

IEEE CITS 2019



2019 International Conference on
Computer, Information and Telecommunication Systems

August 28-31, 2019, Beijing, China.

Technical Sponsors:





CITS 2019 General Chairs' Message

Welcome to the 2019 International Conference on Computer, Information and Telecommunication Systems (CITS 2019). This year's conference marks the 8th anniversary of CITS, which is being held on annual basis.

CITS 2019 offers a unique forum for researchers and practitioners from academia, industry, business, and government to share their expertise results and research findings in all areas of Computer, Information and Telecommunication Systems.

This year's conference includes an outstanding technical program, and two distinguished keynote speakers. We have chosen Techart Plaza (Tiangong Building) at University of Science and Technology Beijing (USTB) as the site of CITS 2019. The site of the conference provides excellent meeting facilities and will be a comfortable setting for our conference. The city of Beijing is famous in its magnificent historical sites, great food, parks, and museums.

The CITS 2019 technical program consists of several parallel technical tracks and a tutorial. Each track consists of several sessions of top quality papers. The topics covered in the program include, wireless networks, wireless sensor networks, computer networks and telecommunications, admission control in networking, cyber security, information security, cell networks, 4G and 5G systems, data analytics, parallel and distributed computing, databases and data mining, hardware/architecture/real-time systems, MIMO systems, modeling and simulation, performance evaluation, digital signal processing, image processing, pattern recognition, multimedia systems and video processing, character and pattern recognition, artificial intelligence, neural networks, fuzzy logic, genetic algorithms, deep learning and learning automata, cloud computing, web systems, security and information assurance, algorithms, biometrics, e-services and e-business, and collaborative learning systems, among others.

This year, we received a large number of quality papers. Only very high quality papers have been accepted. The acceptance ratio is 39%. This is indicative of the diligent work of the technical program committee chairs, technical program committee members and reviewers. The accepted papers come from all over the World with representation from academia, industry, business and government. Moreover, accepted papers will appear in IEEE Xplore.

Many individuals have contributed to the success of this high caliber international conference. Our sincere appreciation goes to all authors including those whose papers were not included in the program. Many thanks are also due to our distinguished keynote speakers and tutorial instructor for their valuable contribution to the conference.

Special thanks are also due to the senior program chair, Prof. Petros Nicopolitidis, for his outstanding role in leading the technical program efforts. Thanks also are due to the other program chairs. Many thanks also go to the technical program committee members and reviewers for their timely work and efforts.

Special thanks go to the publication chair, Prof. Daniel Casado Caballero, for his outstanding work and dedication. Thanks to our dedicated Webmaster Antonio Bueno. Special thanks go to the international publicity committee members and international liaisons for their excellent work.

We would like to also thank the local organizing committee especially, Guo Yu, and other members of the organizing committee. Special thanks are due to the international steering committee of the CITS.

We would like to thank the IEEE Communication Society for technical co-sponsorship of the conference.

We like to thank the leadership, faculty, staff and students of the University of Science and Technology Beijing (USTB) for their help and support.

Finally, on behalf of the 2019 IEEE International Conference on Computer, Information and Telecommunication Systems (CITS 2019), we invite all of you to join us in Beijing, China, at CITS 2019. Enjoy the program and your stay in the beautiful city of Beijing.

Prof. Mohammad S. Obaidat, General Chair, Fellow of IEEE, Fellow of SCS, Past President of the Society for Modeling & Simulation International (SCS), Founding Editor in Chief, Wiley Security and Privacy Journal, Editor in Chief, International Journal of Communication Systems, Recipient of SCS Hall of Fame Award, Recipient of the Technical Achievement Award from IEEE ComSoc-Technical Committee on Communication Software

