Model Compression Method of Pruning for Object Detection Junjie Yin, Li Wei, Ding Pu and Qinghai Miao University of Chinese Academy of Sciences, China	15:15-15:30

Detailed Program for Oral Session

Oral Session 6: Image Transformation and Calculation

Time: 13:30-15:30, April 25, 2020 (Saturday)

Greenwich Mean Time (GMT+08:00) – China Local Time

Meeting ID: 591-039-3606

Session Chair: Dr. Phooi Yee Lau, Universiti Tunku Abdul Rahman, Malaysia

74	A0065	Kernel-based Relocation Siamese Network for Real-time Visual Object Tracking Bohao Shen Beijing University of Technolog, China	13:30-13:45
75	A0099	Cutting pattern positioning method based on improved ROI pooling of R2CNN Lei Geng, Yang Liu , Zhitao Xiao, Jun Tong, Fang Zhang and Jun Wu Tiangong University, China	13:45-14:00
76	A2003	Tomographic Image Deblurring Using Steepest Descent Nasif Raza Jaffri , Liu Shi and Usama Abrar North China Electric Power University, China	14:00-14:15
77	A1007	An Adaptable Feature Synthesis for Camouflage Guangxu Li , Xinjian Wei, Kaidi Wang and Hyoungeop Kim Tiangong University, China	14:15-14:30
78	A2008	W-Net: A Network Structure for Automatic Segmentation of Organs at Risk in Thorax Computed Tomography Wenhui Zhao , Haibin Chen and Wenhui Zhao Sun Yat-sen University, China	14:30-14:45
79	A2014	Mammographic Mass Retrieval using Multi-view Information and Laplacian Score Feature Selection Wei Liu, Yi-ran Wei and Cheng-qian Liu Technology Xi'an University of Posts and Telecommunications, China	14:45-15:00
80	A0032	The Performance of Improved Infotaxis in 3D Turbulence Dong-Xia Hao , Shu-Rui Fan and Xu-Dong Sun Hebei University of Technology, China	15:00-15:15
81	A2020	Data Equalization Distribution Improves the Near-Infrared Tissue Reconstruction Based on Stacked Auto-Encoder Huiquan Wang, Tianzi Feng and Nian Wu Tiangong University, China	15:15-15:30



Break Time: 15:30-15:50

Detailed Program for Oral Session

Oral Session 7: Intelligent Identification and Control Technology

Time: 15:50-17:50, April 25, 2020 (Saturday)

Greenwich Mean Time (GMT+08:00) – China Local Time

Meeting ID: 481-301-5524

Session Chair: Assoc. Prof. Nuchanun Chinpanthana, Dhurakij Pundit University, Thailand

82	A0010	Human Activities of Daily Living Recognition with Graph Convolutional Network Nuchanun Chinpanthana and Yunyu Liu Dhurakij Pundit University, Thailand	15:50-16:05
83	A0033	Learning the Front-end Speech Feature with Raw Waveform for End-to-end Speaker Recognition Ningxin Liang , Wei Xu, Chengfang Luo and Wenxiong Kang South China University of Technology, China	16:05-16:20
84	A0059	Channel-wise Spatial Attention with Spatiotemporal Heterogeneous Framework for Action Recognition Yiying Li , Yulin Li and Yanfei Gu Liaoning University, China	16:20-16:35
85	A0102	Digital-Display Temperature and Humidity Instrument Recognition Based on YOLOv3 and Character Structure Clustering Lei Geng, Fengfeng Yan , Zhitao Xiao, Yanbei Liu and Fang Zhang Tiangong University, China	16:35-16:50
86	A0097	Social Contagion on the Internet: Evidence from Experiment of Attitude towards Online Collective Event Chunlei Liu and Mi Shi Tianjin University, China	16:50-17:05
87	A0084	Aircraft Motion State Control Based on Radar Cooperative Detection Sheng Tao , Xia Hai Bao and Wang Nan Tiangong University, China	17:05-17:20
88	A0011	Uncertainty Management in Situation Awareness for Cyber-Physical Systems: State of the Art and Challenge Xin Tao , Didem Gürdür Broo, Martin Törngren and Dejiu Chen KTH Royal Institute of Technology, Sweden	17:20-17:35
89	A0104	Humanoid robot control system based on AR-SSVEP Yao Wang, Xiang Zhang , Kun Li, Jinhai Wang and Xiaogang Chen Tiangong University, China	17:35-17:50

