

2019 The 7th International Conference on Information, Communication and Networks

ICICN 2019



Macau University of Science and Technology, Macau | 澳门科技大学

Add: Avenida Wai Long, Taipa, Macau | 地址：澳门氹仔伟龙马路

Contents

Welcome Letter	3
Useful Information	4
Instructions for Presentation	5
Conference Agenda	6
Introduction of Speakers	9
Technical Tracks at Apr. 24	13
Track 1: Ultrafast Photonics	13
Track 2: Optoelectronic Devices	14
Parallel Oral Sessions at Apr. 24	15
Session 1: Optical Communications	15
Session 2: Computer Graphics and Image Processing	17
Technical Tracks at Apr. 25	19
Track 3: Optical Communications and Networks	
Track 4: Space Communications, Navigation and Tracking	19
Track 5: Computer Graphics and Image Processing	
Track 6: Blockchain	
Track 7: Machine Learning and Artificial Intelligence	20
Track 8: Optical Sensors	
Parallel Oral Sessions at Apr. 25	21
Session 3-A: Wireless Communications and Networking	21
Session 4-A: Data Analysis and Artificial Intelligence	23
Session 3-B: Wireless Communications and Networking	25
Session 4-B: Data Analysis and Artificial Intelligence	27
Poster Presentations	29
One Day Visit	30

Welcome Letter

It is our great pleasure to welcome you to attend the 2019 The 7th International Conference on Information, Communication and Networks (ICICN 2019) is to be held in Macau University of Science and Technology during April 23-26, 2019.

The major goal and feature of these conferences is to bring academic scientists, engineers, industry researchers together to exchange and share their experiences and research results, and discuss the practical challenges encountered and the solutions adopted. Prestigious experts and professors have been invited to deliver the latest information in their respective expertise areas. The conference has 2 Plenary Speakers, 1 Keynote Speaker and 6 Technical Sessions. It will be a golden opportunity for the students, researchers and engineers to interact with the experts and specialists to get their advice or consultation on technical matters, sales and marketing strategies.

We'd like to express our sincere gratitude to everyone who has contributed to ICICN 2019 as their success could only be achieved through a team effort. Additionally, our special thanks go to all the conference speakers for their insightful and contemporary thought leadership on many emerging research topics. We would also like to especially thank the conference chairs, the program chairs and the session chairs, for putting the conference together; as well as to all the technical committee members and reviewers for their excellent work in reviewing the papers and their other academic support efforts. Finally, we are particularly grateful to all the authors and presenters of the papers as well as all the attendees for their contributions to this wonderful conference.

Conference Organizing Committees

Useful Information

Conference Venue

Macau University of Science and Technology, Macau | 澳门科技大学

Address: Avenida Wai Long, Taipa, Macau | 地址: 澳门氹仔伟龙马路

Website: <https://www.must.edu.mo/>

Time



Time

UTC/GMT+8

Weather

Average Temperature in April in Macau

25°C -27°C

Attention

Please take care of your belongings in the public places. Don't stay too late in the city, don't be alone in the remote area. Be aware of the strangers who offer you service, signature of charity, etc., at many scenic spots. You can search more Tourist Information and Security tips online.

Instructions for Presentation

Please come **10 minutes earlier** before your session starts.

Devices Provided by the Conference Organizer

Laptops (with MS-Office & Adobe Reader)

Projector & Screen

Laser Sticks

Portal Frame

Materials Provided by the Presenters

Oral Presentation: PowerPoint or PDF files. Please copy your slide file to the desktop before session starts.

Poster Presentation: 841mm high and 594mm wide (A1 size), Poster must be in the “Portrait” orientation (not “Landscape”). During your poster session, the author should stay by your poster paper to explain and discuss your paper.

Duration of Each Presentation

Regular Oral Session: about 15 minutes of presentation including Q&A.

About Dress Code

All participants are required to dress formally. Casual wear is unacceptable. National formal dress is acceptable.

