

ISCC 2021 Conference Program

<https://iscc2021.unipi.gr>

06-08 September 2021

In response to the ongoing pandemic, the ISCC 2021 conference is held in hybrid (online + face to face) mode.

- All timings are as per Eastern European Summer Time – EEST Time Zone (Daylight Saving Time, UTC + 3).
- Technical sessions (1-20) will be held online, and each paper's presentation time will be 15 minutes plus 3 minutes for questions and answers.
- Three zoom links are available for technical sessions:
 - Zoom Link 1 (virtual room:):
 - Technical Sessions: 01, 02, 03, 07, 08, 09, 16, 17, welcome, keynote speeches
 - Zoom Link 2 (virtual room:):
 - Technical Sessions: 04, 05, 06, 10, 11, 12, 18, 19, 20
 - Zoom Link 3 (virtual room:):
 - Technical Sessions: 13, 14, 15

Program Summary

	Mon 6/9/2021	Tue 7/9/2021	Wed 8/9/2021
9:20-10:00	<p style="text-align: center;">Welcome and Conference Overview</p> <p>Christos Douligeris, Luca Foschini IEEE ISCC 2021 General co-chairs</p> <p>Adel S. Elmaghraby IEEE ISCC 2021 Steering Committee representative</p> <p>Gang Li, Eirini Tsiropoulou, Theofanis Raptis IEEE ISCC 2021 TPC co-chairs</p>		<p style="text-align: center;">Keynote 4</p> <p>Speaker: Maurizio Dècina Past President, IEEE Communications Society, Politecnico di Milano</p> <p>Hosted by IEEE Meditcom 2021 at Electra Palace Hotel, Athens, accessible only by F2F participants</p>
10:00-11:45	<p>Tutorial 1</p> <p>Session chair: Dimitrios Kallergis University of West Attica, Greece</p> <p>Speaker: Georgios Z. Papadopoulos IMT Atlantique, France</p> <p style="text-align: center;">Session 1: Cloud and Edge Computing</p> <p>Session Chair: Dimitris Zorbas Nazarbayev University, Kazakhstan</p> <p style="text-align: center;">Session 4: Security</p> <p>Session Chair: Leandros Maglaras School of Computer Science and Informatics, De Montfort University, Leicester LE1 9BH, UK</p>	<p>Tutorial 2</p> <p>Session chair: Luca Foschini University of Bologna, Italy</p> <p>Speakers: Bruno Sousa and Nuno Antunes University of Coimbra, Portugal</p> <p style="text-align: center;">Session 7: Security: Threat Detection (1)</p> <p>Session Chair: Stefano Chessa University of Pisa & CINI, Italy</p> <p style="text-align: center;">Session 10: Data science</p> <p>Session Chair: Tamoghna Ojha IIT-CNR, Italy</p>	<p style="text-align: center;">Panel session (10:00-11:00)</p> <p>Hosted by IEEE Meditcom 2021 at Electra Palace Hotel, Athens, accessible only by F2F participants</p> <p style="text-align: center;">Session 21: Communications and Computing in a New World</p> <p>Face-to-Face Session (11:15 – 12:45)</p> <p>Session Chair: Prof. Adel S. Elmaghraby University of Louisville, Louisville, KY 40292</p> <p>Hosted by IEEE Meditcom 2021 at Electra Palace Hotel, Athens, accessible only by F2F participants</p>

