IAPR ICPR 2018

The 24th International Conference on Pattern Recognition

August 20-24, 2018 Beijing, China

Program Booklet

Contents

Message from General Chairs

Welcome to the 24th International Conference on Pattern Recognition (ICPR 2018) in Beijing, China! ICPR 2018 is sponsored by the International Association for Pattern Recognition (IAPR), hosted by the Institute of Automation of Chinese Academy of Sciences, and supported by the Chinese Association of Automation.

Beijing, the capital of the People's Republic of China, is an ancient city with a long cultural history. It is one of the birthplaces of Chinese Civilization and one of the seven ancient capital cities in China. The best known historical sites are the Forbidden City (the Palace Museum), the Summer Palace, the Great Wall and the Temple of Heaven. Beijing's arts and crafts are famous for their long history, great variety, and superb workmanship. Beijing's Hutong (narrow bystreets) and Siheyuan (quadrangle) are most certainly worth a visit.

ICPR 2018 is being held at the China National Convention Center (CNCC), which is right next to the Bird's Nest (the Main Stadium for the 2008 Olympics opening and closing ceremonies). The Beijing Olympic Forest Park, to the north of the CNCC, is the largest urban green landscape in Asia and the largest park in Beijing, and has become a well-known leisure site for athletes and the general public.

The main conference of ICPR 2018 runs for four days from August 21st to 24th following the workshops, tutorials and contests held on August 20th.

At this ICPR, oral papers and posters will be presented in six tracks, each addressing a topic of interest to the IAPR community. A total of 1,258 papers were submitted to the conference. Following the review process that was supervised by the Program Chairs, Track Chairs and Area Chairs, 125 papers were accepted as oral presentations and 527 as posters. In addition, 5 contests were held and 3 of them have final reports included in the proceedings. The technical program of the conference includes 29 oral sessions arranged in four parallel tracks and 4 poster sessions. The program also includes 9 plenary sessions including the King Sun Fu Prize lecture, the J.K. Aggarwal prize lecture, the Maria Petrou Prize lecture, and 6 invited keynote speeches.

The organization of such a large conference would not have been possible without the help of many people. Our gratitude goes to the Program Chairs, the Track Chairs and the Area Chairs who dedicated their precious time to the review process and the preparation of the program. We also thank the reviewers who have evaluated the papers and provided authors with valuable input on their research work.

Finally, we acknowledge the productive efforts of the conference committee members (Local Arrangements Chair and Committee Members, Finance Chair, International Liaison Chairs, Invited Speakers Chairs, Workshop Chairs, Tutorial Chairs, Contest Chairs, Publicity Chairs, Publications Chairs, Sponsorship and Exhibition Chairs). We thank the sponsors whose support to the conference is invaluable.

We wish all of you will enjoy your stay in Beijing and find the conference fruitful.

Tieniu Tan
Anil Jain
Josef Kittler
General Chairs, ICPR 2018

Message from Program Chairs

We are delighted to welcome you all to the major biennial event of the IAPR — the 24th International Conference on Pattern Recognition (ICPR 2018) in Beijing, China. We do hope that the conference will be informative, rewarding and enjoyable for all participants.

Though there are many conferences focusing on related fields of pattern recognition (such as machine learning, computer vision, image processing), the ICPR 2018 still attracted a total of 1,258 submissions, which is a little more than the ICPR 2016 in Cancun, Mexico. During the review process, each paper was assigned to an Area Chair and then further assigned to three or more expert reviewers. All papers were strictly checked for plagiarism and other ethical violations. The Area Chair then prepared a summary rating and meta-review for each paper and the final acceptance decision was made by the Track Chairs with the assistance of the Program Chairs. The final program consists of 125 oral presentations and 527 poster presentations. The overall acceptance rate is about 52%, which is the lowest among the recent editions of ICPR. In particular, the oral paper acceptance rate (10%) was purposely kept low so as to improve the quality of oral presentations.

The topics of ICPR 2018 are divided into 6 tracks (Pattern Recognition and Machine Learning, Computer Vision, Speech Image Video and Multimedia, Biometrics and Human Computer Interaction, Document Analysis and Recognition, and Biomedical Imaging, and Bioinformatics). In addition to oral and poster presentations, we are honored to have 6 distinguished invited speakers to give keynote speeches. They are Zhi-Hua Zhou, Long Quan, Jianchang Mao, K. Venkatesh Prasad, Ashok Popat, and Alison Noble. There will also be presentations by the winners of the three most IAPR prestigious awards: King Sun Fu Prize, J.K. Aggarwal Prize, and Maria Petrou Prize.

ICPR 2018 is deeply indebted to our organizers, reviewers and sponsors for their invaluable support. As Program Chairs we wish to thank the Organizing Committee for their help and continuing support.

Please enjoy the ICPR 2018 in Beijing, China.

Cheng-Lin Liu
Rama Chellappa
Program Chairs, ICPR 2018

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Zhou, Jun
Zhou, Mu
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Zhou, Tianyi
Zhou, Weiying
Zhou, Xiangdong
Zhou, Xiangrong
Zhou, Xiaolong
Zhou, Xiaowei
Zhou, Xue
Zhou, Yingbo
Zhou, Yuan
Zhou, Yuan
Zhou, Yuan
Zhou, Yun
Zhou, Zhichao
Zhou, Zongwei
Zhu, Anna
Zhu, Bilan
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Zhu, Fuqing
Zhu, Guangming
Zhu, Hancan
Zhu, Jiagang
Zhu, Jianqing
Zhu, Jun
Zhu, Lei
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Zhu, Pengfei
Zhu, Qikui
Zhu, Qingsong
Zhu, Shi-Ai
Zhu, Wanlin
Zhu, Wencheng
Zhu, Xiaofeng
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Zhu, Yuanping
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Zhuang, Bohan
Zhuang, Naifan
Zhuang, Ni
Zhuang, Yueqing
Zhun, Zhong
Zhuo, Chen
Zhuo, Jingwei
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Zografos, Vasileios
Zollmann, Stefanie
Zor, Cemre
Zou, Danbing
Zou, Haitao
Zou, Qin
Zou, Quan
Zou, Wei
Zou, Wentao
Zucchi, Roberto
Zuo, Wangmeng
Zuo, Xin
Zurowietz, Martin
Zwiggelaar, Reyer
Åström, Kalle
Örnhag, Marcus Valtonen
□tolc, Svorad

Program at a Glance

Program at a Glance

ICPR 2018 Technical Program Monday August 20, 2018

Contest Session

Tutorials, 20th August 2018, 09:00-17:00

Workshops, 20th August 2018, 09:00-17:40

Contests, 09:00-12:00, Room 310, 3rd floor

ICPR 2018 Technical Program Tuesday August 21, 2018

Track T1	Track T2	Track T3	Track T4
08:40-09:00 Ballroom C, 1st Floor TuOR			
Opening Ceremony (Ballroom C, 1st Floor)			
09:00-10:00 Ballroom C, 1st Floor Tu1PL			
Plenary Session: KS Fu Prize Speech (Ballroom C, 1st Floor)			
10:00-10:30 North Foyer & Park View Foyer, 3rd Floor TuAM_Coffee_Break			
Coffee Break TuAM (North Foyer & Park View Foyer, 3rd Floor)			
10:30-12:30 Ballroom C, 1st Floor Oral Session TuAMOT1 TuAMOT1.A Machine Learning and Classification (Ballroom C, 1st Floor)	10:30-12:30 309A, 3rd Floor Oral Session TuAMOT2 TuAMOT1.B Deep Learning 1 (309A, 3rd Floor)	10:30-12:30 309B, 3rd Floor Oral Session TuAMOT3 TuAMOT2 Learning Based Vision (309B, 3rd Floor)	10:30-12:30 310, 3rd Floor Oral Session TuAMOT4 TuAMOT3 Image Processing (310, 3rd Floor)
12:30-14:00 Exhibition Hall 5, B1 Floor TuLunch_Break			
Lunch Break Tu(Exhibition Hall 5, B1 Floor)			
14:00-15:00 Ballroom C, 1st Floor Plenary Session Tu2PL			
Plenary Session: JK Aggarwal Prize Speech (Ballroom C, 1st Floor)			

Program at a Glance

15:00-17:00 North Foyer & Park View Foyer, 3rd Floor Poster Session TuPMP			
Poster Session TuPMP, Coffee Break (North Foyer & Park View Foyer, 3rd Floor)			
17:00-18:20 Ballroom C, 1st Floor Oral Session TuPMOT1 TuPMOT1 Structural Pattern Recognition (Ballroom C, 1st Floor)	17:00-18:20 309B, 3rd Floor Oral Session TuPMOT2 TuPMOT2 3D Vision (309B, 3rd Floor)	17:00-18:20 311A, 3rd Floor Oral Session TuPMOT3 TuPMOT4 Biometric Analysis and Synthesis (311A, 3rd Floor)	17:00-18:20 311B, 3rd Floor Oral Session TuPMOT4 TuPMOT5 Document Image Analysis (311B, 3rd Floor)
19:00-21:00 Function AB, 1st Floor TuWE			
Welcome Reception (Function AB, 1st Floor)			

ICPR 2018 Technical Program Wednesday August 22, 2018

Track T1	Track T2	Track T3	Track T4
08:40-09:40 Ballroom C, 1st Floor Plenary Session We1PL			
Plenary Session: Maria Petrou Prize Speech (Ballroom C, 1st Floor)			
09:40-10:40 Ballroom C, 1st Floor Plenary Session We2PL			
Plenary Session: Long Quan, the Challenges of 3D Reconstruction with Deep Learning (Ballroom C, 1st Floor)			
10:40-11:10 North Foyer & Park View Foyer, 3rd Floor WeAM_Coffee_Break			
Coffee Break We(North Foyer & Park View Foyer, 3rd Floor)			
11:10-12:30 Ballroom C, 1st Floor Oral Session WeAMOT1 WeAMOT1 Deep Learning 2 (Ballroom C, 1st Floor)	11:10-12:30 309B, 3rd Floor Oral Session WeAMOT2 WeAMOT2 Low Level Vision (309B, 3rd Floor)	11:10-12:30 310, 3rd Floor Oral Session WeAMOT3 WeAMOT3 Image Analysis and Segmentation (310, 3rd Floor)	11:10-12:30 311A, 3rd Floor Oral Session WeAMOT4 WeAMOT6 Medical Image Analysis (311A, 3rd Floor)

Program at a Glance

12:30-14:00
Exhibition Hall 5, B1 Floor
WeLunch_Break

Lunch Break We (Exhibition Hall 5, B1 Floor)

14:00-15:00
Ballroom C, 1st Floor
Plenary Session We3PL

Plenary Session: Venkatesh Prasad, Automobiles and Mobility Solutions (Ballroom C, 1st Floor)

15:00-17:00
North Foyer & Park View Foyer, 3rd Floor
Poster Session WePMP

Poster Session WePMP, Coffee Break(North Foyer & Park View Foyer, 3rd Floor)

17:00-18:20 Ballroom C, 1st Floor Oral Session WePMOT1 WePMOT1.A Multitask and Multilabel Learning (Ballroom C, 1st Floor)	17:00-18:20 309A, 3rd Floor Oral Session WePMOT2 WePMOT1.B Clustering (309A, 3rd Floor)	17:00-18:20 309B, 3rd Floor Oral Session WePMOT3 WePMOT2 Motion Analysis (309B, 3rd Floor)	17:00-18:20 311B, 3rd Floor Oral Session WePMOT4 WePMOT4 Gait and Person Re-Identification (311B, 3rd Floor)

ICPR 2018 Technical Program Thursday August 23, 2018

Track T1	Track T2	Track T3	Track T4

08:40-09:40
Ballroom C, 1st Floor
Plenary Session Th1PL

Plenary Session: Jianchang Mao, Achieving Human Parity Performance in Pattern Recognition and Language Understanding by Machines (Ballroom C, 1st Floor)

09:40-10:40
Ballroom C, 1st Floor
Plenary Session Th2PL

Plenary Session: Ashok Popat, Advice to a Promising OCR Researcher (Ballroom C, 1st Floor)

10:40-11:10
North Foyer & Park View Foyer, 3rd Floor
ThAM_Coffee_Break

Coffee Break ThAM(North Foyer & Park View Foyer, 3rd Floor)

Program at a Glance

Program at a Glance

11:10-12:30 Ballroom C, 1st Floor Oral Session ThAMOT1 ThAMOT1 Semi-Supervised Learning (Ballroom C, 1st Floor)	11:10-12:30 309B, 3rd Floor Oral Session ThAMOT2 ThAMOT2 Object Detection (309B, 3rd Floor)	11:10-12:30 310, 3rd Floor Oral Session ThAMOT3 ThAMOT4 Face Biometrics (310, 3rd Floor)	11:10-12:30 311B, 3rd Floor Oral Session ThAMOT4 ThAMOT5 Text Detection and Recognition (311B, 3rd Floor)

12:30-14:00
Exhibition Hall 5, B1 Floor
ThLunch_Break

Lunch Break Th (Exhibition Hall 5, B1 Floor)

	14:00-15:20 309A, 3rd Floor Oral Session ThMMOT2 ThPMOT1.A Online and Active Learning (309A, 3rd Floor)	14:00-15:20 309B, 3rd Floor Oral Session ThMMOT3 ThPMOT2.A Vision Applications (309B, 3rd Floor)	14:00-15:20 311A, 3rd Floor Oral Session ThMMOT4 ThPMOT6 Medical Signal Analysis and Recognition (311A, 3rd Floor)

15:20-17:20
North Foyer & Park View Foyer, 3rd Floor
Poster Session ThPMP

Poster Session ThPMP, Coffee Break (North Foyer & Park View Foyer, 3rd Floor)

	17:20-18:20 309A, 3rd Floor Oral Session ThPMOT2 ThPMOT1.B Manifold and Feature Learning (309A, 3rd Floor)	17:20-18:20 309B, 3rd Floor Oral Session ThPMOT3 ThPMOT2. B Behavior Recognition (309B, 3rd Floor)	17:20-18:20 311A, 3rd Floor Oral Session ThPMOT4 ThPMOT3 Speech and Signal (311A, 3rd Floor)

19:30-23:00
Chinese Royal Gastronomy Museum
Add: No. 117, West Fourth Ring Road, Haidian District, Beijing
Please gather in lobby of CNCC at 19:00 to get on the bus.

Banquet

Program at a Glance

ICPR 2018 Technical Program Friday August 24, 2018		
Track T1	Track T2	Track T3
09:00-10:00 Ballroom C, 1st Floor Plenary Session Fr1PL Plenary Session: Zhi-Hua Zhou, an Exploration to Non-NN Style Deep Learning (Ballroom C, 1st Floor)		
10:00-10:30 North Foyer & Park View Foyer, 3rd Floor FrAM_Coffee_Break Coffee Break FrAM (North Foyer & Park View Foyer, 3rd Floor)		
10:30-12:30 Ballroom C, 1st Floor Oral Session FrAMOT1 FrAMOT1 Applications of Classification and Learning (Ballroom C, 1st Floor)	10:30-12:30 309B, 3rd Floor Oral Session FrAMOT2 FrAMOT2 Object Recognition and Scene Understanding (309B, 3rd Floor)	10:30-12:30 310, 3rd Floor Oral Session FrAMOT3 FrAMOT3 Image and Video Retrieval (310, 3rd Floor)
12:30-14:00 Exhibition Hall 5, B1 Floor FrLunch_Break Lunch Break Fr(Exhibition Hall 5, B1 Floor)		
14:00-16:00 South Lobby, Outside of Ballroom C, 1st Floor Poster Session FrPMP Poster Session FrPMP, Coffee Break (South Lobby, Outside of Ballroom C, 1st Floor)		
16:00-17:00 Ballroom C, 1st Floor Plenary Session Fr2PL Plenary Session: (PR 50th Anniversary) Alison Noble, Human Intelligence, Artificial Intelligence and How They Are Changing Ultrasound Image Analysis (Ballroom C, 1st Floor)		
17:00-17:20 Ballroom C, 1st Floor FrCC Closing Session (Awards and See You in Milan) (Ballroom C, 1st Floor)		

1. ICPR Best Industrial Related Paper Award (BIRPA)

Each ICPR conference has a Best Industry Related Paper Award. As part of the award process, the conference hosts a panel discussion by the four award finalists. This one-hour session consists of 4 brief presentations by the finalists, and then a panel (plus public) discussion on the theme of the relation of research and industry.

All delegates are welcome to attend the session and contribute questions and comments from the audience.

Location: Thursday August 23, 14:00-15:00, Room 311B

2. Women at ICPR

Let's talk! There is a steadily growing number of female researchers in our field who have much to learn from each other. The Coffee Break for Women at ICPR will follow the Maria Petrou Prize lecture on Wednesday, August 22, at 10:40.

On the same day, women can get together again at 12:30 for a Lunch Break.

Please, come and meet colleagues from around the world, make new friends, and share your personal stories about women working in various fields of pattern recognition.

Locations:
Coffee Break for Women at ICPR: Wednesday August 22, 10:40-11:10,designated areas in North Foyer & Park View Foyer, 3rd Floor

Lunch Break for Women at ICPR: Wednesday August 22, 12:30-14:00, designated areas in Exhibition Hall 5, B1 Floor

Tutorial Program

Active Authentication in Mobile Devices

Julian Fierrez and Vishal Patel

Monday, August 20, 2018, 09:00-12:15, 306B, 3rd Floor

Abstract

Recent developments in sensing and communication technologies have led to an explosion in the use of mobile devices such as smartphones and tablets. With the increase in use of mobile devices, one has to constantly worry about the security and privacy as the loss of a mobile device would compromise personal information of the user. To deal with this problem, active authentication (also known as continuous authentication) systems have been proposed in which users are continuously monitored after the initial access to the mobile device. This tutorial will provide an overview of different continuous authentication methods on mobile devices. We will discuss merits and drawbacks of available approaches and identify promising avenues of research in this rapidly evolving field. The tutorial should prove valuable to security and biometrics experts, exposing them to opportunities provided by continuous authentication approaches. It should also prove beneficial to experts in computer vision, signal and image processing, introducing them to a new paradigm of practical importance with very interesting research challenges.

Speakers

Julian Fierrez [M'02] received the MSc and the PhD degrees in telecommunications engineering from Universidad Politecnica de Madrid, Spain, in 2001 and 2006, respectively. Since 2002 he has been affiliated with the ATVS Biometric Recognition Group, first at Universidad Politecnica de Madrid, and since 2004 at Universidad Autonoma de Madrid, where he is currently an Associate Professor since 2010. From 2007 to 2009 he was a visiting researcher at Michigan State University in USA under a Marie Curie fellowship. His research interests include general signal and image processing, pattern recognition, and biometrics. Since 2016 he is and Associate Editor for IEEE Trans. On Information Forensics and Security and the IEEE Biometrics Council newsletter. Prof. Fierrez has been actively involved in multiple EU projects focused on biometrics (e.g. TABULA RASA and BEAT), has attracted notable impact for his research, and is the recipient of a number of distinctions, including: EURASIP Best PhD Award 2012, Medal in the Young Researcher Awards 2015 by the Spanish Royal Academy of Engineering, and the Miguel Catalan Award to the Best Researcher under 40 in the Community of Madrid in the general area of Science and Technology. In 2017 he has been also awarded the IAPR Young Biometrics Investigator Award, given to a single researcher worldwide every two years under the age of 40, whose research work has had a major impact in biometrics.

Vishal M. Patel [SM'16] is an A. Walter Tyson Assistant Professor in the Department of Electrical and Computer Engineering at Rutgers University. Prior to joining Rutgers University, he was a member of the research faculty at the University of Maryland Institute for Advanced Computer Studies (UMIACS). He completed his Ph.D. in Electrical Engineering from the University of Maryland, College Park, MD, in 2010. His current research interests include signal processing, computer vision, and pattern recognition with applications in biometrics and imaging. He has received a number of awards including the 2016 ONR Young Investigator Award, the 2016 Jimmy Lin Award for Invention, A. Walter Tyson Assistant Professorship Award, Best Paper Award at IEEE AVSS 2017, Best Paper Award at IEEE BTAS 2015, and Best Poster Awards at BTAS 2015 and 2016. He is an Associate Editor of the IEEE Signal Processing Magazine, IEEE Biometrics Compendium, and serves on the Information Forensics and Security Technical Committee of the IEEE Signal Processing Society. He is a member of Eta Kappa Nu, Pi Mu Epsilon, and Phi Beta Kappa.

Deep Metric Learning for Pattern Recognition

Jiwen Lu, Yueqi Duan, and Hao Liu

Monday, August 20, 2018, 14:00-17:00, 308, 3rd Floor

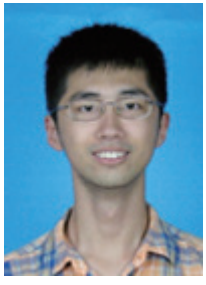
Abstract

Over the past decade, deep metric learning has been developed as one of the basic techniques in machine learning and successfully applied to a wide range of pattern recognition tasks showing state-of-the-art performance. In this tutorial, we will overview the trend of deep metric learning techniques and discuss how they are employed to boost the performance of various pattern recognition tasks. First, we briefly introduce the basic concept of deep metric learning, and show the key advantages and disadvantages of existing deep metric learning methods in different pattern recognition tasks. Second, we introduce some of our newly proposed deep metric learning methods from several aspects, which are developed for different application-specific pattern recognition tasks, respectively. Lastly, we will discuss some open problems in deep metric learning to show how to further develop more advanced deep metric learning algorithms for pattern recognition in the future.

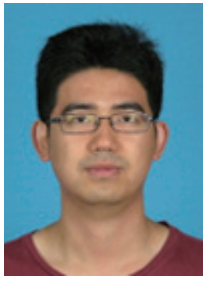
Speakers

Jiwen Lu is currently an Associate Professor with the Department of Automation, Tsinghua University, China. His current research interests include computer vision, pattern recognition, and machine learning. He has authored/co-authored over 180 scientific papers in these areas, where 52 papers are published in the IEEE Transactions journals (including 8 PAMI and 12 T-IP papers) and 27 papers are published in top-tier computer vision conferences (ICCV/CVPR/ECCV/NIPS). He is an elected member of the Multimedia Signal Processing Technical Committee and the Information Forensics and Security Technical Committee of the IEEE Signal Processing Society, and an elected member

of the Multimedia Systems and Applications Technical Committee of the IEEE Circuits and Systems Society, an Associate Editor for Pattern Recognition, Pattern Recognition Letters, Journal of Visual Communication and Image Representation, Neurocomputing, and IEEE Access, a Guest Editor for Computer Vision and Image Understanding, and Image and Vision Computing, and a reviewer for over 40 international journals such as IEEE T-PAMI/IP. He serves/has served as an Area Chair for ICME 2018, WACV 2018, ICIP 2017, VCIP 2016, ICB 2016, BTAS 2016, WACV 2016, ICME 2015 and ICB 2015, a Workshop Chair for WACV 2017 and ACCV 2016, a Special Session Chair for VCIP 2015, and a technical program committee member for over 40 international conferences such as CVPR/ICCV/ECCV/NIPS/AAAI. He was a recipient of the Best Student Paper Award from the Pattern Recognition and Machine Intelligence Association (PREMIA) of Singapore in 2012, the Top 10% Best Paper Award from 2014 IEEE International Workshop on Multimedia Signal Processing (MMSP), and the National 1000 Young Talents Plan Program in 2015, respectively. Two of his authored/co-authored conference papers were nominated as the Best Paper Award Candidate in ICME 2011 and ICME 2013. He co-organizes several workshops/competitions at some international conferences such as ICME 2017, ICME 2014, ACCV 2014, IJCB 2014, and FG 2015. He has given tutorials at some international conferences including CVPR 2017, ICIP 2017, ICME 2017, ECCV 2016, ACCV 2016, CVPR 2015, FG 2015, ACCV 2014, ICME 2014 and IJCB 2014. He is a Senior Member of the IEEE.



Yueqi Duan received the B.S. degree in the Department of Automation, Tsinghua University, China, in 2014. He is currently a Ph.D Candidate with the Department of Automation, Tsinghua University, China. His current research interests include deep learning, unsupervised learning, and binary representation learning. He has authored/co-authored 13 scientific papers in these areas, where 5 papers are published as the first author in top journals and conferences, including IEEE TPAMI, TIP, TCSVT, CVPR and ICME. He serves as a regular reviewer member for a number of journals and conferences, e.g. TCSVT, IEEE Access, Pattern Recognition, Neurocomputing and ICIP. He has obtained the National Scholarship of Tsinghua in 2017.



Hao Liu received the B.S. degree in software engineering from Sichuan University, China, in 2011, and the Master Engineering degree in computer technology from the University of Chinese Academy of Sciences, China, in 2014. He is currently pursuing the Ph.D. degree with the Department of Automation, Tsinghua University. Hisresearch interests include face alignment, facial age estimation, and deep learning. He has published a number of leading journals including IEEE TPAMI, TIP, TCSVT, TIFS and PR. He serves as regular reviewer member for a number of leading journals e.g. IEEE TPAMI, Access and Neurocomputing and international conferences including WACV, ICME and ICIP. He was a recipient of the Tsinghua National Scholarship. He was invited to give the oral and poster presentations on the Doctoral Consortium in FG 2017

Finding Correspondences across Multiple Graphs or Images

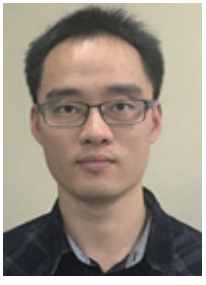
Junchi Yan and Xiaowei Zhou

Monday, August 20, 2018, 09:00-12:00, 306A, 3rd Floor

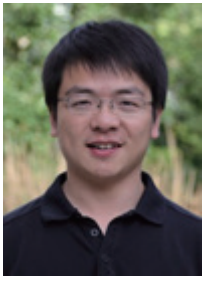
Abstract

This tutorial will introduce and describe the basic form of graph matching, classical two-graph matching methods, as well as some recent multi-graph matching methods. In these cases, the graph nodes are supposed to have been given in advance. Then the tutorial will extend to more practical scenarios for matching multiple images from scratch, whereby some optimization and learning methods will be covered.

Speakers



Junchi Yan has been with IBM Research (Beijing, New York, Shanghai) since April 2011 and now he is the Senior Research Staff Member and IBM master inventor. He has published over 30 CCF-A papers in pattern recognition, computer vision and machine learning. He is the receiver of CCF outstanding doctorate thesis (work on graph matching). He serves as Associate Editor for IEEE ACCESS, and (Leading) Guest Editor for Pattern Recognition Letters, Multimedia Tools and Applications etc. He also serves as reviewer or PC member for JMLR/TPAMI/TIP/ TCYB/TNNLS, CVPR/ICCV/ECCV/IJCAI/AAAI/NIPS.



Xiaowei Zhou is a Research Professor in the College of Computer Science, Zhejiang University. He was a Postdoctoral Researcher in Computer and Information Science, University of Pennsylvania. His research interests are on 3D object recognition, pose estimation, shape reconstruction and correspondence problems. He cofounded the Geometry Meets Deep Learning Workshops (associated with ECCV'16 and ICCV'17) and was the organizer of the Tutorial on 3D Object Geometry from Single Image at 3DV'17. He also served as PC members or reviewers for CVPR, ICCV, ECCV, IJCAI, AAAI, TPAMI, IJCV, etc.

Graph-based Methods for Learning and Inference Problems in Pattern Analysis

Antonio Robles-Kelly and Francisco Escolano

Monday, August 20, 2018, 14:00-17:00, 307A, 3rd Floor

Abstract

This tutorial provides a detailed study of graph-based methods in pattern recognition. The course aims at covering the fundamental principles of stochastic, spectral, probabilistic and manifold based methods related with graphs and their applications to segmentation and grouping, matching, classification and recognition. The tutorial will also cover recent trends and developments related to deep networks and link inference in the structural pattern analysis space.

Speakers

Antonio Robles-Kelly received a B.Eng. degree in Electronics and Telecommunications from the Inst. Tecnológico y de Estudios Superiores de Monterrey (ITESM), Mexico, and a PhD Computer Science from the University of York, UK, in 2003. While pursuing his PhD at York, in 2001, he received the Gibbs/Plessey Award to the best research proposal to visit an overseas research lab. In 2003, he completed his PhD and remained in York until Dec. 2004 as a Research Associate under the MathFit-EPSRC framework. In 2005 he moved to Australia and took a research scientist appointment with National ICT Australia (NICTA) at the Canberra Laboratory. Together with this appointment, he became an adjunct academic at the Australian National University (ANU). From 2007 to 2009, he was a Postdoctoral Research Fellow of the Australian Research Council. In 2016, he became a Principal Researcher of the CSIRO with the Cyber Physical Research Programme at Data61. He has served as the president of the Australian Pattern Recognition Society (APRS) and is an associate editor of the Pattern Recognition Journal, the IET Computer Vision Journal and a Senior Member of the IEEE. He is also the president of the TC2 (Technical Committee on structural and syntactical pattern recognition) of the International Association for Pattern Recognition (IAPR) and Adjunct Associate Professor at the ANU. He has been a technical committee member, area and general chair of several mainstream computer vision and pattern recognition conferences.

Francisco Escolano received his Bachelor degree in Computer Science from the Polytechnical University of Valencia (Spain) in 1992 and his PhD degree in Computer Science from the University of Alicante in 1997. Since 1998, he has been an Associate Professor with the Department of Computer Science and Artificial Intelligence of the University of Alicante. He has been post-doctoral fellow with Dr. Norberto M. Grzywacz at the Biomedical Engineering Department of the University of South California in Los Angeles, and he has also collaborated with Dr. Alan L. Yuille at the Smith-Kettlewell Eye Research Institute of San Francisco. Recently, he visited the Liisa Holm's Bioinformatics Lab at the University of Helsinki. His research interests are focused on the development of efficient and reliable computer vision algorithms for biomedical applications (tracking of intravascular sequences), active vision and robotics (mid-level geometric structures obtained through junction grouping, stereo and appearance based methods for the localization of mobile robots, SLAM), and video-based surveillance (motion detection and object tracking). All these developments have been inspired by information theory. Actually, he is the author of the unique CVPR book on the subject: Information Theory in Computer Vision and Pattern Recognition. Springer, Computer Imaging, Vision, Pattern Recognition and Graphics, New York, 2009. More recently, he has been collaborating with other researchers, such as Edwin R. Hancock, to extend information theory to graphs: graph complexity, information-theoretic dissimilarities between graphs, reversible embeddings, etc. He is Vice-president of the TC2 (Technical Committee on structural and syntactical pattern recognition) of the International Association for Pattern Recognition (IAPR). He has been a technical committee member, area and general chair of several mainstream computer vision and pattern recognition conferences.

Human identification at a distance by gait and face analysis

Yongzhen Huang, Daoliang Tan, Man Zhang, and Liang Wang

Monday, August 20, 2018, 09:00-12:00, 307A, 3rd Floor

Abstract

Human identification at a distance is a very challenging task, which has long been a popular research topic in the field of computer vision. The gait sequences of different people can be very distinctive, which makes gait an important body characteristic that can be used for human identification. However, to the best of our knowledge, currently there are very few tutorials concerning this important area. Now we have made great progress in this area and we can recognize an individual at a distance via fusing gait and face recognition. We want to share our experiences with the computer vision community in ICPR 2018. We believe that our tutorial can be of interest to a substantial part of the ICPR audience.

Speakers

Yongzhen Huang received the B.E. degree from Huazhong University of Science and Technology in 2006 and Ph.D. degree from Institute of Automation, Chinese Academy of Sciences (CASIA) in 2011. Then he joined National Laboratory of Pattern Recognition (NLPR) as an Assistant Professor in July 2011, and became an Associated Professor since Nov. 2013. His research interests include computer vision, pattern recognition, machine learning, and computational visual cognition. He has published one book and more than 50 papers in international journals and conferences such as IEEE TPAMI, IJCV, IEEE TMSC-B, IEEE TCSVT, IEEE TMM, Neurocomputing, CVPR, ICCV, NIPS, ICPR, ICIP. He has obtained several honors and awards, including the Excellent Doctoral Thesis of Chinese Association for Artificial Intelligence (2012), the Best Student Paper of Chinese Conference on Computer Vision (2015), the Champion of PASCAL VOC Challenges on object detection (2010 and 2011), the Runner-up of PASCAL VOC Challenges on object classification (2011), and the Champion of Internet Contest for Cloud & Mobile Computing on Human Segmentation with 230,000RMB (2013), the Second Prize and the Prize of Highest Accuracy with Low Energy in LPIRC (LowPower Image Recognition Challenge) (2015). Dr. Huang is currently a member of IEEE. He has served as Associate Editor of Neurocomputing, the web chair of AVSS2012, the publicity chair of CCPR2012, theprogram committee member of 6 conferences, and the peer reviewer of over 20 journals and conferences.

Daoliang Tan received the B.E. degree from Beihang University in 2002 and PhD degree from Institute of Automation, Chinese Academy of Sciences in 2009. He joined Beihang University as an Assistant Professor in 2011. His research interests include pattern recognition, machine learning, computer vision, and fault diagnosis. He had published one book and more than 30 papers.