Conference Agenda

Apr. 23, 2019 - Schedule

10:00-17:00 Sign in & Materials Collection—Building A-A206 (2nd floor)

Apr. 24, 2019 - Schedule

Location: Building O-O702 (7th floor), O401, O402, O403 (4th floor)

Keynote, Plenary & Invite Speeches		
09:00-09:05	Conference Opening Remarks Prof. Jiang Zhi Hong, Vice President, Macau University of Science and Technology, China	Building O-O702
Chair for Plenary Speeches Prof. Nan-Kuang Chen, Liaocheng University, China		
09:05-10:00	Plenary Speaker I Prof. Philip Russell Founding Director at the Max-Planck Institute, Royal Society and OSA Fellow, OSA's 99th President Max Planck Institute for the Science of Light, Germany	
10:00-10:55	Plenary Speaker II Prof. Kenneth Grattan FREng The Royal Academy of Engineering, The UK National Academy of Engineering City University London, UK	
10:55-11:20	Group Photo & Coffee Break	
Chair for Keynote Speeches Jianqing Li, Macau University of Science and Technology, China		Building O-O702
11:20-12:00	Keynote Speaker I Prof. Moshe Zukerman IEEE Fellow City University of Hong Kong, China	
12:00-13:30	Lunch	Building N- The Seasons
Technical Tracks		

13:30-17:45	Track 1: Ultrafast Photonics	Building O- O401
13:30-15:30	Track 2: Optoelectronic Devices	Building O- O402
15:30-15:45	Coffee Break	Foyer
Parallel Oral Sessions		
15:45-17:45	Session 1 Optical Communications	Building O- O402
	Session 2 Computer Graphics and Image Processing	Building O- O403
18:00-20:00	Dinner	Sheraton Grand Macao Hotel, - FEAST

Session Index

Session 1: CN005, CN012, CN016, CN044-A, CN058-A, CN074, CN076, CN028

Session 2: CN022, CN009, CN033, CN041, CN064, CN070, CN040, CN066

Apr. 25, 2019- Schedule

Location: Building B-B201A, B201B (2nd floor)

Technical Tracks		
09:00-12:30	Track 3: Optical Communications and Networks Track 4: Space Communications, Navigation and Tracking Track 5: Computer Graphics and Image Processing	Building B-B201A
	Track 6: Blockchain Track 7: Machine Learning and Artificial Intelligence Track 8: Optical Sensors	Building B-B201B
11:00-11:10	Coffee Break	Foyer
12:30-13:30	Lunch	Building N- The Seasons
Parallel Oral Sessions		
13:30-15:45	Session 3-A Wireless Communications and Networking	Building B-B201A
	Session 4-A Data Analysis and Artificial Intelligence	Building B-B201B
15:45-16:00	Coffee Break	
16:00-18:00	Session 3-B Wireless Communications and Networking	Building B-B201A
	Session 4-B Data Analysis and Artificial Intelligence	Building B-B201B
18:15-20:15	Dinner	Sheraton Grand Macao Hotel, - FEAST

Session Index

Session 3-A: CN021, CN052, CN069, CN006, CN013, CN023, CN026

Session 3-B: CN067, CN079, CN035, CN054, CN088, CN039, CN080-A

Session 4-A: CN010, CN018, CN027, CN031, CN032, CN034, CN043

Session 4-B: CN056, CN061, CN068, CN078, CN060, CN036, CN071, CN1005-A

Apr. 26, 2019- Schedule

9:00-17:00	One Day Visit
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Introduction of Speakers



Plenary Speaker I

Prof. Philip Russell

Founding Director at the Max-Planck Institute, Royal Society and OSA
Fellow, OSA's 99th President

Max Planck Institute for the Science of Light, Germany

Speech Title: Light-matter Interactions in Photonic Crystal Fibres

Abstract: Photonic crystal fibres (PCFs) continue to yield unexpected optical properties and make possible novel applications. An example is twisted PCF, which creates optical vortices that carry orbital angular momentum, as well as providing an elegant means of providing circular birefringence and dichroism, most recently in hollow-core PCF. Intense interactions between light and sound in solid-core PCF enable stable all-optical mode-locking of fibre lasers at a high harmonic (a few GHz) of the round-trip frequency. Single-ring hollow-core PCF, comprising a ring of thin-walled capillaries surrounding a central hollow core, guides over an extremely wide frequency range and, through pressure-adjustable dispersion, provides a simple means of compressing pulses down to single-cycle durations, as well as underpinning a range of unique and extremely bright sources of tunable deep and vacuum ultraviolet light. During the seminar, a selection of recent results from work carried out at MPL will be presented.