	Mon 6/9/2021	Tue 7/9/2021	Wed 8/9/2021
10:00-11:45		Session 13: Software Defined and Authentication Session Chair: Dimitrios Kallergis University of West Attica, Greece	
11:45-12:00	Virtual Coffee Break	Virtual Coffee Break	Coffee Break for virtual participants
12:15-14:00	Tutorial 1 (continued) Session 2: Services and Protocols (1) Session Chair: Matteo Mordacchini IIT-CNR, Italy Session 5: 5th Generation Networks Session Chair: Nineta Polemi University of Piraeus, Greece	Tutorial 2 (continued) Session 8: Security: Threat Detection (2) Session Chair: Angeliki Sgora Ionian University, Greece Session 11: Internet of Things (1) Session Chair: Nizar Zorba Qatar University, Qatar Session 14: Wireless Networks (1) Session Chair: Tania Panayiotou University of Cyprus, Cyprus	Session 16: Distributed Ledger (1) Session Chair: Panayiotis Kotzanikolaou University of Piraeus, Greece Session 18: Applications (1) Session Chair: Fabrice Theoleyre University of Strasbourg, France Tutorial 3 (12:45-15:45) Physical presentation Session Chair: Christos Douligeris University of Piraeus, Greece Speakers: Miroslav Skoric University of Novi Sad, Serbia Manos G. Darkadakis Greece
14:00-14:30	Virtual Lunch	Virtual Lunch	Virtual - Physical Lunch

	Mon 6/9/2021	Tue 7/9/2021	Wed 8/9/2021
14:05-15:50	<p>Keynote 1 (14:30-15:30)</p> <p>Session Chair: Massimo Villari University of Messina, Department MIFT, Italy</p> <p>Speaker: Ian F. Akyildiz TRUVA Inc, Atlanta, GA 30022, USA</p>	<p>Keynote 3 (14:30-15:30)</p> <p>Session Chair: Periklis Chatzimisios International Hellenic University,Thessaloniki</p> <p>Speaker: George K. Karagiannidis Aristotle University of Thessaloniki, Thessaloniki</p>	<p>Session 17: Distributed Ledger (2)</p> <p>Session Chair: Thomas Dasaklis Hellenic Open University, Greece</p> <p>Session 19: Applications (2)</p> <p>Session Chair: Sarandis Mitropoulos Ionian University, Greece</p>
15:30-16:00	Virtual Coffee Break	Virtual Coffee Break	Virtual Coffee Break (15:50-16:00)
16:00-17:45	<p>Session 3: Services and Protocols (2)</p> <p>Session Chair: Mario Antonio Ribeiro Dantas Federal University of Juiz de Fora, Brazil</p> <p>Session 6: Vehicular Networks</p> <p>Session Chair: Eirini Eleni Tsiropoulou University of New Mexico, USA</p>	<p>Session 9: Privacy</p> <p>Session Chair: Theodoros Karvounidis University of Piraeus, Greece</p> <p>Session 12: Internet of Things (2)</p> <p>Session Chair: Emmanouil Panaousis University of Greenwich, UK</p> <p>Session 15: Wireless Networks (2)</p> <p>Session Chair: Shiva Pokhrel Deakin University, Australia</p>	<p>Session 20: Applications (3)</p> <p>Session Chair: Theofanis Raptis National Research Council (CNR), Italy</p> <p>IEEE ISCC Steering Committee meeting</p>
18:00-19:00			<p>IEEE ISCC 2021 Closing Session</p> <p>Closing Session Remarks</p> <p>Best Paper Awards announcement</p>

	Mon 6/9/2021	Tue 7/9/2021	Wed 8/9/2021
18:00-19:00	<p>Keynote 2 hosted by ICTS4EHEALTH</p> <p>Session Chair: Ivanoe De Falco Institute for High-Performance Computing and Networking (ICAR), National Research Council of Italy (CNR), Italy</p> <p>Speaker: Risto Miikkulainen University of Texas at Austin and Cognizant Technology Solutions, USA</p>		

Keynotes

Keynote #	Session Chair	when	Virtual room	Title	Speaker
1	Massimo Villari University of Messina, Department MIFT, Italy	6/9/2021 14:30-15:45	link 1	Everywhere Reconfigurable Intelligent Surfaces: The New Bandwagon Problem in Wireless Communications	Ian F. Akyildiz TRUVA Inc, Atlanta, USA
2	Ivanoe De Falco National Research Council of Italy (CNR), Italy hosted by ICTS4EHEALTH	6/9/2021 18:00-19:00	link 1	Evolutionary Surrogate-assisted Prescription in the COVID-19 Pandemic and Beyond	Risto Miikkulainen University of Texas at Austin and Cognizant Technology Solutions, USA
3	Periklis Chatzimisios International Hellenic University, Thessaloniki, Greece	7/9/2021 14:30-15:45	link 1	Wireless Federated Learning for 6G Networks	George K. Karagiannidis Aristotle University of Thessaloniki, Thessaloniki, Greece
4	hosted by IEEE Meditcom 2021	8/9/2021 9:20-10:00	link 1	Gigabit Connectivity: European Recovery & Resilience Plans for Very High Speed Networks	Maurizio Dècina Past President, IEEE Communications Society, Politecnico di Milano