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Program At a Glance

Wednesday, August 28		Thursday, August 29		Friday, August 30		Saturday, August 31	
14:30 15:00	Registration Desk	14.00 15.30	Inf. Tech 1	9.00 9.15	Opening Session	9.00 10.30	Inf. Tech 6
15.00 17.00	Tutorial	14.00 15.30	Networking 1	9.15 10.15	Keynote Speech 1	9.00 10.30	Inf. Tech 7
		14.00 15.30	Telecomm.	10.15 10.30	Coffee break	9.00 10.30	Security 2
		15.30 16.00	Coffee break	10.30 11.30	Keynote Speech 2	10.30 11.00	Coffee break
		16.00 17.30	Inf. Tech 2	11.30 13.00	Lunch	11.00 12.00	Closing session
		16.00 17.30	Networking 2	13.00 14.30	Inf. Tech 3		
		16.00 17.30	Computer Systems 1	13.00 14.30	Networking 3		
		19.00 21.00	Welcome Dinner	13.00 14.30	Computer Systems 2		
				14.30 15.00	Coffee break		
				15.00 16.30	Inf. Tech 4		
				15.00 16.30	Inf. Tech 5		
				15.00 16.30	Security 1		
				19.00 21.00	Banquette		

Welcome Desk / On-site Registration in venues

Wednesday, August 28 – Open from 14h30 to 17h00

Friday, August 30 – Open from 08h30 to 16h00

Thursday, August 29 – Open from 13h30 to 17h00

Saturday, August 31 – Open from 09h00 to 12h00

Venues

28 Aug: Tutorial at School of Computer and Communication Engineering in the Mechanical and Electrical Information Building in USTB. (计算机与通信工程学院, 机电信息楼, 北京科技大学)

29 – 31 Aug: All paper presentations on the 3rd Floor of the Tiangong Building (Block B) in USTB. (科大天工大厦 B 座, 3 层会议室)

Meals

Coffee-breaks will be served in the venues.

Welcome Dinner (29 Aug) and Lunch (30 Aug) will be served on the B1 Floor of the Tiangong Building in USTB. (科大天工大厦 B 座, 地下 1 层)

Banquet (30 Aug) will be served at the New Jing Ya Cook Superb Cuisines Restaurant on the 2nd Floor of the Tiangong Building in USTB. (科大天工大厦, 新净雅烹小鲜, 2 层大厅)

Schedule

WEDNESDAY, August 28

14:30 - 15:00

Registration Desk

15:00 – 17:00

Tutorial

Reforming the Contributions and Problem Solving of Artificial Intelligence Into E-Learning

Session Chair: Yu Guo



Distinguished Speaker: Maria Virvou, University of Piraeus, Greece.

Artificial Intelligence has been used in Education for many years and has contributed to the so-called area of Intelligent Tutoring Systems. However, recent advancements in e-learning, data analytics, connectivity, social media, affective computing, serious games in education and multi-modal human-computer interaction have brought to light new forms of contributions, approaches and problem solving using Artificial Intelligence (AI) in e-learning. Moreover, there have been new challenges concerning privacy and data protection in personalised AI-based education. In this tutorial, novel research approaches will be presented towards the application of AI in e-learning and will be compared and contrasted with standard distance learning platforms. AI based problem solving methods will be reviewed such as cognitive theories, fuzzy logic, decision theories and machine learning in the context of the analysis, design and development of sophisticated e-learning applications that adapt automatically to learners' needs and preferences. Then, particular environments of e-learning including authoring tools, computer assisted learning, collaborative learning, mobile learning, social networks and serious games encompassing the above theories and algorithms will be presented and discussed. Evaluation methods, processes and challenges will also be presented together with prototype development methods incorporating empirical studies.

Bio

Maria Virvou was born in Athens, Greece. She received a B.Sc. Degree in Mathematics from the National and Kapodistrian University of Athens, Greece, a M.Sc. Degree in Computer Science from the University College London, U.K. and a Ph.D. Degree in Computer Science and Artificial Intelligence from the University of Sussex, U.K.