Biography: Philip Russell is a founding director at the Max-Planck Institute for the Science of Light (MPL) and holds the Krupp Chair of Experimental Physics at the University of Erlangen-Nuremberg. He obtained his D.Phil. degree in 1979 at the University of Oxford. His interests currently focus on scientific and technical applications of photonic crystal fibres. He is a Fellow of the Royal Society and the Optical Society (OSA) and has won a number of awards including the 2000 OSA Joseph Fraunhofer Award/Robert M. Burley Prize, the 2005 Thomas Young Prize of IOP, the 2005 Körber Prize for European Science, the 2013 EPS Prize for Research into the Science of Light, the 2014 Berthold Leibinger Zukunftspreis, the 2015 IEEE Photonics Award and the 2018 Rank Prize for Optoelectronics. He was OSA's 99th President in 2015, the International Year of Light.



Plenary Speaker II

Prof. Kenneth Grattan FREng

The Royal Academy of Engineering, The UK National Academy of Engineering

City University London, UK

Speech Title: Advanced Optical-fibre Sensor Systems for Challenging Industrial Monitoring Situations

Abstract: Optical Fibre Sensors have been developed extensively now over some four decades. A number of challenging monitoring applications have been identified where such optical fibre systems are best suited to the needs of today's industry, as conventional sensors often fail when used for this type of monitoring. A good example is in the infrastructure which surrounds us, where there is the need for better monitoring of the multi-billion dollar civil infrastructure across the world, whether it be bridges, buildings, towers or other critical parts of what makes modern towns and cities function well. The demands of electric and autonomous transport, be it on land, sea or air, as well as energy generation and distribution and robotics make enormous demands for better sensor systems.

The underpinning reasons are often to enhance safety, to allow assets to be used for longer, to schedule repair and maintenance better and improve the working environment for us all. The production of materials used in industry can consume very large amounts of energy and savings here can enhance the profitability of industry, as well as improve the environment. Achieving all this, and more cost effectively, is very important.

The paper will review the essential background to and history of optical fibre sensors, especially those using Fibre Bragg Gratings as their technological basis with a view to understanding what the drivers for the development of the technology have been and the predictions for the size and scale of the market. It will then focus on the identification of a number of problems in industry for which current solutions provide what is often an inadequate response to the needs that arise now, and likely so into the future. The talk will then look at how a range of optical fibre-based techniques can be applied to these problems and offer alternative, and better solutions to those from current technologies be they electronic, hydraulic, electrochemical, and analogue or digital – revealing solutions which have the potential readily to be adopted by industry. The work will thus review a number of 'case studies' led by the team of researchers at City, University of London, where in collaboration with industry and researchers across the world, new and practical solutions to key problems have been found and implemented in-the-field, not just as laboratory demonstrations.

In this way, specialist or 'niche' applications where researchers have been involved in creating new solutions to topical problems, be it in Europe, Asia or Australia, will be considered. A key aim will be to show that what has been done to date is only the beginning and that a number of potential new areas where optical fibre sensors can be applied are still opening up. Issues such as the cost of these sensors and their maintenance are of critical importance to industry and these will be discussed as well as the development of the market in to the third decade of the twenty-first century.

Biography: Professor Grattan graduated in Physics from Queen's University Belfast with a BSc (First Class Honours) in 1974, followed by a PhD in Laser Physics. His doctoral research involved the use of laser-probe techniques for measurements on potential new laser systems.

Following Queen's, in 1978 he became a Research Fellow at Imperial College of Science and Technology, sponsored by the Rutherford Laboratory to work on advanced photolytic drivers for novel laser systems. This involved detailed measurements of the characteristics and properties of novel laser species and a range of materials involved in systems calibration.