Tutorials

Tutorial #	Session Chair	when	Virtual room	Title	Speaker
1	Dimitrios Kallergis University of Piraeus and University of West Attica, Greece	6/9/2021 10:00-13:00		Reliable and Available Wireless Mesh Networking	Georgios Papadopoulos IMT Atlantique, France
2	Luca Foschini University of Bologna, Italy	7/9/2021 10:00-13:00		Trusted Service Function Chaining for Mission Critical Services	Bruno Sousa and Nuno Antunes University of Coimbra, Portugal
3	Christos Douligeris University of Piraeus, Greece	8/9/2021 12:45-15:45	physical presentation	Hardware and Software Options for Experimenting with APRS Networks	Miroslav Skoric University of Novi Sad, Serbia Manos G. Darkadakis

Session Details

Session 1: Cloud and Edge Computing

Session Chair: Dimitris Zorbas
Nazarbayev University, Kazakhstan

#	Title	Authors
1570731083	Impact of Network Topology on the Convergence of Decentralized Federated Learning Systems	Hanna Kavalionak and Emanuele Carlini (ISTI-CNR, Italy); Patrizio Dazzi (ISTI, CNR, Pisa, Italy); Luca Ferrucci (ISTI-CNR, Italy); Matteo Mordacchini (IIT, CNR, Pisa, Italy); Massimo Coppola (CNR, Italy)
1570724616	Hypertuning GRU Neural Networks for Edge Resource Usage Prediction	John Violos (Ecole de Technologie Superieure, Canada); Stylianos Tsanakas (National Technical University of Athens, Greece); Theodoros Theodoropoulos (Harokopio University of Athens, Greece); Aris Leivadeas (École de Technologie Supérieure, Canada); Konstantinos Tserpes (Harokopio University of Athens, Greece); Theodora Varvarigou (National Technical University of Athens, Greece)
1570720779	FastHorovod: Expediting Parallel Message-Passing Schedule for Distributed DNN Training	Yanghai Wang, Dezun Dong, Yemao Xu, Shuo Ouyang and Xiangke Liao (National University of Defense Technology, China)
1570731925	A Shared Memory Approach for Function Chaining in Serverless Platforms	Andrea Sabbioni, Lorenzo Rosa, Armir Bujari and Luca Foschini (University of Bologna, Italy); Antonio Corradi (University of Bologna & CIRI ICT, Italy)
1570733054	Experimental Workflow for Energy and Temperature Profiling on HPC Systems	Kameswar Rao Vaddina (Telecom ParisTech, France); Laurent Lefevre (INRIA, France); Anne-Cécile Orgerie (CNRS & IRISA, France)
1570731026	An N-Tier Fog Architecture for Smart Farming	Gabriele Penzotti, Stefano Caselli and Michele Amoretti (University of Parma, Italy)

Session 2: Services and Protocols (1)

Session Chair: Matteo Mordacchini
IIT-CNR, Italy

#	Title	Authors
1570727266	Danian: Tail Latency Reduction of Networking Application Through an O(1) Scheduler	Gustavo Pantuza (Universidade Federal de Minas Gerais, Brazil); Lucas Andrey Bleme and Marcos A. M. Vieira (Federal University of Minas Gerais, Brazil); Luiz F. M. Vieira (Universidade Federal de Minas Gerais, Brazil)