She is a full professor, director of post-graduate studies, director of the Software Engineering Lab and former head of the department in the Department of Informatics, University of Piraeus, Greece. She is author/co-author of over 350 research papers published in international journals, books and conference proceedings and of many books and monographs in Computer Science published by Springer and other publishers. She has been editor of over 20 collections of papers in conference proceedings or books, published by major academic publishers, such as IEEE, Springer and IOS Press. She has also been editor-in-chief of the Springerplus Journal (Springer) for the whole area of Computer Science. Additionally, she has been an associate editor of the Knowledge and Information Systems (KAIS) Journal (Springer) and member of the editorial board of many other International Journals. She has been general co-chair of the yearly conference series of International Conference on Information, Intelligence, Systems and Applications (IISA

2018, 2017, 2016, 2015, 2014, 2013), technically-sponsored by IEEE, which aims at promoting research in the area of interactive multimedia and major applications such as e-learning and m-learning. She has been the general chair / program chair of over twenty (20) International Conferences. She has been the principal investigator or co-investigator of numerous national / international research projects. She has supervised 12 Ph.D. Theses which have been completed successfully and many of her former Ph.D. Students hold academic positions in Universities. She is currently supervising 5 Ph.D. Students and 5 post-doctoral researchers. Many journal articles of hers have been ranked among the most cited/downloaded papers of the respective journals where they have been published. She has been a recipient of many best paper awards in international conferences. She has been an invited keynote speaker for many international conferences. According to Microsoft Academic Search, she has been ranked as 52 in the top 100 authors out of 58000 authors worldwide in the area of Computers and Education. Her research interests are in the area of Computers and Education, Artificial Intelligence in Education, user and student modeling, e-learning and m-learning, Knowledge-Based Software Engineering and Human-Computer Interaction.

THURSDAY, AUGUST 29

14:00 - 15:30

Information Technology 1

Session Chair: Xin Yuan

The School District Reorganization by Combining with Traffic Congestion Data
Tong Zhou and Yu Guo; Yang Yang; Zhenqiang Mi; Mohammad S. Obaidat

HaBiTs: Blockchain-based Telesurgery Framework for Healthcare 4.0
Sudeep Tanwar; Rajesh Gupta; Sudhanshu Tyagi; Neeraj Kumar; Mohammad S. Obaidat; Balqies Sadoun

A Fast Aerial Images Mosaic Method Based on ORB Feature and Homography Matrix
GuiQin Yang; Xing Chang; Jiang Zhanjun

Performance Evaluation of Fingerprint Recognition Modules on Mobile Device Based on Rule of Three
Jiaying Guo; Yu Lu; Qian Xie; Qichao Guo

14:00 - 15:30

Networking 1

Session Chair: Yamin Li

On the Asymptotic Capacity of Slotted Multiple Access Channel
Fedor Ivanov; Pavel Rybin

Switch Fault Tolerance in a Mirrored K-Ary N-Tree
Yamin Li; Wanming Chu

Dynamic Service Selection based on User Feedback in the IoT Environment
Huilan Quan; Ryuichi Takahashi; Yoshiaki Fukazawa

Research on Gateway Deployment for Throughput Optimization in Wireless Mesh Networks
Wei Liu; Chang Xu; Zhao Tian; Dong Kun Li; Guan Zhong Lu; Wei She

14:00 - 15:30

Telecommunication Systems

Session Chair: Siddhartan Govindasamy

Network polar coded-cooperative SC-FDMA system
Rahim Umar; Fengfan Yang; Shoaib Mughal

A New Indoor Localization Algorithm Using Received Signal Strength Indicator Measurements and Statistical Feature of the Channel State Information
Chuanghui Ma; Mengwei Yang; Yi Jin; Kang Wu; Jun Yan

Range Information and Amplitude-phase Information for Multi-carrier Radar Systems
Hao Luo; Xu Dazhuan; Yue Chen; Shengkai Xu