Man Zhang received the B.E. degree from Beijing University of Posts and Telecommunications in 2008 and Ph.D. degree from Institute of Automation, Chinese Academy of Sciences (CASIA) in 2013. Then she joined Center for Research on Intelligent Perception and Computing (CRIPAC) as an Assistant Professor in July 2013, and became an Associated Professor since Nov. 2017. Her research interests include computer vision, pattern recognition and biometrics. She has published more than 20 papers in international journals and conferences such as IEEE TPAMI, IEEE TIP, Neurocomputing, AAAI, ICIP, ICB. She has obtained the Best Student Paper of ICB2016. Dr. Zhang is currently a member of IEEE. She has served as the financial chair of AVSS2012 and DSP2017, the program committee member of CCBR2016 and CCBR2017.

Liang Wang received both the B. Eng. and M. Eng. degrees in Electronic Engineering from the Department of Electronics Engineering and Information Science, Anhui University (AHU), China, in 1997 and 2000 respectively, and the PhD degree in Pattern Recognition and Intelligent System from the National Laboratory of Pattern Recognition (NLPR), Institute of Automation, Chinese Academy of Sciences (CAS), China, in 2004. After graduation, he has worked as a Research Assistant at the Department of Computing, Imperial College London, United Kingdom and at the Department of Electrical and Computer Systems Engineering, Monash University, Australia, and a Research Fellow at the Department of Computer Science and Software Engineering, University of Melbourne, Australia, respectively. Before he returned back to China, he was a Lecturer with the Department of Computer Science, University of Bath, United Kingdom. Currently, he is a Professor of Hundred Talents Program at the Institute of Automation, Chinese Academy of Sciences, P. R. China. His major research interests include machine learning, pattern recognition, computer vision, multimedia processing, and data mining. He has widely published at highly-ranked international journals such as IEEE TPAMI, IEEE TIP, IEEE TKDE, IEEE TCSVT, IEEE TSMC, CVIU, and PR, and leading international conferences such as CVPR, ICCV and ICDM. He has obtained several honors and awards such as the Special Prize of the Presidential Scholarship of Chinese Academy of Sciences and the Research Commendation from University of Melbourne in recognition of Excellent Research. He is currently a Senior Member of IEEE (Institute of Electrical and Electronics Engineers), as well as a member of IEEE Computer Society, IEEE Communications Society, IEEE Signal Processing Society, and BMVA (British Machine Vision Association). He is serving with more than 20 major international journals and more than 40 major international conferences and workshops. He is an associate editor of IEEE Transactions on Systems, Man and Cybernetics–Part B, IEEE Transactions on Information and Forensic Security, International Journal of Image and Graphics (WorldSci), International Journal of Signal Processing (Elsevier), Neurocomputing (Elsevier), and International Journal of Cognitive Biometrics (Inderscience). He is a leading guest editor of several special issues such as PRL (Pattern Recognition Letters), IJPRAI (International Journal of Pattern Recognition and Artificial Intelligence), IEEE TIFS, and IEEE TSMC-B, as well as a co-editor of 6 edited books. He has also co-chaired 1 invited special session and 8 international workshops. He was a co-PC chair of the 9th IEEE AVSS 2012.

Person Re-identification: State of the Art and Future Trends

Liang Zheng, Yang Yang, and Shengcai Liao

Monday, August 20, 2018, 14:00-17:00, 307B, 3rd Floor

Abstract

The task of person re-identification aims to find a queried person in a large database of pedestrian images, so that the person-of-interest can be located across cameras. This task underpins critical research and application significance, and in recent years has received fast increasing attention from both the academia and industry. Traditionally, person re-identification is featured by effective combinations of visual descriptors and similarity metrics. At present, the research frontier has been advanced to the deeply learned invariant feature embeddings which are both discriminative and efficiency friendly. Moreover, many research tasks have been introduced to the community, such as video-based, language-based, and detection-informed re-identification. The rich scientific possibilities thus have given rise to a prime of person re-identification research.

In this context, this tutorial targets at bringing together the current research advances and discussing the state of the art and future trends in person re-identification. The tutorial will review the traditional research initiatives in this area, present an overview of the current frontier, and finally discuss the possible future research directions. Through this tutorial, audience will not only have a more comprehensive knowledge of person re-identification, but also gain a research vision that may expand their own research capacities.

Speaker

Dr. Liang Zheng (liangzheng06@gmail.com) is a postdoc researcher in the University of Technology Sydney. Prior to joining UTS, he obtained his B.E and PhD degrees from Tsinghua University. His research interest is large-scale person re-identification, image retrieval, and deep learning. He has published 21 papers in TPAMI, IJCV, CVPR, ICCV, ECCV, and IEEE/ACM Transactions. He makes recognized attempts in large-scale person re-identification by conceptually uniting the fields of person re-identification and image retrieval. He has introduced five large-scale datasets/evaluation protocols which have become the de facto benchmarks in this field. His works are extensively cited by the community and the most highly cited paper receives 200+ citations within two years of publication. Dr Zheng received the Outstanding PhD Thesis from Chinese Association of Artificial Intelligence and the Early Career R&D Award from D2D CRC, Australia. His research was featured by the MIT Technical Review and selected into the computer science courses in renowned universities such as Stanford University and the University of Texas at Austin. Web page:http://www.liangzheng.com.cn/index.html

Dr. Yang Yang (yang.yang@nlpr.ia.ac.cn) received the B.S. degree and M.S. degree from Xidian University, in 2009 and 2013, respectively, and the Ph.D. degree from Institute of Automation, Chinese Academy of Sciences, in 2016. He is currently an assistant professor in National Laboratory of Pattern Recognition, Institute of Automation, Chinese Academy of Sciences. His research interests are in pattern recognition, computer vision, image processing, and machine learning, and particularly in person re-identification, attribute analysis, and face recognition. He has published 12 papers in AAAI, ECCV, ICPR, ICIP, IJCNN, ICB and PR. His works are extensively cited by the community and the most highly cited paper receives 200+ citations. Web page: http://www.cbsr.ia.ac.cn/users/yyang/main.htm

Shengcai Liao is an Associate Professor in the Institute of Automation, Chinese Academy of Sciences (CASIA). He is a Senior Member of IEEE, and a Member of the Technical Committee on Computer Vision, CCF. He received the B.S. degree in mathematics and applied mathematics from the Sun Yatsen University in 2005 and the Ph.D. degree from CASIA in 2010. He was a Post Doctoral Fellow in the Department of Computer Science and Engineering, Michigan State University during 2010-2012. His research interests include computer vision and pattern recognition, with a focus on image and video analysis, particularly face recognition, object detection, person re-identification, and video surveillance. He has published over 70 papers, with over 5000 citations according to Google Scholar. He was awarded the Best Student Paper award in ICB 2006, ICB 2015, and CCBR 2016, and the Best Paper award in ICB 2007. He was also awarded the best reviewer award in IJCB 2014. He served as an Area Chair for ICPR 2016, ICB 2016, and ICB 2018, and as a PC member for ICCV, CVPR, ECCV, etc. Web page: http://www.cbsr.ia.ac.cn/users/scliao/

Practical Data Complexity Analysis in Pattern Recognition

Tin Kam Ho

Monday, August 20, 2018, 09:00-12:00, 307B, 3rd Floor

Abstract

Data complexity analysis aims at providing a scientific basis to relate behavior of classifiers to certain intrinsic characteristics in the data available for training the classifiers. The analysis seeks explanations of a classifier's observed performance variability in different tasks, and thereby provides some guidance on selecting a classifier method for a given task. The data complexity measures
can also be used to evaluate alternative set-ups of a classification tasks, or different feature transformations on how they may impact the difficulty of the underlying task. In a way, the complexity measures are "features" about a classification task, which can support meta-learning for the decisions to be made for each task, e.g. which classifier to use.
In this tutorial we review the concepts and methods for data complexity analysis, and its

successes and shortcomings. We then describe available code repositories for performing such analysis on arbitrary learning tasks. A hands-on exercise section is designed for attendees, who can choose (or bring) a data set and launch an analysis using a set of online tools that host the analysis code.
Discussion of the results is to be conducted in class following the online trials.

Speaker

Tin Kam Ho is a lead scientist in artificial intelligence research and applications at IBM Watson. Before, she led a department in statistics and machine learning research in Bell Labs. She pioneered research in multiple classifier systems, random decision forests, and data complexity analysis. Over her career she contributed to many application domains of pattern recognition and data analysis, including multilingual reading machines, optical network design and monitoring, wireless geolocation, and smart grid demand forecasting. She served as Editor-In-Chief for Pattern Recognition Letters in 2004-2010, and as Editor or Associate Editor for several other journals including IEEE Transactions on Pattern Analysis and Machine Intelligence, Pattern Recognition, and International Journal on Document Analysis and Recognition. Her work has been honored with the Pierre Devijver Award in statistical pattern recognition, several Bell Labs awards, and the Young Scientist Award of the International Conference on Document Analysis and Recognition. Her publications have received over 9000 citations. She is a Fellow of the IAPR and the IEEE.

Subspace Clustering: Recent Advances in Algorithms, Theories and Applications

Chun-Guang Li, Chong You, Guangcan Liu, and Risheng Liu

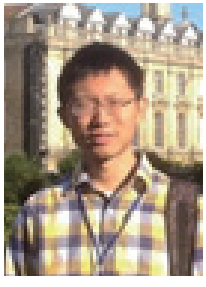
Monday, August 20, 2018, 14:00-17:00, 306A, 3rd Floor

Abstract

In many real-world applications, we need to deal with high-dimensional datasets, such as images, videos, text, gene expression microarray, and more. Such high-dimensional datasets can often be well approximated by multiple low-dimensional subspaces corresponding to multiple classes or categories. Therefore, the problem, known in the literature as Subspace Clustering, which addresses the task of learning a union of low-rank structures from unlabeled data, has become an indispensable tool for learning from high dimensional data. This problem has many applications, e.g., image representation and compression, motion segmentation, and temporal video segmentation in computer vision; hybrid system identification in control; community clustering in social networks; and genes expression profiles clustering in bioinformatics.
In this tutorial, we will: a) Introduce the representative spectral clustering based subspace clustering methods, the theoretical guarantees, and their representative applications; b) Present the recent advances in scalable subspace clustering methods, the theoretical guarantees, and the representative applications, e.g., image clustering and outliers detections; c) Present the recent advances in low-rankness based methods for learning low-rank structures, the theoretical guarantees, and the representative applications, e.g., saliency detection, music / gene expression array analysis; d) Present the recent advances in optimization algorithms for sparse and low-rank modeling, including the convex optimization, non-convex optimization, and online optimization.

Speakers

Chun-Guang Li is an associate professor with the School of Information and Communication Engineering, at Beijing University of Posts and Telecommunications from Dec. 2007. He received his B.E. degree in telecommunication engineering from Jilin University in July 2002, and his Ph.D. degree in signal and information processing from Beijing University of Posts and Telecommunications in Dec. 2007. He visited in the Vision, Dynamics and Learning lab at the Center for Imaging Science in Johns Hopkins University from Dec. 2012 to Nov. 2013, and the Visual Computing group at Microsoft Research Asia from July 2011 to April 2012. His research interests focus on modeling with high dimensional data; including sparse/low-rank modeling, manifold/subspace clustering, matrix completion, semi-supervised learning and their applications in pattern recognition, computer vision, bioinformatics, etc.



Chong You received two B.S. degrees in electrical engineering and in applied mathematics, respectively in 2009, and the M.S. degree in electrical engineering from Peking University, Beijing, China, in 2012. He is currently pursuing the Ph.D. degree with the Department of Electrical and Computer Engineering, Johns Hopkins University. His research interests include large scale and high-dimensional data analysis, sparse signal representation, and computer vision.

Guangcan Liu received the bachelor›s degree in mathematics and the Ph.D. degree in computer science and engineering from Shanghai Jiao Tong University, Shanghai, China, in 2004 and 2010, respectively. He was a postdoctoral researcher with the National University of Singapore, Singapore, from 2011 to 2012, the University of Illinois at Urbana-Champaign, Champaign, IL, USA, from 2012 to 2013, Cornell University, Ithaca, NY, USA, from 2013 to 2014, and Rutgers University, Piscataway, NJ, USA, in 2014. Since 2014, he has been a Professor with the School of Information and Control, Nanjing University of Information Science and Technology, Nanjing, China. His research interests touch on the areas of pattern recognition and signal processing. He obtained the National Excellent Youth Fund in 2016 and was designated as the global Highly Cited Researchers in 2017.

Risheng Liu received the BSc and PhD degrees both in mathematics from the Dalian University of Technology in 2007 and 2012, respectively. He was a visiting scholar in the Robotic Institute of Carnegie Mellon University from 2010 to 2012. He served as Hong Kong Scholar Research Fellow at the Hong Kong Polytechnic University from 2016 to 2017. He is currently an associate professor with the Key Laboratory for Ubiquitous Network and Service Software of Liaoning Province, Internal School of Information and Software Technology, Dalian University of Technology. His research interests include machine learning, optimization, computer vision and multimedia. He was a co-recipient of the IEEE ICME Best Student Paper Award in both 2014 and 2015. Two papers were also selected as Finalist of the Best Paper Award in ICME 2017. He is a member of the IEEE and ACM. He is on the Editorial Board of The Visual Computer Journal, IET Image Processing, and Journal of Electronic Imaging.

Toward Interpretable Deep Learning Via Fuzzy Logic

Lixin Fan, Fei-Yue Wang, and Chee Seng Chan

Monday, August 20, 2018, 09:00-12:00, 308, 3rd Floor

Abstract

Based on our recent findings [1][2], which disclosed an intriguing connection between fuzzy logic and deep learning, this course will introduce the main concepts of fuzzy logic and its applicability to deep learning and pattern recognition. A historical review of related fuzzy logic topics such as fuzzy sets, many-valued logics as well as fuzzy neural networks will be given during the course, with the aim to provide necessary background knowledge for understanding our recent findings[1][2].

[1] Revisit Fuzzy Neural Network: Demystifying Batch Normalization and ReLU with Generalized Hamming Network, NIPS 2017. (https://arxiv.org/abs/1710.10328)

[2] Revisit fuzzy neural network: bridging the gap between fuzzy logic and deep learning, (http://vixra.org/pdf/1711.0265v2.pdf)

Speakers

Lixin Fan (Chinese: 范力欣), Principal Scientist, Nokia Technologies, lixin.fan@nokia.com, Dr Lixin Fan is a principal scientist at Nokia Technologies. His research areas of interests include Machine learning & deep learning, Computer vision & pattern recognition, Image and video processing, 3D big data processing, data visualization & rendering, Augmented and virtual reality, Mobile ubiquitous and pervasive computing and Intelligent human-computer interface. Dr Fan is the (co-)author of more than 50 international journal & conference publications. He also (co-) invented dozens of granted and pending patents filed in US, Europe and China. Before joining Nokia in 2004, Dr Fan was affiliated with Xerox Research Center Europe and his research work included the well-recognized Bag of Keypoints method for image categorization.

Fei-Yue Wang (Chinese: 王飞跃, feiyue.wang@ia.ac.cn) is a systems engineer in the State Key Laboratory for Management and Control for Complex Systems of the Chinese Academy of Sciences and editor-in-chief of the IEEE Transactions on Computational Social Systems and the IEEE/CAA Journal of Automatica Sinica. Previously he was a Professor of Systems and Industrial Engineering at the University of Arizona, president of the IEEE Intelligent Transportation Systems Society, and editor-in-chief of IEEE Intelligent Systems. Wang was elected as a Fellow of the IEEE in 2004 "for contributions to intelligent control systems and applications to complex systems". He also became a fellow of the American Association for the Advancement of Science and the ASME in 2007. In 2011 he won the Outstanding Research Award of the IEEE Intelligent Transportation Systems Society, and in 2014 he was given the Norbert Wiener Award of the IEEE Systems, Man, and Cybernetics Society "for fundamental contributions to and innovations in the theory and application of intelligent control and management to complex systems."

Chee Seng Chan is an associate professor at Department of Artificial Intelligence, Faculty of Computer Science and Information Technology, University of Malaya, Malaysia. His research areas of interests include computer vision, image processing and fuzzy sets. Dr. Chan has published more than 50 international journals and conference publications. He was the founding chair of IEEE Computational Intelligence Society (Malaysia chapter), and recipients of few prestige awards such as Young Scientist by Academy Science Malaysia in 2016, Hitachi Fellowships in 2012, as well as the Top 100 British Young Engineers in 2010. Currently he is AE of IEEE/CAA Journal of Automatica Sinica, and he has served as General Chair and Organizing of VCIP2012 and ACPR2015. He is a senior member of IEEE and a chartered engineer of IET.

Workshop Program

Correspondence Problem In Computer Vision and Pattern Recognition (CPPR 2018)

Overview

The recent years have witnessed the significant advancement of techniques for automatic correspondence among visual data. Although visual correspondence has been well studied in multi-view geometry, its generalized forms, and the potential connections with other relevant tasks, are still not fully investigated. Meanwhile, the big data and deep learning paradigm, which has achieved major success in perceptual tasks, has still not been well capitalized for visual correspondence. In this workshop, we attempt to assemble recent advances in the correspondence problem, in an effort for connecting the local and global structures with the modern learning and data processing paradigms.

Organizers

Junchi Yan — Shanghai Jiao Tong University
Shuhan Shen — Institute of Automation, Chinese Academy of Sciences
Changsheng Li — University of Electronic Science and Technology of China

Schedule

Venue: Room 301A
Time: 20th August 2018, 14:05 - 16:00 PM

SUBSLOT	SPEAKER	TITLE	CHAIR
14:05 - 14:10		Opening remarks	Shuhan Shen
14:10 - 14:40	Yihong Wu	Invited Talk 1: **Image based camera localization towards challenging problems**	Shuhan Shen
14:45 - 15:15	Xiaowei Zhou	Invited Talk 2: **Finding consistent feature correspondences across multiple images**	Junchi Yan
15:20 - 16:00	Xu-Cheng Yin	Invited Talk 3: **Tacking based text detection and recognition from scene and web videos**	Changsheng Li

Computer Vision for Analysis of Underwater Imagery (CVAUI 2018)

Overview

The analysis of underwater imagery imposes a series of unique challenges, which need to be tackled by the computer vision community in collaboration with biologists and ocean scientists. We invite submissions from all areas of computer vision and image analysis relevant for, or applied to, underwater image analysis.

Organizers

Alexandra Branzan Albu — University of Victoria, BC, Canada
Maia Hoeberechts — Ocean Networks Canada, Victoria, BC, Canada

Schedule

Venue: Room 301B
Time: 20th August 2018, 09:00 AM - 17:00 PM

SUBSLOT	SPEAKER/TITLE
09:00 - 09:30	Welcome from Workshop Organizers (Alexandra Branzan Albu & Maia Hoeberechts) "Big data" challenges in underwater imagery analysis (Maia Hoeberechts)
09:30 - 10:30	Invited Talk 1:**Kim Juniper (Ocean Networks Canada, University of Victoria, Victoria, Canada)**
10:30 - 11:00	Coffee Break
11:00 - 12:30	Oral Presentations 1 (4 papers) Single Image Plankton 3D Reconstruction from Extended Depth of Field Shadowgraph Claudius Zelenka[1] and Reinhard Koch[1] [1]Department of Computer Science, Kiel University, Germany Deep Active Learning for In Situ Plankton Classification Erik Bochinski[1], Ghassen Bacha[1], Volker Eiselein[1], Tim J. W. Walles[2], Jens C.Nejstgaard2, and Thomas Sikora1 [1] Communication System Group, Technische Universität Berlin [2] Leibnitz-Institute of Freshwater Ecology and Inland Fisheries Tracking Sponge Size and Behaviour with Fixed Underwater Observatories Torben Möller[1], Ingunn Nilssen[2], and Tim Wilhelm Nattkemper[1] [1] Biodata Mining Group, Bielefeld University, Bielefeld 33615, Germany [2] Equinor, Research and Technology, Trondheim 7005 Norway Underwater-GAN: Underwater Image Restoration via Conditional Generative Adversarial Network Xiaoli Yu[1], Yanyun Qu[1], and Ming Hong[1] [1]School of Information Science and Engineering, Xiamen University, Xiamen, China
12:30 - 14:00	Lunch

14:00 - 15:30	Oral Presentations 2 (4 papers) Strategies for Tackling the Class Imbalance Problem in Marine Image Classification Daniel Langenkämper[1], Robin van Kevelaer[1], and Tim W Nattkemper[1] [1]Biodata Mining Group, Faculty of Technology, Bielefeld University, 33615 Bielefeld, Germany Marine Snow Removal Using a Fully Convolutional 3D Neural Network Combined with an Adaptive Median Filter Michał Koziarski[1] and Bogusław Cyganek[1] [1]Department of Electronics, AGH University of Science and Technology, Kraków, Poland An Online Platform for Underwater Image Quality Evaluation Chau Yi Li[1], Riccardo Mazzon[1], Andrea Cavallaro[1] [1]Centre for Intelligent Sensing, Queen Mary University of London Enhancement of low-lighting underwater images using Dark Channel Prior and Fast Guided Filters Tunai Porto Marques[1], Alexandra Branzan Albu[1] and Maia Hoeberechts[2] [1] Department of Electrical & Computer Engineering, University of Victoria, Victoria, Canada [2] Ocean Networks Canada, University of Victoria, Victoria, Canada
15:30 - 16:00	Coffee Break
16:00 - 17:00	Invited Talk 2: **Bob Fisher (School of Informatics, University of Edinburgh, Edinburgh, Scotland, UK)**

The Second International Workshop on Deep Learning for Pattern Recognition (DLPR 2018)

Overview

Deep Learning, which can be treated as the most significant breakthrough in the past 10 years in the field of pattern recognition and machine learning, has greatly affected the methodology of related fields like computer vision and achieved terrific progress in both academy and industry. It can be seen as a resolution to change the whole pattern recognition system. It achieved an end-to-end pattern recognition, merging the previous steps of pre-processing, feature extraction, classifier design and post-processing. It is expected that the development of deep learning theories and applications would further influence the field of pattern recognition. The major goal of this workshop is to provide a platform for researchers or graduate students around the world to report or exchange their progresses on deep learning for pattern recognition.

Organizers

Xiang Bai	Huazhong University Science and Technology
Yi Fang	New York University Abu Dhabi and New York University
Yangqing Jia	Facebook
Meina Kan	Institute of Computing Technology, Chinese Academy of Sciences
Shiguang Shan	Institute of Computing Technology, Chinese Academy of Sciences
Chunhua Shen	University of Adelaide
Jingdong Wang	Microsoft Research Asia
Gui-Song Xia	Wuhan University
Shuicheng Yan	National University of Singapore
Zhaoxiang Zhang	Institute of Automation, Chinese Academy of Sciences
Kamal Nasrollahi	Aalborg University, Denmark
Gang Hua	Microsoft Research, USA
Thomas B.	Moeslund Aalborg University, Denmark
Qiang Ji	Rensselaer Polytechnic Institute, USA

Schedule

Venue: Room 306B
Time: 20th August 2018, 13:30 - 17:00 PM

SUBSLOT	SPEAKER	TITLE	CHAIR
13:30 - 13:40	Welcome and Opening		Zhaoxiang Zhang
13:40 - 14:20	Edwin Hancock (University of York, UK)	**Machine Learning with Quantum Walks**	Guisong Xia
14:20 - 15:00	Xilin Chen (Institute of Computing Technology of the Chinese Academy of Sciences)	TBD	Kamal Nasrollahi

15:00 - 15:10	Michał Koziarski, Bogdan Kwolek and Bogusław Cyganek	Convolutional Neural Network-Based Classification of Histopathological Images Affected by Data Imbalance	Kamal Nasrollahi
15:10 - 15:20	Fu Hao, Ming Yue, Jiang Yibo and Fan Chunxiao	Effective SVD-based Deep Network Compression for Automatic Speech Recognition	
15:20 - 15:30	Kang Liao, Chunyu Lin, Yao Zhao and Moncef Gabbouj	DRGAN: Automatic Radial Distortion Rectification Using Conditional GAN in Real-Time	
15:30 - 15:40	Fadi Dornaika, Fawzi Khattar, Jorge Reta, Ignacio Arganda-Carreras and Yassine Ruichek	Image-based Driver Drowsiness Detection	
15:40 - 16:00	Coffee Break		
16:00 - 16:10	Chao Li and Yue Ming	Three-Stream Convolution networks after background subtraction for action recognition	Meina Kan
16:10 - 16:20	Cong Luo and Xue Gao	Scene Text Detection with A SSD and Encoder-Decoder Network Based Method	
16:20 - 16:30	Arindam Das, Thomas Boulay and Senthil Yogamani	Evaluation of Group Convolution in Lightweight Deep Networks for Object Classification	
16:30 - 16:40	Javier Hernandez-Ortega, Julian Fierrez, Ester Gonzalez-Sosa and Aythami Morales	Continuous Presentation Attack Detection in Face Biometrics based on Heart Rate	
16:40 - 17:00	Closing		

7th IAPR International Workshop on Computational Forensics (IWCF 2018)

Overview

With the advent of high-end technology, fraudulent efforts are on rise in many areas of our daily life, may it be fake paper documents, forgery in the digital domain or copyright infringement. In solving the related criminal cases use of pattern recognition (PR) principles is also gaining an important place because of their ability in successfully assisting the forensic experts to solve many of such cases.

The 7th IAPR International Workshop on Computational Forensics (IWCF) will aim at addressing the theoretical and practical issues related to this field, i.e. role of PR techniques for analysing problems in forensics. Effort is to bring the people together who are working on these issues in different areas including document and speech processing, music analysis, digital security, forensic sciences, etc.

Organizers

Jean-Marc Ogier	University of La Rochelle, France
Chang-Tsun Li	Charles Sturt University, Australia
Nicolas Sidère	University of La Rochelle, France

Schedule

Venue: Room 302B
Time: 20th August 2018, 09:00 – 12:00 AM

SUBSLOT	SPEAKER/TITLE
09:00 - 10:00	Chang-Tsun Li **Applications Of Multimedia Forensics In Law Enforcement**
10:00 - 10:15	A Novel Method for Race Determination of Human Skulls Paper Authors: Casper Oakley, Li Bai, Iman Liao, Olasimbo Arigbabu, Nurliza Abdullah and Mohamad Helmee Mohamad Noor
10:15 - 10:30	Anchored Kernel Hashing for Cancelable Template Protection for Cross-Spectrum Periocular Data Paper Authors: Kiran Raja, Raghavendra Ramachandra and Christoph Busch
10:30 - 11:00	Coffee Break
11:00 - 12:00	Saddok Kebairi **Document Fraud : Reality And Challenge For Companies**
12:00 - 12:15	Categorization of Document Image Tampering Techniques and How to Identify Them Paper Authors: Francisco Cruz, Nicolas Sidère, Mickaël Coustaty, Vincent Poulain d'Andecy and Jean-Marc Ogier

Workshop Program

Pattern Recognition in Intelligent Financial Analysis and Risk Management (PRIFR 2018)

Overview

Recently, financial industry is featured with massive volumes of both structured and unstructured data, which are often associated with unlabeled and partially labeled data, or noisy and uncertain labels. Developing intelligent financial analysis and risk management tools for such data present major challenges for both practitioners and academic researchers. The proposed workshop mainly focuses on pattern recognition and machine learning methods such as kernel methods, feature selection, reinforcement learning, complex networks, deep learning methods, etc. for building intelligence for financial analysis and risk-based knowledge discovery.

Organizers

Lu Bai	Associate Professor, Central University of Finance and Economics, China
Luca Rossi	Assistant Professor Aston University, UK
Lixin Cui	Assistant Professor, Central University of Finance and Economics, China
Jian Tang	Assistant Professor, HEC Montreal & Montreal Institute for Learning Algorithms, Canada

Schedule

Venue: Room 301A
Time: 20th August 2018, 08:45 - 12:30 AM

SUBSLOT	SPEAKER	TITLE	CHAIR
08:45 - 09:10	Lixin Cui	Opening Remarks Invited Talk 1: **Feature Selection in P2P Lending Analysis**	Lu Bai
09:10 - 09:50	Edwin Hancock	Invited Talk 2: **Exploring the Econo-physics of Market Networks using von Neumann Entropy**	Lu Bai
09:50 - 10:30	Baogang Hu	Invited Talk 3: **Information Theoretic Learning in Pattern Classification**	Luca Rossi
10:30 - 11:00	Coffee Break		
11:00 - 11:30	Ning Zhang	Invited Talk 4: **The New Generation of Artificial Intelligence in Finance**	Lixin Cui
11:30 - 12:10	Francisco Escolano	Invited Talk 5: **An Information-Theoretic Approach for Graphs**	Lixin Cui
12:10 - 12:30	Lu Bai	Invited Talk 6: **A Preliminary Survey of Analyzing Dynamic Time-varying Financial Networks Using Graph Kernels**	Luca Rossi

Workshop Program

2nd Workshop on Reproducible Research in Pattern Recognition (RRPR 2018)

Overview

Following the success of the first workshop Reproducible Research on Pattern Recognition that held at the previous ICPR event 2016, this event will propose a new edition in continuation of the previous event with a new special focus on Digital Geometry and Mathematical Morphology. As for the previous edition, it is intended as both a participative short course on the basis of RR with open discussions with the attendants, and also as a practical workshop on how to do actual RR.

Organizers

Bertrand Kerautret	Main Chair, LORIA, Université de Lorraine, Nancy
Miguel Colom	CMLA, ENS Paris Saclay
Bart Lamiroy	LORIA, Université de Lorraine, Nancy
Daniel Lopresti	Lehigh University, Bethlehem, PA 18015
Pascal Monasse	LIGM, Ecole des Ponts, Paris
Jean-Michel Morel	CMLA, ENS Paris Saclay
Fabien Pierre	LORIA, Université de Lorraine, Nancy
Hugues Talbot	Center for Numerical Vision, CentraleSupelec, Paris

Schedule

Venue: Room 303 A
Time: 20th August 2018, 09:00 AM - 16:30 PM

SUBSLOT	SPEAKER	TITLE	CHAIR
09:00 -10:00	Miguel Colom	Invited Talk 1: **Present and Future of the IPOL Journal: Machine Learning Applications**	Daniel Lopresti
10:00 -10:40	Anguelos Nicolaou	Paper 1: Non-deterministic Behavior of Ranking-based Metrics when Evaluating Embeddings Authors: Anguelos Nicolaou, Sounak Dey, Vincent Christlein, Andreas Maier and Dimosthenis Karatzas	Daniel Lopresti
10:40 - 11:10	Coffee Break		
11:10 -11 :50	Pascal Monasse	Paper 2: A Root-to-Leaf Algorithm Computing the Tree of Shapes of an Image Author: Pascal Monasse	Bertrand Kerautret
11:50 - 12:30	Phuc Ngo	Paper 3: Discrete Regular Polygons for Digital Shape Rigid Motion via Polygonization Authors: Phuc Ngo, Yukiko Kenmochi, Nicolas Passat and Isabelle Debled-Rennesson	Bertrand Kerautret
12:30 - 14:00	Lunch		
14:00 - 14:30	M. Colom B. Kerautret	Invited Talk 2:	Pascal Monasse

14:30 - 15:30	M. Colom	Practical session: Hands on the IPOL Demonstration System.	Pascal Monasse
15:30 - 16:00	Short papers authors	Short Papers Fast track (and/or posters)	Pascal Monasse
16:00 - 16:30	Organizers	Open discussion on the two previous editions of RRPR and on the future of the next Edition.	Pascal Monasse

6th Visual observation and analysis of Vertebrate And Insect Behavior workshop (VAIB 2018)

Overview

There has been an enormous amount of research on analysis of video data of humans, but relatively little on visual analysis of other organisms. The goal of this workshop is to stimulate and bring together the current research in this area, and provide a forum for researchers to share expertise. As we want to make this more of a discussion workshop, we encourage work-in-progress presentations. Reviewing will be lightweight and only abstracts will be circulated to attendees. The issues that the research will address include: detection of living organisms, organism tracking and movement analysis, dynamic shape analysis, classification of different organisms (eg. by species), assessment of organism behavior or behavior changes, size and shape assessment, counting, health monitoring, These problems can be applied to a variety of species at different sizes, such as fruit and house flies, crickets, cockroaches and other insects, farmed and wild fish, mice and rats, commercial farm animals such as poultry, cows and horses, and wildlife monitoring, etc. One aspect that they all have in common is video data.

Organizers

Robert Fisher University of Edinburgh
John Hallam University of South Denmark
Simone Palazzo Universita' di Catania

Schedule

Venue: Room 303B
Time: 20th August 2018, 09:00 – 12:30 AM

SUBSLOT	SPEAKER	TITLE	CHAIR
09:00 - 09:30	O. Mothes	Multi-view Anatomical Animal Landmark Localization using Deep Feature Regression	Fisher
09:30 - 10:00	A. Gostler	Tracking Golden-Collared Manakins in the Wild	Fisher
10:00 - 10:30	L. N. Govindarajan	Neural Computing on a Raspberry Pi: Applications to Zebrafish Behavior Monitoring	Fisher
10:30 - 11:00	Coffee Break		
11:00 - 11:30	I. F. Rodriguez	Multiple Animal Tracking in Video Using Part Affinity Fields	Fisher
11:30 - 12:00	F. Naiser	Tracking and Re-Identification System for Multiple Laboratory Animals	Fisher
12:00 - 12:30	M. C. Bakkay	Support Vector Machine (SVM) Recognition Approach adapted to Individual and Touching Moths Counting in Trap Images	Fisher

5th IAPR TC 9 Workshop on Multimodal Pattern Recognition of Social Signals in Human Computer Interaction (MPRSS 2018)

Overview

Building intelligent artificial companions capable to interact with humans in the same way humans interact with each other is a major challenge in affective computing. Such a type of interactive companion must be capable of perceiving and interpreting multimodal information about the user in order to be able to produce an appropriate response. The proposed workshop mainly focuses on pattern recognition and machine learning methods for the perception of the user's affective states, activities and intentions.