Session 2: Services and Protocols (1)		
1570731121	GAVIN: A New Platform for Enriching 3D Virtual Indoor Navigation with Social-Based Geotags	Christian Sicari, Valeria Lukaj, Antonio Celesti, Maria Fazio and Massimo Villari (University of Messina, Italy)
1570726045	RBA: Adaptive TCP Receive Buffer Sizing	Qingkai Meng, Kun Qian, Wenxue Cheng and Fengyuan Ren (Tsinghua University, China)
1570731157	Power Efficiency in Communication Networks with Power-Proportional Devices	Muhammed Choudhury, Guanting Li, Junwei Li, Ke Zhao, Mengyan Dong and Khaled Harfoush (North Carolina State University, USA)
1570732814	MobiWEB: Mobility-Aware Energy Balancing for P2P Wireless Power Transfer	Tamoghna Ojha, Theofanis P. Raptis, Marco Conti and Andrea Passarella (IIT-CNR, Italy)

Session 3: Services and Protocols (2)		
Session Chair: Mario Antonio Ribeiro Dantas Federal University of Juiz de Fora, Brazil		
#	Title	Authors
1570731971	Cybersecurity Certification Requirements for Supply Chain Services	Pinelopi Kyranoudi, Eleni-Maria Kalogeraki, Alexandra Michota and Nineta Polemi (University of Piraeus, Greece)
1570731170	Determining the Probability Distribution of Execution Times	Matheus H J Saldanha and Adriano Suzuki (University of São Paulo, Brazil)
1570731129	Improving Container Deployment in Edge Computing Using the Infrastructure Aware Scheduling Algorithm	Luis Knob (PUCRS & Instituto Federal do Rio Grande do Sul, Brazil); Carlos Henrique Kayser (Pontifical Catholic University of Rio Grande do Sul (PUCRS), Brazil); Tiago Ferreto (Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS), Brazil)
1570726133	MiniCAR: Minimal Congestion-Aware Routing Method in Fine-Grained Circuit-Switched Networks for Parallel Computing Systems	Yao Hu (National Institute of Informatics, Japan)
1570730932	Automating the Service Function Chain Availability Assessment	Guto Leoni Santos (Universidade Federal de Pernambuco, Brazil); Patricia Takako Endo (Universidade de Pernambuco, Brazil); Theo Lynn (Dublin City University, Ireland); Djamel Hadj Sadok and Judith Kelner (Federal University of Pernambuco, Brazil)
1570726265	Adaptive Middleware of Things	David Cavalcanti (Federal University of Pernambuco, Brazil); Ranieri Carvalho (Instituto Federal de Pernambuco, Brazil); Nelson Souto Rosa (Federal University of Pernambuco, Brazil)

Session 4: Security (3)**Session Chair: Leandros Maglaras****School of Computer Science and Informatics, De Montfort University, Leicester LE1 9BH, UK**

#	Title	Authors
1570731002	CDNFinder: Detecting CDN-Hosted Nodes by Graph-Based Semi-Supervised Classification	Xiaoqing Ma (Institute of Information Engineering, Chinese Academy of Sciences, China); Chao Zheng (Geedge Networks Ltd., China); Zhao Li (Institute of Information Engineering, CAS, China); Qingyun Liu (Institute of Information Engineering, Chinese Academy of Sciences, China); Xunxun Chen (Chinese Academy of Sciences, China)
1570731078	VM Migration Scheduling as Moving Target Defense Against Memory DoS Attacks: An Empirical Study	Matheus Torquato (University of Coimbra, CISUC, DEI, Brazil & Federal Institute of Alagoas, Campus Arapiraca, Brazil); Marco Vieira (University of Coimbra, Portugal)
1570730733	Output Security for Multi-User Augmented Reality Using Federated Reinforcement Learning	Fengchao Wang and Yanwei Liu (Institute of Information Engineering, Chinese Academy of Sciences, China); Jinxia Liu (Zhejiang Wanli University, China); Antonios Argyriou (University of Thessaly, Greece); Liming Wang and Zhen Xu (Institute of Information Engineering, Chinese Academy of Sciences, China)
1570719524	NeVe: A Log-Based Fast Incremental Network Feature Embedding Approach	Ran Tian (University of Chinese Academy of Sciences & Institute of Computing Technology, Chinese Academy of Sciences, China); Zulong Diao (Institute of Computing Technology, Chinese Academy of Sciences, China); Haiyang Jiang (Institute of Computing Technology, CAS, China); Gaogang Xie (CNIC Chinese Academy of Sciences & University of Chinese Academy of Sciences, China)
1570721829	FLPhish: Reputation-Based Phishing Byzantine Defense in Ensemble Federated Learning	Beibei Li, Peiran Wang, Hanyuan Huang, Shang Ma and Yukun Jiang (Sichuan University, China)
1570726484	Hard Disk Failure Prediction Based on Lightgbm with CID	Hengrui Wang (Peking University, China); Yahui Yang (School of Software and Microelectronics, Peking University, China); Hongzhang Yang (School of Software and Microelectronics, Peking University, China)