An Integrated Visible-Light and Radio Frequency Communications System
Pravallika Dhulipalla; Minju Kang; Taejin Kim; Nathaniel Tan; Siddhartan Govindasamy; Michael Rahaim

15:30 - 16:00

Coffee break

16:00 - 17:30

Information Technology 2

Session Chair: Huilin Zhu

AIRS-x: An eXtension to the Original Artificial Immune Recognition Learning Algorithm
Dionysios Sotiropoulos; George Tsihrintzis; Dimitrios Giatzitzoglou

Analysis of Appropriate Security Processes to Mitigate Risk in a Popular Election System
Segundo Moisés Toapanta Toapanta; Christopher Eduardo Solís Salazar; Daniel Humberto Plua Moran; Luis Enrique Mafla Gallegos; Rocio Maciel

Prototype to Optimize the Management of Information Security Used by Internal Users in a Public Organization of Ecuador
Segundo Moisés Toapanta Toapanta; Francisco Xavier Castro De La Rosa; Eduardo Michael Navarrete Fernandez; Luis Enrique Mafla Gallegos; Fabrizio Dario Triviño

A Short Survey and Challenges for Multiobjective Evolutionary Algorithms Based on Decomposition
Qian Xu, Zhanqi Xu; Tao Ma

16:00 - 17:30

Networking 2

Session Chair: Siddhartan Govindasamy

Link Congestion Prediction using Machine Learning for Software-Defined-Network Data Plane
Junying Wu; Yunfeng Peng; Meng Song; Manman Cui and Liang Zhang

An Intelligent Parallel Algorithm for Online Virtual Network Embedding
Khoa TD Nguyen; Changcheng Huang

A Secure Identity-based Deniable Authentication Protocol for MANETs

SK Hafizul Islam; Daya Sagar Gupta; Mohammad S. Obaidat

Lightweight Two-dimensional Routing Mechanism Based on Agent Calculation

Yuanyuan Zhou; Wenlong Chen; Rong Xiao; Chengan Zhao; Tianzhu Shao

16:00 - 17:30

Computer Systems 1

Session Chair: Roger Achkar

Finding Persistent Items using Invertible Bloom Lookup Table

Zhoudan Lv; Feng He; Lin Chen

Real-time Resources Allocation Framework for Multi-Task Offloading in Mobile Cloud Computing

Zhiqiang Gu; Ryuichi Takahashi; Yoshiaki Fukazawa

Wheeled robot navigation based on a unimodal potential function

Gregor Klancar; Gasper Music; Hao Chen; Marija Seder

A new task scheduling strategy based on improved ant colony algorithm in IaaS layer

Li Liu; Taiyu Luo; Yuanyuan Du

19:00 - 21:00

Welcome Dinner

9:00 - 9:15

Opening Session

9:15 - 10:15

Keynote Speech 1

Machine Learning and Analytics with Significantly Imbalanced Data and Applications in Information Systems

Chair: Kuei-Fang Hsiao



Distinguished keynote speaker: George A. Tsihrintzis, the University of Piraeus, Greece.

Classification is a very common supervised machine learning and data analytics task, in which a piece of data needs to be assigned by the learning algorithm to one of a given number of potential classes of origin. More specifically, in classification, the machine is given a set of training samples for each of which the class of origin is known. The machine is then asked to learn inductively from the given samples and generalize into a rule for assigning data into classes of origin that allows it to classify samples other than the ones used for training. It is the usual assumption of the binary classification problem that the number of training samples available from one class is comparable to the number of training samples available from the other class. However, it is not uncommon in certain applications for the number of training samples from one class to be significantly higher than the number of training samples from the other class. For example, users of recommender systems are very willing to provide examples (samples) of items they like, but are reluctant to provide samples of items they do not like. Similarly, in a protected system, the number of samples of intruders may be relatively limited, while the number of available samples of allowed/legal users may be quite high. Classification problems with class imbalance arise in nature as well. For example, the immune system in vertebrate organisms needs to be able to discriminate between self cells and other antigens, so as to respond accordingly. A high number of samples from the class of self cells are available to train the immune system. On the other hand, the class of antigens is very broad, including cancer cells, cells from other organisms, molecules and other intruding substances, viruses, bacteria, and parasitic worms. The number of available training samples from the class of antigens is very limited when compared to the size and diversity of this class.