Organizers

Friedhelm Schwenker — Institute of Neural Information Processing, Ulm University, Germany
Stefan Scherer — Institute for Creative Technologies, University of Southern California, USA

Schedule

Venue: Room 302B
Time: 20th August 2018, 14:00 – 17:30 PM

SUBSLOT	SPEAKER	TITLE	CHAIR
	Registration		
14:00-14:05	Opening of MPRSS 2018		Scherer / Schwenker
14:05-14:20	Friedhelm Schwenker	Multimodal Recognition of Mental States : Emotions, Affect, and Pain	TBA
14:20-15:05	Xiaojun Wu Jiangnan University	Invited Talk: **Light weight deep neural networks with applications to pattern recognition**	Schwenker / Scherer
15:05-15:30	Suzan Anewar	Perceptual judgments to detect computer generated forged faces in social media	TBA
15:30-16:00	Coffee Break		
16:00-16:25	Girmaw Abele	A first-person vision dataset of office activities	TBA
16:25-16:50	Xinyi Liu	An image captioning method for infant sleeping environment diagnosis	X. Wu
16:50-17:15	Patrick Thiam	Combining deep and hand crafted features for audio-based pain intensity classification	Milanova
17:15-17:30	Closing of MPRSS 2018: Discussion, Proceedings, Special Issue, etc		

Deep Learning for Document Analysis and Recognition (DLDAR 2018)

Overview

The technology of document analysis and recognition (DAR) aims to automatically extract information from document images and handwriting by analyzing the structure and textual contents. It has tremendous applications such as digitization of books and financial notes and information extraction from Web document images. Recognizing text from images, known as Optical Character Recognition (OCR) is the core task of DAR. Recently, OCR has achieved a great success in both scientific research and practical application for different scenes. A traditional OCR system is heavily pipelined, with hand-designed and highly-tuned modules, usually composed of line extraction, word detection, letter segmentation, and then applying different techniques to each piece of a character to figure out what the character is. Nowadays, we have entered a new era of big data, which offers both opportunities and challenges to the field of OCR and DAR. We should seek new OCR and DAR methods to be adaptive to big data, and also push forward new OCR and DAR applications benefited from big data.

Deep learning, which is considered as one of the most significant breakthrough in recent pattern recognition and computer vision fields, has greatly affected these fields and achieved impressive progress in both academy and industry. Currently, deep learning is widely accepted as an effective OCR solution, which first learns to detect text lines or words from images, then recognize the sequence of characters directly from extracted text lines or words. The hand-built and highly tuned modules are avoided in the deep learning-based OCR system. It is expected that the development of deep learning theories and applications would further influence the field of OCR and DAR.

Organizers

Yongpan Wang — Alibaba Group, China
Xiang Bai — Huazhong University of Science and Technology, China
Cheng-Lin Liu — Institute of Automation of Chinese Academy of Sciences, China

Schedule

Venue: Room 305
Time: 20th August 2018, 14:10 – 17:40 PM

SUBSLOT	SPEAKER	TITLE
14:10 - 14:30	Simone marinai	**Reflections around Deep Learning and Document Image Analysis**
14:30 - 14:50	Lianwen Jin	**Toward High Performance Unconstrained Online Handwritten Chinese Text Recognition: A Deep Learning Approach**
14:50 - 15:10	Yongpan Wang	**the Duguang cloud system of Alibaba: Development and challenges for Application of OCR**
15:10 - 15:30	C V Jawahar	**Deep Learning Revisiting Handwriting: LetNet to HWNet**
15:30 - 16:00	Coffee Break	
16:00 - 16:20	Weilin Huang	Reading Text in the Wild: From Text Detection to End-to-End Recognition
16:20 - 16:40	Huasha Zhao	**Multimodal information extraction using deep learning technologies**
16:40 - 17:40	Panel	**Future trends on deep learning for OCR and DAR**

Workshop Program

Multimedia Information Processing for Personality and Social Networks Analysis (MIPPSNA 2018)

Overview

The MIPPSNA 2018 workshop aims to compile the latest research advances on the analysis of multimodal information for facing problems that are not visually obvious, this is, problems for which the sole visual analysis is insufficient to provide a satisfactory solution. Specifically, two problems are of interest for the workshop: personality analysis and social behavior analysis, although submissions in related topics will be considered as well. The workshop is associated to an ICPR contest running two tracks in the same topics, see http://chalearnlap.cvc.uab.es/challenge/27/description/. Therefore, the workshop also accepts submissions from contest participants describing their solutions for the challenge.

Organizers

Hugo Jair Escalante	INAOE, Mexico, ChaLearn, USA
Esaú Villatoro	UAM-C, Mexico
Bogdan Ionescu	University Politehnica of Bucharest, Romania
Gabriela Ramírez	UAM-C, Mexico
Sergio Escalera	CVC-UAB
Martha Larson	Multimedia Information Retrieval Lab Delft University of Technology, Netherlands
Henning Müller	University of Applied Sciences Western Switzerland (HES-SO), Switzerland
Isabelle Guyon	ChaLearn, USA, Université Paris Saclay, France

Schedule

Venue: Room 302A
Time: 20th August 2018, 09:00 - 12:20 AM

SUBSLOT	SPEAKER	TITLE	CHAIR
09:00 - 09:10	Esaú Villatoro	Welcome – Workshop opening	Hugo Jair Escalante
09:10 - 09:55	Invited speaker Sergio Escalera	Apparent Personality Computing	Hugo Jair Escalante
09:55 - 10:15	Gabriela Ramírez	Overview of the Multimedia Information Processing for Personality & Social Networks Analysis Contest. Gabriela Ramírez, Esaú Villatoro, Bogdan Ionescu, Hugo Jair Escalante, Sergio Escalera, Martha Larson, Henning Müller, and Isabelle Guyon	Hugo Jair Escalante
10:15 - 10:30	Ernesto Pérez Costa	Recognition of Apparent Personality traits from text and handwritten images. Ernesto Pérez Costa, Luis Viilaseñor-Pienda, Eduardo Morales, and Hugo Jair Escalante	Hugo Jair Escalante
10:30 - 11:00	Coffee Break		

Workshop Program

11:00 - 11:20	Hiram Calvo	Handwritten texts for Personality Identification Using Convolutional Neural Networks. José E. Valdez-Rodríguez, Hiram Calvo, Edgardo M. Felipe-Riverón	Esaú Villatoro
11:20 - 11:40	Egils Avots	Multimodal Database of Emotional Speech, Video and Gestures. Tomasz Sapinski, Dorota Kaminska, Adam Pelikant, Cagri Ozcinar, Egils Avots, and Gholamreza Anbarjafari	Esaú Villatoro
11:40 - 12:00	Rodrigo Rill	From Text to Speech: A Multimodal Cross-domain Approach for Deception Detection. Rodrigo Rill-García, Luis Villaseñor-Pineda, Verónica Reyes-Meza, and Hugo Jair Escalante	Esaú Villatoro
12:00 - 12:20	Hugo Jair Escalante	Farewell– Workshop closing and announcements	Esaú Villatoro

Contest Session

Contest Session - **Contest Session (310, 3rd Floor)** - MoCS
Monday, August 20, 2018, 09:30-11:30, 310, 3rd Floor

ICPR 2018 Contests Special Session: 09:00-11:55, 20th Aug 2018

Session Chair: Dimosthenis Karatzas (Universitat Aut¨®noma de Barcelona) and Xiang Bai (Huazhong University of Science and Technology)

09:00-09:30	**ICPR2018 Contest on Robust Reading for Multi-Type Web Images**
09:00-09:15	Presentation of the competition results Lianwen Jin, South University of Technology
09:15-09:25	Presentation of 1st place contribution: Jianshu Zhang, Mingjun Chen, Jiajia Wu, Jinshui Hu, Jun Du, Yixing Zhu, Lirong Dai and Wenchao Wang (iFlyTek & USTC)
09:25-09:30	Presentation of certificates to the winners Lianwen Jin, South University of Technology

09:30-10:00	**ICPR2018 Contest on Fraud Detection Contest: Find-it!**
09:30-09:45	Presentation of the competition results Chloé Artaud, Université de La Rochelle
09:45-09:55	Presentation of 1st place contribution: Markos Zampoglou, Akis Papadopoulos, Olga Papadopoulou (ITI, Greece)
09:55-10:00	Presentation of certificates to the winners Chloé Artaud, Université de La Rochelle

10:00-10:30	**ICPR2018 Contest on Multimedia Information Processing for Personality & Social Networks Analysis Challenge**
10:00-10:15	Presentation of the competition results Hugo Jair Escalante, Instituto Nacional de Astrofisica, Optica y Electronica
10:15-10:25	Presentation of 1st place contribution: José E. Valdez-Rodríguez, Hiram Calvo, Edgardo Felipe-Riverón (CIC-IPN, Mexico)
10:25-10:30	Presentation of certificates to the winners Hugo Jair Escalante, Instituto Nacional de Astrofisica, Optica y Electronica
10:30-11:00	Coffee Break

Contest Session

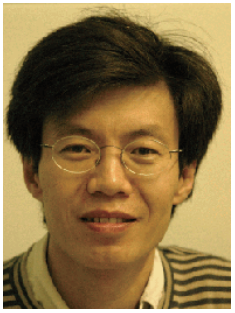
11:00-11:55	**ICPR2018 Contest on Contest on Object Detection in Aerial Images**
11:00-11:15	Presentation of the competition results Gui-Song Xia, Wuhan University
11:15-11:25	Presentation of 1st place contribution on object detection with oriented/horizontal bounding boxes: Yixing Zhu, Chixiang Ma, Jun Du (USTC)
11:25-11:30	Presentation of 2nd place contribution on object detection with oriented bounding boxes: Jamyoung Koo (Satreci, South Korea)
11:30-11:35	Presentation of 2nd place contribution on object detection with horizontal bounding boxes: Hongliang LI, Qishang Cheng, Wei Li, Xiaoyu Chen, Heqian Qiu, Zichen Song, Yao Qi (UESTC)
11:35-11:40	Presentation of 3rd place contribution on object detection with oriented bounding boxes: Xudong Rao, Xinggang Wang, Wenyu Liu (HUST)
11:40-11:45	Presentation of 3rd place contribution on object detection with horizontal bounding boxes: Mingtao Fu, Yongchao Xu (HUST)
11:45:-11:55	Presentation of certificates to the winners Gui-Song Xia, Wuhan University

Keynote Speakers

Keynote Speakers

Invited Keynote Speakers

Long QUAN



Hong Kong University of Science and Technology, China

Title: The Challenges of 3D Reconstruction with Deep Learning

Abstract:
In this talk, I will review the developments in computer vision and visual learning over the past. Then, I will turn the focus on recent exciting work in deep visual learning and 3D reconstruction breakthrough in computer vision. Here, I showcase the reconstruction approaches in large-scale of hundreds of square kilometers high-rise metropolitan areas and undeveloped rural areas from drones, and in small-scale daily objects from smartphones. I also demonstrate the online cloud platform and portal www.altizure.com with its crowd-sourced Altizure Earth, developed and funded by the HKUST team, rivaling the popular Google Earth!

Biography:
Long Quan received the Ph.D. in Computer Science at INRIA, France, in 1989. Before joining the Department of Computer Science at the Hong Kong University of Science and Technology (HKUST) in 2001 to found his computer vision group, he has been one of the founding members of INRIA Grenoble Computer Vision Group since 1990.

He directed the founding best French PhD thesis in computer science by Peter Sturm, le prix de these Gilles Kahn in 1998, the Piero Zamperoni Best Student Paper Award in 2000 by Maxime Lhuillier, the first of six highlights of Siggraph 2007, the Best Student Poster Paper of CVPR 2008. His many graduate students are now world computer vision leaders at INRIA and CNRS in France, Lund University in Sweden, NUS in Singapore, Beijing University , Alibaba and DJI in China, SFU in Canada, and Microsoft, Google, and Princeton in USA.

He has served in all the major computer vision journals, as an Associate Editor of IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI), a Regional Editor of Image and Vision Computing Journal (IVC), an editorial board member of the International Journal of Computer Vision (IJCV), an editorial board member of the Electronic Letters on Computer Vision and Image Analysis (ELCVIA), an associate editor of Machine Vision and Applications (MVA), and an editorial member of Foundations and Trends in Computer Graphics and Vision.

He has contributed to all the major computer vision conferences, IEEE International Conference on Computer Vision (ICCV), European Conference on Computer Vision (ECCV), and IEEE Computer Vision and Pattern Recognition (CVPR), and IAPR International Conference on Pattern Recognition (ICPR). He served as a Program Chair of ICPR 2006 Computer Vision and Image Analysis, a Program Chair of ICPR 2012 Computer and Robot Vision, a General Chair of the ICCV 2011 in Barcelona, and a General Chair of the IEEE CVPR 2022 in New Orleans. He is the founding director of the HKUST Center for Visual Computing and Image Science. He is also an IEEE Fellow of the Computer Society.

Most recently, with his HKUST graduates, he founded altizure.com, the world's first portal for generating 3D from drone and smartphone photos!

Keynote Speakers

Keynote Speakers

K. Venkatesh Prasad

Ford Motor Company, USA

Title: Automobiles and Mobility Solutions

Abstract:
As human intelligence, imagination & ingenuity continue to create advancements in machine-intelligence, we have new ways to serve the mobility needs of our planet. With a world population of about 7.6 billion and immense human and machine intelligence at our disposal, we have the opportunity to create novel experiences and related services associated with traveling from "A" to "B." Thanks in no small part to advancements in pattern recognition, computer vision and image processing, automobiles are getting "smart" and growing more aware of their surroundings. The world is also getting "smart." In this talk, we outline some key applications areas of machine intelligence to applications, in the context of addressing human mobility needs.

Biography:
K. Venkatesh Prasad is the Senior Technical Leader for Mobility and a member of the Ford Technology Advisory Board for Open Innovation. Prior to this role, he was Ford's Global Innovation Implementation Leader, Vehicle Components & Systems Engineering and during a 3-year period help establish eight makerspaces for employee-innovation across global engineering centers. In the earlier years, Prasad applied computer vision, based on early CMOS cameras, to several automobile applications including automatic headlamp detection. In 2011, Prasad architected OpenXC, the industry's first open-source hardware and open-source software platform, an "innovator's toolkit," which launched in 2013 and today is one of the tools used by Ford employee-innovators to design, test and release products and by researchers and experimenters the world over. He also co-founded Ford's startup-lab in 2012 as a 5-person office; a year later, it scaled to become Ford's Innovation Center Palo Alto and today is a 150-person operation. Prasad earned a Ph.D. in electrical and computer engineering from Rutgers University in 1990, an M.S. from Washington State University, and engineering degrees from IIT-Madras and NIT-Trichy in India. He has more than 25 years of collaborative experience with universities, startups, automotive suppliers and technology firms. He has co-edited three issues of the Proceedings of the IEEE (on Automotive Technologies; Aerospace and Automotive Software and Cyber-Physical Systems). Prior to coming to Dearborn, Michigan, in 1996, Prasad worked in Menlo Park, California (at Ricoh Innovations) and before that in Pasadena, California (at Caltech and, as a faculty affiliate, at the NASA Jet Propulsion Laboratory).

Keynote Speakers

Jianchang Mao

Microsoft, USA

Title: Achieving Human Parity Performance in Pattern Recognition and Language Understanding by Machines

Abstract:
For more than a half century, computer scientists have been attempting to train computer systems to perform human perception and cognition tasks, such as, recognize image and speech, comprehend text, translate languages, etc. But until recently those systems were plagued with stagnated accuracies that were far below human performance. In recent years, with the breakthroughs in Deep Learning, advances in the state-of-the-art performance of those systems have gained a strong momentum, thanks to the rapid increase in computing power, big data, and advances in machine learning algorithms. Today, AI breakthroughs are coming at an accelerated pace. The performance of computer systems on several perception and cognition tasks has reached human parity. For example, in 2015 Microsoft researchers achieved 96% accuracy in the ImageNet Computer Vision Challenge, which is as good as a Stanford graduate student. Less than a year later, Microsoft's speech recognition system achieved 5.1% error rate on the Switchboard dataset, which is at parity with professionals who do transcription! In January 2018, Microsoft was the first to achieve human parity in text comprehension tasks on the Stanford Question Answering Dataset. And two months later, Microsoft announced that it reached human parity in English-to-Chinese and Chinese-to-English machine translation on the news dataset. In this talk, I will briefly describe our journey to achieving human parity on these tasks and the technologies that enabled the breakthroughs. I will also present other applications of Deep Learning, such as OCR in unconstrained environments and Advertising.

Biography:
Dr. Jianchang (JC) Mao is Corporate Vice President of Bing Ads Marketplace & Serving, Artificial Intelligence & Research division at Microsoft. He leads a global team of engineers, scientists, product managers, marketplace operators, and analysts, responsible for building technologies and products, and running multi-billion-dollar advertising marketplace that powers Bing, Yahoo!, AOL, and other syndication partners.

Prior to joining Microsoft, Mao was Vice President and Head of Advertising Sciences at Yahoo! Labs, overseeing the R&D of advertising technologies and products. He was also the science and engineering director responsible for the development of backend technologies for several Yahoo! social search products, including Yahoo! Answers. At Yahoo!, Mao received the Leadership Superstar Award in 2010, and received a Superstar Team Award in 2008. Prior to joining Yahoo!, Mao was director of emerging technologies and principal architect at Verity Inc., a leader in Enterprise Search (acquired by Autonomy and then acquired by HP), from 2000 to 2004. Mao began his career as a research staff member at the IBM Almaden Research Center from 1994 to 2000, after receiving his PhD degree in computer science from Michigan State University in 1994.

Mao's research interests include AI, machine learning, data mining, information retrieval, computational advertising, pattern recognition, and image processing. He has published more than 50 papers in journals, book chapters, and conferences, and holds 29 U.S. patents. Mao received an Honorable Mention Award in ACM KDD Cup 2002 (Task 1: Information Extraction from Biomedical Articles), an IEEE Transactions on Neural

Keynote Speakers

Networks Outstanding Paper Award in 1996 (for his 1995 paper), and an Honorable Mention Award from the International Pattern Recognition Society in 1993. Mao is a Fellow of IEEE.

Ashok Popat

Google, Inc., USA

Title: Advice to a Promising OCR Researcher

Abstract:
Document Analysis and Recognition remains a vibrant and challenging field, spanning and touching several domains, including pattern recognition, computer vision, linguistics, digital humanities, and augmented reality. Probably most of the best work in this field remains to be done. That work will build on what came before -- in terms of techniques and understanding already achieved, but also by learning from the best practices of our colleagues and predecessors. As an OCR researcher, in this talk I›ll try to reflect on some of the advice I›ve received from mentors, colleagues, and others in various places, including MIT, Xerox PARC, and Google. I›ll present the ideas in the context of developing an Optical Character Recognition system at Google.

Biography:
Ashok C. Popat received the SB and SM degrees from the Massachusetts Institute of Technology in Electrical Engineering in 1986 and 1990, and a PhD from the MIT Media Lab in 1997. He is a Research Scientist at Google in Mountain View, California. At Google he has worked on several projects, including Books, Translate, and (most recently) Optical Character Recognition (OCR). He is part of a team that has developed an OCR system that can handle more than 200 languages, many of which are currently supported through the Cloud Vision web-based API. Prior to joining Google in 2005 he worked at Xerox PARC with Gary Kopec and Henry Baird, on Document Image Decoding. Between 2002 and 2005 he was also a consulting assistant professor of Electrical Engineering at Stanford, where he co-taught (with Dan Bloomberg) a course "Electronic documents: paper to digital." He has also worked at Motorola, Hewlett Packard, PictureTel, and the EPFL in Switzerland. His areas of interest include signal processing, data compression, and pattern recognition. He enjoys running, skiing, sailing, hiking, and spending time with his wife and two daughters.

Keynote Speakers

Zhi-Hua Zhou

Nanjing University, China

Title: An Exploration to Non-NN Style Deep Learning

Abstract:

Deep learning is a hot topic during the past few years. Generally, the word "deep learning" is regarded as a synonym of "deep neural networks (DNNs)". In this talk, we will discuss on essentials in deep learning and claim that it is not necessarily to be realized by neural networks. We will then present an exploration to non-NN style deep learning, where the building blocks are non-differentiable modules and the training process does not rely on backpropagation.

Biography:

Zhi-Hua Zhou is a Professor of Nanjing University, China. He is the Head of the Department of Computer Science and Technology, Dean of the School of Artificial Intelligence, and Founding Director of the LAMDA Group. His main research interests are in artificial intelligence, machine learning and data mining. He authored the books "Ensemble Methods: Foundations and Algorithms (2012)" and "Machine Learning (in Chinese, 2016)", and published more than 150 papers in top-tier international journals/conferences. According to Google Scholar, his publications have received more than 30,000 citations, with an H-index of 85. He also holds 22 patents and has rich experiences in industrial applications. He has received various awards, including the National Natural Science Award of China, PAKDD Distinguished Contribution Award, IEEE ICDM Outstanding Service Award, etc. He serves as the Executive Editor-in-Chief of Frontiers of Computer Science, and Action/Associate Editor of Machine Learning, IEEE PAMI, ACM TKDD, etc. He was Associate Editor of ACM TIST, IEEE TKDE, IEEE TNNLS, IEEE TCDS, etc. He founded ACML (Asian Conference on Machine Learning) and served as General Chair of IEEE ICDM 2016, Program Chair of IJCAI 2015 Machine Learning track, etc. He will serve as Program Chair of AAAI 2019 and IJCAI 2019. He is the Chair of CCF-AI, and was Chair of the IEEE CIS Data Mining Technical Committee. He is a foreign member of the Academy of Europe, and a Fellow of the ACM, AAAI, AAAS, IEEE, IAPR, CCF and CAAI.

Keynote Speakers

Keynote Speakers

Alison Noble

University of Oxford, UK

Title: Human Intelligence, Artificial Intelligence and How They Are Changing Ultrasound Image Analysis

Abstract:

Ultrasound imaging is widely used in clinical practice but requires expertise to acquire images and interpret them. Recent advances in machine learning applied to imaging are changing the way we can analyse ultrasound images and extract clinically useful information from ultrasound images and video. Ultrasound images are, after all, "just" spatial maps of acoustic patterns so we would hope that the pattern-recognition power of machine learning would be well-suited for their analysis. In this talk I will describe some recent work of my group on machine learning applied to ultrasound image analysis, some of the interesting challenges specific to this application domain, and highlight some emerging topics of research interest.

Biography:

Professor Alison Noble is the Technikos Professor of Biomedical Engineering at the Institute of Biomedical Engineering, University of Oxford UK. She is best known for her group's research on ultrasound image analysis much of which has involved inter-disciplinary collaborators with clinical partners. Her current interests are in machine learning applied to ultrasound imaging with application to fetal medicine in the developed world and LMICs, ranging from developing next generation tools for non-expert users of ultrasound technology, to point-of-care computer-assisted basic ultrasound assessment. Throughout her career she has maintained a keen interest in the commercialization of scientific research as a pathway to realizing impact of academic research. She co-founded and is a consultant to Intelligent Ultrasound Ltd, which became part of MedaPhor Group PLC in 2017.

Professor Noble served as the President of the Medical Image Computing and Computer-Assisted Interventions (MICCAI) Society from 2013-16. She is a European Research Council Advanced Research award holder. She is a Fellow of the Royal Academy of Engineering (2008) and a Fellow of the Royal Society (2017) and was awarded an OBE for services to science and engineering in the Queen's Birthday Honours 2013.


Main Program

Main Program

- **Opening ceremony (Ballroom C, 1st Floor)** - TuOR
Tuesday, August 21, 2018, 08:40-09:00, Ballroom C, 1st Floor

- **Plenary Session: KS Fu Prize Speech (Ballroom C, 1st Floor)** - Tu1PL
Tuesday, August 21, 2018, 09:00-10:00, Ballroom C, 1st Floor

- **Coffee Break TuAM (North Foyer & Park View Foyer, 3rd Floor)** - TuAM
Coffee Break
Tuesday, August 21, 2018, 10:00-10:30, North Foyer & Park View Foyer, 3rd Floor

Main Program

Oral Session - **TuAMOT1.A Machine Learning and Classification (Ballroom C, 1st Floor)** - TuAMOT1
Tuesday, August 21, 2018, 10:30-12:30, Ballroom C, 1st Floor

#	Subslot	**Title** / Authors
1	10:30-10:50	**Boosting Black-Box Variational Inference by Incorporating the Natural Gradient** Trusheim, Felix (Robert Bosch GmbH) 35802
2	10:50-11:10	**Introduce More Characteristics of Samples into Cross-Domain Sentiment Classification** Fu, Xianghua (Shenzhen University) 39018; Liu, Wangwang (Shenzhen University) 38636
3	11:10-11:30	**Discriminative Collaborative Representation and Its Application to Audio Signal Classification** Jiang, Yuechi (The Hong Kong Polytechnic University) 37207; Leung, Frank Hung Fat (The Hong Kong Polytechnic University) 37228
4	11:30-11:50	**Cross-Domain Semantic Feature Learning Via Adversarial Adaptation Networks** LI, Rui (City University of Hong Kong) 36139; CAO, Wenming (City University of Hong Kong) 36952; QIAN, Sheng (City University of Hong Kong) 36962; Wong, Hau-San (City University of Hong Kong) 14368; Wu, Si (South China University of Technology) 36974
5	11:50-12:10	**Cayley-Klein Metric Learning with Shrinkage-Expansion Constraints** Bi, Yanhong (Institute of Automation, Chinese Academy of Sciences (CASIA)) 37184; Fan, Bin (Institute of Automation, Chinese Academy of Sciences) 25602; Wu, Fuchao (Institute of Automation, Chinese Academy of Science) 11781
6	12:10-12:30	**Estimating Prediction Qualities without Ground Truth: A Revisit of the Reverse Testing Framework** Bhaskaruni, Venkata Sai Krishna Dheeraj (University of Wyoming) 39512; Moss, Fiona (University of Wyoming) 39513; Lan, Chao (University of Wyoming) 39510

Main Program

Oral Session - **TuAMOT1.B Deep Learning 1 (309A, 3rd Floor)** - TuAMOT2
Tuesday, August 21, 2018, 10:30-12:30, 309A, 3rd Floor

#	Subslot	Title / Authors
1	10:30-10:50	RotateConv: Making Asymmetric Convolutional Kernels Rotatable Ma, Jiabin (Institute of Automation, Chinese Academy of Sciences) 36156; Guo, Weiyu (Institute of Automation, Chinese Academy of Sciences) 36746; Wang, Wei (National Laboratory of Pattern Recognition) 21869; Wang, Liang (Institute of Automation, Chinese Academy of Sciences) 24112
2	10:50-11:10	Learning Combinations of Activation Functions Manessi, Franco (lastminute.com group) 36992; Rozza, Alessandro (lastminute.com group) 26870
3	11:10-11:30	Learning Evasion Strategy in Pursuit-Evasion by Deep Q-Network Zhu, Jiagang (Chinese Academy of Sciences, Institute of Automation) 37030; Zou, Wei (CASIA) 37099; Zhu, Zheng (CASIA) 37121
4	11:30-11:50	Data Augmentation with Improved Generative Adversarial Networks Shi, Hongjiang (Shanghai University) 36574; Wang, Lu (Shanghai University) 37486; Ding, Guangtai (Shanghai University) 37886; Yang, Fenglei (Shanghai University) 38878; Li, Xiaoqiang (Shanghai University) 37888
5	11:50-12:10	Artsy–GAN: A Style Transfer System with Improved Quality, Diversity and Performance Liu, Hanwen (BOE) 36381; Navarrete Michelini, Pablo (BOE Technology Group Co., Ltd.) 37221; Zhu, Dan (BOE) 37183

Main Program

Oral Session - **TuAMOT2 Learning Based Vision (309B, 3rd Floor)** - TuAMOT3
Tuesday, August 21, 2018, 10:30-12:30, 309B, 3rd Floor

#	Subslot	Title / Authors
1	10:30-10:50	R^2-ResNeXt: A ResNeXt-Based Regression Model with Relative Ranking for Facial Beauty Prediction Lin, luojun (South China University of Technology) 35981; Liang, Lingyu (South China University of Technology) 27713; Jin, Lianwen (South China University of Technology) 11766
2	10:50-11:10	Learning Intrinsic Image Decomposition by Deep Neural Network with Perceptual Loss Han, Guangyun (Sun Yat-sen University) 37972; Xie, Xiaohua (Sun Yat-sen University) 17336; Zheng, Wei-Shi (Sun Yat-sen University) 15610; Lai, Jian-huang (Sun Yat-sen University) 12766
3	11:10-11:30	Learning to Learn Second-Order Back-Propagation for CNNs Using LSTMs Roy, Anirban (SRI International) 31863; Todorovic, Sinisa (Oregon State University) 32962
4	11:30-11:50	Multi-Scale Recurrent Encoder-Decoder Network for Dense Temporal Classification Choo, Sungkwon (Seoul National University) 37227; Seo, Wonkyo (Seoul National University) 37969; Jeong, Dong-ju (Seoul National University) 37970; Cho, Nam Ik (Seoul National University) 13665
5	11:50-12:10	A Convolutional Neural Network for Pixelwise Illuminant Recovery in Colour and Spectral Images Robles-Kelly, Antonio (Deakin University) 10346; wei, Ran (NICTA) 33138
6	12:10-12:30	Bottom-Up Pose Estimation of Multiple Person with Bounding Box Constraint Li, Miaopeng (Zhejiang University) 36982; Zhou, Zimeng (Zhejiang University) 38643; Jie, Li (Zhejiang University) 38554; Liu, Xinguo (Zhejiang University) 38638

Oral Session - **TuAMOT3 Image Processing (310, 3rd Floor)** - TuAMOT4
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#	Subslot	Title / Authors
1	10:30-10:50	**Connected Components Labeling on DRAGs** Bolelli, Federico (Università degli Studi di Modena e Reggio Emilia) 33186; Baraldi, Lorenzo (University of Modena and Reggio Emilia) 32725; Cancilla, Michele (Università degli Studi di Modena e Reggio Emilia) 36708; Grana, Costantino (Università degli Studi di Modena e Reggio Emilia) 12655
2	10:50-11:10	**Lightweight Deep Residue Learning for Joint Color Image Demosaicking and Denoising** Huang, Tao (Xidian University) 37134; Wu, FangFang (Xidian University) 40514; Dong, Weisheng (Xidian University) 37745; Shi, Guangming (Xidian University) 24901; Li, Xin (West Virginia University) 31478
3	11:10-11:30	**Joint Haze-Relevant Features Selection and Transmission Estimation Via Deep Belief Network for Efficient Single Image Dehazing** Ling, zhigang (Hunan University) 37101; Li, xiuxin (Hunan University) 37973; Zou, wen (Hunan University) 37978; Liu, Min (Hunan University) 35417
4	11:30-11:50	**In2I : Unsupervised Multi-Image-to-Image Translation Using Generative Adversarial Networks** Perera, Pramuditha (Rutgers University) 38753; Mahdi, Abavisani (Rutgers University) 38756; Patel, Vishal (Rutgers, The State University of New Jersey) 34042
5	11:50-12:10	**SESR: Single Image Super Resolution with Recursive Squeeze and Excitation Networks** Cheng, Xi (Nanjing University of Science and Technology) 38623; Li, Xiang (NJUST) 38530; Yang, Jian (Nanjing University of Science and Technology) 14216; Tai, Ying (Youtu Lab, Tencent) 38876
6	12:10-12:30	**Deep Joint Noise Estimation and Removal for High ISO JPEG Images** Yue, Huanjing (Tianjin University) 38268; Zhou, Shengdi (Tianjin University) 38701; Yang, Jingyu (Tianjin University) 36794; Sun, Xiaoyan (Microsoft Research) 38282; Hou, Chunping (Tianjin University) 38284

- **Lunch Break Tu(Exhibition Hall 5, B1 Floor)** - TuLunch_Break
Tuesday, August 21, 2018, 12:30-14:00, Exhibition Hall 5, B1 Floor

Plenary Session - **Plenary Session: JK Aggarwal Prize Speech (Ballroom C, 1st Floor)** - Tu2PL
Tuesday, August 21, 2018, 14:00-15:00, Ballroom C, 1st Floor

Poster Session - **Poster Session TuPMP, Coffee Break (North Foyer & Park View Foyer, 3rd Floor)** - TuPMP
Tuesday, August 21, 2018, 15:00-17:00, North Foyer & Park View Foyer, 3rd Floor