Session 5: 5th Generation Networks (5G)**Session Chair: Nineta Polemi**

University of Piraeus, Greece

#	Title	Authors
1570726903	Intelligent Network Service Embedding Using Genetic Algorithms	Panteleimon Rodis and Panagiotis Papadimitriou (University of Macedonia, Greece)
1570727157	Join-Me: A Framework for Integrating Service Providers and Mobile Network Operators	Alexandre M G de Deus (Universidade Federal de Juiz de Fora & Centro Federal de Educação Tecnológica de Minas Gerais, Brazil); Eduardo P Julio (Universidade Federal de Juiz de Fora, Brazil); Marcelo Ferreira Moreno (Federal University of Juiz de Fora, Brazil)
1570731044	Encrypted 5G Over-The-Top Voice Traffic Identification Based on Deep Learning	Zhuang Qiao, Liuqun Zhai, Shunliang Zhang and Xiaohui Zhang (Institute of Information Engineering, Chinese Academy of Sciences, China)
1570730989	5G Core Security in Edge Networks: A Vulnerability Assessment Approach	Hisham A. Kholidy (State University of New York (SUNY) Polytechnic Institute, USA); Andrew Karam (Air Force Research Lab(AFRL) & RIGB, USA); James L. Sidoran (Air Force Research Lab(AFRL) & RIGA, USA); Mohammad A. Rahman (Florida International University(FIU), USA)
1570726849	Player Assignment in MEC Gaming for Social Interactivity and Server Provisioning Optimization	Athanasios Tsipis and Konstantinos Oikonomou (Ionian University, Greece)

Session 6: Vehicular Network**Session Chair: Eirini Eleni Tsiropoulou**

University of New Mexico, USA

#	Title	Authors
1570731140	Virtual Resource Composition for Allocation Management in VCC Networks	Binal Tejani and Robson E. De Grande (Brock University, Canada)
1570733107	An Intelligent Transportation System Application Using Mobile Edge Computing	Thiago C Medeiros (Federal University of the State of Rio de Janeiro, Brazil); Elton Soares (IBM Research, Brazil); Carlos Alberto Vieira Campos (Federal University of the State of Rio de Janeiro, Brazil)
1570730936	Deep Reinforcement Learning for Content Caching Optimization in the Internet of Vehicles	Anas Knari (Mohammed VI Polytechnic University, Morocco); Mohammed-Amine Koulali (University Mohammed I & ENSAO, Morocco); Ahmed Khoumsi (University of Sherbrooke, Canada)

Session 6: Vehicular Network

1570731009	OQAM-FBMC Based Radar Sensing and Wireless Communication in V2V Context	Ammar Khaoula (SupCom / Tunisia, Tunisia)
1570733088	Smart City Data Platform for Real-Time Processing and Data Sharing	Gonçalo Vítor, Pedro Rito and Susana Sargento (Instituto de Telecomunicações, Universidade de Aveiro, Portugal)
1570734412	Machine Learning-Enabled Localization in 5G Using LIDAR and RSS Data	Hind Mukhtar and Melike Erol-Kantarci (University of Ottawa, Canada)