The imbalance in the number of samples from each class affects the performance of traditional binary classifiers. Indeed, in probabilistic terms, classification problems in which training samples from one class are significantly higher in number than training samples from the other class result in significantly uneven prior probabilities of the two classes. The class from which a higher number of samples is available (target class) will have higher prior probability, while the class from which only a limited number of samples is available (outlier class) will have much lower prior probability. In turn, this affects the posterior probabilities of a sample coming from one or the other class. As a result, a binary classifier will erroneously tend to decide more often that an unknown sample comes from the target class than from the outlier class. In recommender system applications, this would mean that the system would tend to recommend items that the user might not like. Similarly, in a protected system, intruders and other threats might not be recognized.

In this presentation, we will discuss machine learning and analytics with extremely-imbalanced data and investigate the applicability of these methodologies in the design of recommender systems that support information systems.

Bio

George A. Tsihrintzis is Full Professor and Head of the Department of Informatics in the University of Piraeus, Greece. He received the Diploma of Electrical Engineer from the National Technical University of Athens, Greece (with honors) and the M.Sc. and Ph.D. degrees in Electrical Engineering from Northeastern University, Boston, Massachusetts, USA. His current research interests include Pattern Recognition, Machine Learning, Decision Theory, and Statistical Signal Processing and their applications in Multimedia Interactive Services, User Modeling, Knowledge-based Software Systems, Human-Computer Interaction and Information Retrieval. He has authored or co-authored over 300 research publications in these areas, which include 5 monographs and 14 edited volumes.

He is the Editor-in-Chief of Intelligent Decision Technologies (IOS Press) and the International Journal of Computational Intelligence Studies (Inderscience) and a member of the editorial boards of 8 additional journals.

He has chaired over 20 international conferences. He has guest co-edited 9 special issues of international journals.

He was the recipient of the Best Poster Paper Award of the 5th International Conference on Information Technology: New Generations, Las Vegas, USA, April 7-9, 2008, for co-authoring a paper titled: "Evaluation of a Middleware System for Accessing Digital Music Libraries in Mobile Services."

He was the recipient of one of the Best Applications Papers Award of the 29th Annual International Conference of the British Computer Society Specialist Group on Artificial Intelligence, Cambridge, UK, December 15-17, 2009, for co-authoring a paper titled: "On Assisting a Visual-Facial Affect Recognition System with Keyboard-Stroke Pattern Information."

He was the recipient of one of the Best Student Paper Awards of the 5th IEEE International Conference on Information, Intelligence, Systems and Applications (IISA2014), Chania, Crete, Greece, July, 7-9, 2014, for co-authoring a paper titled: "Genetic-AIRS: A Hybrid Classification Method based on Genetic Algorithms and Artificial Immune Systems"

He has presented keynote speeches in several international conferences.

10:15 - 10:30

Coffee break

10:30 - 11:30

Keynote Speech 2

Cloud Service Management for Manufacturing

Chair: Maria Virvou



Distinguished Keynote Speaker: Lin Zhang, Beihang University, China.

Service management is one of the most important tasks on a cloud. For the cloud designed for manufacturing, service management becomes very difficult because of many specific features, such as multi-varieties, heterogeneity, uncertainty, multi-constraints, and many services consist of physical equipment. This lecture will summarize state-of-art of cloud service management for manufacturing, and then discuss key technologies including service creation, service search and matching, service composition and scheduling, service credibility evaluation and service transaction. Some application examples will be presented.