#	Subslot	Title / Authors
1	15:00-17:00	**Linear Discriminative Sparsity Preserving Projections for Dimensionality Reduction** Zhang, Jianbo (Northeastern University at Qinhuangdao) 35127; Wang, Jin-Kuan (Northeastern University) 35137
2	15:00-17:00	**Human Activity Recognition Based on Convolutional Neural Network** Xu, Wenchao (Shanghai Key Laboratory of Multidimensional Information Processi) 35180; Pang, Yuxin (Shanghai Key Laboratory of Multidimensional Information Processi) 35179; Yang, yanqin (Shanghai Key Laboratory of Multidimensional Information Processi) 35182; Liu, yanbo (Shanghai Jiaotong University) 35183
3	15:00-17:00	**A Comprehensive Study on Upper-Body Detection with Deep Neural Networks** Zhu, Yamei (Tongji University) 35196; Zhang, Lin (Tongji University) 26242
4	15:00-17:00	**Structure Learning of Bayesian Networks by Finding the Optimal Ordering** He, Chuchao (Northwestern Polytechnical University) 32336; Gao, Xiao-guang (Northwestern Polytechnical University) 32400; GUO, Zhigao (Northwestern Polytechnical University) 32531
5	15:00-17:00	**Precision Learning: Towards Use of Known Operators in Neural Networks** Maier, Andreas (Friedrich-Alexander-Universität Erlangen-Nürnberg) 30209; Schebesch, Frank (FAU Erlangen-Nürnberg) 35245; Syben, Christopher (FAU Erlangen-Nuremberg) 35202; Würfl, Tobias (FAU Erlangen-Nuremberg) 35203; Steidl, Stefan (Friedrich-Alexander-Universität Erlangen-Nürnberg) 30210; Choi, Jang-Hwan (Ewha Womans University) 35207; Fahrig, Rebecca (FAU Erlangen-Nuremberg) 35205
6	15:00-17:00	**Free Space, Visible and Missing Lane Marker Estimation Using the PsiNet and Extra Trees Regression** John, Vijay (Toyota Technological Institute) 30431; Meenakshi Karunakaran, Nithilan (Toyota Technological Institute) 35257; Guo, Chunzhao (Toyota Central R&D Labs., Inc.) 31321; Kidono, Kiyosumi (TOYOTA Central R&D Labs., Inc.) 14274; Mita, Seiichi (Toyota Technological Institute) 30433

7	15:00-17:00	**Approximate Cluster Heat Maps of Large High-Dimensional Data** Rathore, Punit (The University of Melbourne) 35284; Bezdek, James C. (-) 12534; Kumar, Dheeraj (Purdue University) 35292; Rajasegarar, Sutharshan (Deakin University) 35290; Palaniswami, Marimuthu (The University of Melbourne) 35294
8	15:00-17:00	**An Approximate Bayesian Long Short-Term Memory Algorithm for Outlier Detection** Chen, Chao (University of South Carolina) 35337; Lin, Xiao (University of South Carolina) 35340; Terejanu, Gabriel (University of South Carolina) 35338
9	15:00-17:00	**Online Low-Rank Metric Learning Via Parallel Coordinate Descent Method** Gan, Sun (Shenyang Institute of Automation, Chinese Academy of Sciences, U) 35258; Yang, Cong (Shenyang Institute of Automation, Chinese Academy of Sciences) 35364; Qiang, Wang (Shenyang Institute of Automation, Chinese Academy of Sciences, U) 40487; Xiaowei, Xu (Department of Information Science, University of Arkansas at Lit) 35365
10	15:00-17:00	**Graph Embedding-Based Ensemble Learning for Image Clustering** Luo, Xiaohui (Soochow University) 35399; Zhang, Li (Soochow University) 35401; Li, Fan-Zhang (Soochow University) 30305; Wang, Bangjun (Soochow University) 35402
11	15:00-17:00	**An Extensive Study of Cycle-Consistent Generative Networks for Image-To-Image Translation** Liu, Yu (Leiden University) 35470; Guo, Yanming (National University of Defense Technology) 36609; Chen, Wei (Leiden University) 36208; Lew, Michael (Leiden University) 37605
12	15:00-17:00	**Local and Global Bayesian Network Based Model for Flood Prediction** Wu, Yirui (Hohai University) 31235; Xu, Weigang (Hohai University) 35505; Feng, Jun (Hohai University) 35504; Palaiahnakote, Shivakumara (National University of Singapore) 11476; Lu, Tong (State Key Laboratory for Software Technology, NanjingUniversity) 12403
13	15:00-17:00	**Multi-Source Clustering Based on Spectral Recovery** Yin, Hongwei (Soochow University) 35531; Li, Fan-Zhang (Soochow University) 30305; Zhang, Li (Soochow University) 35401
14	15:00-17:00	**A Voting-Near-Extreme-Learning-Machine Classification Algorithm** Hou, Hui-Rang (Tianjin University) 35595; Meng, Qing-Hao (Tianjin University) 35594; Zhang, Xiao-Nei (Tianjin University) 35596

15	15:00-17:00	**Wasserstein Generative Recurrent Adversarial Networks for Image Generating** zhang, chunping (Chongqing University) 35648; feng, yong (Chongqing University) 35653; shang, jiaxing (Chongqing University) 35654; qiang, baohua (Guilin University of Electronic Technology) 35655
16	15:00-17:00	**Image Captioning Using Adversarial Networks and Reinforcement Learning** Yan, Shiyang (Xi'an Jiaotong-liverpool University) 35675; Wu, Fangyu (Xi'an Jiaotong-Liverpool University) 35698; Smith, Jeremy Simon (University of Liverpool) 25061; Lu, Wenjin (Xi'an Jiaotong-liverpool University) 35695; Zhang, Bailing (XianJiaoTong-Liverpool University) 29584
17	15:00-17:00	**Transparent Random Dot Markers** Uchiyama, Hideaki (Kyushu University) 13013; Oyamada, Yuji (Tottori University) 24626
18	15:00-17:00	**A Deep Graphical Model for Layered Knowledge Transfer** Lu, Wei (University of Electronic Science and Technology of China) 35418; Chung, Fu-lai (Hong Kong Polytechnic University) 16330
19	15:00-17:00	**Target Group Distribution Pattern Discovery Via Convolutional Neural Network** Xu, Xin (Nanjing Reseach Institute of Electronic Engineering (NRIEE)) 35578; Wang, Wei (Nanjing University) 35877
20	15:00-17:00	**Grouped Multi-Task CNN for Facial Attribute Recognition** Yip, Chitung (Sun Yat-Sen University) 35303; Hu, Haifeng (Sun Yat-sen University) 35261
21	15:00-17:00	**Joint Semi-Supervised Learning and Re-Ranking for Vehicle Re-Identification** Wu, Fangyu (Xi'an Jiaotong-Liverpool University) 35698; Yan, Shiyang (Xi'an Jiaotong-liverpool University) 35675; Smith, Jeremy Simon (University of Liverpool) 25061; Zhang, Bailing (XianJiaoTong-Liverpool University) 29584
22	15:00-17:00	**Multi-Frequency Decomposition with Fully Convolutional Neural Network for Time Series Classification** Han, Yongming (Beijing University of Chemical Technology) 35927; Zhang, Shuheng (Beijing University of Chemical Technology) 35500; Geng, Zhiqiang (Beijing University of Chemical Technology) 35928
23	15:00-17:00	**A Novel Asymmetric Embedding Model for Knowledge Graph Completion** Geng, Zhiqiang (Beijing University of Chemical Technology) 35928; Li, Zhongkun (College of Information Science and Technology, Beijing Universit) 35533; Han, Yongming (Beijing University of Chemical Technology) 35927
24	15:00-17:00	**Enhancing Knowledge Graph Completion with Positive Unlabeled Learning** Jinghao, Niu (Institute of Automation Chinese Academy of Sciences) 35956; Sun, Zhengya (Institute of Automation, Chinese Academy of Sciences) 33466; Zhang, Wensheng (Institute of Automation, Chinese Academy of Sciences) 35963

25	15:00-17:00	**Model-Free Knockoffs for SLOPE-Adaptive Variable Selection with Controlled False Discovery Rate** Humayoo, Mahammad (Institute of Computing Technology, UCAS) 35968; Cheng, Xueqi (Institute of Computing Technology, UCAS) 36008
26	15:00-17:00	**Generating Mesh-Based Shapes from Learned Latent Spaces of Point Clouds with VAE-GAN** Kingkan, Cherdsak (Tohoku University) 35665; Hashimoto, Koichi (Tohoku University) 35699
27	15:00-17:00	**Scalable Spectral Clustering with Cosine Similarity** Chen, Guangliang (San Jose State University) 36027
28	15:00-17:00	**Selective Ensemble Network for Accurate Crowd Density Estimation** Jeong, Jiyeoup (Seoul National University) 35836; Jeong, Hawook (Samsung Electronics Co.,Ltd.) 28326; Lim, Jongin (Seoul National University) 32289; Choi, Jongwon (Seoul National University) 36042; Yun, Sangdoo (Seoul National University) 28343; Choi, Jin Young (Automation and System Research Institute, Seoul National Univers) 13609
29	15:00-17:00	**Enhanced Network Embedding with Text Information** Yang, Shuang (Jilin University) 36037; Yang, Bo (Jilin University) 36039
30	15:00-17:00	**Knowledge Graph Embedding with Multiple Relation Projections** Do, Kien (Deakin University) 36072; Tran, Truyen (Deakin University) 31870; Venkatesh, Svetha (Deakin University) 10432
31	15:00-17:00	**Unsupervised Domain Adaptation for Neural Machine Translation** Yang, Zhen (Chinese academy of science, institute of automation) 35954; Chen, Wei (Institute of Automation, Chinese Academy of Sciences) 35976; Wang, Feng (Institute of Automation, Chinese Academy of Sciences) 35247; Xu, Bo (Institute of Automation, Chinese Academy of Sciences) 36063
32	15:00-17:00	**A Graph-based Approach for Static Ensemble Selection in Remote Sensing Image Analysis** Faria, Fabio Augusto (Federal University of São Paulo) 22053; Sarkar, Sudeep (University of South Florida) 10359
33	15:00-17:00	**Deep Spatiotemporal Representation of the Face for Automatic Pain Intensity Estimation** Tavakolian, Mohammad (University of Oulu) 36169; Hadid, Abdenour (University of OULU) 12799
34	15:00-17:00	**Accelerating the Classification of Very Deep Convolutional Network by a Cascading Approach** Zheng, Wu (Institute of Automation, Chinese Academy of Science) 35575; Zhang, Zhaoxiang (Institute of Automation, Chinese Academy of Sciences) 10881

35	15:00-17:00	**Prediction Defaults for Networked-Guarantee Loans** Cheng, Dawei (Shanghai Jiao Tong University) 36210; Niu, Zhibin (Tianjin University) 17107; Tu, Yi (Shanghai Jiao Tong University) 36211; Zhang, Liqing (Shanghai Jiao Tong University) 16101
36	15:00-17:00	**Identification of ASD Children based on Video Data** Li, Jing (Nanchang University) 36268; Zhong, Yihao (Nanchang University) 36270; Ouyang, Gaoxiang (Beijing Normal University) 36265
37	15:00-17:00	**LD-CNN: A Lightweight Dilated Convolutional Neural Network for Environmental Sound Classification** zhang, xiaohu (Peking University Shenzhen Graduate School) 36251; Zou, Yuexian (Peking University) 31890; Wang, Wenwu (University of Surrey) 36283
38	15:00-17:00	**Joint Knowledge Base Embedding with Neighborhood Context** Nie, Binling (ZheJiang University) 35448; Sun, ShouQian (ZheJiang University) 35900
39	15:00-17:00	**Privileged Multi-Target Support Vector Regression** Wu, Guoqiang (University of Chinese Academy of Sciences) 35480; Tian, Yingjie (Chinese Academy of Sciences) 13004; Dalian, Liu (Beijing Union University) 36079
40	15:00-17:00	**Spectral Embedded Clustering on Multi-Manifold** Huang, Shuning (Soochow University) 36446; Zhang, Li (Soochow University) 35401; Li, Fan-Zhang (Soochow University) 30305
41	15:00-17:00	**Unsupervised Domain Adaptation by Regularizing Softmax Activation** Gui, Cunbin (Beijing University of Posts and Telecommunications) 35556; Hu, Jiani (Beijing University of Posts and Telecommunications) 27279
42	15:00-17:00	**Graph-Based Semi-Supervised Classification with CRF and RNN** Ye, Zhili (University of Chinese Academy of Sciences) 35953; Du, Yang (Institute of Software Chinese Academy of Sciences) 36422; Wu, Fengge (Institute of Software Chinese Academy of Sciences) 36319
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44	15:00-17:00	**Low Rank Multi-Label Classification with Missing Labels** Guo, Baolin (National University of Defense Technology) 36511; Hou, Chenping (National University of Defense Technology) 32549; Shan, Jincheng (National University of Defense Technology) 36512; Yi, Dongyun (National University of Defense Technology) 32553
45	15:00-17:00	**Deep Structured Energy-Based Image Inpainting** Altinel, Fazil (Tohoku University) 36560; Ozay, Mete (Tohoku University) 28156; Okatani, Takayuki (Tohoku University) 10308

46	15:00-17:00	Piecewise Linear Units for Fast Self-Normalizing Neural Networks Chang, Yuanyuan (Nanjing University of Posts and Telecommunications) 35783; Wu, Xiaofu (Nanjing University of Posts and Telecommunications) 36593; Zhang, Suofei (Nanjing University of Posts and Telecommunications) 36596
47	15:00-17:00	Representing Relative Visual Attributes with a Reference-Point-Based Decision Model Law, Marc (University of Toronto) 36599; Weng, Paul (Shanghai Jiao Tong University) 36598
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50	15:00-17:00	A New ECOC Algorithm for Multiclass Microarray Data Classification Sun, Mengxin (School of software, xiamen university) 36617; Liu, Kunhong (School of software in Xiamen University) 36267; Hong, Qingqi (School of software, xiamen university) 36650; Wang, Beizhan (School of software in Xiamen University) 36271
51	15:00-17:00	Structured Convex Optimization Method for Orthogonal Nonnegative Matrix Factorization Pan, JunJun (Hong Kong Baptist University) 36636; NG, Michael Kwok-po (Hong Kong Baptist University) 36660; Zhang, Xiongjun (Central China Normal University) 36661
52	15:00-17:00	Robust and Flexible Graph-Based Semi-Supervised Embedding Dornaika, Fadi (University of the Basque Country) 18457; EL TRABOULSI, Youssof (Doctoral School of Sciences and Technology, Lebanese University,) 32170; ZHU, Ruifeng (Université Bourgogne Franche-Comté) 39069
53	15:00-17:00	Image-Based Air Pollution Estimation Using Hybrid Convolutional Neural Network Ma, Jian (Tianjin University) 36761; Li, Kun (Tianjin University) 22222; Han, Yahong (Tianjin University) 36797; Yang, Jingyu (Tianjin University) 36794
54	15:00-17:00	Dynamic Projected Segmentation Networks for Hand Pose Estimation che, yunlong (beihang) 36790; qi, yue (beihang university) 36792
55	15:00-17:00	CascadeNet: Modified ResNet with Cascade Blocks Li, Xiang (Beijing University of Chemical Technology) 36842; Li, Wei (Beijing University of Chemical Technology) 36284; Xu, Xiaodong (Beijing University of Chemical Technology) 36848; Du, Qian (Mississippi State University) 36845

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58	15:00-17:00	Maximum Gradient Dimensionality Reduction LUO, XIANGHUI (University of Waikato) 36396; Durrant, Robert John (University of Waikato) 17840
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60	15:00-17:00	Generating Facial Line-Drawing with Convolutional Neural Networks Wang, Yixue (Harbin Engineering University) 36910; Bing, Xinyang (Harbin Engineering University) 36741; Zheng, Liying (Harbin Engineering University) 11064; Zhao, Shuo (Harbin Engineering University) 36882
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62	15:00-17:00	Learning Attribute Representation for Human Activity Recognition Moya Rueda, Wilmar Fernando (Technische Universitaet Dortmund) 35950; Fink, Gernot (TU Dortmund University) 11855
63	15:00-17:00	Reflective Field for Pixel-Level Tasks Zhang, Liang (Xidian University) 22624; Kong, Xiangwen (Xidian University) 36930; Shen, Peiyi (Xidian University) 22140; Zhu, Guangming (Xidian University) 34360; Song, Juan (Xidian University) 23858; Shah, Syed Afaq Ali (The University of Western Australia) 36935; Bennamoun, Mohammed (The University of Western Australia) 16952

64	15:00-17:00	Adaptive Locality Preserving Based Discriminative Regression Wen, Jie (Shenzhen Graduate School,Harbin Institute of Technology) 31848; Fei, Lunke (Harbin Institute of Technology) 31795; Lai, Zhihui (Nanjing University of Science and Technology) 16965; Zhang, Zheng (Harbin Institute of Technology) 31800; Wu, Jian (Harbin Institute of Technology) 36918; Fang, Xiaozhao (Harbin Institute of Technology Shenzhen Graduate School) 28603
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66	15:00-17:00	Multi-Source Learning for Skeleton-Based Action Recognition Using Deep LSTM Networks Cui, Ran (China University of Mining and Tecnology) 36876; Zhu, Aichun (Nanjing Tech University) 36880; Zhang, Sai (China University of Mining and Tecnology) 36884; Hua, Gang (China University of Mining and Tecnology) 36886
67	15:00-17:00	Conditional Transfer with Dense Residual Attention: Synthesizing Traffic Signs from Street-View Imagery Sebastian, Clint (Eindhoven University of Technology) 36967; Uittenbogaard, Ries (TU Delft) 36966; Vijverberg, Julien (CycloMedia B.V.) 36939; Boom, Bastiaan Johannes (Cyclomedia) 22898; De With, Peter H. N. (Eindhoven University of Technology) 18087
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69	15:00-17:00	Superframes, a Temporal Video Segmentation Sadeghi Sokeh, Hajar (Kingston University) 37024; Argyriou, Vasileios (Kingston University London) 28559; Monekosso, Dorothy (Leeds Beckett University) 37025; Remagnino, Paolo (Kingston University) 17696
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71	15:00-17:00	Botnet Detection Based on Fuzzy Association Rules lu, jiazhong (University of Electronic Science and Technology of China) 37052; lv, fengmao (University of Electronic Science and Technology of China, Chengd) 37062; Liu, Quan-Hui (University of Electronic Science and Technology of China, Chengd) 37060; Zhang, Malu Zhang (University of Electronic Science and Technology of China, Chengd) 37063; zhang, xiaosong (University of Electronic Science and Technology of China,) 37064
72	15:00-17:00	Efficient Text Classification Using Tree-Structured Multi-Linear Principal Component Analysis SU, YUANHANG (University of Southern California) 36272; Huang, Yuzhong (University of Southern California) 36275; Kuo, C.-C. Jay (University of Southern California) 25879
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76	15:00-17:00	Bayesian Multi-Hyperplane Machine for Pattern Recognition Nguyen, Khanh (Deakin University) 37210; Le, Trung (Deakin University) 37222; Nguyen, Tu Dinh (Deakin University) 31816; Phung, Dinh (Deakin University) 14206
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79	15:00-17:00	Multiple Manifolds Metric Learning with Application to Image Set Classification Wang, Rui (School of Internet of Things Engineering, Jiangnan University) 35248; Wu, Xiaojun (Jiangnan University) 24477; Kittler, Josef (University of Surrey) 10826; Chen, Kai-Xuan (Jiangnan University) 36787
80	15:00-17:00	Dense Convolutional Recurrent Neural Network for Generalized Speech Animation Xiao, Lei (Institute of Intelligent Machines, Chinese Academy of Sciences,) 37140; Wang, Zengfu (University of Science and Technology of China) 12207
81	15:00-17:00	Graph Memory Networks for Molecular Activity Prediction Pham, Trang (Deakin University) 31866; Tran, Truyen (Deakin University) 31870; Venkatesh, Svetha (Deakin University) 10432
82	15:00-17:00	End-To-End Video-Level Representation Learning for Action Recognition Zhu, Jiagang (Chinese Academy of Sciences, Institute of Automation) 37030; Zou, Wei (CASIA) 37099; Zhu, Zheng (CASIA) 37121
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84	15:00-17:00	Automated Pruning for Deep Neural Network Compression Manessi, Franco (lastminute.com group) 36992; Rozza, Alessandro (lastminute.com group) 26870; Bianco, Simone (University of Milano-Bicocca) 25774; Napoletano, Paolo (University of Milano-Bicocca) 37469; Schettini, Raimondo (Università degli Studi di Milano-Bicocca) 10643
85	15:00-17:00	LHONE: Label Homophily Oriented Network Embedding zhang, le (Chinese Academy of Sciences) 37516; Li, Xiang (Institute of Information Engineering) 38155; xiang, ji (Institute of Information Engineering) 38137; Qi, ying (Chinese Academy of Sciences) 38148
86	15:00-17:00	Skin Lesion Segmentation Via Dense Connected Deconvolutional Network Li, Hang (shenzhen university) 35758; He, xinzi (School of Biomedical Engineering, Health Science Center, Shenzhe) 37537; yu, zhen (Shenzhen university) 37547; zhou, feng (Department of Industrial and Manufacturing, Systems Engineering,) 37564; cheng, jie zhi (United-Imaging Healthcare,shanghai,China) 37542; Huang, Limin (Shenzhen People's Hospital) 40516; Wang, Tianfu (Shenzhen University) 37562; Lei, Baiying (Shenzhen University) 37544

87	15:00-17:00	Generating Adversarial Examples with Conditional Generative Adversarial Net Yu, Ping (Nanjing University of Science and Technology) 35502; Song, Kaitao (Nanjing University of Science & Technology) 37049; Lu, Jianfeng (Nanjing University of Science & Technology) 22043
88	15:00-17:00	An Effective Deep Learning Based Scheme for Network Intrusion Detection Zhang, Hongpo (Zhengzhou Science and Technology Institute) 37538; Wu, Chase Q. (New Jersey Institute of Technology) 37650; Gao, shan (Zhengzhou University) 37581; Wang, Zongmin (Zhengzhou University) 37628; Xu, Yuxiao (Hangzhou DPtech Technologies Co., Ltd.) 37636; Liu, Yongpeng (Zhengzhou University) 37617
89	15:00-17:00	Lifting Scheme Based Deep Network Model for Remote Sensing Imagery Classification Liu, Xinlong (Wuhan University) 37654; He, Bokun (Wuhan University) 37653; He, Chu (Wuhan University) 12956
90	15:00-17:00	Cauchy Matching Pursuit for Robust Sparse Representation and Classification Wang, Yulong (Chengdu University) 31063; Zou, Cuiming (Chengdu University) 37698; Tang, YuanYan (University of Macao) 13283; Li, Luoqing (Hubei University) 23376
91	15:00-17:00	Deeply Supervised Residual Network for HEp-2 Cell Classification Xie, Hai (Shenzhen University) 37028; He, Yejun (Shenzhen University) 37685; Lei, Haijun (Shenzhen University) 37692; Han, Tao (Shenzhen University) 37695; Yu, Zhen (Shenzhen university) 37547; Lei, Baiying (Shenzhen University) 37544
92	15:00-17:00	Pen Tip Motion Prediction for Handwriting Drawing Order Recovery Using Deep Neural Network Zhao, Bocheng (Chinese Academy of Sciences, Institute of Automation) 36679; Yang, Minghao (National Laboratory of Pattern Recognition (NLPR) Institute of A) 37434; Tao, Jianhua (Institute of Automation, Chinese Academy of Sciences) 32165
93	15:00-17:00	Optimising Ensemble of Two-Class Classifiers Using Spectral Analysis Windeatt, Terry (univ surey) 10515
94	15:00-17:00	Neural Network Knowledge Transfer Using Unsupervised Similarity Matching Passalis, Nikolaos (Aristotle University of Thessaloniki) 32200; Tefas, Anastasios (Aristotle University of Thessaloniki) 11714
95	15:00-17:00	Subspace Support Vector Data Description Sohrab, Fahad (Tampere University of Technology) 37749; Raitoharju, Jenni Karoliina (Tampere University of Technology) 37782; Moncef, Gabbouj (Tampere University of Technology) 12631; Iosifidis, Alexandros (Tampere University of Technology) 23216

96	15:00-17:00	Data Augmentation via Latent Space Interpolation for Image Classification Liu, Xiaofeng (Carnegie Mellon University) 35142; Zou, Yang (Carnegie Mellon University) 40499; Kong, Lingsheng (Chinese Academy of Sciences) 35143; Diao, Zhihui (Chinese Academy of Sciences) 35144; Yan, Junliang (Chinese Academy of Sciences) 35145; Wang, Jun (University of Chinese Academy of Sciences) 37792; Li, Site (Carnegie Mellon University) 37791; Jia, Ping (Changchun Inst. of Optics, Fine Mechanies and Physics, CAS) 40476; You, Jane (The Hong Kong Polytechnic University) 15678
97	15:00-17:00	Multi-View Classification and 3D Bounding Box Regression Networks Pramerdorfer, Christopher (Vienna University of Technology) 30590; Kampel, Martin (Vienna University of Technology) 10622; Van Loock, Mark (Toyota Motor Europe) 37799
98	15:00-17:00	Deep Recurrent Electricity Theft Detection in AMI Networks with Random Tuning of Hyper-Parameters Mahmoud Nabil, Mahmoud (Tennessee Technological University) 37069; Muhammad Ismail, Muhammad Ismail (Texas A&M Universiy at Qatar) 37074; Mohamed, Mahmoud (Tennessee Technological University) 37073; Mostafa Shahin, Mostafa Shahin (Texas A&M Universiy) 37075; Khalid Qaraqe, Khalid Qaraqe (Texas A&M Universiy) 37076; Serpedin, Erchin (Texas A&M Universiy) 19585
99	15:00-17:00	A Segmented Local Offset Method for Imbalanced Data Classification Using Quasi-Linear Support Vector Machine Liang, Peifeng (Waseda University) 37353; Yuan, Xin (Waseda University) 37853; Li, Weite (Waseda University) 37840; Hu, Jinglu (Waseda University) 12198
100	15:00-17:00	Fully Convolutional Network for Head Detection with Depth Images Ballotta, Diego (University of Modena and Reggio Emilia) 37857; Borghi, Guido (University of Modena and Reggio Emilia) 32017; Vezzani, Roberto (University of Modena and Reggio Emilia) 23281; Cucchiara, Rita (Università degli Studi di Modena e Reggio Emilia) 14627
101	15:00-17:00	Visual Tree Convolutional Neural Network in Image Classification Liu, Yuntao (National University of Defense Technology) 37528; Dou, Yong (National University of Defense Technology) 37859; Jin, Ruochun (National University of Defense Technology) 37567; Qiao, Peng (National University of Defense Technology) 37639
102	15:00-17:00	Superpixel-Based Feature Extraction and Fusion Method for Hyperspectral and LiDAR Classification Sen, Jia (Shenzhen University) 37894; Meng, Zhang (Shenzhen University) 37929; Junjian, Xian (Shenzhen University) 40523; Jiayue, Zhuang (Shenzhen University) 40524; Qiang, Huang (Shenzhen University) 40525

103	15:00-17:00	Multiple-Instance Learning with Empirical Estimation Guided Instance Selection Yuan, Liming (Tianjin University Of Technology) 37939; Wen, Xianbin (Tianjin University Of Technology) 37957; Xu, Haixia (Tianjin University Of Technology) 37960; Zhao, Lu (Tianjin Chengjian University) 37961
104	15:00-17:00	Sequential Fish Catch Forecasting Using Bayesian State Space Models Kokaki, Yuya (Waseda University) 36808; Tawara, Naohiro (Waseda University) 36640; Kobayashi, Tetsunori (Waseda University) 31072; Hashimoto, Kazuo (Waseda University) 37403; Ogawa, Tetsuji (Waseda University) 21842
105	15:00-17:00	Extended Morphological Profile-Based Gabor Wavelets for Hyperspectral Image Classification Sen, Jia (Shenzhen University) 37894; Huimin, Xie (Shenzhen University) 37954; Xianglong, Deng (Shenzhen University) 40522
106	15:00-17:00	Fine-Grained Age Group Classification in the Wild Zhang, Ke (North China Electric Power University) 37329; Liu, Na (North China Electric Power University) 37643; Yuan, Xingfang (University of Missouri) 38010; Guo, Xinyao (North China Electric Power University) 38013; Gao, Ce (North China Electric Power University) 38014; Zhao, Zhenbing (North China Electric Power University) 37315
107	15:00-17:00	Region-Specific Metric Learning for Person Re-Identification cao, min (Institute of Automation Chinese Academy of Sciences) 35190; Chen, Chen (Chinese Academy of Sciences) 34177; Hu, Xiyuan (Institute of Automation, Chinese Academy of Sciences) 29292; Peng, Silong (Institute of Automation, Chinese Academy of Sciences) 24234
108	15:00-17:00	Robust Adaptive Low-Rank and Sparse Embedding for Feature Representation wang, lei (Soochow University) 36538; Zhang, Zhao (Soochow University) 28980; Liu, Guangcan (Cornell) 26827; Ye, Qiaolin (Nanjing Univesity of Science and Technology) 29516; Qin, Jie (ETH Zurich) 29959; Wang, Meng (Microsoft Research Asia) 15868
109	15:00-17:00	Riemannian Metric Learning Based on Curvature Flow Li, Yangyang (Academy of Mathematics and Systems Science, Chinese Academy of S) 38091; Lu, Ruqian (Academy of Mathematics and Systems Science, Chinese Academy of S) 38096
110	15:00-17:00	Cascade Deep Networks for Sparse Linear Inverse Problems Zhang, Huan (Tianjin University) 36285; Shi, Hong (Tianjin University) 36288; Wang, Wenwu (University of Surrey) 36283
111	15:00-17:00	Semi-Supervised Feature Selection by Mutual Information Based on Kernel Density Estimation Xu, Siqi (Tianjin University) 36292; Dai, Jianhua (Hunan Normal University) 36289; Shi, Hong (Tianjin University) 36288
112	15:00-17:00	ReNN: Rule Embedded Neural Networks Wang, Hu (LOHAS Technology (Beijing) Corporation Limited) 38122

113	15:00-17:00	**Oil Price Forecasting Using Supervised GANs with Continuous Wavelet Transform Features** Luo, Zhaojie (Kobe University) 34888; Chen, Jinhui (Kobe University) 26816; Cai, Xiao Jing (Kobe university) 38114; Tanaka, Katsuyuki (Kobe university) 38125; Takiguchi, Tetsuya (Kobe University) 12195; Kinkyo, Takuji (Kobe university) 38118; Hamori, Shigeyuki (Kobe university) 38116
114	15:00-17:00	**ThinNet: An Efficient Convolutional Neural Network for Object Detection** Cao, Sen (Nanjing University of Science and Technology) 37916; Liu, Yazhou (Nanjing University of Science and Technology) 38056; Zhou, Changxin (Nanjing University of Science and Technology) 38107; Sun, Quansen (Nanjing University of Science and Technology) 38109; Lasang, Pongsak (PANASONIC R&D CENTER SINGAPORE) 38104; Shen, Shengmei (Panasonic R&D Center Singapore) 38103
115	15:00-17:00	**Indoor Scene Layout Estimation from a Single Image** Lin, Hung Jin (National Tsing Hua University) 38157; Huang, Sheng-Wei (National Tsing-Hua University) 38171; Lai, Shang-Hong (National Tsing Hua University) 14110; Chiang, Chen-Kuo (National Chung Cheng University) 30640
116	15:00-17:00	**Region and Temporal Dependency Fusion for Multi-Label Action Unit Detection** Mei, Chuanneng (Shanghai Jiao Tong University) 36745; jiang, Fei (Shanghai JiaoTong University) 38179; Shen, Ruimin (Shanghai JiaoTong University) 38178; Hu, Qiaoping (Shanghai Jiao Tong University) 38168
117	15:00-17:00	**A Method of Automatically Generating Labanotation from Human Motion Capture Data** Wang, Jiaji (Institute of Information Science, Beijing Jiaotong University) 31236; Miao, Zhenjiang (Institute of Information Science, Beijing JiaotongUniversity) 13724
118	15:00-17:00	**Retraining: A Simple Way to Improve the Ensemble Accuracy of Deep Neural Networks for Image Classification** Zhao, Kaikai (Kyushu University) 38190; Matsukawa, Tetsu (Kyushu University) 11063; Suzuki, Einoshin (Kyushu University) 32519
119	15:00-17:00	**Feature Selection Ensemble for Symbolic Data Classification with AHP** Wang, Meiqian (Shanghai University) 38139; Yue, Xiaodong (Shanghai University) 32719; Gao, Can (The Hong Kong Polytechnic University) 38173; Chen, Yufei (Tongji University) 36105
120	15:00-17:00	**Classifier Recommendation Using Data Complexity Measures** Garcia, Luís Paulo (Leipzig University) 38228; Lorena, Ana (Universidade Federal de São Paulo) 38230; de Souto, Marcilio (University of Orleans) 38231; Ho, Tin Kam (IBM) 11706