Session 7: Security: Threat Detection (1)**Session Chair: Stefano Chessa**

University of Pisa & CINI, Italy

#	Title	Authors
1570726339	BS-Net: A Behavior Sequence Network for Insider Threat Detection	Dali Zhu (Institute of Information Engineering, Chinese Academy of Sciences, China); Hongju Sun (Institution of Information Engineering, Chinese Academy of Sciences, China); Nan Li and Baoxin Mi (Institute of Information Engineering, Chinese Academy of Sciences, China); Tong Xi (Institute of Information Engineering, Chinese Academy of Sciences & School of Cyber Security, University of Chinese Academy of Sciences, China)
1570731787	DSQNet: Domain SeQuence Based Deep Neural Network for AGDs Detection	Wei Xiong (Institute of Computing Technology, CAS & University of Chinese Academy of Sciences, China); Haiyang Jiang (Insitute of Computing Technology, CAS, China); Hongtao Guan (Institute of Computing Technology, Chinese Academy of Sciences, China); Fengrui Liu (Institute of Computing Technology, Chinese Academy of Sciences & University of Chinese Academy of Sciences, China)
1570730907	ITDBERT: Temporal-Semantic Representation for Insider Threat Detection	Weiqing Huang (Institute of Information Engineering, Chinese Academy of Sciences, China); He Zhu (Institute of Information Engineering, Chinese Academy of Science, China); Ce Li (Institute of Information Engineering, Chinese Academy of Sciences, China); Qiujuan Lv (Institute of Information Engineering, Chinese Academy of Sciences, China); Yan Wang and Haitian Yang (Institute of Information Engineering, Chinese Academy of Sciences, China)

Session 7: Security: Threat Detection (1)		
1570720571	STRAD: Network Intrusion Detection Algorithm Based on Zero-Positive Learning in Real Complex Network Environment	Ying Zhong (Tsinghua University, China); Ziqi Gao (Beijing University of Posts and Telecommunications, China); Rui Li (Tianjin University, China); Citong Que and Xinjie Yang (Beijing University of Posts and Telecommunications, China); Zhiliang Wang, Jiahai Yang, Xia Yin and Xingang Shi (Tsinghua University, China); Keqin Li (State University of New York at New Paltz, USA)
1570727146	Scalability of Hash-Based Pattern Matching for High-Speed Network Security and Monitoring	Tomáš Fukač (Brno University of Technology, Czech Republic); Jan Korenek and Jiří Matoušek (Brno University of Technology & CESNET, Czech Republic)
1570731096	UTANSA: Static Approach for Multi-Language Malicious Web Scripts Detection	Weiqing Huang, Chenggang Jia and Min Yu (Institute of Information Engineering, Chinese Academy of Sciences, China); Gang Li (Deakin University, Australia); Chao Liu (Institute of Information Engineering, Chinese Academy of Sciences, China); Jianguo Jiang (Institute of Information Engineering, Chinese Academy of Sciences, China)

Session 8: Security: Threat Detection (2)		
Session Chair: Angeliki Sgora Ionian University, Greece		
#	Title	Authors
1570727156	EvilModel: Hiding Malware Inside of Neural Network Models	Zhi Wang (Institute of Information Engineering, CAS, China); Chaoge Liu (Chinese Academy of Sciences, China); Xiang Cui (Institute of Information Engineering, Chinese Academy of Sciences, China)
1570728883	GSketch: A Comprehensive Graph Analytic Approach for Masquerader Detection Based on File Access Graph	Jianguo Jiang (Institute of Information Engineering, Chinese Academy of Sciences, China); Xu Wang (Institute of Information Engineering, Chinese Academy of Sciences, China); Yan Wang (Institute of Information Engineering, Chinese Academy of Sciences, China); Qiuqian Lv (Institute of Information Engineering, Chinese Academy of Sciences, China); Meichen Liu (Institute of Information Engineering, Chinese Academy of Sciences, China); Tingting Wang (Institute of Information Engineering, Chinese Academy of Sciences, China); Leiqi Wang (University of Chinese Academy of Science & Institute of Information Engineering, Chinese Academy of Science, China)
1570730928	Taking a Peek: An Evaluation of Anomaly Detection Using System Calls for Containers	Gabriel Castanhel (Federal University of Paraná (UFPR), Brazil); Tiago Heinrich (UFPR, Brazil); Fabrício Ceschin (Federal University of Paraná (UFPR), Brazil); Carlos A Maziero (Federal University of Parana State - UFPR, Brazil)