Bio

Lin Zhang is a professor of Beihang University, China. He received the B.S. degree in 1986 from Nankai University, China, the M.S. and the Ph.D. degree in 1989 and 1992 from Tsinghua University, China. His research interests include service oriented modeling and simulation, cloud manufacturing, model engineering for simulation, agent based control and simulation. Currently, he serves as the Past President of the Society for Modeling & Simulation International (SCS), a Fellow of SCS and ASIASIM, the executive vice president of China Simulation Federation (CSF), a chief scientist of the 863 key projects, and associate Editor-in-Chief and associate editors of 6 peer-reviewed international journals.

He authored and co-authored more than 200 papers, 10 books and chapters. He received the National Award for Excellent Science and Technology Books in 1999, the Outstanding Individual Award of China High-Tech R&D Program (863), 2001, the National Excellent Scientific and Technological Workers Awards in 2014.

11:30 - 13:00

Lunch

13:00 - 14:30

Information Technology 3

Session Chair: Huilan Quan

Research on Technology Empowerment in Digital Transformation of Library in Information Age
Chunmeng Weng; Jinzhu Cao; Feiyun Zhu

Air Quality Forecasting Using SVR with Quasi-Linear Kernel
Huilin Zhu; Jinglu Hu

A Deep Neural Network Based Hierarchical Multi-Label Classifier for Protein Function Prediction
Xin Yuan; Weite Li; Kui Lin; Jinglu Hu

Evaluating the use of fuzzy logic in an educational game for offering adaptation
Konstantina Chrysafiadi; Maria Virvou; Spyros Papadimitriou

13:00 - 14:30

Networking 3

Session Chair: Zhou Yuanyuan

Improved LEACH-M Protocol for Aerial Sensor Networks

Li Tan; Minji Wang; Haoyu Wang; Li Liu

Optimal Power Allocation Strategy for Multi-target Wireless Wideband Localization System via Genetic Algorithm

Fang Liu; Jun Yan

A Physical Layer Key Generation Scheme Based on Full-duplex Mode in wireless Networks without Fixed Infrastructure

Ziyi Zhuang; Shengming Jiang; Yanli Xu; Xiang Luo; Xin Cheng

A Secure Protocol in MAC Layer of Cognitive Radio Networks

Huayi Wu; Baohua Bai

13:00 - 14:30

Computer Systems 2

Session Chair: Helen Karatza

A Novel Data Compression Technique Incorporated with Computer Offloading in RGB-D SLAM

Biwei Li; Yu Guo; Zhenqiang Mi; Yang Yang; Mohammad S. Obaidat

Scheduling Different Types of Gang Jobs in Distributed Systems

Georgios L. Stavrinides; Helen Karatza

Min Norm Failure Vector Guided Yield Optimization Method for Nanometer SRAM Design

Chengzhi Jiang; Xiaoming Fan; Yan Xing; Chao Duan; Jiaqi Zhang

Performance Analysis of Hatch Filtering for Cycle Slips Detection in Single Frequency RTK Positioning

Salma Zainab Farooq; Echoda Ngbede; Joshua Ada; Dongkai Yang

14:30 - 15:00

Coffee break

15:00 - 16:30

Information Technology 4

Session Chair: Zhiqiang Gu

Understanding Face Age Estimation: humans and machine

Jhan Saad Alarifi

Specification of software requirements with support of business process ontologies

Jorge Luís Gregorio; Hilda Oliveira and Simone Prado; Lukas Figueiredo

Face Recognition Using Depth Images Based on Convolutional Neural Network
Juxiang Chen; Zhihao Zhang; Liansheng Yao; Bo Li; Tong Chen

Model of foresight work habits of agile software team members by personality traits
Vanja Catic Kuko; Denis Mušić; Jasmin Azemović; Zanin Vejzović