In 1983 he joined City University London as a "new blood" Lecturer in Physics, being appointed Professor of Measurement and Instrumentation in 1991 and Head of the Department of Electrical, Electronic and Information Engineering. From 2001 to 2008 he was the Associate and then Deputy Dean of the School of Engineering and from 2008 to 2012 the first Conjoint Dean of the School of Engineering & Mathematical Sciences and the School of Informatics. In 2013 he was appointed the Inaugural Dean of the City Graduate School. He was appointed George Daniels Professor of Scientific Instrumentation in 2013 and to a Royal Academy of Engineering Research Chair in 2014.

His research interests have expanded to include the development and use of fibre optic and optical systems in the measurement of a range of physical and chemical parameters. The work has been sponsored by a number of organizations including EPSRC, the EU, private industry and charitable sources, and he holds several patents for instrumentation systems for monitoring in industry using optical techniques. He obtained the degree of Doctor of Science (DSc) from City University in 1992 for his sensor work. Professor Grattan is extensively involved with the work of the professional bodies having been Chairman of the Science, Education and Technology of the Institution of Electrical Engineers (now IET), the Applied Optics Division of the Institute of Physics and he was President of the Institute of Measurement and Control during the year 2000. He has served on the Councils of all three of these Professional Bodies. He was awarded the Callendar Medal of the Institute of Measurement and Control in 1992, and twice the Honeywell Prize for work published in the Institute's journal as well as the Sir Harold Hartley Medal in 2012 for distinction in the field of instrumentation and control. He was awarded the Applied Optics Divisional Prize in 2010 for his work on optical sensing and the honorary degree of Doctor of the University of the University of Oradea in 2014.

He was elected President of the International Measurement Confederation (IMEKO) in 2014, serving from 2015 to 2018. He was elected to the Royal Academy of Engineering, the UK National Academy of Engineering, in 2008.

Professor Grattan has been Deputy Editor of the Journal Measurement Science and Technology for several years and currently serves on the Editorial Board of several major journals in his field in the USA and Europe. In January 2001 he was appointed Editor of the IMEKO Journal "Measurement" and also serves on their General Council. He is the author and co-author of over seven hundred refereed publications in major international journals and at conferences and is the co-editor (with Professor B T Meggitt) of a five volume topical series on Optical Fiber Sensor Technology. His work is highly cited by his peers nationally and internationally. He is a Visiting Professor at several major Universities in China, with strong links to Harbin Engineering University and the Shandong Academy of Sciences.

Professor Grattan has been a Member of the University Executive Committee (ExCo) since 2008 and chairs two of its sub-Committees, the University Sustainability Committee and the Business Continuity Management Committee. He has served on Senate for over 20 years, as well as many of its sub-Committees.



Keynote Speaker I

Prof. Moshe Zukerman

IEEE Fellow

City University of Hong Kong, Hong Kong

Speech Title: Topics in Network Optimization

Abstract: The evolution of telecommunications in the modern age includes the development of undersea cables around the world and the use of layering in the architecture of networks. Currently, there are over a million kilometers of internet cables, and with the expected explosive increase in internet traffic, further million kilometers of cables at a cost of tens of billions of dollars are expected to be added over the next decade. Given the benefits of layering in telecommunications network architectures and the current trends of networking developments, layered networks are here to stay for the foreseeable future. This presentation will cover research that we have worked on for over a decade on optimization of undersea cable paths as well as on optimal resource allocation in multi-layered networks. We will discuss solutions for resilient cable path planning considering real data of topography, ground motion and many other practical considerations of cable path optimization. Our solutions for multilayered network resource allocation consider a range of realistic models of traffic streams and are scalable to realistically sized networks. This work was funded by HK RGC grants CityU123012, CityU11200417 and CityU8/CRF/13G.

Biography: Moshe Zukerman is a Chair Professor of Information Engineering in the Electronic Engineering Department of City University of Hong-Kong. His research focuses on performance evaluation, resource allocation and survivable design of telecommunications networks and systems. He received B.Sc. and M.Sc. degrees from the Technion, Israel and a Ph.D. degree from UCLA in 1985. During 1986-1997 he was with Telstra Research Laboratories and during 1997-2008 with The University of Melbourne. He has served on editorial boards of various journals and on technical and organizing committees of numerous conferences. He has over 350 publications in scientific journals and conference proceedings. He is a Fellow of the IEEE.