Session 8: Security: Threat Detection (2)		
1570728916	Interpretable Deep Learning Method for Attack Detection Based on Spatial Domain Attention	Hongyu Liu and Bo Lang (State Key Lab of Software Development Environment, Beihang University, China); Shaojie Chen and Mengyang Yuan (State Key Laboratory of Software Development Environment, Beihang University, China)
1570726702	FA-Net: Attention-Based Fusion Network for Malware HTTPs Traffic Classification	Siqi Liu, Yanni Han, Yanjie Hu and Qian Tan (Institute of Information Engineering, Chinese Academy of Sciences, China)
1570724731	Security Analysis of DNS Open Resolvers by Continuous and Ambulatory Detection	Chaoqun Li, Qian Tan and Zhen Xu (Institute of Information Engineering, Chinese Academy of Sciences, China); Xi Luo (Cyberspace Institute of Advanced Technology, Guangzhou University, China); Liang Dai (Institute of Information Engineering, Chinese Academy of Sciences, China)

Session 9: Privacy		
Session Chair: Theodoros Karvounidis University of Piraeus, Greece		
#	Title	Authors
1570730872	Evaluating Resilience of Encrypted Traffic Classification Against Adversarial Evasion Attacks	Ramy Maarouf, Danish Sattar and Ashraf Matrawy (Carleton University, Canada)
1570726935	Proportional Representation to Increase Data Utility in k-Anonymous Tables	Fabien Viton (Université de Picardie - Jules Verne & Laboratoire MIS - UPJV, France); Clémence Mauger (Université de Picardie Jules Verne, France); Gilles Dequen, Jean-Luc Guérin and Gaël Le Mahec (Université de Picardie - Jules Verne, France)
1570726749	Differentially Privacy-Preserving Federated Learning Using Wasserstein Generative Adversarial Network	Yichen Wan, Youyang Qu, Longxiang Gao and Yong Xiang (Deakin University, Australia)
1570731007	Blind Faith: Privacy - Preserving Machine Learning Using Function Approximation	Tanveer Khan, Alexandros Bakas and Antonis Michalas (Tampere University, Finland)
1570726990	Tripod: Use Data Augmentation to Enhance Website Fingerprinting	Yixi Zhang, Xueliang Sun, Xiang Qin, Chaoran Li and Siwei Wang (Xiamen University, China); Yi Xie (Xiamen University & Information and Network Center, Xiamen University, China)
1570730073	Apriori-Roaring-Parallel: Frequent Pattern Mining Based on Compressed Bitmaps with OpenMP	Alexandre Colombo and Roberta Spolon (São Paulo State University, Brazil); Aleardo Manacero (São Paulo State University - UNESP, Brazil); Marcos Cavenaghi (Humber Institute of Technology and Advanced Learning, Canada); Renata Spolon Lobato (UNESP – São Paulo State University, Brazil)