15:00 - 16:30

Information Technology 5

Session Chair: Roger Achkar

Knowledge Management System Design using Gamification: A Case study of the e-Government Laboratory, Universitas Indonesia
Mochammad Arief Hermawan Sutoyo; Dana Sensuse; Hendri Priyambowo; Shidiq Hakim; Deki Satria; Afifah Nurzahrah

CoNN: Collaborative Neural Network for Personalized Representation Learning with Application to Scalable Task Classification
Nanxing Li; Yiqiang Sheng; Ni Hong

An Optimization Based on General Airport of Complex Condition
Huimin Zhang; Fanrong Sun; JingJing Qian

Medical Handwritten Prescription Recognition Using CRNN
Roger Achkar; Khodor Ghayad

15:00 - 16:30

Security 1

Session Chair: Tian-Bo Deng

An Efficient EUF-ID-CMA Secure Identity-based Short Signature Scheme using Discrete Logarithm
C. S. Meshram; Mohammad S. Obaidat; Kuei-Fang Hsiao

Multilevel Permission Extraction in Android Applications for Malware Detection
Zhen Wang; Kai Li; Yan Hu; Akira Fukuda; Weiqiang Kong

Analysis of Authentication System Based on Keystroke Dynamics
Amanzhol Daribay; Mohammad S. Obaidat; P. Venkata Krishna

Model of Shared Secret Applied to a Voting System for the National Electoral Council of Ecuador
Segundo Moisés Toapanta Toapanta; Felix Gustavo Mendoza Quimi; Máximo Tandazo; Luis Enrique Mafla Gallegos; Luis Antonio Palomino Romero

19:00 - 21:00

Awarding ceremony and banquet

SATURDAY, AUGUST 31

9:00 - 10:30

Information Technology 6

Session Chair: Seungmin (Charlie) Rho

BloHosT: Blockchain Enabled Smart Tourism and Hospitality Management

Sudeep Tanwar; Umesh Bodkhe; Pronaya Bhattacharya; Sudhanshu Tyagi; Neeraj Kumar; Mohammad S. Obaidat

Simplified Structure for Parameterizing Lp-Norm-Minimized Variable Filters

Tian-Bo Deng

Multi-factor Influenced Integrated Driving Behavior Clustering Analysis Evaluation Model

Shaojie Liu; Ning Wang; Xiaoting Wang

Building a Biomedical Ontology for Chronic Liver Disease

Kanwal Wahab; Usman Qamar; Khawaja Sarmad Arif; Usman Ali

9:00 - 10:30

Information Technology 7

Session Chair: Zhiqiang Gu

Automatic Pavement Crack Detection Using HMRF-EM Algorithm

Mingyuan Lin; Rundi Zhou; Qing Yan; Xin Xu

Optimization of Flue Gas Uplift Model Based on Eddy-dissipation Rate of Flight Turbulence

Xinmiao Yan; Jiemin Zhou; Fanrong Sun

Automatic Classification of Discourse in Chinese Classroom Based on Multi-feature Fusion

Lili Xu; Xiuling He; Jing Zhang; Yangyang Li

Review on Development of Software and Information Services Industry in Beijing

Hongxia Wang; Shaojie Wen

9:00 - 10:30

Security 2

Session Chair: Lina Wang

Detecting Signal Spoofing and Jamming Attacks in UAV Networks using a Lightweight IDS

Menaka Pushpa Arthur

Multi-level Reliable Security Mechanism Based on SpaceOS

Hongyi Liu, Xuan Hao; Liu Jingang

A Hash Function based on Sponge Structure with Chaotic Mapping for Spinal Codes

Wensha Huang; Lina Wang

Secure UAV Communication with Robust Communication and Trajectory Design

Wenlu Fan; Yang Wu; Shaohua Ju; Kun Zhang; Weiwei Yang

10:30 - 11:00

Coffee break

11:00 - 12:00

Closing Session