121	15:00-17:00	**Zone2Vec: Distributed Representation Learning of Urban Zones** Du, Jiahong (Beihang University) 35844; Chen, Yujun (Beihang University) 38267; Wang, Yue (Beihang University) 38270; Pu, Juhua (Beihang University) 38277
122	15:00-17:00	**An Efficient Budget Allocation Algorithm for Multi-Channel Advertising** Wang, Xingfu (University of Science and Technology of China) 37677; Li, Pengcheng (University of Science and Technology of China) 37667; Hawbani, Ammar (University of Science and Technology of China) 37963
123	15:00-17:00	**Recurrent Neural Networks for Financial Time-Series Modelling** Tsang, Gavin (Swansea University) 38329; Deng, Jingjing (Swansea University) 28186; Xie, Xianghua (Swansea University) 11036
124	15:00-17:00	**Nonlinear Metric Learning through Geodesic Interpolation within Lie Groups** Wang, Zhewei (Ohio University) 38352; Shi, Bibo (Duke University) 38582; Smith, Charles (University of Kentucky) 38760; Liu, Jundong (Ohio University) 13023
125	15:00-17:00	**Dynamic Texture Similarity Criterion** Richtr, Radek (The Czech Academy of Sciences, Czech Republic) 36718; Haindl, Michael (Institute of Information Theory and Automation) 10966
126	15:00-17:00	**Cross-Dataset Data Augmentation for Convolutional Neural Networks Training** Gasparetto, Andrea (Ca' Foscari) 32111; Ressi, Dalila (Università Ca' Foscari Venezia) 36934; Bergamasco, Filippo (Università Ca' Foscari Venezia) 38365; Pistellato, Mara (Università Ca' Foscari Venezia) 33489; Cosmo, Luca (Università Ca' Foscari Venezia) 29099; Boschetti, Marco (Microtec Srl) 36937; Ursella, Enrico (Microtec Srl) 36936; Albarelli, Andrea (Universita' Ca' Foscari di Venezia) 13910
127	15:00-17:00	**Learning Cross-Modal Deep Embeddings for Multi-Object Image Retrieval using Text and Sketch** Dey, Sounak (Computer Vision Center, Universitat Autonoma de Barcelona) 33582; Dutta, Anjan (Computer Vision Centre, Universitat Autonoma de Barcelona) 16735; Ghosh, Suman Kumar (Computer Vision Center, Autonomous University of Barcelona) 38391; Valveny, Ernest (Computer Vision Center - Universitat Autònoma de Barcelona) 10733; Llados, Josep (Computer Vision Center) 10697; Pal, Umapada (Indian Statistical Institute) 12672
128	15:00-17:00	**Learning Parallel Canonical Correlations for Scale-Adaptive Low Resolution Face Recognition** Yuan, Yun-Hao (YZU) 38297; Zhang, Zhao (YZU) 38272; Li, Yun (Yangzhou University) 38298; Qiang, Ji-Peng Qiang (Yangzhou University) 38303; Li, Bin (Yangzhou University) 38304; Shen, Xiao-Bo (Nanyang Technological University) 38306

129	15:00-17:00	Feature-Fusion HALS-Based Algorithm for Linked CP Decomposition Model in Application to Joint EMG/MMG Signal Classification Fonal, Krzysztof (Wroclaw University of Science and Technology) 36940; Zdunek, Rafal (Wroclaw University of Science and Technology) 38378; Wolczowski, Andrzej (Wroclaw University of Science and Technology) 38404
130	15:00-17:00	Quasimetric Graph Edit Distance As a Compact Quadratic Assignment Problem Blumenthal, David B. (Free University of Bozen-Bolzano) 36990; Daller, Evariste (Normandie Univ, UNICAEN, ENSICAEN, CNRS, GREYC) 38113; Bougleux, Sébastien (Normandie Univ, UNICAEN, ENSICAEN, CNRS) 14000; Brun, Luc (ENSICAEN) 13118; Gamper, Johann (Free University of Bolzano-Bozen) 38199
131	15:00-17:00	An Efficient Deep Representation Based Framework for Large-Scale Terrain Classification Yan, Yupeng (University of Florida) 34279; Rangarajan, Anand (University of Florida) 10640; Ranka, Sanjay (University of Florida) 32955
132	15:00-17:00	Multi-Task Micro-Expression Recognition Combining Deep and Handcrafted Features Hu, Chunlong (Jiangsu University of Science and Technology) 36770; Jiang, Dengbiao (Jiangsu University of Science and Technology) 38493; Zou, Haitao (Jiangsu University of Science and Technology) 38494; Zuo, Xin (Jiangsu University of Science and Technology) 38495; Shu, Yucheng (Chongqing University of Posts and Telecommunications) 38492
133	15:00-17:00	Discernibility Matrix-Based Ensemble Learning Gao, Shuaichao (Tianjin University) 35512; Dai, Jianhua (Hunan Normal University) 36289; Shi, Hong (Tianjin University) 36288
134	15:00-17:00	Semi-Supervised Hashing for Semi-Paired Cross-View Retrieval Yu, Jun (Jiangnan University) 37541; Wu, Xiaojun (Jiangnan University) 24477; Kittler, Josef (University of Surrey) 10826
135	15:00-17:00	DivGroup: A Diversified Approach to Divide Collection of Patterns into Uniform Groups Bandyopadhyay, Sambaran (IBM Research) 31342; Nandanwar, Sharad (Indian Institute of Science, Bangalore) 22346; Deshmukh, Rishabh (Indian Institute of Science) 38519; Musti, Narasimha Murty (Indian Institute of Science-) 11692
136	15:00-17:00	Scalable kNN Search Approximation for Time Series Data Filali Boubrahimi, Soukaina (GEORGIA STATE UNIVERSITY) 38411; Ma, Ruizhe (Georgia State University) 38468; Aydin, Berkay (Georgia State University) 34131; Hamdi, Shah Muhammad (Georgia State University) 38408; Angryk, Rafal (Georgia State University) 34133
137	15:00-17:00	Pyramid Embedded Generative Adversarial Network for Automated Font Generation Sun, Donghui (Alibaba) 37576; Zhang, Qing (Alibaba) 37522; Yang, Jun (Alibaba) 38032

138	15:00-17:00	Density-Adaptive Kernel based Re-Ranking for Person Re-Identification Guo, Ruo-Pei (Beijing University of Posts and Telecommunications) 36769; Li, Chun-Guang (Beijing University of Posts and Telecommunications) 15537; Li, Yonghua (School of Information and Communication Engineering) 38089; Lin, Jiaru (Beijing Uni. of Posts and Telecommunications) 38526
139	15:00-17:00	Semantic Image Synthesis Via Conditional Cycle-Generative Adversarial Networks Liu, Xiyan (Institute of Automation, Chinese Academy of Sciences) 36145; Meng, Gaofeng (Institution of Automation, Chinese Academy of Sciences) 11805; Xiang, Shiming (Institute ofAutomation,Chinese Academy of Sciences) 22044; PAN, Chunhong (Institute of Automation, Chinese Academey of Sciences) 18345
140	15:00-17:00	Generalized Fisher Discriminant Analysis As a Dimensionality Reduction Technique Jiang, Yuechi (The Hong Kong Polytechnic University) 37207; Leung, Frank Hung Fat (The Hong Kong Polytechnic University) 37228
141	15:00-17:00	Class2Str: End to End Latent Hierarchy Learning Saha, Soham (International Institute of Information Technology, Hyderabad) 38568; Varma, Girish (IIIT Hyderabad) 38570; Jawahar, C. V. (IIIT) 10685
142	15:00-17:00	Adaptive Tiling: Applying Fixed-Size Systolic Arrays to Sparse Convolutional Neural Networks Kung, H. T. (Harvard University) 32351; McDanel, Bradley (Harvard University) 33792; Zhang, Sai Qian (Harvard University) 38752

Main Program

Oral Session - **TuPMOT1 Structural Pattern Recognition (Ballroom C, 1st Floor)** - TuPMOT1
Tuesday, August 21, 2018, 17:00-18:20, Ballroom C, 1st Floor

#	Subslot	Title / Authors
1	17:00-17:20	**A Game-Theoretic Hyper-Graph Matching Algorithm** Hou, Jian (Bohai University) 23004; Pelillo, Marcello (Ca' Foscari University) 10322
2	17:20-17:40	**Kernel-Weighted Graph Convolutional Network: A Deep Learning Approach for Traffic Forecasting** Zhang, Qi (Institute of Automation, Chinese Academy of Sciences) 35329; Jin, QiZhao (Institute of Automation, Chinese Academy of Sciences) 37136; Chang, Jianlong (Institute of Automation Chinese Academy of Sciences) 38799; Xiang, Shiming (Institute ofAutomation,Chinese Academy of Sciences) 22044; PAN, Chunhong (Institute of Automation, Chinese Academey of Sciences) 18345
3	17:40-18:00	**Depth-Based Subgraph Convolutional Neural Networks** Zhang, Zhihong (Xiamen University) 33351; ZHOU, DA (Xiamen University) 37158; Xu, Chuanyu (Xiamen University) 37167; Wang, Beizhan (School of software in Xiamen University) 36271; Wang, Dong (Xiamen University) 37181; REN, GUIJUN (Opera Solutions) 37164; Hancock, Edwin (University of York) 10486; Bai, Lu (Central University of Finance and Economics) 23095; Cui, Lixin (School of Information, Central University of Finance and Economi) 31652
4	18:00-18:20	**A Deep Hybrid Graph Kernel through Deep Learning Networks** Cui, Lixin (School of Information, Central University of Finance and Economi) 31652; Bai, Lu (Central University of Finance and Economics) 23095; Rossi, Luca (Aston University) 25116; Wang, Yue (Central University of Finance and Economics) 31093; Yuhang, Jiao (Central University of Finance and Economics) 40519; Hancock, Edwin (University of York) 10486

Main Program

Main Program

Oral Session - **TuPMOT2 3D Vision (309B, 3rd Floor)** - TuPMOT2
Tuesday, August 21, 2018, 17:00-18:20, 309B, 3rd Floor

#	Subslot	Title / Authors
1	17:00-17:20	**Variational Fusion of Light Field and Photometric Stereo for Precise 3D Sensing within a Multi-Line Scan Framework** Antensteiner, Doris (Austrian Institute of Technology) 35153; Štolc, Svorad (AIT Austrian Institute of Technology GmbH) 35243; Pock, Thomas (Graz University of Technology) 35244
2	17:20-17:40	**Representing a Partially Observed Non-Rigid 3D Human Using Eigen-Texture and Eigen-Deformation** Kimura, Ryosuke (Kagoshima University) 37890; Sayo, Akihiko (Kyushu University) 40517; Dayrit, Fabian Lorenzo (Nara Institute of Science and Technology) 39015; Nakashima, Yuta (Osaka University) 17938; Kawasaki, Hiroshi (Kyushu University) 14645; Blanco, Ambrosio (Microsoft Research Asia) 38859; Ikeuchi, Katsushi (the University of Tokyo) 10187
3	17:40-18:00	**Non-Rigid Reconstruction with a Single Moving RGB-D Camera** Elanattil, Shafeeq (Queensland University of Technology) 38768; Moghadam, Peyman (CSIRO Data61) 38778; Sridha, Sridharan (Queensland University of Technology) 22426; Fookes, Clinton (Queensland University of Technology) 26907; Cox, Mark (CSIRO) 25711
4	18:00-18:20	**3D Shape Segmentation Based on Viewpoint Entropy and Projective Fully Convolutional Networks Fusing Multi-View Features** Shui, Panpan (Nanjing University) 35336; Wang, Pengyu (Nanjing University) 36998; Yu, Fenggen (Nanjing University) 40467; Hu, Bingyang (Nanjing University) 40552; Gan, Yuan (Nanjing University) 40534; Liu, Kun (Nanjing University) 40533; Zhang, Yan (Nanjing University) 37003

Main Program

Oral Session - **TuPMOT4 Biometric Analysis and Synthesis (311A, 3rd Floor)** - TuPMOT3
Tuesday, August 21, 2018, 17:00-18:20, 311A, 3rd Floor

#	Subslot	**Title** / Authors
1	17:00-17:20	**Robust ECG Biometrics Using Two-Stage Model** Wu, Bo (Shandong University) 37225; Yang, Gongping (Shandong University) 22594; Yang, Lu (Shandong University of Finance and Economics) 37313; Yin, Yilong (Shandong University) 12548
2	17:20-17:40	**A Noise-Robust Self-Adaptive Multitarget Speaker Detection System** Zheng, Siqi (Ping-An Technology) 36327; Wang, Jianzong (Ping-An Technology) 36345; Xiao, Jing (Ping-An Technology) 36347; Hsu, Wei-Ning (Massachusetts Institute of Technology) 37461; Glass, James (Massachusetts Institute of Technology) 36353
3	17:40-18:00	**Global and Local Consistent Age Generative Adversarial Networks** Li, Peipei (Institute of Automation Chinese Academy of Sciences) 36165; Hu, Yibo (Institute of Automation Chinese Academy of Sciences) 37340; Li, Qi (Institute of Automation, Chinese Academy of Sciences) 37332; He, Ran (Institute of Automation, Chinese Academy of Sciences) 21653; Sun, Zhenan (Institute of Automation, Chinese Academy of Sciences.) 14224
4	18:00-18:20	**GP-GAN: Gender Preserving GAN for Synthesizing Faces from Landmarks** Sindagi, Vishwanath (Rutgers University) 30759; Patel, Vishal (Rutgers, The State University of New Jersey) 34042; Di, Xing (Rutgers, the State University of New Jersey) 39450

Main Program

Oral Session - **TuPMOT5 Document Image Analysis (311B, 3rd Floor)** - TuPMOT4
Tuesday, August 21, 2018, 17:00-18:20, 311B, 3rd Floor

#	Subslot	**Title** / Authors
1	17:00-17:20	**How Do Convolutional Neural Networks Learn Design?** Jolly, Shailza (University of Kaiserslautern) 36485; Iwana, Brian Kenji (Kyushu University) 36350; Kuroki, Ryohei (Kyushu University) 36358; Uchida, Seiichi (Kyushu University) 10732
2	17:20-17:40	**Document Images Watermarking for Security Issue Using Fully Convolutional Networks** Cu, Vinh Loc (La Rochelle University) 35545; burie, jean-christophe (University of La Rochelle) 12238; Ogier, Jean-Marc (Université de la Rochelle) 10710
3	17:40-18:00	**Aligning Text and Document Illustrations: towards Visually Explainable Digital Humanities** Baraldi, Lorenzo (University of Modena and Reggio Emilia) 32725; Cornia, Marcella (University of Modena and Reggio Emilia) 32722; Grana, Costantino (Università degli Studi di Modena e Reggio Emilia) 12655; Cucchiara, Rita (Università degli Studi di Modena e Reggio Emilia) 10603
4	18:00-18:20	**Staff Line Removal Using Generative Adversarial Networks** Konwer, Aishik (Institute of Engineering & Management) 37013; Bhunia, Ayan Kumar (Institute of Engineering and Management,Kolkata) 33723; Bhowmick, Abir (Institute of Engineering & Management) 37010; Bhunia, Ankan Kumar (Jadavpur University) 37011; Banerjee, Prithaj (Institute of Engineering & Management) 37014; Roy, Partha Pratim (IIT) 12979; Pal, Umapada (Indian Statistical Institute) 12672

Welcome Reception (Function AB, 1st Floor) - TuWE
Tuesday, August 21, 2018, 19:00-21:00, Function AB, 1st Floor

Main Program

Plenary Session - **Plenary Session: Maria Petrou Prize Speech (Ballroom C, 1st Floor)** - We1PL
Wednesday, August 22, 2018, 08:40-09:40, Ballroom C, 1st Floor

Plenary Session - **Plenary Session: Long Quan, The Challenges of 3D Reconstruction with Deep Learning (Ballroom C, 1st Floor)** - We2PL
Wednesday, August 22, 2018, 09:40-10:40, Ballroom C, 1st Floor

- **Coffee Break We(North Foyer & Park View Foyer, 3rd Floor)** - WeAM_Coffee_Break
Wednesday, August 22, 2018, 10:40-11:10, North Foyer & Park View Foyer, 3rd Floor

Main Program

Oral Session - **WeAMOT1 Deep Learning 2 (Ballroom C, 1st Floor)** - WeAMOT1
Wednesday, August 22, 2018, 11:10-12:30, Ballroom C, 1st Floor

#	Subslot	**Title** / Authors
1	11:10-11:30	**Deep Temporal Feature Encoding for Action Recognition** li, lin (CASIA) 35379; Zhang, Zhaoxiang (Institute of Automation, Chinese Academy of Sciences) 10881; Huang, Yan (Institute of Automation, Chinese Academy of Sciences) 22027; Wang, Liang (Institute of Automation, Chinese Academy of Sciences) 24112
2	11:30-11:50	**Learning an Order Preserving Image Similarity through Deep Ranking** Gupta, Nitin (IBM Research) 38106; Mujumdar, Shashank (IBM Research, India) 25136; Samanta, Suranjana (IBM Research) 38111; Mehta, Sameep (IBM Research) 38151
3	11:50-12:10	**Anomaly Detection Via Minimum Likelihood Generative Adversarial Networks** wang, chu (Institute of Automation, Chinese Academy of Sciences) 37549; Zhang, Yan-Ming (Institute of Automation, Chinese Academy of Sciences) 32341; Liu, Cheng-Lin (Institute of Automation, Chinese Academy of Sciences) 10695
4	12:10-12:30	**Deep Generative Adversarial Networks for the Sparse Signal Denoising** Wu, Kailun (Tsinghua University) 35152; Zhang, Changshui (Tsinghua University) 10517

Oral Session - **WeAMOT2 Low Level Vision (309B, 3rd Floor)** - WeAMOT2
Wednesday, August 22, 2018, 11:10-12:30, 309B, 3rd Floor

#	Subslot	**Title** / Authors
1	11:10-11:30	**Spatially Coherent Matching for Robust Registration** Wang, Gang (Shanghai University of Finance and Economics) 35823; Chen, Yufei (Tongji University) 36105; Zhang, Haotian (Tongji University) 35937
2	11:30-11:50	**Masked Label Learning for Optical Flow Regression** Yang, Guorun (Tsinghua University) 35165; Deng, Zhidong (Tsinghua University) 38890; Wang, Shiyao (school) 38349; Li, Zeping (Tsinghua University) 38347
3	11:50-12:10	**Saliency Guided Fast Interpolation for Large Displacement Optical Flow** zu, yueran (Beihang University) 35760; Gao, Ke (Institute of Computing Technology of Chinese Academy of Sciences) 27798; bao, xiuguo (CNCERT) 35765; tang, wenzhong (Beihang University) 35768
4	12:10-12:30	**BTF Compound Texture Model with Non-Parametric Control Field** Haindl, Michael (Institute of Information Theory and Automation) 10966; Havlicek, Vojtech (Institute of Information Theory and Automation) 12861

Oral Session - **WeAMOT3 Image Analysis and Segmentation (310, 3rd Floor)** - WeAMOT3
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#	Subslot	Title / Authors
1	11:10-11:30	**Convexity Invariance of Voxel Objects under Rigid Motions** Ngo, Phuc (LORIA - Lorraine University) 37453; Passat, Nicolas (Université de Reims Champagne-Ardenne) 15674; Kenmochi, Yukiko (Université Paris-Est) 15371; Debled-Rennesson, Isabelle (LORIA - Nancy University) 11861
2	11:30-11:50	**Multi-Scale Cross-Band Encoding of Sectored Local Binary Pattern for Robust Texture Classification** Song, Tiecheng (Chongqing University of Posts and Telecommunications) 35509; Luo, Lin (Chongqing University of Posts and Telecommunications) 35427; Xin, Liangliang (Chongqing University of Posts and Telecommunications) 35350; Gao, Chenqiang (School of Communication and Information Engineering, Chongqing U) 35511
3	11:50-12:10	**Locality Preserving Discriminative Complex-Valued Latent Variable Model** Chen, Sih-Huei (National Central University) 38655; Lee, Yuan-Shan (National Central University) 38659; Wang, Jia-Ching (National Central University) 38660
4	12:10-12:30	**Segmentation Edit Distance** Pucher, Daniel (TU Wien) 39300; Kropatsch, Walter (TU Vienna) 10228

Oral Session - **WeAMOT6 Medical Image Analysis (311A, 3rd Floor)** - WeAMOT4
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#	Subslot	Title / Authors
1	11:10-11:30	**An Automated Airway Segmentation Algorithm for CT Images Using Topological Leakage Detection and Volume Freezing** Nadeem, Syed Ahmed (University Of Iowa) 35966; Hoffman, Eric A (University of Iowa Carver College of Medicine) 28743; Saha, Punam Kumar (University of Iowa) 25913
2	11:30-11:50	**A Method for PET-CT Lung Cancer Segmentation Based on Improved Random Walk** Liu, Zhe (School of Computer Science and Communication Engineering, Jiangs) 37942; Song, Yuqing (School of Computer Science and Communication Engineering, Jiangs) 37964; Maere, Charlie (Jiangsu University) 38167; Liu, Qingfeng (School of Computer Science and Communication Engineering, Jiangs) 37930; Zhu, Yan (Affiliated Hospital of Jiangsu University) 37956; Lu, Hu (Fudan university) 36818; Yuan, Deqi (Zhenjiang First People's Hospital Branch) 37958

3	11:50-12:10	**Medical Knowledge Constrained Semantic Breast Ultrasound Image Segmentation** Huang, Kuan (Utah State University) 38008; Cheng, Heng-Da (Utah State University) 14989; zhang, yingtao (Harbin Institute of Technology) 17061; Zhang, Boyu (Utah State University) 38016; Xing, Ping (the First Affiliated Hospital of Harbin Medical University) 38017; Ning, Chunping (the Affiliated Hospital of Qingdao University) 38018
4	12:10-12:30	**Interactive Segmentation of Glioblastoma for Post-Surgical Treatment Follow-Up** Dhara, Ashis Kumar (Centre for Image Analysis, Department of Information Technology,) 38970; Arvids, Erik (Uppsala University) 38971; Fahlström, Markus (Department of Surgical Sciences, Radiology, Uppsala University) 38973; Wikström, Johan (Department of Surgical Sciences, Radiology, Uppsala University) 38974; Larsson, Elna-Marie (Department of Surgical Sciences, Radiology, Uppsala University) 38975; Strand, Robin (Uppsala University) 11856

- **Lunch Break We (Exhibition Hall 5, B1 Floor)** - WeLunch_Break
Wednesday, August 22, 2018, 12:30-14:00, Exhibition Hall 5, B1 Floor

Plenary Session - **Plenary Session: Venkatesh Prasad, Automobiles and Mobility Solutions(Ballroom C, 1st Floor)** - We3PL
Wednesday, August 22, 2018, 14:00-15:00, Ballroom C, 1st Floor

Poster Session - **Poster Session WePMP, Coffee Break(North Foyer & Park View Foyer, 3rd Floor)** - WePMP
Wednesday, August 22, 2018, 15:00-17:00, North Foyer & Park View Foyer, 3rd Floor

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1	15:00-17:00	Common Random Subgraph Modeling Using Multiple Instance Learning Xu, Tao (University of Guelph) 35483; Chiu, David K.Y. (University of Guelph) 12440; Gondra, Iker (St. Francis Xavier University) 35484
2	15:00-17:00	Fast Descriptor Extraction for Contextless 3D Registration Using a Fully Convolutional Network Garrett, Timothy (Iowa State University) 33842; Radkowski, Rafael (Iowa State University) 33845
3	15:00-17:00	Rotational Invariant Discriminant Subspace Learning for Image Classification Ye, Qiaolin (Nanjing Univesity of Science and Technology) 29516; Zhang, Zhao (City University of Hong Kong) 38599
4	15:00-17:00	FReLU: Flexible Rectified Linear Units for Improving Convolutional Neural Networks Qiu, Suo (South China University of Technology) 38293; Xu, Xiangmin (South China University of Technology) 38501; Cai, Bolun (South China University of Technology) 38461
5	15:00-17:00	Adaptive Latent Representation for Multi-View Subspace Learning Zhang, Yuemei (Xidian University) 37716; Wang, Xiumei (Xidian University) 35855; Gao, Xinbo (Xidian University) 12412
6	15:00-17:00	Appearance-Based Data Augmentation for Image Datasets Using Contrast Preserving Sampling Merchant, Alishan (NUCES) 38661; Syed, Tahir (NUCES) 30774; Khan, Behraj (NUCES) 40527
7	15:00-17:00	Local Binary Patterns for Graph Characterization Jawad, Muhammad (Institute of Management Sciences) 38640; Aziz, Furqan (Institute of Management Sciences) 22917; Hancock, Edwin (University of York) 10486
8	15:00-17:00	Nonnegative and Adaptive Multi-View Clustering Zou, Peng (Soochow University) 38745; Li, Fan-Zhang (Soochow University) 30305; Zhang, Li (Soochow University) 35401
9	15:00-17:00	Stabilizing Actor Policies by Approximating Advantage Distributions from K Critics Labao, Alfonso (University of the Philippines Computer Science Department) 38822; Naval, Prospero (University of the Philippines) 38816
10	15:00-17:00	Single-Image Dehazing Algorithm Based on Convolutional Neural Networks Xiao, Jinsheng (Wuhan University) 34539; Luo, Li (Wuhan University) 35930; Liu, Enyu (Wuhan University) 34543; Lei, Junfeng (School of Electronic Information, Wuhan University) 35117; Klette, Reinhard (Auckland University of Technology) 10218
11	15:00-17:00	Driving Maneuver Detection Via Sequence Learning from Vehicle Signals and Video Images Peng, Xishuai (University of Michigan-Dearborn) 37818; Liu, Ruirui (University of Michgan-Dearborn) 37820; Murphey, Yi (University of Michigan-Dearborn) 13261; Stent, Simon (University of Cambridge) 26374; Li, Yuanxiang (Shanghai Jiao Tong University) 24925
12	15:00-17:00	Background Subtraction Via 3D Convolutional Neural Networks Gao, Yongqiang (National University of Defense Technology, Changsha, Hunan, P.R.) 37640; Cai, Huayue (national university of defense techonology) 36445; Zhang, Xiang (National University of Defense Technology, Changsha, 410073, Hun) 37630; Lan, Long (National University of Defense Technology, Changsha, Hunan, P.R.) 37652; Luo, Zhigang (National University of Defense Technology, Changsha, Hunan, P.R.) 37649
13	15:00-17:00	Universal Perturbation Generation for Black-Box Attack Using Evolutionary Algorithms Wang, Siyu (Tianjin University, School of Computer Science and Technology) 38938; Shi, Yucheng (Tianjin University) 38926; Han, Yahong (Tianjin University) 36797
14	15:00-17:00	Probabilistic Graph Embedding for Unsupervised Domain Adaptation Xiao, Pan (Wuhan University, Wuhan 430072) 38930; Du, Bo (School of Computer, Wuhan University, Wuhan 430079, China) 34047; Yun, Shuang (Wuhan University) 38929; Li, Xue (Wuhan University) 38934; Zhang, YiPeng (Department of Electrical Engineering & Computer Science, Syracus) 38937; Wu, Jia (Department of Computing, Macquarie University, Sydney) 38935
15	15:00-17:00	Reservoir Computing with Untrained Convolutional Neural Networks for Image Recognition TONG, ZHIQIANG (THE UNIVERSITY OF TOKYO) 38842; Tanaka, Gouhei (The University of Tokyo) 38891
16	15:00-17:00	EMD-Based Entropy Features for Micro-Doppler Mini-UAV Classification Ma, Xinyue (Nanyang Technological University) 38958; Oh, Beomseok (Nanyang Technological University) 34281; Sun, Lei (Beijing Institute of Technology) 38960; Toh, Kar-Ann (Yonsei University) 15878; Lin, Zhiping (Nanyang Technological University) 38946

17	15:00-17:00	**Context-Aware Attention LSTM Network for Flood Prediction** Wu, Yirui (Hohai University) 31235; Liu, Zhaoyang (Nanjing University) 37212; Xu, Weigang (Hohai University) 35505; Feng, Jun (Hohai University) 35504; Palaiahnakote, Shivakumara (National University of Singapore) 11476; Lu, Tong (State Key Laboratory for Software Technology, NanjingUniversity) 12403
18	15:00-17:00	**An Online Kernel Selection Wrapper Via Multi-Armed Bandit Model** Li, junfan (Tianjin University) 36266; Liao, Shizhong (Tianjin University) 35167
19	15:00-17:00	**Variational Bayes Block Sparse Modeling with Correlated Entries** Sharma, Shruti (Indian Institute of Technology Delhi) 39033; Chaudhury, Santanu (Indian Institute of Technology, Delhi) 14349; Jayadeva, Dr. (IIT Delhi) 33069
20	15:00-17:00	**Semi-Supervised Convolutional Neural Networks with Label Propagation for Image Classification** Chen, Lin (ShenZhen University) 36427; Yu, Shiqi (Shenzhen University) 32196; Yang, Meng (Sun Yat-Sen University) 38828
21	15:00-17:00	**Occluded Joints Recovery in 3D Human Pose Estimation Based on Distance Matrix** Guo, Xiang (Australian National University) 37843; Dai, Yuchao (Northwestern Polytechnical University) 37834
22	15:00-17:00	**Scalable Semi-Supervised Learning by Graph Construction with Approximate Anchors Embedding** Zhu, Hao (JD Finance) 38672; Xia, Minxue (JD Finance) 38994
23	15:00-17:00	**Facial Attribute Editing by Latent Space Adversarial Variational Autoencoders** Li, Defang (Sun Yat-Sen University) 31292; Zhang, Min (Sun Yat-sen University) 39136; Chen, Weifu (Sun Yat-sen University, Guangzhou, China) 20516; Feng, Guocan (Sun Yat-Sen University) 13766
24	15:00-17:00	**MMGAN: Manifold-Matching Generative Adversarial Network** Park, Noseong (University of North Carolina, Charlotte) 39156; Anand, Ankesh (Montreal Institute for Learning Algorithms) 39219; Moniz, Joel Ruben Antony (Carnegie Mellon University) 39184; Lee, Kookjin (University of Maryland College Park) 39267; Choo, Jaegul (Korea University) 15090; Park, David Keetae (Korea University) 40479; Chakraborty, Tanmoy (IIIT Delhi, India) 39173
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26	15:00-17:00	**Domain Translation with Conditional GANs: From Depth to RGB Face-To-Face** Fabbri, Matteo (Università degli Studi di Modena e Reggio Emilia) 39304; Borghi, Guido (University of Modena and Reggio Emilia) 32017; Lanzi, Fabio (Università degli Studi di Modena e Reggio Emilia) 39282; Vezzani, Roberto (University of Modena and Reggio Emilia) 23281; Calderara, Simone (University of Modena and Reggio Emilia) 18670; Cucchiara, Rita (Università degli Studi di Modena e Reggio Emilia) 10603
27	15:00-17:00	**Temporal Pattern Localization Using Mixed Integer Linear Programming** Zhao, Rui (RPI) 27654; Schalk, Gerwin (BCI R&D Progr, Wadsworth Ctr, NYS Dept of Health) 19311; Ji, Qiang (RPI) 10491
28	15:00-17:00	**Net4lap: Neural Laplacian Regularization for Ranking and Re-Ranking** Curado, Manuel (University Of Alicante) 33268; Escolano, Francisco (University of Alicante) 11378; Lozano, Miguel Angel (University of Alicante) 14583; Hancock, Edwin (University of York) 10486
29	15:00-17:00	**Part-Based Multi-Stream Model for Vehicle Searching** SUN, YA (Nanjing University of Science and Technology) 38555; Minxian, Li (Nanjing University of Science and Technology) 38743; Lu, Jianfeng (Nanjing University of Science & Technology) 22043
30	15:00-17:00	**Dynamic Learning Rate for Neural Networks: A Fixed-Time Stability Approach** Aldana Lopez, Rodrigo (Intel Corporation) 38419; Campos Macias, Leobardo Emmanuel (Intel Corporation) 38417; Zamora Esquivel, Julio (Intel Corporation) 38422; Gomez-Gutierrez, David (Intel Labs) 38420; Cruz Vargas, Jesus Adan (Intel) 38424
31	15:00-17:00	**Convolutional Networks for Semantic Heads Segmentation Using Top-View Depth Data in Crowded Environment** Liciotti, Daniele (Università Politecnica delle Marche) 39369; Paolanti, Marina (Università Politecnica delle Marche) 39367; Pietrini, Rocco (Università Politecnica delle Marche) 39371; Frontoni, Emanuele (Universita' Politecnica delle Marche) 20251; Zingaretti, Primo (Universita' Politecnica delle Marche) 20253
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34	15:00-17:00	**IMU-Based Robust Human Activity Recognition Using Feature Analysis, Extraction, and Reduction** Dehzangi, Omid (University of Michigan-Dearborn) 34118; Sahu, Vaishali (University of Michigan Dearborn) 39135