Track 1: Ultrafast Photonics

Chair: Prof. Xiaohui Li, Shaanxi Normal University, China

13:30-17:45, Building O-401

* Please control each presentation time within **20 minutes**, including Q & A.

* The certificate will be awarded each speech.

13:30-13:50	Prof. Han Zhang, Prof. Yufeng Song Shenzhen University, China
13:50-14:10	Prof. Jianfeng Li University of Electronic Science and Technology, China
14:10-14:30	Prof. Chengbo Mou Shanghai University, China
14:30-14:50	Prof. Zhijun Yan Huazhong University of Science and Technology (HUST), China
14:50-15:10	Prof. Weiqing Gao Hefei Polytechnic University, China, China
15:10-15:30	Prof. Kan Wu Shanghai Jiaotong University, China
15:30-15:45	Coffee Break
15:45-16:05	Prof. Jie Jiang Central South University, China
16:05-16:25	Prof. Huanhuan Liu Shanghai University, China
16:25-16:45	Prof. Zuxing Zhang Nanjing University of Posts and Telecommunications, China
16:45-17:05	Prof. Xiaohui Li Shaanxi Normal University, China
17:05-17:25	Prof. Tianye Huang China University of Geosciences (Wuhan), China, China
17:25-17:45	Prof. Tang Yulong Shanghai Jiaotong University, China

Track 2: Optoelectronic Devices

Chair: Prof. Brajesh Kumar Kaushik, Indian Institute of Technology, IIT, Roorkee, India

13:30-15:30, Building O-402

* Please control each presentation time within **20 minutes**, including Q & A.

* The certificate will be awarded each speech.

13:30-13:50	Prof. Jianping Li Jinan University, China
13:50-14:10	Prof. Bo Dong Xi'an Institute of Optics and Precision Mechanics, Chinese Academy of Science, China
14:10-14:30	Prof. Chun-Nien Liu National Chung Hsing University, Taiwan
14:30-14:50	Prof. Xiaobo Xing South China Normal University, China
14:50-15:10	Prof. Xuewen Shu Huazhong University of Science and Technology, China
15:10-15:30	Dr. Zhang Wanjin Huazhong University of Science and Technology, China
15:30-15:45	Coffee Break

- * Please control each presentation time within **15 minutes**, including Q & A.
- * The **certificate of oral presentations** and **winner of best presentation** will be awarded at dinner.
- * The scheduled time for presentations might be changed due to unexpected situations, please arrive meeting room at least **10 minutes** before your session starts.
- * To show respect to other authors, especially to encourage the student authors, we strongly suggest you attend the whole session.
- * Session photo will be taken at the end of each session and updated online.

Session 1: Optical Communications

Time: 15:45-17:45

Location: Building O-402

CN005 15:45-16:00	A Survey on All-Optical IP Convergence Optical Transport Networks Wen-Kang Jia Fujian Normal University, China
CN012 16:00-16:15	Research on Optical Fiber Sensing Technology for Real-time Monitoring of Pipeline Bending Ni Jia-sheng Qilu University of Technology(Shandong Academy of Sciences), China
CN016 16:15-16:30	Research on Optical Network Model Based on Road Coloring Theory Sen Sun Beijing University of Posts and Telecommunications, China
CN044-A 16:30-16:45	Hot Water Assisted Permanent Chirp Based on a Uniform Polymer Optical Fiber Bragg Grating Rui Min ITEAM UPV, Spain
CN058-A 16:45-17:00	Mode Modulation in Optical Microcavities and Its Sensing Applications Fuxing Gu University of Shanghai for Science and Technology, China
CN074 17:00-17:15	Coherent Optical Sampling Based Method for Monitoring Optical Signal to Noise Ratio of High Speed Optical Fiber Communication Systems Ziyi Wang Beijing Institute of Technology, China

CN076	A 2.5Gb/s Real-time Visible-Light Communication System based on Phosphorescent White LED
17:15-17:30	Chaofan Wang Fudan University, China
CN028	Improved Adaptive Median Filtering for Structured Light Image Denoising
17:30-17:45	Wei Cao Key Laboratory of Photoelectric Imaging Technology and System, Ministry of Education of China, Zhuhai, China