Detailed Program for Oral Session

Oral Session 8: Medical Image Analysis and Processing

Time: 15:50-17:50, April 25, 2020 (Saturday)

Greenwich Mean Time (GMT+08:00) – China Local Time

Meeting ID: 591-039-3606

Session Chair: Prof. Yoshito Mekada, Chukyo University, Japan

90	A2007	Lesion Image Generation Using Conditional GAN for Metastatic Liver Cancer Detection Yusuke Ikeda , Keisuke Doman and Yoshito Mekada and Shigeru Nawano Chukyo University, Japan	15:50-16:05
91	A0015	Maven Loss with AGW-Net for Biomedical Image Segmentation Yuze Li , Kaijun Wang and Hehui Gu Northeastern University, China	16:05-16:20
92	A2018	Dynamic Monitoring of Intestinal Ischemia-reperfusion Injury in Rats by Photoacoustic Tomography Teng Pan , Jinge Yang and Huabei Jiang University of Electronic Science and Technology of China, China	16:20-16:35
93	A0060	End-to-end image reconstruction of Image from human functional magnetic resonance imaging based on the "language" of visual cortex Ziya Yu , Kai Qiao, Chi Zhang, Linyuan Wang and Bin Yan PLA Strategy Support Force Information Engineering University, China	16:35-16:50
94	A1020	An improved lung parenchyma segmentation using the maximum inter-class variance method (OTSU) Firdaous Essaf , Yujian Li, Seybou Sakho, Pius Kwao Gadosey and Ting Zhang Beijing University of Technology, China	16:50-17:05
95	A2017	In vivo Monitoring Hemodynamic Changes in Finger Vessels using Photoacoustic Tomography Man Wu , Qiquan Shang, Jinge Yang, Lin Huang and Huabei Jiang University of Electronic Science and Technology of China, China	17:05-17:20
96	A0041	An Improved Breast Cancer Nuclei Segmentation Method Based on UNet++ Haonan Wang , Yinhan Li and Zhiyi Luo Northeastern University, China	17:20-17:35
97	A2022	Focal Loss Function based DeepLabv3+ for Pathological Lymph Node Segmentation on PET/CT Guoping Xu , Hanqiang Cao, Youli Dong, Chunyi Yue, Kexin Li and Yubing Tong Huazhong University of Science and technology, China	17:35-17:50

Detailed Program for Oral Session

Oral Session 9: Computer Network and Information Communication System

Time: 09:30-11:30, April 26, 2020 (Sunday)

Greenwich Mean Time (GMT+08:00) – China Local Time

Meeting ID: 481-301-5524

Session Chair: Assoc. Prof. Qinghai Miao, University of Chinese Academy of Sciences, China

98	A0028	A Multiobjective Evolutionary Approach for Influence Maximization in Multilayer Networks Qipeng Lu , Zhan Bu and Yuyao Wang Nanjing University of Finance and Economics, China	09:30-09:45
99	A0046	A Model-Driven Framework for Ensuring Role Based Access Control in IoT Devices Mariam Bisma , Farooque Azam, Yawar Rasheed and Muhammad Waseem Anwar National University of Sciences and Technology (NUST), Pakistan	09:45-10:00
100	A0049	Markov-based Transmission Power Control in Wireless Body Area Network Wenjing Guo, Mengxing Xu and Ting Lu Donghua University, China	10:00-10:15
101	A0066	ECycleGAN: Enhanced Cycle-consistent Generative Adversarial Networks Xianchao Zhang and Changjia Zhou Dalian University of Technology, China	10:15-10:30
102	A0067	An Improved Link Prediction Algorithm Based on Comprehensive Consideration of Joint Influence of Adjacent Nodes for Random Walk with Restart Liang Lü , Can Yi, Bangl ü Wu and Mingxuan Hu Yunnan University, China	10:30-10:45
103	A0109	SEB-Net: Revisiting Deep Encoder-Decoder Networks for Scene Understanding Pius Kwao Gadosey , Yuijan Li, Ting Zhang, Zhaoying Liu, Edna Chebet Too and Firdaous Essaf Beijing University Of Technology, China	10:45-11:00
104	A0112	Objective Function Optimization based Time-Competition Forwarding Strategy in Internet of Marine Things Jinfeng Dou, Lijuan Wang , Jiabao Cao, Lei Chu and Changrui Qu Ocean University of China, China	11:00-11:15
105	A0091	Adaptive Importance Pooling Network for Scene Text Recognition Peng Ren , Qingsong Yu, Xuanqi Wu and Ziyang Wang East China Normal University, China	11:15-11:30