35	15:00-17:00	**Multi-Label Classification of Stem Cell Microscopy Images Using Deep Learning** Witmer, Adam (University of California, Riverside) 38864; Bhanu, Bir (Univ of California) 10811
36	15:00-17:00	**D-NND: A Density-Based Hierarchical Clustering Method Via Nearest Neighbor Descent** Teng, Qiu (University of Electronic Science and Technology of China) 39181; LI, Chaoyi (University of Electronic Science and Technology of China) 39544; LI, Yongjie (University of Electronic Science and Technology of China) 39549
37	15:00-17:00	**Deep Age Estimation Model Stabilization from Images to Videos** Ji, Zhipeng (Beijing Jiaotong University School of Computer and Information) 39469; Lang, Congyan (BJTU School of Computer and Information Technology) 39541; Li, Kai (Chinese Academy of Sciences) 37460; Xing, Junliang (Institute of Automation, Chinese Academy of Sciences) 15981
38	15:00-17:00	**Person Re-Identification with Weighted Spatio-Temporal Features** Zhang, Dongyu (Sun Yat-sen University) 39266; Chen, Rongcong (Sun Yat-sen University) 39556; Qiu, Zhilin (Sun Yat-Sen University) 40503; Zhang, Wei (Sun Yat-sen University) 39559; Wang, Qing (Sun Yat-sen University) 39574
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40	15:00-17:00	**Fast Skin Lesion Segmentation Via Fully Convolutional Network with Residual Architecture and CRF** Luo, Wenfeng (South China University of Technology) 36469; Yang, Meng (Sun Yat-Sen University) 38828
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42	15:00-17:00	**An Improved Self-Representation Approach for Missing Value Imputation** Chen, Xiaobo (Jiangsu University) 23415
43	15:00-17:00	**Convolutional Discriminant Analysis** Zhong, Guoqiang (Ocean University of China) 33347; Zheng, Yan (Ocean University of China) 39628; Zhang, Xu-Yao (Institute of Automation, Chinese Academy of Sciences) 28362; Wei, Hongxu (Ocean University of China) 39641; Ling, Xiao (Ocean University of China) 39642
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45	15:00-17:00	**Effects of Sampling Skewness of the Importance-Weighted Risk Estimator on Model Selection** Kouw, Wouter Marco (Delft University of Technology) 31136; Loog, Marco (Delft University of Technology / University of Copenhagen) 10501
46	15:00-17:00	**A Convolutional Neural Network Approach for Estimating Tropical Cyclone Intensity Using Satellite-Based Infrared Images** Combinido, Jay Samuel (Advanced Science and Technology Institute) 39671; Mendoza, John Robert (Electrical and Electronics Engineering Institute, University of) 40548; Aborot, Jeffrey (Advanced Science and Technology Institute) 39673
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48	15:00-17:00	**Exploring Spatio-Temporal Correlations Via Deep Convolutional Neural Networks for Short-Term Traffic Flow Prediction with Incomplete Data** Hou, Jiaxin (School of Software Engineering, Chongqing University) 39677; Chen, Jing (School of Big Data & Software Engineering, Chongqing University) 39676; Liao, Shijie (Chongqing University) 39680; Xiong, Qingyu (Chongqing University) 39681; Wen, Junhao (Chongqing University) 39678
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50	15:00-17:00	**Action Classification Via Concepts and Attributes** Rosenfeld, Amir (York University) 35186; Ullman, Shimon (Weizmann Institute) 35187
51	15:00-17:00	**RelationNet: Learning Deep-Aligned Representation for Semantic Image Segmentation** Zhuang, Yueqing (Peking University) 35250; Tao, Li (Peking University) 34377; Yang, Fan (Peking University) 37017; Ma, Cong (Peking University) 37019; Zhang, Ziwei (Peking University) 37191; Jia, Huizhu (Peking University) 33915; Xie, Xiaodong (Peking University) 33928

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56	15:00-17:00	**Person in Vehicle Counting Method of HOV HOT System** Miyamoto, Shinichi (NEC Corporation) 35326
57	15:00-17:00	**Kernel Dual Linear Regression for Face Image Set Classification** Gao, Xizhan (Nanjing University of Science and Techonlogy) 35703; Sun, quansen (Nanjing University of Science and Technology) 13903; Xu, Haitao (Liaocheng University) 35719; Li, Yanmeng (Nanjing University of Science and Techonlogy) 35722
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60	15:00-17:00	**3DMAX-Net: A Multi-Scale Spatial Contextual Network for 3D Point Cloud Semantic Segmentation** Ma, Yanxin (National University of Defense Technology) 35744; Guo, Yulan (National University of Defense Technology) 21529; Lei, Yinjie (Sichuan University) 35740; Lu, Min (National University of Defense Technology) 21595; Zhang, Jun (National University of Defense Technology) 35745
61	15:00-17:00	**Beyond Two-Stream: Skeleton-Based Three-Stream Networks for Action Recognition in Videos** Xu, Jianfeng (KDDI Research, Inc.) 35812; Tasaka, Kazuyuki (KDDI Research, Inc.) 35813; Yanagihara, Hiromasa (KDDI Research, Inc.) 29705
62	15:00-17:00	**Sparse Representation and Weighted Clustering Based Abnormal Activity Detection** Jin, Dongliang (Nanjing University of Posts and Telecommunications) 35865; Songhao, Zhu (Nanjing University of Posts and Telecommunications) 27085; Songsong, Wu (Nanjing University of Posts and Telecommunications) 40486; Jing, Xiaoyuan (Nanjing University of Posts and Telecommunications) 19872
63	15:00-17:00	**Weak Supervised Learning Based Abnormal Behavior Detection** Sun, Xian (Nanjing University of Posts and Telecommunications) 35864; Songhao, Zhu (Nanjing University of Posts and Telecommunications) 27085; Songsong, Wu (Nanjing University of Posts and Telecommunications) 40486; Jing, Xiaoyuan (Nanjing University of Posts and Telecommunications) 19872
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65	15:00-17:00	**Latent Linear Dynamics for Modeling Pedestrian Behaviors** Dhaka, Devendra (NEC Corporation Japan) 36005; Ishii, Masato (NEC) 21472; Sato, Atsushi (NEC) 17198
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67	15:00-17:00	**Fast and Robust Pose Estimation Algorithm for Bin Picking Using Point Pair Feature** Li, Mingyu (Tohoku University) 36118; Hashimoto, Koichi (Tohoku University) 35699
68	15:00-17:00	**Hybrid 3D Surface Description with Global Frames and Local Signatures of Histograms** Shen, Zhiqiang (School of Control Science and Engineering) 36117; Ma, Xin (Shandong University) 34373; Zeng, Xianglei (Shandong University) 40474

69	15:00-17:00	A Structural Approach to Person Re-Identification Problem mahboubi, amal (GREYC UMR CNRS 6072) 23846; Brun, Luc (ENSICAEN) 13118; Conte, Donatello (University of Tours) 16628
70	15:00-17:00	Pre-Trained VGG-Net Architecture for Remote-Sensing Image Scene Classification USMAN, MUHAMMAD (University of Chinese Academy of Sciences) 36182; Wang, Weiqiang (University of Chinese Academy of Sciences) 18689; Shahbaz Pervaiz, Chattha (Yanbu University College) 36186; Sajid, Ali (University of Education) 36187
71	15:00-17:00	Long-term Object Tracking with Instance Specific Proposals Liu, Hao (National University of Defense Technology) 36214; Hu, Qingyong (National University of Defense Technology) 35886; Li, Biao (National University of Defense Technology) 36215; Guo, Yulan (National University of Defense Technology) 21529
72	15:00-17:00	Which Part is Better: Multi-Part Competition Network for Person Re-Identification Du, Peng (Xi'an Jiaotong University School of Software Engineering) 36294; Song, Yonghong (Xi'an Jiaotong University) 11806; Zhang, Yuanlin (Xian JiaoTong University) 29084
73	15:00-17:00	Explain Black-Box Image Classifications Using Superpixel-Based Interpretation Wei, Yi (University at Albany, State University of New York) 35359; Chang, Ming-Ching (University at Albany - SUNY) 25933; Ying, Yiming (SUNY Albany) 35957; Lim, Ser Nam (GE) 35423; Lyu, Siwei (SUNY Albany) 25638
74	15:00-17:00	Improved Correlation Filter Tracking with Hard Negative Mining Qie, Chunguang (Xiamen University) 36433; Guanjun, Guo (Xiamen University) 36440; Yan, Yan (Xiamen University) 24151; Liming, Zhang (University of Macau) 36439; Wang, Hanzi (Xiamen University) 36434
75	15:00-17:00	A Rigorous Solution for Closed-Form Correlation Filter Tracking Li, Dongdong (National University of Defense Technology) 35560; Wen, Gongjian (National University of Defense Technology) 35561; Kuai, Yangliu (National University of Defense Technology) 35551
76	15:00-17:00	Incremental 3D Line Segment Extraction from Semi-Dense SLAM He, Shida (University of Alberta) 36305; Qin, Xuebin (University of Alberta) 32294; Zhang, Zichen (University of Alberta) 36310; Jagersand, Martin (University of Alberta) 32484
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78	15:00-17:00	Perceptual Face Completion Using a Local-Global Generative Adversarial Network Ma, Ruijun (Sun Yat-Sen University) 36461; Hu, Haifeng (Sun Yat-sen University) 35261
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81	15:00-17:00	Simultaneous Context Feature Learning and Hashing for Large Scale Loop Closure Detection Fu, Zhiheng (College of Electronic Science, National University of Defense Te) 36747; Guo, Yulan (National University of Defense Technology) 21529; An, Wei (National University of Defense Technology) 35895
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87	15:00-17:00	**Context-Aware and Depthwise-Based Detection on Orbit for Remote Sensing Image** Fu, Yanmei (Institute of Software Chinese Academy of Sciences) 36209; Wu, Fengge (Institute of Software Chinese Academy of Sciences) 36319; Zhao, Junsuo (Institute of Software Chinese Academy of Sciences) 36605
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90	15:00-17:00	**A Co-Occurrence Background Model with Hypothesis on Degradation Modification for Object Detection in Strong Background Changes** ZHOU, WENJUN (Graduate School of Information Science and Technology, Hokkaido) 37211; Kaneko, Shun'ichi (Hokkaido University) 13919; Hashimoto, Manabu (Chukyo University) 14565; Satoh, Yutaka (National Institute of Advanced Industrial Science andTechnology) 14608; Liang, Dong (Nanjing University of Aeronautics and Astronautics) 37146
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93	15:00-17:00	**Online Temporal Calibration of Camera and IMU Using Nonlinear Optimization** Liu, Jinxu (Institute of Automation, Chinese Academy of Sciences) 37122; Gao, Wei (Institute of Automation, Chinese Academy of Sciences) 36566; Hu, Zhanyi (Institute of Automation, Chinese Academy of Sciences) 31468
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99	15:00-17:00	**Convolutional Features-Based CRF Graph Matching for Tracking of Densely Packed Cells** Qian, Weili (Hunan University) 36036; Wei, Yangliu (Hunan University) 37347; Wang, Xueping (Hunan University) 35416; Liu, Min (Hunan University) 35417
100	15:00-17:00	**SPCNet: Scale Position Correlation Network for End-To-End Visual Tracking** Wang, Qiang (Institute of Automation, Chinese Academy of Sciences, Beijing, C) 35879; Gao, Jin (Institute of Automation Chinese Academy of Sciences) 38026; zhang, mengdan (Chinese Academy of Sciences) 38022; Xing, Junliang (Institute of Automation, Chinese Academy of Sciences) 15981; Hu, Weiming (National Laboratory of PatternRecognition,InstituteofAutomation) 11163

101	15:00-17:00	**Online Multi-Target Tracking with Tensor-Based High-Order Graph Matching** Zhou, Zongwei (Institute of Automation, Chinese Academy of Sciences) 36256; Xing, Junliang (Institute of Automation, Chinese Academy of Sciences) 15981; zhang, mengdan (Chinese Academy of Sciences) 38022; Hu, Weiming (National Laboratory of PatternRecognition,InstituteofAutomation) 11163
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106	15:00-17:00	**Attention-Based Neural Network for Traffic Sign Detection** Zhang, Jing (Nanjing University of Science and Technology) 35235; Hui, Le (Nanjing University of Science and Technology) 37579; Lu, Jianfeng (Nanjing University of Science & Technology) 22043; Zhu, Yuhua (Nanjing University of Science and Technol) 38910
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109	15:00-17:00	**A Multi-Part Convolutional Attention Network for Fine-Grained Image Recognition** Zhong, Weilin (Shanghai Jiao Tong University) 35219; Jiang, Linfeng (Shanghai Jiao Tong University) 36133; Zhang, Tao (Shanghai Jiao Tong University) 36148; ji, jinsheng (Shanghai Jiao Tong University) 36168; Xiong, Huilin (Shanghai Jiao Tong University) 36567
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113	15:00-17:00	**Em-SLAM: A Fast and Robust Monocular SLAM Method for Embedded Systems** Wu, Yirui (Hohai University) 31235; Li, Zhi-Kai (National Key Lab for Novel Software Technology, Nanjing Universi) 37366; Palaiahnakote, Shivakumara (National University of Singapore) 11476; Lu, Tong (State Key Laboratory for Software Technology, NanjingUniversity) 12403
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124	15:00-17:00	**A Multi-Modal Multi-View Dataset for Human Fall Analysis and Preliminary Investigation on Modality** Tran, Thanh-Hai (Hanoi University of Science and Technology) 28021; Le, Thi-Lan (MICA Institute, Hanoi University of Science and Technology) 38133; Dinh-Tan, Pham (MICA Institute, Hanoi University of Science and Technology) 38140; Van-Nam, Hoang (MICA Institute, Hanoi University of Science and Technology) 38135; Van-Minh, Khong (MICA) 38142; Quoc-Toan, Tran (MICA Institute, Hanoi University of Science and Technology) 38141; Thai-Son, Nguyen (PTIT) 38136; Van-Cuong, Pham (PTIT) 38143
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128	15:00-17:00	**Fish Detection from Low Visibility Underwater Videos** Shevchenko, Violetta (Lappeenranta University of Technology) 38281; Eerola, Tuomas (Lappeenranta University of Technology) 20936; Kaarna, Arto (Lappeenranta University of Technology) 10205
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130	15:00-17:00	**Gender Recognition from Face Images Using Trainable Shape and Color Features** Azzopardi, George (University of Malta) 33747; Foggia, Pasquale (Università di Salerno) 10675; Greco, Antonio (University of Salerno) 38313; Saggese, Alessia (University of Salerno) 23308; Vento, Mario (Università degli studi di Salerno) 10433
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133	15:00-17:00	**Automatic Inspection of Aerospace Welds Using X-Ray Images** Dong, Xinghui (The University of Manchester) 16813; Taylor, Chris (University of Manchester) 10412; Cootes, Tim (The University of Manchester) 10080
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135	15:00-17:00	**Segmentation-Guided Tracking with Prior Map Decision** Ma, Ding (Harbin Institute of Technology) 36964; Bu, Wei (Harbin Institute of Technology) 26289; Wu, Xiangqian (Harbin Institute of Technology) 14623; Xie, Yuying (Michigan State University, Department of Computational Mathemati) 40543; Cui, YueHua (Michigan State University, Department of Statistics and Probabil) 40536
136	15:00-17:00	**Fast Single Image Dehazing Via Positive Correlation** Li, Bingheng (Xi'an University of Posts and Telecommunications) 38449; Lai, Yi (Xi'an University of Posts and Telecommunications) 37845; Wu, Chaoyan (Xi'an University of Posts and Telecommunications) 38451; Liu, Ying (Xi'an University of Posts and Telecommunications) 38452
137	15:00-17:00	**Temporal Action Detection by Joint Identifi Cation-Verifi Cation** wang, wen (UESTC) 37180; Yongjian, Wu (State key laboratory of synthetical automation for process indus) 37933; Liu, Haijun (UESTC) 37412; Wang, Shiguang (University of Electronic Science and Technology of China) 38263; Cheng, Jian (University of Electronic Science and Technology of China) 37925
138	15:00-17:00	**Vehicle Re-Identification by Deep Feature Fusion Based on Joint Bayesian Criterion** Li, Siyu (Beijing Institute of Technology) 36448; Pei, Mingtao (Beijing Institute of Technology) 24485; Zhu, Leyi (University of Science and Technology of China) 37904
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140	15:00-17:00	**Unsupervised Multi-Domain Image Translation with Domain-Specific Encoders/Decoders** Hui, Le (Nanjing University of Science and Technology) 37579; Li, Xiang (NJUST) 38530; Chen, Jiaxin (Nanjing University Of Science and Technology) 38537; He, Hongliang (Nanjing University of Science and Technology) 38527; Yang, Jian (Nanjing University of Science and Technology) 14216

141	15:00-17:00	**A Light CNN Based Method for Hand Detection and Orientation Estimation** yang, li (Southeast University) 38523; qi, zhi (Southeast University) 38524; liu, zeheng (Southeast University) 38525; zhou, shanshan (Southeast University) 39233; zhang, yang (Southeast University) 38532; liu, hao (Southeast University) 40504; wu, jianhui (Southeast University) 38536; shi, longxing (Southeast University) 38538
142	15:00-17:00	**Orientation-Guided Similarity Learning for Person Re-Identification** Jiang, Na (Beihang University) 35854; Liu, Junqi (Beihang University) 36836; Sun, Chenxin (Beihang University) 36841; Wang, Yuehua (Beihang University) 36832; Zhou, Zhong (Beihang University) 36822; Wu, Wei (Beihang University) 36823

Main Program

Oral Session - **WePMOT1.A Multitask and Multilabel Learning (Ballroom C, 1st Floor)** - WePMOT1
Wednesday, August 22, 2018, 17:00-18:20, Ballroom C, 1st Floor

#	Subslot	**Title** / Authors
1	17:00-17:20	**Learning Multi-View Generator Network for Shared Representation** Han, Tian (University of California, Los Angeles) 21962; Xing, Xianglei (Harbin Engineering University) 38574; Wu, Yingnian (University of California, Los Angeles) 38581
2	17:20-17:40	**Multi-Task Learning of Cascaded CNN for Facial Attribute Classification** Zhuang, Ni (Xiamen University) 36768; Yan, Yan (Xiamen University) 24151; Chen, Si (Xiamen University of Technology) 36778; Wang, Hanzi (Xiamen University) 36434
3	17:40-18:00	**Learning with Latent Label Hierarchy from Incomplete Multi-Label Data** Pei, Yuanli (Oregon State University) 39700; Fern, Xiaoli Z (Oregon State university) 14954; Raich, Raviv (Oregon State University) 39701
4	18:00-18:20	**Learning Fixation Point Strategy for Object Detection and Classification** Lyu, Jie (Xi'an Jiaotong University) 31449; Yuan, Zejian (Xi'an Jiaotong University) 11545; Chen, Dapeng (Xi'an Jiaotong University) 22636; Zhao, Yun (Xi'an Jiaotong University) 40485; Zhang, Hui (Shenzhen Forward Innovation Digital Technology Co. Ltd. China) 40510

Main Program

Main Program

Oral Session - **WePMOT1.B Clustering (309A, 3rd Floor)** - WePMOT2
Wednesday, August 22, 2018, 17:00-18:20, 309A, 3rd Floor

#	Subslot	**Title** / Authors
1	17:00-17:20	**Probabilistic Sparse Subspace Clustering Using Delayed Association** Jaberi, Maryam (University of Central Florida) 39268; Pensky, Marianna (University of Central Florida) 39271; Foroosh, Hassan (University of Central Florida) 11164
2	17:20-17:40	**Constrained Sparse Subspace Clustering with Side-Information** Li, Chun-Guang (Beijing University of Posts and Telecommunications) 15537; Zhang, Junjian (Beijing University of Posts and Telecommunications) 30959; Guo, Jun (Beijing University of Posts and Telecommunications) 13442
3	17:40-18:00	**Stream Clustering with Dynamic Estimation of Emerging Local Densities** Wang, Ziyin (Indiana University-Purdue University Indianapolis) 36472; Tsechpenakis, Gavriil (Indiana University-Purdue University) 26831

Main Program

Oral Session - **WePMOT2 Motion Analysis (309B, 3rd Floor)** - WePMOT3
Wednesday, August 22, 2018, 17:00-18:20, 309B, 3rd Floor

#	Subslot	**Title** / Authors
1	17:00-17:20	**A Benchmark for Full Rotation Head Tracking** Li, Yulin (Institute of Computing Technology, Chinese Academy of Sciences) 35189; ma, Bingpeng (University of Chinese Academy of Sciences) 37515; Chang, Hong (Institute of Computing Technology, CAS) 14819; Chen, xilin (Institute of Computing Technology,CAS) 34470
2	17:20-17:40	**Depth Masked Discriminative Correlation Filter** Kart, Ugur (Tampere University of Technology) 38201; Kamarainen, Joni-Kristian (Tampere University of Technology) 10207; Matas, Jiri (CTU Prague) 10270; Fan, Lixin (Nokia Technologies) 32696; Cricri, Francesco (Nokia Technologies) 35499
3	17:40-18:00	**OWP: Objectness Weighted Patch Descriptor for Visual Tracking** Jiang, Bo (Anhui University) 38663; Zhang, Yuan (Anhui University) 40532; Tang, Jin (Anhui University) 38321; Luo, Bin (Anhui University) 38323
4	18:00-18:20	**Dual-SVM tracker via Multiple Support Instance and LEVER Strategy** Ma, Ding (Harbin Institute of Technology) 36964; Wu, Xiangqian (Harbin Institute of Technology) 14623; Bu, Wei (Harbin Institute of Technology) 26289

Main Program

Oral Session - **WePMOT4 Gait and Person Re-identification (311B, 3rd Floor)** - WePMOT4
Wednesday, August 22, 2018, 17:00-18:20, 311B, 3rd Floor

#	Subslot	**Title** / Authors
1	17:00-17:20	**3D Gait Recognition Based on Functional PCA on Kendall's Shape Space** Hosni, Nadia (Ecole nationale des sciences informatiques\ University of Manouba) 37511; Drira, Hassen (LIFL (UMR Lille1/ CNRS8022), Université de Lille1) 23028; Chaieb, Faten (CRISTAL Lab. ENSI, Manouba University) 38057; Ben Amor, Boulbaba (IMT Lille Douai/CRIStAL (UMR CNRS 9189)) 19795
2	17:20-17:40	**Person Re-Identification with Vision and Language** Yan, Fei (University of Surrey) 19625; Kittler, Josef (University of Surrey) 10826; Mikolajczyk, Krystian (University of Surrey) 16492
3	17:40-18:00	**Does a Body Image Tell Age?** Yuan, Baoyu (Sun Yat-Sen University) 37370; Wu, Ancong (Sun Yat-sen University) 37118; Zheng, Wei-Shi (Sun Yat-sen University) 15610
4	18:00-18:20	**Attend and Align: Improving Deep Representations with Feature Alignment Layer for Person Retrieval** Xu, Qin (Tsinghua University) 35750; Sun, Yifan (Tsinghua university) 36499; Li, Yali (Tsinghua University) 37662; Wang, Shengjin (Tsinghua University) 37673

Main Program

Plenary Session - **Plenary Session: Jianchang Mao, Achieving Human Parity Performance in Pattern Recognition and Language Understanding by Machines(Ballroom C, 1st Floor)** - Th1PL
Thursday, August 23, 2018, 08:40-09:40, Ballroom C, 1st Floor

Plenary Session - **Plenary Session: Ashok Popat, Advice to a Promising OCR Researcher (Ballroom C, 1st Floor)** - Th2PL
Thursday, August 23, 2018, 09:40-10:40, Ballroom C, 1st Floor

- **Coffee Break ThAM(North Foyer & Park View Foyer, 3rd Floor)** - ThAM_Coffee_Break
Thursday, August 23, 2018, 10:40-11:10, North Foyer & Park View Foyer, 3rd Floor

Main Program

Oral Session - **ThAMOT1 Semi-Supervised Learning (Ballroom C, 1st Floor)** - ThAMOT1
Thursday, August 23, 2018, 11:10-12:30, Ballroom C, 1st Floor

#	Subslot	**Title** / Authors
1	11:10-12:30	**Deep Semi-Supervised Learning** Hailat, Zeyad (Wayne State University) 37801; Komarichev, Artem (Wayne State University) 37831; Chen, Xuewen (Wayne State university) 29514
2	11:10-12:30	**Robust Adaptive Label Propagation by Double Matrix Decomposition** Zhang, Huan (Soochow University) 36418; Zhang, Zhao (Soochow University) 28980; Li, Sheng (Nanjing University of Posts and Telecommunications) 24988; Ye, Qiaolin (Nanjing Univesity of Science and Technology) 29516; Zhao, Mingbo (City University of Hong Kong) 29268; Wang, Meng (Microsoft Research Asia) 15868
3	11:10-12:30	**Efficient Object Region Discovery for Weakly-Supervised Semantic Segmentation** zhong, min (Peking University) 36367; Zeng, Gang (Peking University) 27730
4	11:10-12:30	**Semi-Supervised Graph Rewiring with the Dirichlet Principle** Curado, Manuel (University Of Alicante) 33268; Escolano, Francisco (University of Alicante) 11378; Lozano, Miguel Angel (University of Alicante) 14583; Hancock, Edwin (University of York) 10486

Main Program

Oral Session - **ThAMOT2 Object Detection (309B, 3rd Floor)** - ThAMOT2
Thursday, August 23, 2018, 11:10-12:30, 309B, 3rd Floor

#	Subslot	**Title** / Authors
1	11:10-12:30	**Densely Connected Single-Shot Detector** Xu, Pei (CASIA) 35408; Zhao, Xin (Institute of Automation, Chinese Academy of Sciences) 26267; Huang, Kaiqi (NLPR) 26676
2	11:10-12:30	**Video Salient Object Detection Via Multiple Time-Scale Analysis** Chen, Yuhuan (Shenzhen University) 35459; Huang, Limin (Shenzhen People's Hospital) 40529; Zou, Wenbin (Shenzhen University) 38499; Li, Xia (Shenzhen University) 38489; Qiu, Guoping (University of Nottingham) 13610
3	11:10-12:30	**Object Detection in Equirectangular Panorama** Yang, Wenyan (laboratory of signal processing, Tampere university of Technolog) 35573; QIAN, YANLIN (tampere university of technology) 31897; Cricri, Francesco (Nokia Technologies) 35499; Fan, Lixin (Nokia Technologies) 32696; Kamarainen, Joni-Kristian (Tampere University of Technology) 10207
4	11:10-12:30	**Multi-Scale Semantic Segmentation Enriched Features for Pedestrian Detection** Xie, Xiaolu (1.Institute of Intelligent Machines, Chinese Academy of Sciences) 35661; Wang, Zengfu (University of Science and Technology of China) 12207

Main Program

Oral Session - **ThAMOT4 Face Biometrics (310, 3rd Floor)** - ThAMOT3
Thursday, August 23, 2018, 11:10-12:30, 310, 3rd Floor

#	Subslot	**Title** / Authors
1	11:10-12:30	**Joint Voxel and Coordinate Regression for Accurate 3D Facial Landmark Localization** Zhang, Hongwen (Institute of Automation, Chinese Academy of Sciences) 35211; Li, Qi (Institute of Automation, Chinese Academy of Sciences) 37332; Sun, Zhenan (Institute of Automation, Chinese Academy of Sciences.) 14224
2	11:10-12:30	**Patch-Gated CNN for Occlusion-Aware Facial Expression Recognition** Li, Yong (Institute of Computing Technology, Chinese Academy on Sciences) 35457; Zeng, Jiabei (Institute of Computing Technology, Chinese Academy on Sciences) 38802; Shan, Shiguang (Institute of Computing Technology, ChineseAcademy ofSciences) 13461; Chen, xilin (Institute of Computing Technology,CAS) 34470
3	11:10-12:30	**Scattering Transform for Matching Surgically Altered Face Images** Gupta, Ishita (Google Inc) 39656; Bhalla, Ikshu (Google Inc) 39657; Singh, Richa (IIIT Delhi) 14387; Vatsa, Mayank (IIIT Delhi) 14377
4	11:10-12:30	**Multimodal Face Spoofing Detection Via Rgb-D Images** Sun, Xudong (Institute of Automation, Chinese Academy of Sciences) 30988; Huang, Lei (Institute of Automation, Chinese Academy of Sciences) 25393; Liu, Changping (Institute of Automation, Chinese Academy of Sciences) 13532

Main Program

Oral Session - **ThAMOT5 Text Detection and Recognition (311B, 3rd Floor)** - ThAMOT4
Thursday, August 23, 2018, 11:10-12:30, 311B, 3rd Floor

#	Subslot	**Title** / Authors
1	11:10-12:30	**Scene Text Detection with Recurrent Instance Segmentation** Feng, Wei (Institutaion of Automation of Chinese Academy of Sciences) 37177; He, Wenhao (Chinese Academy of Science) 31119; Yin, Fei (Institute of Automation of CAS) 25591; Liu, Cheng-Lin (Institute of Automation, Chinese Academy of Sciences) 10695
2	11:10-12:30	**A Novel Integrated Framework for Learning Both Text Detection and Recognition** Sui, Wanchen (Alibaba) 38023; Zhang, Qing (Alibaba) 37522; Yang, Jun (Alibaba) 38032; Chu, Wei (Ant Financial, Alibaba Group) 39356
3	11:10-12:30	**Learning Graph Distances with Message Passing Neural Networks** Riba, Pau (Computer Vision Center) 38436; Fischer, Andreas (University of Fribourg) 11901; Llados, Josep (Computer Vision Center) 10697; Fornés, Alicia (Computer Vision Center) 19009
4	11:10-12:30	**Multi-Scale Attention with Dense Encoder for Handwritten Mathematical Expression Recognition** Zhang, Jianshu (University of Science and Technology of China) 37265; Du, Jun (University of Science and Technology of China) 29995; Dai, Li-Rong (University of Science and Technology of China) 30002

- Lunch Break Fh (Exhibition Hall 5, B1 Floor) - ThLunch_Break
Thursday, August 23, 2018, 12:30-14:00, Exhibition Hall 5, B1 Floor

Main Program

Main Program

Oral Session - **ThPMOT1.A Online and Active Learning (309A, 3rd Floor)** - ThMMOT2 - Profile Track 1: Pattern Recognition and Machine Learning
Thursday, August 23, 2018, 14:00-15:20, 309A, 3rd Floor

#	Subslot	**Title** / Authors
1	14:00-14:20	**An Incremental Multi-View Active Learning Algorithm for PolSAR Data Classification** Nie, Xiangli (Chinese Academy of Sciences) 37943; Luo, Yongkang (Institute of Automation, Chinese Academy of Sciences) 37949; Qiao, Hong (Institute of Automation, Chinese Academy of Sciences) 28413; Zhang, Bo (AMSS, Chinese Academy of Sciences) 37951; Jiang, Zhong-Ping (New York University) 40481
2	14:20-14:40	**A Linear Incremental Nystrom Method for Online Kernel Learning** Xu, shan (Tianjin University) 36536; Zhang, Xiao (Tianjin University) 38296; Liao, Shizhong (Tianjin University) 35167
3	14:40-15:00	**Rotate Your Networks: Better Weight Consolidation and Less Catastrophic Forgetting** Liu, Xialei (Computer Vision Center of UAB) 36138; Masana, Marc (Computer Vision Center UAB) 39333; Herranz, Luis (Computer Vision Center) 39341; van de Weijer, Joost (Computer Vision Center Barcelona) 10647; López Peña, Antonio M. (CVC-UAB) 25133; Bagdanov, Andrew D. (University of Florence) 15601
4	15:00-15:20	**Dynamic Ensemble Active Learning: A Non-Stationary Bandit with Expert Advice** Pang, Kunkun (University of Edinburgh) 37519; Dong, Mingzhi (Beijing University of Posts and Telecommunications) 21693; Wu, Yang (Nara Institute of Science and Technology) 24904; Hospedales, Timothy (Queen Mary University of London) 25955

Main Program

Oral Session - **ThPMOT2.A Vision Applications (309B, 3rd Floor)** - ThMMOT3
Thursday, August 23, 2018, 14:00-15:20, 309B, 3rd Floor

#	Subslot	**Title** / Authors
1	14:00-14:20	**Egocentric Shopping Cart Localization** Spera, Emiliano (University of Catania - Centro Studi S.r.l.) 38401; Furnari, Antonino (University of Catania) 31905; Battiato, Sebastiano (University of Catania) 11906; Farinella, Giovanni Maria (University of Catania) 11914
2	14:20-14:40	**Scalable Monocular SLAM by Fusing and Connecting Line Segments with Inverse Depth Filter** Zhang, Jiyuan (Peking University) 36365; Zeng, Gang (Peking University) 27730; Zha, Hongbin (Peking University) 12151
3	14:40-15:00	**End-To-End Multi-Modal Multi-Task Vehicle Control for Self-Driving Cars with Visual Perceptions** Yang, Zhengyuan (University of Rochester) 35361; Zhang, Yixuan (University of Rochester) 35669; Yu, Jerry (SAIC USA Innovation Center) 37110; Cai, Junjie (SAIC USA Innovation Center) 37112; Luo, Jiebo (-university of rochester) 11686
4	15:00-15:20	**Spatial Calibration for Thermal-RGB Cameras and Inertial Sensor System** Li, Yan (University of Tennessee, Knoxville) 35869; Zhang, Yinlong (Shenyang Institute of Automation Chinese Academy of Sciences) 35871; He, Hongsheng (Wichita State University) 35870; Tan, Jindong (University of Tennessee, Knoxville) 38437