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Session 2: Computer Graphics and Image Processing

Time: 15:45-17:45

Location: Building O-403

CN022 15:45-16:00	Mining Frequent Patterns for ECG Multi-label Data by FP-Growth Algorithm Based on Spark Di Wang Qilu University of Technology (Shandong Academy of Sciences), Shandong Computer Science Center (National Supercomputer Center in Jinan), Key Laboratory of Medical Artificial Intelligence, China
CN009 16:00-16:15	Frame Rate Up-Conversion Based on Edge Information Guangying Ge Liaocheng University, China
CN033 16:15-16:30	Researches About Minor Differences in Medical Images Based on Lu Decomposition Siyi Qian Macau University of Science and Technology, China
CN064 15:30-16:45	Initialization Free Segmentation of Complex Shaped Objects Nalan Karunanayake Thammasat University, Thailand
CN041 16:45-17:00	A Multi-focus Image-fusion Scheme Based on Non-uniform Triangular Partition Qin Lyu Macau University of Science and Technology, China
CN070	Outdoor Shadow Estimating Using Multi-Class Geometric Decomposition

17:00-17:15	Ting Gao East China University of Science and Technology, China
CN040 17:15-17:30	Assessing the Utilization, Reliability and Applicability of Cloud-based eLearning Course: A Case for Basic Family Planning eCourse for Physicians in the Philippines Alison Perez University of the Cordilleras, Philippines
CN066 17:30-17:45	A New Approach for Detecting Access Control Vulnerabilities Li Ma Jiangxi Science & Technology Normal University, China

Track 3: Optical Communications and Networks

Chair: Prof. Xiaoguang Zhang, Beijing University of Posts and Communications, China

Co-chair: Prof. Xia Zhang, Liaocheng University, China

Track 4: Space Communications, Navigation and Tracking

Chair: Prof. Tianshu Wang, Changchun University of Science and Technology, China

Track 5: Computer Graphics and Image Processing

Chair: Prof. Zhanchuan Cai, Macau University of Science and Technology, China

09:30-12:30, Building B-201A

* Please control each presentation time within **20 minutes**, including Q & A.

* The certificate will be awarded each speech.

09:30-09:50	Prof. Zhang Fan Peking University, China
09:50-10:10	Prof. Li Jianping Jinan University, China
10:10-10:30	Prof. Wang Jian Huazhong University of Science and Technology, China
10:30-10:50	Prof. Zhi Liu Changchun University of Science and Technology, China
10:50-11:10	Prof. Chunyi Chen Changchun University of Science and Technology, China
10:10-11:30	Prof. Xizheng Ke Xi'an University of Technology, China
11:30-11:50	Prof. Ting Lan Macau University of Science and Technology, China

Track 6: Blockchain

Prof. Ke Zhou, Huazhong University of Science and Technology, China

Track 7: Machine Learning and Artificial Intelligence

Chair: Prof. Stan Z. Li, Institute of Automation, Chinese Academy of Sciences, China

Co-chair: Prof. Yanyan Liang, Macau University of Science and Technology, China

Track 8: Optical Sensors

Chair: Prof. Xiaobo Xing, South China Normal University, China

09:30-12:30, Building B-B201B

* Please control each presentation time within **20 minutes**, including Q & A.

* The certificate will be awarded each speech.

09:30-09:50	Prof. Hui Tian University of Hua Qiao, China
09:50-10:10	Dr. Zhen Yang Tsinghua University, China
10:10-10:30	Prof. Fu Zhangjie Nanjing University of Information Science & Technology, China
10:30-10:50	Prof. Wan Jun Institute of Automation, Chinese Academy of Sciences, China
10:50-11:10	Prof. Fei Xu Nanjing University, China
10:10-11:30	Prof. Guanghui Wang Nanjing University, China
10:30-11:50	Prof. Fuxing Gu University of Shanghai for Science and Technology, China
11:50-12:10	Prof. Baishi Wang Vytran LLC 1400 Campus Drive Morganville, USA
12:10-12:30	Prof. Ho-Pui Ho The Chinese University of Hong Kong, China

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Session 3-A: Wireless Communications and Networking