Detailed Program for Oral Session

Oral Session 10: Computer and Information Science

Time: 09:30-11:30, April 26, 2020 (Sunday)

Greenwich Mean Time (GMT+08:00) – China Local Time

Meeting ID: 591-039-3606

Session Chair: Prof. Xingbo Wang, Foshan University, China

106	A0096	Amplitude Consistent Enhancement for Speech Dereverberation Chunlei Liu , Longbiao Wang and Jianwu Dang Tianjin University, China	09:30-09:45
107	A0037	From Image to Code: Executable Adversarial Examples of Android Applications Shangyu Gu , Shaoyin Cheng and Weiming Zhang University of Science and Technology of China, China	09:45-10:00
108	A0048	Hierarchical Label Embedding Networks for Financial Document Sentiment Analysis Ping Yao , Qinke Peng and Tian Han Xi'an Jiaotong University, China	10:00-10:15
109	A1001	Simulation of the Influence of Parameters on Simulated Moving Bed Chao-Fan Xie , Huang-Chu Huang, Yu-Ju Chen and Rey-Chue Hwang I-Shou University, Taiwan	10:15-10:30
110	A1009	Urban Driving Based on Condition Imitation Learning and Multi-period Information Fusion Bolun Ge , Bin Yang and Quanzeng Wang Hefei University of Technology, China	10:30-10:45
111	A1022	Self-matching Recognition Algorithm based on Gaussian Mixture Model and CSIFT Qiang Wu, Xin Zheng and Jiaxang Zhao Beijing University of Technology, China	10:45-11:00
112	A0068	Generative Model for Node Generation Boyu Zhang , Xin Wang and Kai Liu Chinese Academy of Sciences, China	11:00-11:15
113	A1018	A Novel Hybrid Algorithm for Sentiment Analysis Via Classifier Ensembles for Online Shops User Using User Generated Contents and Review Fereshteh Ghorbanian and Mehrdad Jalali Islamic Azad University, Iran	11:15-11:30
114	A0057	A Fingerprint Enhancement and Second-order Markov Chain Based Malicious Encrypted Traffic Identification Scheme Daichong Chao Beijing University of Technology, China	11:30-11:45

About ICCAI 2021&IMIP 2021

2021 7th International Conference on Computing and Artificial Intelligence (ICCAI 2021) in conjunction with 2021 3rd International Conference on Intelligent Medicine and Image Processing (IMIP 2021) is planning to be held during April 23-26, 2021 in Tiangong University, Tianjin, China.

ICCAI and IMIP are annually-held conference which aims to provide a communication platform for top technology leaders, scholars, engineers, scientists, leading industry leaders as well as graduate students to share ideas and discuss the latest technology in Computing, Artificial Intelligence, Intelligent Medicine, Image Processing and related fields. The conference offers keynote speeches, invited speeches, oral session, poster session, video presentation, exhibition and other forms of communication and information exchange.

Authors are invited to submit original and not published papers describing new technologies and trends about Computing, Artificial Intelligence, Intelligent Medicine, Image Processing and related fields. Scholars and experts are invited to register as listener to participate in ICCAI 2021&IMIP2021 as well. We are looking forward to seeing you in Tianjin in 2021!

Publication

Option A: International Conference Proceedings: indexed by **Ei Compindex** and **Scopus**, and submitted to be reviewed by Thomson Reuters Conference Proceedings Citation Index (ISI Web of Science).

Option B: Some excellent papers will be recommended for reviewing of publication in topic-related **International Journal**.

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Venue



Tiangong University, Tianjin, China

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