Main Program

Oral Session - **ThPMOT6 Medical Signal Analysis and Recognition (311A, 3rd Floor)** - ThMMOT4
Thursday, August 23, 2018, 14:00-15:20, 311A, 3rd Floor

#	Subslot	**Title** / Authors
1	14:00-14:20	**Automatically Detecting Arrhythmia-Related Irregular Patterns Using the Temporal and Spectro-Temporal Textures of ECG Signals** Abdeldayem, Sara (West Virginia University) 36033; Bourlai, Thirimachos (WVU) 20186
2	14:20-14:40	**Impact of Lossy Data Compression Techniques on EEG-Based Pattern Recognition Systems** Nguyen, Binh (University of Canberra) 37918; Ma, Wanli (University of Canberra) 24897; Tran, Dat (University of Canberra) 14629
3	14:40-15:00	**SlideNet: Fast and Accurate Slide Quality Assessment Based on Deep Neural Networks** Zhang, Teng (The University of Queensland) 34148; Carvajal, Johanna (The University of Queensland) 31146; Smith, Daniel F. (The University of Queensland) 37924; Zhao, Kun (The University of Queensland) 33846; Wiliem, Arnold (The University of Queensland) 27208; Hobson, Peter (Sullivan Nicolaides Pathology) 29770; Jennings, Anthony (Sullivan Nicolaides Pathology) 37932; Lovell, Brian Carrington (The University of Queensland) 10003
4	15:00-15:20	**Multi-task Multiple Kernel Machines for Personalized Pain Recognition from Functional Near-Infrared Spectroscopy Brain Signals** Lopez-Martinez, Daniel (Massachusetts Institute of Technology) 38917; Peng, Ke (Harvard Medical School) 38759; Steele, Sarah (The University of Tennessee Health and Science Center) 38923; Lee, Arielle, Arielle (Boston Children's Hospital) 38600; Borsook, David (Harvard University) 38674; Picard, Rosalind (MIT Affective Computing) 38919

Poster Session - **Poster Session ThPMP, Coffee Break (North Foyer & Park View Foyer, 3rd Floor)** - ThPMP
Thursday, August 23, 2018, 15:20-17:20, North Foyer & Park View Foyer, 3rd Floor

#	Subslot	Title / Authors
1	15:20-17:20	**3D Human Pose Estimation from Deep Multi-View 2D Pose** Schwarcz, Steven (University of Maryland, College Park) 38569; Pollard, Thomas (Systems & Technology Research) 38425
2	15:20-17:20	**Enhancing Pix2Pix for Remote Sensing Image Classification** Wang, Xiaoye (China University of Geosciences, Beijing) 37611; Yan, Hongping (China University of Geosciences, Beijing) 38594; Huo, Chunlei (Institute of Automation, CAS) 12742; Yu, Jiayuan (Beijing University) 38592; PAN, Chunhong (Institute of Automation, Chinese Academey of Sciences) 18345
3	15:20-17:20	**Global Context Encoding for Salient Objects Detection** Wang, Jingbo (Peking University) 36019; Xing, Yajie (Peking University) 37480; Zeng, Gang (Peking University) 27730
4	15:20-17:20	**3D Geometry-Aware Semantic Labeling of Outdoor Street Scenes** Zhong, Yiran (Australian National University) 38670; Dai, Yuchao (Northwestern Polytechnical University) 37834; Li, Hongdong (Australian National University) 11566
5	15:20-17:20	**Real-Time Vehicle Localization and Tracking Using Monocular Panomorph Panoramic Vision** Belbachir, Ahmed Nabil (Teknova AS) 38673; Svendsen, Lisa Maria (Teknova AS) 38676; Akdemir, Benyamin (Teknova AS) 38675
6	15:20-17:20	**An Automated Classification Framework for Pressure Ulcer Tissues Based on 3d Convolutional Neural Network** Elmogy, Mohammed (Faculty of Computers and Information, Mansoura University) 37774; Garcia-Zapirain, Begona (Facultad Ingenieria, Universidad de Deusto, Avda/Universidades 2) 38709; Elmaghraby, Adel (University of Louisville) 15240; El-Baz, Ayman (University of Louisville) 13537
7	15:20-17:20	**Scale and Orientation Aware EPI-Patch Learning for Light Field Depth Estimation** Zhou, Wenhui (Hangzhou Dianzi University) 24189; Liang, Linkai (Hangzhou Dianzi University) 38705; Lin, Lili (Zhejiang Gongshang University) 34207; Lumsdaine, Andrew (Pacific Northwest Laboratory) 38679; Zhang, Hua (Hangzhou Dianzi University) 38957
8	15:20-17:20	**An Image Rain Removal Algorithm Based on the Depth of Field and Sparse Coding** Lei, Junfeng (School of Electronic Information, Wuhan University) 35117; Zhang, Shangyue (Wuhan University) 35924; Zou, Wentao (Wuhan University) 35931; Xiao, Jinsheng (Wuhan University) 34539; Chen, Yunhua (Guangdong University of Technology) 36629; Sui, HaiGang (Wuhan University) 40505
9	15:20-17:20	**An Efficient Line Segment Matching Algorithm for 3D Face Recognition** Rong, Shenghui (Xidian University) 36720; Gao, Yongsheng (Griffith University) 11576; Yu, Xun (Griffith University) 27580; zhou, huixin (Xidian University) 38886; Zhou, Jun (Griffith University) 18703
10	15:20-17:20	**Large Margin Structured Convolution Operator for Thermal Infrared Object Tracking** Gao, Peng (Harbin Institute of Technology, Shenzhen) 35173; Ma, Yipeng (Harbin Institute of Technology, Shenzhen) 37162; Song, Ke (Harbin Institute of Technology, Shenzhen) 37175; Li, Chao (Harbin Institute of Technology, Shenzhen) 37165; Wang, Fei (Harbin Institute of Technology (Shenzhen)) 37143; Xiao, Liyi (Harbin Institute of Technology, Shenzhen) 40473
11	15:20-17:20	**Cross Modal Multiscale Fusion Net for Real-Time RGB-D Detection** Yin, Kejie (Zhejiang University of Technology) 36014; Liu, Sheng (Zhejiang University of Technology) 37532; Liu, Ruyu (Zhejiang University of Technology) 35786; Chen, Yibin (Zhejiang University Of Technology) 37484; Shen, Kang (Zhejiang University of Technology) 37468
12	15:20-17:20	**Pentuplet Loss for Simultaneous Shots and Critical Points Detection in a Video** Gupta, Nitin (IBM Research) 38106; JAIN, ABHINAV (IBM INDIAN RESEARCH LABS) 38932; Agarwal, Prerna (IBM Research) 38520; Mujumdar, Shashank (IBM Research, India) 25136; Mehta, Sameep (IBM Research) 38151
13	15:20-17:20	**Aggregated Sparse Attention for Steering Angle Prediction** He, Sen (University of Exeter) 37707; Kangin, Dmitry (University of exeter) 39020; Yang, Mi (University of Exeter) 39027; Pugeault, Nicolas (University of Exeter) 39023
14	15:20-17:20	**Multi-Layer CNN Features Aggregation for Real-Time Visual Tracking** Zhang, Lijia (Beijing Institute of Technology) 36441; Dong, Yanmei (BIT) 28412; Wu, Yuwei (Beijing Institute of Technology, SchoolofComputerScience,Media) 17294
15	15:20-17:20	**Localization Based on Semantic Map and Visual Inertial Odometry** Jin, Jie (University of Chinese Academy of Sciences) 36470; Zhu, Xiaoyang (Institute of Automation, Chinese Academy of Sciences) 36948; Jiang, Yongshi (Institute of Automation, Chinese Academy of Sciences) 37271; Du, Zhiying (Momenta) 38862
16	15:20-17:20	**Weakly and Semi-Supervised Faster RCNN with Curriculum Learning** Wang, Jiasi (Huazhong University of Science and Technology) 39082; Wang, Xinggang (Huazhong University of Science and Technology) 38983; Liu, Wenyu (Huazhong University of Science and Technology) 18427

17	15:20-17:20	**Deep Context Networks for Image Annotation** Jiu, Mingyuan (Zhengzhou University) 38645; Sahbi, Hichem (CNRS LIP6, UPMC Sorbonne University) 39088; Qi, Lin (School of Information Engineering, Zhengzhou University) 39099
18	15:20-17:20	**Non-Iterative Multiple Data Registration Method Based on the Motion Screw Theory and Trackable Features** Gu, Feifei (Shenzhen Institutes of Advanced Technology, Chinese Academy of S) 39105
19	15:20-17:20	**Multiple Mice Tracking: Occlusions Disentanglement Using a Gaussian Mixture Model** Sadafi, Ario (Pattern Analysis and Computer Vision (PAVIS), Istituto Italiano) 39134; Katsageorgiou, Vasiliki-Maria (Istituto Italiano di Tecnologia) 32784; Huang, Huiping (Istituto Italiano di Tecnologia) 32789; Papaleo, Francesco (Istituto Italiano di Tecnologia (IIT)) 24707; Murino, Vittorio (Istituto Italiano di Tecnologia) 10291; Sona, Diego (Istituto Italiano di Tecnologia (IIT)) 18449
20	15:20-17:20	**Weather Recognition Based on Edge Deterioration and Convolutional Neural Networks** Shi, Yuzhou (Shanghai Jiao Tong University) 39185; Li, Yuanxiang (Shanghai Jiao Tong University) 24925; liu, jiawei (Shanghai Jiao Tong University,School of Aeronautics and Astronau) 39215; Liu, Xingang (AVIC Leihua Electronic Technology Research Institute) 39084; Murphey, Yi (University of Michigan-Dearborn) 13261
21	15:20-17:20	**Teaching Squeeze-and-Excitation PyramidNet for Imbalanced Image Classification with GAN-based Curriculum Learning** Liu, Jing (Ocean University of China) 38488; Du, Angang (Ocean University of China) 38441; Wang, Chao (Ocean University of China) 39441; Zheng, Haiyong (Ocean University of China) 35544; Wang, Nan (Ocean University of China) 38483; Zheng, Bing (Ocean University of China) 38481
22	15:20-17:20	**Adaptive Albedo Compensation for Accurate Phase-Shift Coding** Pistellato, Mara (Università Ca' Foscari Venezia) 33489; Cosmo, Luca (Università Ca' Foscari Venezia) 29099; Bergamasco, Filippo (Università Ca' Foscari Venezia) 38365; Gasparetto, Andrea (Ca' Foscari) 32111; Albarelli, Andrea (Universita' Ca' Foscari di Venezia) 13910
23	15:20-17:20	**Generating Image Sequence from Description with LSTM Conditional GAN** Ouyang, Xu (Illinois Institute of Technology) 38847; Zhang, Xi (Illinois Insititute of Technology) 38848; Ma, Di (Illinois Institute of Technology) 38839; Agam, Gady (Illinois Institute of Technology) 10990

24	15:20-17:20	**Neighborhood-Based Recovery of Phase Unwrapping Faults** Pistellato, Mara (Università Ca' Foscari Venezia) 33489; Bergamasco, Filippo (Università Ca' Foscari Venezia) 38365; Cosmo, Luca (Università Ca' Foscari Venezia) 29099; Gasparetto, Andrea (Ca' Foscari) 32111; Ressi, Dalila (Università Ca' Foscari Venezia) 36934; Albarelli, Andrea (Universita' Ca' Foscari di Venezia) 13910
25	15:20-17:20	**CANDID: Robust Change Dynamics and Deterministic Update Policy for Dynamic Background Subtraction** Mandal, Murari (Malaviya National Institute of Technology Jaipur) 39310; Saxena, Prafulla (Malaviya National Institute of Technology Jaipur) 39312; VIPPARTHI, SANTOSH (MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY, JAIPUR) 38996; Murala, Subrahmanyam (IIT Ropar) 39633
26	15:20-17:20	**Automatic Eye Gaze Estimation Using Geometric & Texture-Based Networks** Jyoti, Shreyank (Indian Institute of Technology Ropar) 39321; Dhall, Abhinav (Indian Institute of Technology Ropar) 24726
27	15:20-17:20	**A New Bag of Visual Words Encoding Method for Human Action Recognition** Cortés, Xavier (Université François Rabelais de Tours) 39362; Conte, Donatello (University of Tours) 39364; Cardot, Hubert (Université François Rabelais de Tours) 13122
28	15:20-17:20	**Multi-Scale Fusion with Context-Aware Network for Object Detection** Wang, Hanyuan (University of Electronic Science and Technology of China) 39249; Xu, Jie (University of Electronic Science and Technology of China) 39188; Li, Linke (University of Electronic Science and Technology of China) 39195; Tian, Ye (University of Electronic Science and Technology of China) 39177; XU, Du (University of Electronic Science and Technology of China) 39199; XU, Shizhong (University of Electronic Science and Technology of China) 39202
29	15:20-17:20	**Inception Donut Convolution for Top-Down Semantic Segmentation** Guan, He (Institute of Automation, Chinese Academy of Sciences) 36061; Zhang, Zhaoxiang (Institute of Automation, Chinese Academy of Sciences) 10881; Tan, Tieniu (casia) 13470
30	15:20-17:20	**Joint Image Restoration and Matching Based on Distance-Weighted Sparse Representation** Shao, Yuanjie (Huazhong University of Science and Technology) 35388; Sang, Nong (Huazhong University of Science and Technology) 11570; Gao, Changxin (Huazhong University of Science and Technology) 11370; Lin, Wei (Huazhong University of Science and Technology) 38853
31	15:20-17:20	**Spindle-Net: CNNs for Monocular Depth Inference with Dilation Kernel Method** He, Lei (Institute of Automation, Chinese Academy of Sciences (CASIA)) 35566; Yu, Miao (Zhongyuan University of Technology) 39455; Wang, Guanghui (University of Kansas) 39280

32	15:20-17:20	**MDCN: Multi-Scale, Deep Inception Convolutional Neural Networks for Efficient Object Detection** Ma, Wenchi (University of Kansas) 39491; Wu, Yuanwei (University of Kansas) 39527; Wang, Zongbo (Ainstein Inc.) 39492; Wang, Guanghui (University of Kansas) 39280
33	15:20-17:20	**Towards Good Practice for Action Recognition with Spatiotemporal 3D Convolutions** Hara, Kensho (National Institute of Advanced Industrial Science and Technology) 37927; Kataoka, Hirokatsu (National Institute of Advanced Industrial Science and Technology) 16395; Satoh, Yutaka (National Institute of Advanced Industrial Science andTechnology) 14608
34	15:20-17:20	**3D Convolutional Generative Adversarial Networks for Detecting Temporal Irregularities in Videos** YAN, MENGJIA (Nanyang Technological University) 36142; Jiang, Xudong (-Nanyang Technological University) 11672; Yuan, Junsong (State University of New York at Buffalo) 26875
35	15:20-17:20	**Detecting Heads Using Feature Refine Net and Cascaded Multi-Scale Architecture** Peng, Dezhi (South China University of Techology) 39404; Sun, Zikai (South China University of Technology) 39100; Chen, Zirong (South China University of Technology) 39090; Cai, Zirui (South China University of Technology) 39094; Xie, Lele (School of Electronic and Information Engineering, South China Un) 39075; Jin, Lianwen (South China University of Technology) 11766
36	15:20-17:20	**Continuous Action Recognition and Segmentation in Untrimmed Videos** Bai, Ruibin (Xi'an Jiaotong University) 36379; Zhao, Qing (Canglong island, Jiangxia district, Wuhan) 40544; Zhou, Sanping (Xi'an Jiaotong University) 39589; Li, Yubing (Xi'an Jiaotong University) 40551; Zhao, Xueji (Southwest University) 40542; Wang, Jinjun (Xi'an Jiaotong University) 29253
37	15:20-17:20	**Traffic Sign Image Synthesis with Generative Adversarial Networks** Luo, Hengliang (Institute of Automation, Chinese Academy of Sciences) 36495; Kong, Qingqun (Institute of Automation, Chinese Academy of Sciences) 39582; Wu, Fuchao (Institute of Automation, Chinese Academy of Science) 11781
38	15:20-17:20	**DeepDriver: Automated System for Measuring Valence and Arousal in Car Driver Videos** Theagarajan, Rajkumar (University of California, Riverside) 32973; Bhanu, Bir (Univ of California) 10811; Cruz, Alberto (CSU Bakersfield) 11044
39	15:20-17:20	**Discriminative Latent Visual Space for Zero-Shot Object Classification** Roy, Abhinaba (IIT) 39601; banerjee, Biplab (IIT, Roorkee) 39603; Murino, Vittorio (Istituto Italiano di Tecnologia) 10291

40	15:20-17:20	**Face Image Illumination Processing Based on Generative Adversarial Nets** Ma, Wei (Sun Yat-Sen University) 37875; Xie, Xiaohua (Sun Yat-sen University) 17336; YIN, CHONG (SUN YAT-SEN UNIVERSITY) 39602; Lai, Jian-huang (Sun Yat-sen University) 12766
41	15:20-17:20	**Towards Automatic Detection of Monkey Faces** Zhang, Manning (Sun Yat-sen University) 39619; Guo, Susu (Sun Yet-sen University) 39624; Xie, Xiaohua (Sun Yat-sen University) 17336
42	15:20-17:20	**Visual Tracking with Breeding Fireflies Using Brightness from Background-Foreground Information** Kate, Pranay (Indian Institute of Technology Guwahati) 39514; Francis, Mathew (Indian Institute of Technology Guwahati) 36938; Guha, Prithwijit (Department of EEE, IIT Guwahati) 14592
43	15:20-17:20	**UAV Target Tracking with A Boundary-Decision Network** Song, Ke (Shandong University) 39201; Zhang, Wei (Shandong University) 39141; Rong, Xuewen (Shandong University) 39213
44	15:20-17:20	**Learning Collaborative Model for Visual Tracking** Ma, Ding (Harbin Institute of Technology) 36964; Wu, Xiangqian (Harbin Institute of Technology) 14623; Bu, Wei (Harbin Institute of Technology) 26289; Cui, YueHua (Michigan State University, Department of Statistics and Probabil) 40536; Xie, Yuying (Michigan State University, Department of Computational Mathemati) 40543
45	15:20-17:20	**An Efficient System for Hazy Scene Text Detection Using a Deep CNN and Patch-NMS** Mohanty, Sabyasachi (IIT (BHU) Varanasi) 36217; Dutta, Tanima (IIT (BHU) Varanasi) 39116; Gupta, Hari Prabhat (IIT (BHU) Varanasi) 39124
46	15:20-17:20	**ALFA: Agglomerative Late Fusion Algorithm for Object Detection** Razinkov, Evgenii (Kazan Federal University) 37877; Saveleva, Iuliia (Kazan Federal University) 39627; Matas, Jiri (CTU Prague) 10270
47	15:20-17:20	**Low-Rank Tensor Completion by Truncated Nuclear Norm Regularization** Xue, Shengke (Zhejiang University) 35200; Qiu, Wenyuan (Zhejiang University) 35212; Liu, Fan (Zhejiang University) 35213; Jin, Xinyu (Zhejiang University) 35201
48	15:20-17:20	**A Generic Axiomatic Characterization for Measuring Influence in Social Networks** Bandyopadhyay, Sambaran (IBM Research) 31342; Narayanam, Ramasuri (IBM Research, India) 24568; Musti, Narasimha Murty (Indian Institute of Science-) 11692
49	15:20-17:20	**Temporal Filter Parameters for Motion Pattern Maps** O'Gorman, Lawrence (Nokia Bell Labs) 17020

50	15:20-17:20	**Balancing Video Analytics Processing and Bandwidth for Edge-Cloud Networks** O'Gorman, Lawrence (Nokia Bell Labs) 17020; Wang, Xiaoyang (Nokia Bell Labs) 25339
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142	15:20-17:20	**A Hybrid Deep Architecture for Robust Recognition of Text Lines of Degraded Printed Documents** Biswas, Chandan (Indian Statistical Institute) 38573; Mukherjee, Partha Sarathi (Indian Statistical Institute, Kolkata) 38579; Ghosh, Koyel (Nopany Institute of Management Studies, Kolkata) 38578; Bhattacharya, Ujjwal (Indian Statistical Institute) 15352; Parui, Swapan Kumar (Indian Statistical Institute) 13255
143	15:20-17:20	**Document Image Classification with Intra-Domain Transfer Learning and Stacked Generalization of Deep Convolutional Neural Networks** Das, Arindam (Valeo) 35949; Roy, Saikat (University of Bonn) 33591; Bhattacharya, Ujjwal (Indian Statistical Institute) 15352; Parui, Swapan Kumar (Indian Statistical Institute) 13255

Oral Session - **ThPMOT1.B Manifold and Feature Learning (309A, 3rd Floor)** - ThPMOT2

Thursday, August 23, 2018, 17:20-18:20, 309A, 3rd Floor

#	Subslot	**Title** / Authors
1	17:20-17:40	**A Unified Neighbor Reconstruction Method for Embeddings** Zhang, Zhihong (Xiamen University) 33351; Ye, Zhiling (Xiamen University) 37203; Bai, Zhengjian (Xiamen University) 37204; Hu, Guosheng (Anyvision company) 37206; Hu, Yiqun (Zhongshan hospital affiliated with Xiamen University) 37208; Hancock, Edwin (University of York) 10486; Bai, Lu (Central University of Finance and Economics) 23095
2	17:40-18:00	**Flexible and Discriminative Non-Linear Embedding with Feature Selection for Image Classification** ZHU, Ruifeng (Université Bourgogne Franche-Comté) 39069; Dornaika, Fadi (University of the Basque Country) 18457; Ruichek, Yassine (Université de Technologie de Belfort-Montbéliard) 29677
3	18:00-18:20	**Kernel Discriminant Correlation Analysis: Feature Level Fusion for Nonlinear Biometric Recognition** Bai, Yang (University of Miami) 36548; Haghighat, Mohammad (University of Miami) 36550; Abdel-Mottaleb, Mohamed (University of Miami) 11946

Main Program

Oral Session - **ThPMOT2.B Behavior Recognition (309B, 3rd Floor)** - ThPMOT3
Thursday, August 23, 2018, 17:20-18:20, 309B, 3rd Floor

#	Subslot	**Title** / Authors
1	17:20-17:40	**Recognition of Infants' Gaze Behaviors and Emotions** Yang, Bikun (Peking University) 36253; Tong, Yuqiang (Peking University) 36254; Cui, Jinshi, Jinshi (Key Lab of Machine Perception (MOE), PekingUniversity,Beijing,) 22574; Wang, Li (Peking University) 36994; Zha, Hongbin (Peking University) 12151
2	17:40-18:00	**Multi-Modal Three Stream Network for Action Recognition** Khalid, Muhammad Usman Khalid (TU Dortmund) 35952; Yu, Jie (Computer Vision Research Lab, Robert Bosch GmbH) 37631
3	18:00-18:20	**Temporal Inception Architecture for Action Recognition with Convolutional Neural Networks** Zhang, Wei (Sun Yat-sen University) 38639; Cen, Jiepeng (Sun Yat-sen University) 38646; Zheng, Huicheng (Sun Yat-sen University) 38386

Main Program

Oral Session - **ThPMOT3 Speech and Signal (311A, 3rd Floor)** - ThPMOT4
Thursday, August 23, 2018, 17:20-18:20, 311A, 3rd Floor

#	Subslot	**Title** / Authors
1	17:20-17:40	**Recurrent Neural Network Based Small-Footprint Wake-Up-Word Speech Recognition System with a Score Calibration Method** Li, Chenxing (Institute of Automation, Chinese Academy of Sciences) 36664; Zhu, Lei (AI Lab, Rokid Inc.) 36669; Xu, Shuang (Institute of Automation, Chinese Academy of Sciences) 36670; Gao, Peng (AI Lab, Rokid Inc) 36672; Xu, Bo (Institute of Automation, Chinese Academy of Sciences) 36063
2	17:40-18:00	**SSSD: Speech Scene Database by Smart Device for Visual Speech Recognition** Saitoh, Takeshi (Kyushu Institute of Technology) 13134; Kubokawa, Michiko (Kyushu Institute of Technology) 35119
3	18:00-18:20	**New Singular Value Decomposition Algorithm for Octonion Signals** Shen, Miaomiao (Shanghai University) 36016; Rui, WANG (Shanghai University) 36059

Banquet (Chinese Royal Gastronomy Museum)
Thursday, August 23, 2018, 19:30-23:00
Please gather in lobby of CNCC at 19:00 to get on the bus.

Main Program

Plenary Session - **Plenary Session: Zhi-Hua Zhou, An Exploration to Non-NN Style Deep Learning(Ballroom C, 1st Floor)** - Fr1PL
Friday, August 24, 2018, 09:00-10:00, Ballroom C, 1st Floor

- Coffee Break FrAM (North Foyer & Park View Foyer, 3rd Floor) - FrAM_Coffee_Break
Friday, August 24, 2018, 10:00-10:30, North Foyer & Park View Foyer, 3rd Floor

Main Program

Oral Session - **FrAMOT1 Applications of Classification and Learning (Ballroom C, 1st Floor)** - FrAMOT1
Friday, August 24, 2018, 10:30-12:30, Ballroom C, 1st Floor

#	Subslot	**Title** / Authors
1	10:30-10:50	**Expected Hypervolume Improvement with Constraints** Abdolshah, Majid (Deakin University) 36159; Shilton, Alistair (Deakin University) 36163; Rana, Santu (Deakin University) 11318; Gupta, Sunil Kumar (Deakin University) 22463; Venkatesh, Svetha (Deakin University) 10432
2	10:50-11:10	**Multi-Scale Generative Adversarial Networks for Crowd Counting** Yang, Jianxing (Tianjin University) 38714; Zhou, Yuan (Tianjin University) 38724; Kung, Sun-Yuan (Princeton University) 38727
3	11:10-11:30	**Hybrid Path Planner for Efficient Navigation in Urban Road Networks through Analysis of Trajectory Traces** Sinha, Sayan (IIT Kharagpur) 39503; Nirala, Mehul Kumar (IIT Kharagpur) 39505; Ghosh, Shreya (IIT Kharagpur) 39500; Ghosh, Soumya K. (IIT Kharagpur) 39506
4	11:30-11:50	**Image Exploration Procedure Classification with Spike-Timing Neural Network for the Blind** Zhang, Ting (Purdue University) 39504; Zhou, Tian (Purdue University) 39456; Duerstock, Bradley S. (Purdue University) 39507; Wachs, Juan (Purdue University) 39460
5	11:50-12:10	**Efficient Statistical Face Recognition Using Trigonometric Series and CNN Features** Savchenko, Andrey (National Research University Higher School of Economics) 36021
6	12:10-12:30	**Multi-Classification of Parkinson's Disease Via Sparse Low-Rank Learning** Lei, Haijun (Shenzhen University) 37692; Zhao, Yujia (Shenzhen University) 37683; Huang, Zhongwei (Shenzhen University) 37689; Zhou, Feng (University of Michigan) 37693; Huang, Limin (Shenzhen People's Hospital) 40516; Lei, Baiying (Shenzhen University) 37544

Oral Session - **FrAMOT2 Object Recognition and Scene Understanding (309B, 3rd Floor)** - FrAMOT2
Friday, August 24, 2018, 10:30-12:30, 309B, 3rd Floor

#	Subslot	**Title** / Authors
1	10:30-10:50	**Real-Time Texture-Less Object Recognition on Mobile Devices** Chan, Jacob (Osaka University, Institute of Datability Science) 36607; Lee, Jimmy Addison (Cixi Institute of Biomedical Engineering, Chinese Academy of Sci) 36827; Qian, Kemao (Nanyang Technological University) 36620
2	10:50-11:10	**Selective Multi-Convolutional Region Feature Extraction Based Iterative Discrimination CNN for Fine-Grained Vehicle Model Recognition** Tian, Yanling (Shannxi Normal Univewrsity) 38287; Zhang, Weitong (Shaanxi Normal University) 38227; Zhang, Qieshi (Chinese Academy of Sciences (CAS)) 12233; Lu, Gang (Shaanxi Normal University) 35906; Wu, Xiaojun (Shaanxi Normal University) 35908
3	11:10-11:30	**A Shortly and Densely Connected Convolutional Neural Network for Vehicle Re-Identification** Zhu, Jianqing (Huaqiao University) 22154; Huanqiang, Zeng (Huaqiao University) 35965; Lei, Zhen (Institute of Automation, Chinese Academy of Sciences) 10851; Liao, Shengcai (Institute of Automation, Chinese Academy of Sciences) 18423; Lixin, Zheng (Huaqiao University) 35962; Cai, Canhui (HuaqiaoUniversity) 22617
4	11:30-11:50	**Visual Relationship Detection Using Joint Visual-Semantic Embedding** Li, Binglin (Simon Fraser University) 36562; Wang, Yang (University of Manitoba) 31295
5	11:50-12:10	**Time-Dependent Pre-attention Model for Image Captioning** Wang, Fuwei (Shanghai Jiao Tong University) 35793; Gong, Xiaolong (Shanghai Jiao Tong University) 37746; Huang, Linpeng (Shanghai Jiao Tong University) 37863
6	12:10-12:30	**Towards Unconstrained Pointing Problem of Visual Question Answering: A Retrieval-Based Method** Cheng, Wenlong (Institute of Automation, Chinese Academy of Sciences) 37711; Huang, Yan (Institute of Automation, Chinese Academy of Sciences) 22027; Wang, Liang (Institute of Automation, Chinese Academy of Sciences) 24112

Oral Session - **FrAMOT3 Image and Video Retrieval (310, 3rd Floor)** - FrAMOT3
Friday, August 24, 2018, 10:30-12:30, 310, 3rd Floor

#	Subslot	**Title** / Authors
1	10:30-10:50	**Action Recognition with Visual Attention on Skeleton Images** Yang, Zhengyuan (University of Rochester) 35361; Li, Yuncheng (Snapchat Inc.) 35875; Yang, Jianchao (Snapchat Inc.) 35874; Luo, Jiebo (-university of rochester) 11686
2	10:50-11:10	**Human Activity Recognition Via Discriminative Fusion of Insole Embedded Multi-Pressure Sensors** Dehzangi, Omid (West Virginia University) 34118; Bache, Bhavani (University of Michigan, Dearborn) 39368; Iftikhar, Omar (University of Michigan-Dearborn) 39346
3	11:10-11:30	**Fine-Grained Video Retrieval Using Query Phrases - Waseda_ Meisei TRECVID 2017 AVS System -** Ueki, Kazuya (Meisei University) 16686; Hirakawa, Koji (Waseda University) 35249; Kikuchi, Kotaro (Waseda University) 31073; Kobayashi, Tetsunori (Waseda University) 31072
4	11:30-11:50	**Discriminate Cross-Modal Quantization for Efficient Retrieval** sun, peng (Beihang University) 35677; Yan, Cheng (Beihang University) 35710; wang, shuai (Beihang University) 35709; Bai, Xiao (Beihang University) 35704
5	11:50-12:10	**DeepFirearm: Learning Discriminative Feature Representation for Fine-Grained Firearm Retrieval** Hao, Jiedong (Institute of Automation, Chinese Academy of Sciences) 37260; Dong, Jing (Institute of Automation, Chinese Academy of Sciences) 11045; Wang, Wei (Institute of Automation, Chinese Academy of Sciences) 26105; Tan, Tieniu (casia) 13470
6	12:10-12:30	**Person Re-Identification Using Two-Stage Convolutional Neural Network** Zhang, Yonghui (University of Electronic Science and Technology of China) 38387; Shao, Jie (University of Electronic Science and Technology of China) 38334; Ouyang, Deqiang (University of Electronic Science and Technology of China) 38389; Shen, Heng Tao (University of Electronic Science and Technology of China) 38390

- Lunch Break Fr(Exhibition Hall 5, B1 Floor) - FrLunch_Break
Friday, August 24, 2018, 12:30-14:00, Exhibition Hall 5, B1 Floor

Poster Session - **Poster Session FrPMP, Coffee Break (South Lobby, Outside of Ballroom C, 1st Floor)** - FrPMP
Friday, August 24, 2018, 14:00-16:00, South Lobby, Outside of Ballroom C, 1st Floor