Time:13:30-15:45

Location: Building B-B201A

CN021 13:30-13:45	Enhanced Performance of Data Interleaved and Block Hybrid Modulation Bit-loading Algorithms in Underwater VLC System Peng Zou Fudan University, China
CN052 13:45-14:00	A Photon Counting Underwater NOMA Wireless Optical Communication System Mutian Li Fudan University, China
CN069 14:00-14:15	A Method for Equalizing the Impairment in NRZ-QPSK Optical Transmitters Mianzhe Han Beijing Institute of Technology, China
CN006 14:15-14:30	Overview of Pheromone Control Method Based on Ant Colony Algorithm in Wireless Communication Yahong Zhai Hubei University of Automotive Technology, China
CN013 14:30-14:45	Design of Circular Monopole Antenna Using a Ground Plane Modifications for LTE and UWB Applications Nathapat Supreeyatitikul Civil Aviation Training Center of Thailand, Thailand
CN023 14:45-15:00	A Wireless Multicarrier Communication Based on Multiple Vector Modulation on Single Optical Carrier

	Guang Li Macau University of Science and Technology, China
CN026 15:00-15:15	A Comparison Research on DSCP Marking's Impact to the QoS of VoIP-based and SS7-based Phone Calls Shaher Daoud Colorado Technical University, USA

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Session 4-A: Data Analysis and Artificial Intelligence

Time: 13:30-15:45

Location: Building B-B201B

CN010 13:30-13:45	Improved Cluster Algorithm Based on Aow Clustering Algorithm Zhen Wang Beijing University of Posts and Telecommunications, China
CN018 13:45-14:00	Parallel Processing of Improved Knn Text Classification Algorithm Based on Hadoop Shaobo Du GuiZhou University Of Commerce, China
CN027 14:00-14:15	A Data Correlation Algorithm Based on Resnet for Unsteady Data Hao Liu Wuhan Digital Engineering Institute, China
CN031 14:15-14:30	Algorithm and Realization of Robotic End Orientation Equivalent Similarity Transformation Based on Rodrigues Juqing Yang Key Laboratory of Photoelectric Imaging Technology and System, Ministry of Education of China, Zhuhai, China
CN032 14:30-14:45	Study on Distributed Dynamic Average Consensus Algorithm Yulin Chen Zhejiang University, China
CN034 14:45-15:00	A Hybrid Multi-Frame Super-Resolution Algorithm Using Multi-channel Memristive Pulse Coupled Neural Network and Sparse Coding Songjie Zhang

	Zhejiang University, China
CN043 15:00-15:15	A High-Sensitivity Plasmonics Biosensor Based on Graphene Ribbon Arrays Hongyan Yang Guilin University of Electronic Science and Technology, China

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Session 3-B: Wireless Communications and Networking

Time: 16:00-18:00

Location: Building B-B201A

CN067 16:00-16:15	Implementation of A Novel M-QAM OFDM Timing Synchronization Method with FSO RoF System Ke Teng Beijing University of Posts and Telecommunications, China
CN079 16:15-16:30	Improved MS LDPC decoder based on Jacobian Logarithm Ruizhen Wu Intel Mobile Communications Technology (Xi'an) Ltd, China
CN035 16:30-16:45	Nonlinear Characteristic Analysis of Ballistocardiogram Signals Based on Chaotic Time Series Lele Xi Guilin University Of Electronic Technology, China
CN054 16:45-17:00	Adjustable Minimum Variance Distortionless Restriction Beamforming for Cognitive Radio Networks Jain-Shing Liu Providence University, Taiwan
CN088 17:00-17:15	A Survey of Mobile Edge Computing in the Industrial Internet Zhuo Li Chinese Academy of Sciences, China
CN039 17:15-17:30	Wireless Bluetooth Car Collosion Detection Sytem Yanwen Wang Xijing University, China

CN080-A	Properties of an All-normal-Dispersion Fiber Laser
17:30-17:45	Liqiang Zhang Liaocheng University, China

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Session 4-B: Data Analysis and Artificial Intelligence

Time: 16:00-18:00

Location: Building B-201B

CN056 16:00-16:15	New Investment Strategy Based on Big Data-Volatility Index Breaking Out Signal Rule Pi-Hsia Yen Yu Da University of Science and Technology, Taiwan
CN061 16:15-16:30	An Improved Pooling Scheme for Convolutional Neural Networks Aiza M. Romano Technological Institute of the Philippines, Philippines
CN068 16:30-16:45	A Hybrid Solution for Smart Supermarkets Based on Actuator Networks Yanping Zhang Gonzaga University, USA
CN078 16:45-17:00	Spatio-Temporal Neural Network with Dilated Retrospective Convolution for Short-Time Change Detection Chao Chen Tsinghua University, China
CN060 17:00-17:15	Unsupervised Clustering for Sharding Key Formulation and the Effects of Aggregation Computations Tad Kellogg Colorado Technical University, USA
CN036 17:15-17:30	The Auto-Focus Method on Scanning Acoustic Microscopy Based on Wavelet Analysis Hao Liang

	University of Chinese Academy of Sciences, China
CN071 17:30-17:45	Augmented Reality Tracking Registration Based on improved KCF Tracking and ORB Feature Detection Wang Yangping Lanzhou Jiaotong University, China
CN1005-A 17:45-18:00	Investigation of Hydrogen Sulphide Gas Sensor Using Pd/Au Material Based Plasmonic Ring Resonator Zhen Tian Liaocheng University, China

Poster Presentations

Apr. 25

Time: Foyer

Location: Building B-B201B

CN007	Copy Detection Pattern-Based Authentication for Printed Documents with MultiDimensional Features Pei Zhang University of Science and Technology of China, China
CN030	Research on Physical Downlink Control Channel Transmission Mode for 5G New Radio Yanwen Wang Xijing University, China
CN059	A Wifi Positioning Algorithm Based on Deep Learning Zhixiang Yuan Guilin University Of Electronic Technology, China
CN063-A	Heuristic Algorithm for Upper Bound of Data Transfer Latency in the Narrowband Communication Network Yong-Jin Lee Korea National University of Education, South Korea
CN083	Utilizing Smartphone-Users for MTC Data Offloading in 5G Networks Juma Saidi Ally University of Science and Technology, China
CN1009	Low Illumination Image Color Estimation Based on Gray Scale Supervision Zou Muchun Wuzhou University, China

One Day Visit

Attention:

This visit will charge 100USD for each person. (Pay to join before Apr. 24, 2019); or you could choose to enjoy free time on Apr. 26 to explore Macau by yourself;

8.00 AM(Apr. 26), pick up at gathering spot.

Please be there on time, or you will miss the visit.

Route :

Time	Destination	Play-time
8:00-9:30	Bus Time	1.5 hour
9:30-10:00	Ruínas da Antiga Catedral de São Paulo 大三巴牌坊	0.5 hour
10:00-10:30	Largo do Senado 议事厅前地	0.5 hour
10:30-11:00	Igreja de São Domingos 玫瑰圣母堂	0.5 hour
11:00-11:30	Edifício do Instituto para os Assuntos Municipais 民政总署大楼	0.5 hour
11:30-12:30	Lunch Time	1 hour
12:30-14:00	Bus Time	1.5 hour
14:00-14:30	Casas - Museu da Taipa 龙环葡韵住宅式博物馆	0.5 hour
14:30-15:30	永利皇宫缆车	1 hour
15:30-17:00	The Venetian Macao Resort Hotel 澳门威尼斯人度假村	1.5 min
17:00-17:30 back to gathering spot		

Service includes:

- Transportation, Fuel, Parking fees, Entrance fees;
- Tour guide;
- Tips for tour guide and driver;
- Travel insurance;
- Pick-up & drop-off at gathering spot.

Service excludes:

- Personal expenses (not mentioned above).
- Lunch;

Remarks

- The itinerary / duration to visit may change without advance notice depending on unexpected local situation;
- The participants should go to the assembly point by themselves, no pick-up service;
- It is suggested to bring Umbrella, due to the unexpected whether condition.

Then click here to finish the payment:

<http://confsys.iconf.org/online-payment/18131>

Please fill in the E-mail and Order ID you received after payment and send back before Apr. 24.

E-mail	Order ID
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Note