#	Subslot	Title / Authors
1	14:00-16:00	**Human Gait Recognition with Micro-Doppler Radar and Deep Autoencoder** Le, Hoang Thanh (University of Wollongong) 37105; Phung, Son Lam (University of Wollongong) 14151; Bouzerdoum, Abdesselam (University of Wollongong) 12912
2	14:00-16:00	**Deep Difference Analysis in Similar-Looking Face Recognition** Zhong, Yaoyao (Beijing University of Posts and Telecommunications) 36058; deng, weihong (Beijing University of Posts and Telecommunications) 13443
3	14:00-16:00	**One-Class Random Maxout Probabilistic Network for Mobile Touchstroke Authentication** Choi, Seokmin (Yonsei University) 37449; Chang, Inho (Yonsei University) 37448; Teoh, Andrew (Yonsei University) 25823
4	14:00-16:00	**Multimodal Gesture Recognition Using Densely Connected Convolution and BLSTM** Li, Dexu (Shanghai University) 36314; Chen, Yimin (Shanghai University) 37470; Gao, Mingke (Shanghai University) 37490; Jiang, Siyu (Shanghai University) 37493; Huang, Chen (Shanghai University) 37488
5	14:00-16:00	**Detecting Disguise Attacks on Multi-Spectral Face Recognition through Spectral Signatures** Ramachandra, Raghavendra (NTNU) 37811; Vetrekar, Narayan (Goa University) 37809; Kiran, Raja (Norwegian University of Science and Technology) 28198; Gad, Rajendra (Goa University) 37814; Busch, Christoph (NTNU) 37815
6	14:00-16:00	**Temporal Hierarchical Dictionary with HMM for Fast Gesture Recognition** Chen, Haoyu (University of Oulu) 36576; Liu, Xin (University of Oulu) 31999; Zhao, Guoying (University of Oulu) 11353
7	14:00-16:00	**Facial Expression Recognition by Multi-Scale CNN with Regularized Center Loss** Li, Zhenghao (Southwest University) 37936; Wu, Song (Southwest University) 37980; Xiao, Guoqiang (Southwest University) 37983
8	14:00-16:00	**Cancelable Biometrics Using Noise Embedding** Lee, Dae-Hyun (Seoul National University) 38061; Lee, Sang Hwa (Seoul National University) 38060; Cho, Nam Ik (Seoul National University) 13665
9	14:00-16:00	**Saliency Deteciton Using Iterative Dynamic Guided Filtering** wang, chen (Northwestern Polytechnical University) 38233; Fan, Yangyu (Northwestern Polytechnical University) 28287
10	14:00-16:00	**Face Anti-Spoofing with Multi-Scale Information** Luo, Shiying (Chinese Academy of Sciences) 35223; Kan, Meina (Chinese Academy of Sciences) 26677; Wu, Shuzhe (Chinese Academy of Sciences) 37325; Chen, xilin (Institute of Computing Technology,CAS) 34470; Shan, Shiguang (Institute of Computing Technology, ChineseAcademy ofSciences) 13461
11	14:00-16:00	**Extended YouTube Faces: A Dataset for Heterogeneous Open-Set Face Identification** Ferrari, Claudio (University of Florence) 27243; Berretti, Stefano (University of Florence) 17852; Del Bimbo, Alberto (University of Florence) 10605
12	14:00-16:00	**Confidence-Driven Network for Point-To-Set Matching** Leng, Mengjun (University of Houston) 31298; Kakadiaris, Ioannis (Univ. of Houston) 16021
13	14:00-16:00	**Video Gesture Analysis for Autism Spectrum Disorder Detection** Zunino, Andrea (IIT) 31173; Morerio, Pietro (Istituto Italiano di Tecnologia) 36435; Cavallo, Andrea (University of Torino) 37433; Ansuini, Caterina (Italian Institute of Technology) 37039; Podda, Jessica (Italian Institute of Technology) 37043; Battaglia, Francesca (Istituto G. Gaslini) 37046; Veneselli, Edvige (Istituto G. Gaslini) 37047; Becchio, Cristina (Italian Institute of Technology) 37035; Murino, Vittorio (Istituto Italiano di Tecnologia) 10291
14	14:00-16:00	**Action Recognition from 3D Skeleton Sequences using Deep Networks on Lie Group Features** Rhif, Manel (University of Lille - Université Lille 1- University of Mannouba) 38324; Wannous, Hazem (University of Lille) 29382; Farah, Imed Riadh (University of Manouba) 38381
15	14:00-16:00	**Dynamic Facial Expression Recognition Based on Convolutional Neural Networks with Dense Connections** Dong, Jiayu (Sun Yat-sen University) 38388; Zheng, Huicheng (Sun Yat-sen University) 38386; Lian, Lina (Sun Yat-sen University) 38392
16	14:00-16:00	**Person Recognition at a Distance: Improving Face Recognition through Body Static Information** Gonzalez-Sosa, Ester (Universidad Autónoma de Madrid) 28741; Vera-Rodriguez, Ruben (Universidad Autonoma de Madrid) 28744; Hernandez-Ortega, Javier (Universidad Autonoma de Madrid) 38397; Fierrez, Julian (Universidad Autonoma de Madrid) 13182
17	14:00-16:00	**Deep Learning-Based Face Recognition and the Robustness to Perspective Distortion** Damer, Naser (Fraunhofer Institute for Computer Graphics Research IGD) 36474; wainakh, Yaza (Fraunhofer IGD) 38393; Henniger, Olaf (Fraunhofer IGD) 38394; Croll, Christian (KIS PhotoMe Group) 38396; Berthe, Benoit (IDEMIA) 38400; Braun, Andreas (Fraunhofer IGD) 36476; Kuijper, Arjan (Fraunhofer IGD) 10768

18	14:00-16:00	**CNN+RNN Depth and Skeleton Based Dynamic Hand Gesture Recognition** Lai, Kenneth (University of Calgary) 37066; Yanushkevich, Svetlana (University of Calgary) 28791
19	14:00-16:00	**A Joint Density Based Rank-Score Fusion for Soft Biometric Recognition at a Distance** Guo, Bingchen (University of Southampton) 36955; Nixon, Mark (University of Southampton) 10834; Carter, John (University of Southampton) 19042
20	14:00-16:00	**Optimizing Energies for Pose-Invariant Face Recognition** Hanselmann, Harald (RWTH Aachen) 28746; Ney, Hermann (RWTH Aachen University) 10505
21	14:00-16:00	**Multi-Level Feature Abstraction from Convolutional Neural Networks for Multimodal Biometric Identification** Soleymani, Sobhan (West Virginia University) 38356; Dabouei, Ali (West Virginia University) 38353; Kazemi, Hadi (West Virginia University) 38350; Dawson, Jeremy (West Virginia University) 38380; Nasrabadi, Nasser (LCSEE/WVU) 16915
22	14:00-16:00	**Person Re-Identification Based on Feature Fusion and Triplet Loss Function** xiang, jun (South-Central University for Nationalities) 38522; Lin, Ranran (South-Central University for Nationalities) 38531; Hou, Jianhua (South-central University for nationalities) 29572; Huang, wenjun (Wuhan University) 38533
23	14:00-16:00	**iCushion: A Pressure Map Algorithm for High Accuracy Human Identification** Ai, Haojun (Wuhan University) 32129; Zhang, Liezhuo (Wuhan University) 35973; Yuan, Zhiyu (Wuhan University) 35972; Huang, Haitao (Wuhan University) 37399
24	14:00-16:00	**FV-Net: learning a finger-vein feature representation based on a CNN** Hu, Hui (South China University of Technology) 37307; Kang, Wenxiong (South China University of Technology) 38590; Lu, Yuting (South China University of Technology) 40513; Fang, Yuxun (South China University of Technology) 38634; Liu, Hongda (South China University of Technology) 38635; Zhao, Junhong (South China University of Technology) 38633; Deng, feiqi (South China University of Technology) 38632
25	14:00-16:00	**Incorporating High-Level and Low-Level Cues for Pain Intensity Estimation** YANG, Ruijing (Northwest University) 38769; Hong, Xiaopeng (University of Oulu) 14246; Peng, Jinye (Northwest University) 38783; Feng, Xiaoyi (Northwestern Polytechnical University) 33733; Zhao, Guoying (University of Oulu) 11353
26	14:00-16:00	**Advancing Surface Feature Description and Matching for More Accurate Biometric Recognition** Cheng, Kevin Ho Man (The Hong Kong Polytechnic University) 38546; Kumar, Ajay (The Hong Kong Polytechnic University) 10828

27	14:00-16:00	**FaceLiveNet: End-To-End Networks Combining Face Verification with Interactive Facial Expression-Based Liveness Detection** MING, Zuheng (university of La Rochelle) 38844; Joseph, Chazalon (University of La Rochelle) 39054; Luqman, Muhammad Muzzamil (L3i Laboratory, University of La Rochelle, France) 17505; Visani, Muriel (University of La Rochelle) 20254; burie, jean-christophe (University of La Rochelle) 12238
28	14:00-16:00	**Effect of Artefact Removal Techniques on EEG Signals for Video Category Classification** Mutasim, Aunnoy K (Independent University Bangladesh) 39011; Bashar, M. Raihanul (Independent University Bangladesh) 39013; Tipu, Rayhan Sardar (Independent University Bangladesh) 39012; Islam, Md. Kafiul (Independent University Bangladesh) 39014; Amin, M Ashraful (Independent University Bangladesh) 21893
29	14:00-16:00	**High-Quality Facial Keypoints Matching with Motion Smoothness Constraint and 3D Model Constraint** Zeng, Xianxian (Guangdong University of Technology) 36146; Wang, Xiaodong (GuangDong University of Technology) 36235; Chen, Kairui (Guangdong University of Technology) 39573; Ye, Peichu (Guangdong University of Technology) 38982; Hu, Xiaorui (Guangdong University of Technology) 38990; Li, Dong (Guangdong University of Technology) 38986; Zhang, Yun (Guangdong University of Technology) 38985
30	14:00-16:00	**Air Signature Recognition Using Deep Convolutional Neural Network-Based Sequential Model** Behera, Santosh Kumar (Indian Institute of Technology Bhubaneswar) 34737; DASH, AJAYA KUMAR (IIT Bhubaneswar) 39073; Dogra, Debi Prosad (IIT Bhubaneswar) 34739; Roy, Partha Pratim (IIT) 12979
31	14:00-16:00	**Uniface: A Unified Network for Face Detection and Recognition** Liao, Zhouyingcheng (Shanghai Jiao Tong University) 35345; Zhou, Peng (Shanghai Jiao Tong University) 39166; Wu, Qinlong (China Mobile Suzhou Software Technology Co., Ltd) 40518; Ni, Bingbing (Shanghai Jiao Tong University) 39160
32	14:00-16:00	**Adaptive Convolution Local and Global Learning for Class-Level Joint Representation of Face Recognition with Single Sample Per Person** Wen, Wei (shenzhen University) 36462; Wang, Xing (Shenzhen University.) 38880; Shen, Linlin (Shenzhen University) 21527; Yang, Meng (Sun Yat-Sen University) 38828
33	14:00-16:00	**Meta Transfer Learning for Facial Emotion Recognition** Nguyen, Dung (Queensland University of Technology) 37872; Nguyen, Kien (Queensland University of Technology) 36125; Sridha, Sridharan (Queensland University of Technology) 22426; Abbasnejad, Iman (Queensland University of Technology) 37899; Dean, David Brendan (Queensland University of Technology) 37931; Fookes, Clinton (Queensland University of Technology) 26907

34	14:00-16:00	**Speaker Clustering Using Dominant Sets** Hibraj, Feliks (Ca' Foscari University) 39347; Vascon, Sebastiano (University Ca' Foscari of Venice) 25119; Stadelmann, Thilo (Zurich University of Applied Sciences) 15771; Pelillo, Marcello (Ca' Foscari University) 10322
35	14:00-16:00	**Show Me Your Face and I Will Tell You Your Height, Weight and BMI** Dantcheva, Antitza (INRIA Méditerranée) 27365; Bremond, Francois (INRIA (Institute National de Recherche en InformatiqueetAutomat) 11144; Bilinski, Piotr (University of Oxford) 36917
36	14:00-16:00	**Generation Textured Contact Lenses Iris Images Based on 4DCycle-GAN** Zou, Hang (Minzu University of China) 37941; Zhang, Hui (Beijing IrisKing Co., Ltd) 18373; Li, Xingguang (Beijing IrisKing Co., Ltd) 22108; Liu, Jing (Beijing IrisKing Co., Ltd) 22190; He, Zhaofeng (Beijing IrisKing Co., Ltd) 39091
37	14:00-16:00	**MSU-AVIS Dataset: Fusing Face and Voice Modalities for Biometric Recognition in Indoor Surveillance Videos** Chowdhury, Anurag (Michigan State University) 37828; Atoum, Yousef (University) 39493; TRAN, LUAN (Michigan State University) 39498; Liu, Xiaoming (Michigan State University) 26680; Ross, Arun (Michigan State University) 30372
38	14:00-16:00	**Hard Zero Shot Learning for Gesture Recognition** Madapana, Naveen (Purdue University) 39540; Wachs, Juan (Purdue University) 39460
39	14:00-16:00	**SynRhythm: Learning a Deep Heart Rate Estimator from General to Specific** Niu, Xuesong (Institute of Computing Technology, CAS) 38028; Han, Hu (Institute of Computing Technology, CAS) 38043; Shan, Shiguang (Institute of Computing Technology, ChineseAcademy ofSciences) 13461; Chen, xilin (Institute of Computing Technology,CAS) 34470
40	14:00-16:00	**Revised Contrastive Loss for Robust Age Estimation from Face** Pan, Hongyu (Chinese Academy of Sciences) 36849; Han, Hu (Institute of Computing Technology, CAS) 38043; Shan, Shiguang (Institute of Computing Technology, ChineseAcademy ofSciences) 13461; Chen, xilin (Institute of Computing Technology,CAS) 34470
41	14:00-16:00	**Automatic Facial Attractiveness Prediction by Deep Multi-Task Learning** Gao, Lian (Beihang University) 36007; Li, Weixin (Beihang University) 39599; Huang, Zehua (Tusimple) 39608; Huang, Di (Beihang University) 17789; Wang, Yunhong (Beihang University) 13790
42	14:00-16:00	**Unobtrusive Driver Drowsiness Prediction Using Driving Behavior from Vehicular Sensors** Dehzangi, Omid (University of Michigan-Dearborn) 34118; Selvamani, Masilamani (University Of Michigan) 39690

43	14:00-16:00	**Fused Text Segmentation Networks for Multi-Oriented Scene Text Detection** Dai, Yuchen (Shanghai Jiao Tong University) 35233; Huang, Zheng (Shanghai Jiao Tong University) 35415; Gao, Yuting (Shanghai Jiao Tong University) 35382; Xu, Youxuan (XIAMEN NO.1 HIGH SCHOOL OF FUJIAN) 35393; Chen, Kai (ShangHai JiaoTong University,China) 21121; Guo, Jie (Shanghai Jiao Tong University) 35422; Qiu, Weidong (Shanghai Jiao Tong University) 13026
44	14:00-16:00	**R2CNN: Rotational Region CNN for Arbitrarily-Oriented Scene Text Detection** Jiang, Yingying (Samsung R&D Institute China - Beijing) 35426; Zhu, Xiangyu (Samsung R&D Institute China - Beijing) 35429; Wang, Xiaobing (Samsung R&D Institute China - Beijing) 35430; Yang, Shuli (Samsung R&D Institute China - Beijing) 35428; Li, Wei (Samsung R&D Institute China - Beijing) 35432; Wang, Hua (Samsung R&D Institute China - Beijing) 35436; Fu, Pei (Samsung R&D Institute China - Beijing) 35438; Luo, Zhenbo (Beijing Samsung Telecom R&D Center) 34202
45	14:00-16:00	**Word Image Representation Based on Visual Embeddings and Spatial Constraints for Keyword Spotting on Historical Documents** Wei, Hongxi (Inner Mongolia University) 21356; Zhang, Hui (Inner Mongolian University) 35516; Gao, Guanglai (Inner Mongolia University) 21932
46	14:00-16:00	**CG-DIQA: No-Reference Document Image Quality Assessment Based on Character Gradient** Li, Hongyu (ZhongAn Information Technology Service Co., Ltd.) 18797; Zhu, Fan (ZhongAn Information Technology Service Co., Ltd.) 35942; Qiu, Junhua (ZhongAn Information Technology Service Co., Ltd.) 35941
47	14:00-16:00	**Page Object Detection from PDF Document Images by Deep Structured Prediction and Supervised Clustering** Li, Xiao-Hui (Institute of Automation of Chinese Academy of Sciences (CASIA)&#) 36228; Yin, Fei (Institute of Automation of CAS) 25591; Liu, Cheng-Lin (Institute of Automation, Chinese Academy of Sciences) 10695
48	14:00-16:00	**Watercolor, Segmenting Images Using Connected Color Components** Eskenazi, Sébastien (L3i, University of La Rochelle) 35477; Gomez-Krämer, Petra (University of La Rochelle) 25968; Ogier, Jean-Marc (Université de la Rochelle) 10710
49	14:00-16:00	**Handwriting Trajectory Recovery Using End-To-End Deep Encoder-Decoder Network** Bhunia, Ayan Kumar (Institute of Engineering and Management,Kolkata) 33723; Bhowmick, Abir (Institute of Engineering & Management) 37010; Bhunia, Ankan Kumar (Jadavpur University) 37011; Konwer, Aishik (Institute of Engineering & Management) 37013; Banerjee, Prithaj (Institute of Engineering & Management) 37014; Roy, Partha Pratim (IIT) 12979; Pal, Umapada (Indian Statistical Institute) 12672

50	14:00-16:00	**Word Level Font-To-Font Image Translation Using Convolutional Recurrent Generative Adversarial Networks** Bhunia, Ankan Kumar (Jadavpur University) 37011; Bhunia, Ayan Kumar (Institute of Engineering and Management,Kolkata) 33723; Banerjee, Prithaj (Institute of Engineering & Management) 37014; Konwer, Aishik (Institute of Engineering & Management) 37013; Bhowmick, Abir (Institute of Engineering & Management) 37010; Roy, Partha Pratim (IIT) 12979; Pal, Umapada (Indian Statistical Institute) 12672
51	14:00-16:00	**Weighted-Gradient Features for Handwritten Line Segmentation** Khare, Vijeta (University Malaya) 27712; Palaiahnakote, Shivakumara (National University of Singapore) 11476; Navya, B. J (University of Mysore) 37108; Swetha, G. C (University of Mysore) 37114; Guru, D. S (University of Mysore) 37116; Pal, Umapada (Indian Statistical Institute) 12672; Lu, Tong (State Key Laboratory for Software Technology, NanjingUniversity) 12403
52	14:00-16:00	**Multi-Gradient Directional Features for Gender Identification** Navya, B. J (University of Mysore) 37108; Swetha, G. C (University of Mysore) 37114; Palaiahnakote, Shivakumara (National University of Singapore) 11476; Roy, Sangheeta (Kolkata) 21876; Guru, D. S (University of Mysore) 37116; Pal, Umapada (Indian Statistical Institute) 12672; Lu, Tong (State Key Laboratory for Software Technology, NanjingUniversity) 12403
53	14:00-16:00	**Scene Text Rectification Using Glyph and Character Alignment Properties** Kil, Taeho (Samsung Electronics) 38474; Koo, Hyung Il (Seoul National University) 13657; Cho, Nam Ik (Seoul National University) 13665
54	14:00-16:00	**Detecting Phishing Websites and Targets Based on URLs and Webpage Links** Yuan, Huaping (Guangdong University of Technology) 37303; Chen, Xu (Guangdong University of Technology) 37255; Li, Yukun (Guangdong University of Technology) 37308; Yang, Zhenguo (Guangdong University of Technology) 37309; Liu, Wenyin (Guangdong University of Technology) 37310
55	14:00-16:00	**Script Identification of Central Asia Based on Fused Texture Features** Han, Xing-kun (Xinjiang University) 38625; Aysa, alim (Xinjiang University) 30033; Mamat, Hornisa (Xinjiang University) 38624; Yadikar, Nurbiya (Xinjiang University) 38621; Ubul, Kurban (Xinjiang University) 23444
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59	14:00-16:00	**An End-To-End Neural Network for Multi-Line License Plate Recognition** Cao, Yu (Beijing University of Posts and Telecommunications) 39345; Fu, Huiyuan (Beijing University of Posts and Telecommunications) 25496; Ma, Huadong (Beijing University of Posts and Telecommunications) 13669
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66	14:00-16:00	**Robust Scene Text Detection with Deep Feature Pyramid Network and CNN based NMS Model** Mohanty, Sabyasachi (IIT (BHU) Varanasi) 36217; Dutta, Tanima (IIT (BHU) Varanasi) 39116; Gupta, Hari Prabhat (IIT (BHU) Varanasi) 39124
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69	14:00-16:00	**Focus on Scene Text Using Deep Reinforcement Learning** Wang, Haobin (South China University of Technology) 36600; Huang, Shuangping (SouthChina University of Technology) 16771; Jin, Lianwen (South China University of Technology) 11766
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79	14:00-16:00	**Automatic Prostate Segmentation on MR Images Using Enhanced Holistically-Nested Networks** Ji, Dong (Hefei University of Technology) 37450; Zhan, Shu (Hefei University of Technology) 37492; Qian, Jinzhao (Tsinghua University) 37680; Kurihara, Toru (Kochi University of Technology) 32306
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95	14:00-16:00	**Breast Segmentation in MRI Via U-Net Deep Convolutional Neural Networks** Piantadosi, Gabriele (Federico II di Napoli) 33513; Sansone, Mario (University of Naples Federico II) 24966; Sansone, Carlo (University of Naples Federico II) 33502

96	14:00-16:00	**A Novel ADCs-Based CNN Classification System for Precise Diagnosis of Prostate Cancer** Reda, Islam (Mansoura University - University of Louisville) 39150; Ghazal, Mohammed (Electrical and Computer Engineering Department, Abu Dhabi Univer) 37788; Shalaby, Ahmed (UofL) 37757; Elmogy, Mohammed (Faculty of Computers and Information, Mansoura University) 37774; Abouelfetouh, Ahmed (Information Systems Dept., Faculty of Computers and Information,) 37781; ayinde, babajide (University of Louisville) 37796; Abou El-Ghar, Mohamed (Urology and Nephrology Department, University of Mansoura,Egypt) 19150; Elmaghraby, Adel (University of Louisville) 15240; Keyntone, Robert (University of Louisville) 37800; El-Baz, Ayman (University of Louisville) 13537
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98	14:00-16:00	**A Hybrid Framework for Tumor Saliency Estimation** Xu, Fei (Utah State University) 33996; Xian, Min (University of Idaho) 28920; zhang, yingtao (Harbin Institute of Technology) 17061; Huang, Kuan (Utah State University) 38008; Cheng, Heng-Da (Utah State University) 14989; Zhang, Boyu (Utah State University) 38016; Ding, Jianrui (Harbin Institute of Technology) 34001; Ning, Chunping (the Affiliated Hospital of Qingdao University) 38018; wang, ying (The Second Hospital of Hebei Medical University) 39401
99	14:00-16:00	**Nuclei Segmentation of Cervical Cell Images Based on Intermediate Segment Qualifier** WANG, Rui (Waseda University, Japan) 39478; Kamata, Sei-ichiro (Waseda University) 12234
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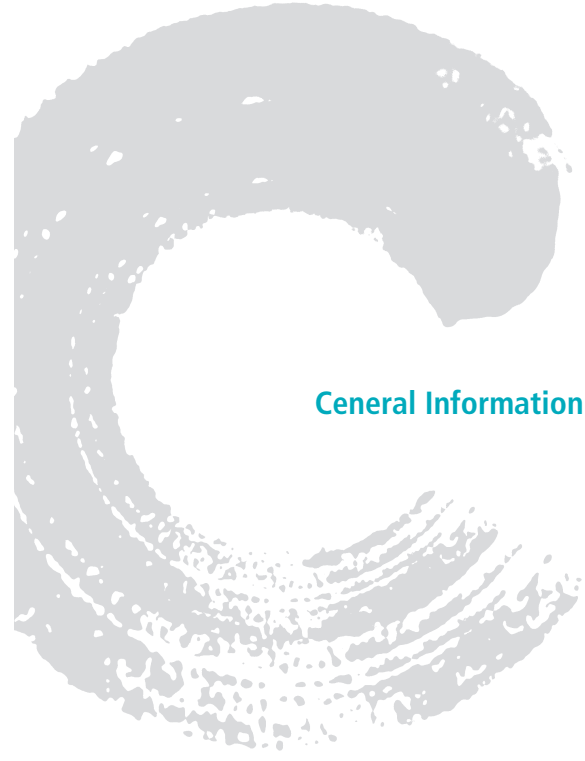
Plenary Session - **Plenary Session: (PR 50th Anniversary) Alison Noble, Human Intelligence, Artificial Intelligence and How They Are Changing Ultrasound Image Analysis(Ballroom C, 1st Floor)** - Fr2PL
Friday, August 24, 2018, 16:00-17:00, Ballroom C, 1st Floor

- **Closing Session (awards and see you in Milan) (Ballroom C, 1st Floor)** - FrCC
Friday, August 24, 2018, 17:00-17:20, Ballroom C, 1st Floor



Ceneral Information

General Information

Registration

The Registration desk will open in the following hours:

August 20	08:30 - 18:00
August 21	08:00 - 19:00
August 22	08:00 - 19:00
August 23	08:00 - 19:00
August 24	08:30 - 18:00

Name Badge

Your name badge provides identification for your admission to the scientific sessions as well as to the coffee breaks and lunches. You should wear it at all times as the conference venue.

Internet Access

Free Wireless Internet access will be available for conference participants in the conference area. Please connect to "CNCCFREE".

Banquet

Chinese Royal Gastronomy Museum is located at No. 117, West Fourth Ring Road, Haidian District, Beijing. The cuisine includes Manchu Han Imperial Feast and the royal state banquets. There are the performances with royal cuisine experience during the banquet.
Please gather in lobby of CNCC at 19:00 to get on the bus.




Working Lunch

Lunch tickets will be given to you after registration. The lunches will served at Exhibition Hall No.5, B1 Floor, CNCC.

Volunteer

There are volunteers in each venue to assist you. They can be easily identified by the T-shirts they wear. If you have any difficulties or questions, you can ask the volunteers directly. They will be happy to help you.

General Information

The City

Beijing, as the capital of China, is the nation's political and cultural center and is unique in its history, tradition and character. Some 3000 years ago, a small village was born at the southwest of the modern Beijing. From the 12th Century to 1911, it was the capital city for the Jin, Yuan, Ming and Qing Dynasties. Beijing is ever reshaping throughout centuries a thoroughly modern metropolis, covering an area of 16,800 square kilometers and encompassing a population of 22 million. You will find the city an unforgettable destination, with its ancient Great Wall, the Forbidden City and numerous palaces and temples as a reminder of dynasties lost in the mists of time. Moreover, the city has refreshed its character by a growing number of parks, recreational centers, folk shows during holiday celebrations, splendid theaters, and a grand city outlook.

Passport and Visa

Foreigners traveling to the People's Republic of China are required to possess passports that are valid for at least six months beyond the period of their intended stay in China. Based on the regulations on foreign affairs, foreigners MUST obtain a visa before entry into China, and exemption of visa is given to citizens of Brunei, Japan or Singapore holding an ordinary passport if they enter China through ports open to foreigners and stay in China for no longer than 15 days. Attendees are advised to consult the nearest Chinese diplomatic mission for more details regarding visa application. Usually, a single entry visa is valid for three months from the date of issue, and can be extended for an additional month at the Foreigners Section of the Local Public Security Bureau if necessary. Visa application should be made preferably at least one month before the intended departure for China.
Attendees may apply for either a business visa (category "F") or a tourist visa (category "L") at the local Chinese embassy/consulate.
"F" visa: an invitation letter produced by the local congress organizer (The China International Conference Center for Science and Technology) will be provided to facilitate your visa application. In order to receive the Invitation Letter, you need to complete your online registration (with registration fee paid). In addition, you are required to provide us with all the information/documents required for processing the visa invitation letter through the online registration system. Upon receiving these, a letter will be produced, and an electronic copy of this letter will be sent to the e-mail address that you used for registration.
"L" visa: An invitation letter is NOT required to get an "L" visa. For more details regarding the tourist visa, please consult your local Chinese embassy/consulate.

Weather

July in Beijing is sunny and hot. The average daily temperature is about 23°C / 73.4°F, with highs of around 36°C / 97°F and lows of around 11°C / 52°F. The monthly precipitation is 70 mm.

Time Difference (Standard Time)

Los Angeles -16 hours; London -8 hours; Berlin -7 hours; Paris -7 hours; Zurich -7 hours; Toronto -13 hours; Moscow -5 hours; Amsterdam -7 hours; Tokyo +1 hour; Sydney +2 hours; Melbourne +2 hours; Jakarta -1 hour.

Insurance

The conference organizers do not accept any liability for personal accidents or loss or damage to the private property of any participants during the conference or indirectly arising from attending the conference. It is advisable that participants should purchase

General Information

adequate travel and health insurances before leaving their own countries.

Electricity

The electricity supply in China is 220V, 50Hz. Two types of sockets are used: three-pin socket (a grounding pin and two flat prongs forming a V-shape) and two-pin socket (two flat parallel prongs without grounding). See the photo below:

Currency Exchange

The renminbi (literally "people's currency") is the legal tender in the mainland of the People's Republic of China. The official abbreviation is CNY, although also commonly abbreviated as "RMB". Money exchange centers can be found at the airport, most hotels and large shopping centers. The exchange rate at present (2013) is roughly US $1=6.10 Chinese RMB. When exchanging money, please keep your exchange memo so that you can convert any remaining Chinese currency back to foreign currency upon leaving China. Visa, MasterCard, American Express, Diners Club and JCB are accepted in many department stores and hotels. It may be difficult to withdraw cash with credit cards.
Banks and most hotels can cash travelers' checks issued by many foreign banks or financial institutions. Participants will need to show their passport and pay a 0.75 percent commission fee. Travelers' checks signed over to a third party cannot be cashed in China, but can be presented for collection through the Bank of China.

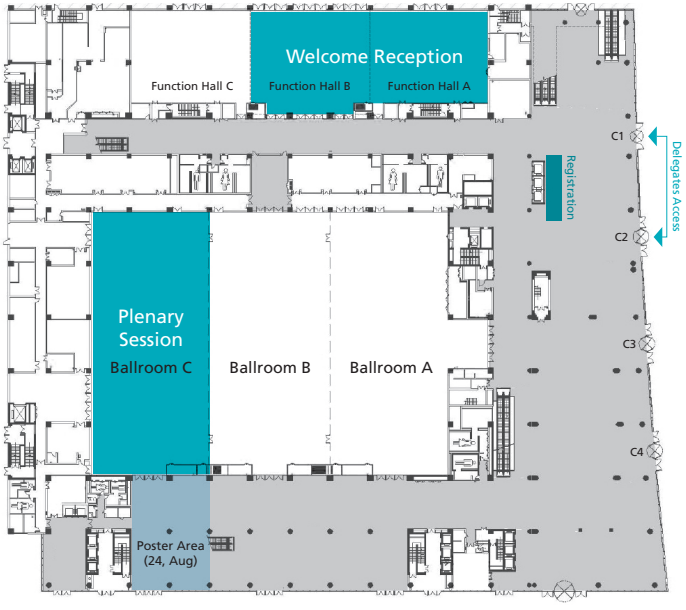
Arrival

All flights arrive at Beijing Capital International Airport, which is 30 kilometers from town, and is served by major international airline companies. Airport bus shuttles connect the airport to different parts of downtown Beijing, including Friendship Hotel of Beijing. But the most convenient way is to take a taxi at the taxi stand; the cost is around 120 Chinese yuan.

For more information about China and Travelling in China, please visit:
China Travel Solution at http://www.chinatravelsolution.com
China International Travel Service at http://www.cits.net

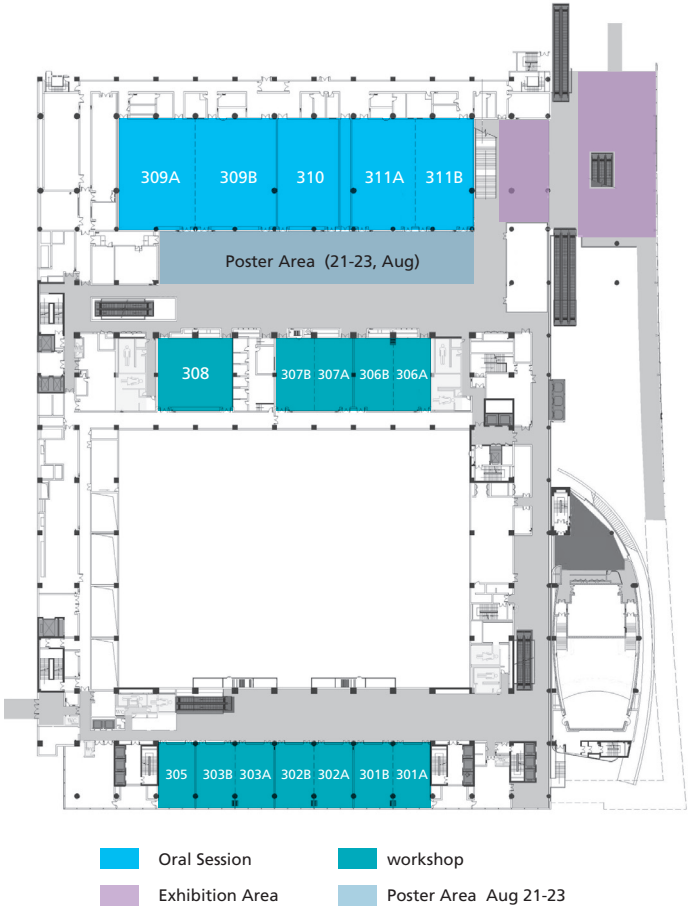
Venue Floorplan

Floorplan of Level 1
China National Convention Center



Venue Floorplan

Floorplan of Level 3
China National Convention Center



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