Session 10: Data Science		
Session Chair: Tamoghna Ojha IIT-CNR, Italy		
#	Title	Authors
1570730093	An Effective and Efficient Method for Word-Level Textual Adversarial Attack	Zhixin Shi, Yuru Ma and Xiaoyan Yu (Institute of Information Engineering, Chinese Academy of Sciences, China)
1570730801	No News is an Island: Joint Heterogeneous Graph Network for News Classification	Zhezhou Kang (Chinese Academy of Sciences & Institute of Information Engineering, China); Yi Liu (Coordination Center of China, China); Guanqun Bi, Fang Fang and Pengfei Yin (Chinese Academy of Sciences, China)
1570726467	Adaptive Smooth L1 Loss: A Better Way to Regress Scene Texts with Extreme Aspect Ratios	Chao Liu (Institute of Information Engineering, Chinese Academy of Sciences, China); Shuai Yu, Min Yu, Baole Wei and Boquan Li (Institute of Information Engineering, Chinese Academy of Sciences, China); Gang Li (Deakin University, Australia); Weiqing Huang (Institute of Information Engineering, Chinese Academy of Sciences, China)
1570725263	Multi-Modal Fake News Detection on Social Media with Dual Attention Fusion Networks	Haitian Yang (Institute of Information Engineering, Chinese Academy of Sciences, China); Degang Sun (Chinese Academy of Sciences, China); Yan Wang (Institute of Information Engineering, Chinese Academy of Sciences, China); He Zhu (Institute of Information Engineering, Chinese Academy of Science, China); Weiqing Huang (Institute of Information Engineering, Chinese Academy of Sciences, China)
1570726997	Systematic Evaluation of Abnormal Detection Methods on Gas Well Sensor Data	Xichen Tang (Qingdao University of Technology, China); Jinlong Wang (Qingdao University of Technology, Australia); Ye Zhu and Robin Doss (Deakin University, Australia); Xin Han (Xi'an Shiyou University, China)

Session 11: Internet of Things (1)		
Session Chair: Nizar Zorba Qatar University, Qatar		
#	Title	Authors
1570730855	A Lightweight Certificateless Non-Interactive Authentication and Key Exchange Protocol for IoT Environments	Menghan Pan, Daojing He and Xuru Li (East China Normal University, China); Sammy Chan (City University of Hong Kong, Hong Kong); Emmanouil Panaousis (University of Greenwich, United Kingdom (Great Britain)); Yun Gao (East China Normal University, China)

Session 11: Internet of Things (1)		
1570727019	Dependable Reinforcement Learning via Timed Differential Dynamic Logic	Runhao Wang and Jing Liu (East China Normal University, China)
1570720849	A Model-Checking Static Analysis of Task-Based Energy Neutrality for Energy Harvesting IoT	Michele Albano (Aalborg University, Denmark); Stefano Chessa (Universita' di Pisa, Italy); Kim Larsen (CISS, Denmark)
1570730997	Multi Hop Reconfiguration of End-Devices in Heterogeneous Edge-IoT Mesh Networks	Lorenzo Carnevale, PhD, Armando Ruggeri, Francesco Martella, Antonio Celesti, Maria Fazio and Massimo Villari (University of Messina, Italy)
1570726407	SDN-Based Differentiated Traffic Flow Management for Industrial Internet of Things Environments	Franco Callegati (Universita` di Bologna, Italy); Aldo Campi (Stoorm5, Italy); Chiara Contoli (University of Bologna, Italy); Silvio Di Santi (CIRI ICT, Italy); Nicola Ghiselli (Università degli Studi di Ferrara, Italy); Carlo Giannelli (University of Ferrara, Italy); Alessandro Pernafrini and Riccardo Zamagna (Stoorm5, Italy)
1570733108	DoorCollect: Towards a Smart Door Handle for User Identification Based on a Data Collection System for Unsupervised Long-Term Experiments	Eric Klieme, Philipp Trenz and Daniel Paeschke (Hasso Plattner Institute, Germany); Christian Tietz (Senacor Technologies AG, Germany); Christoph Meinel (Hasso Plattner Institute, University of Potsdam, Germany)
1570730091	Reinforcement Learning-Based Anomaly Detection for Internet of Things Distributed Ledger Technology	Anastasios Bikos and Sathish Kumar (Cleveland State University, USA)
1570729028	TW-Fogginess: A Trustworthy IoT System Based on Mist and Fog Computing	Franklin Magalhães Ribeiro Junior (Federal University of ABC (UFABC), Brazil & Federal Institute of Maranhão (IFMA), Brazil); Carlos Kamienski (Universidade Federal do ABC, Brazil)
1570731124	Neural Architecture Search for Resource-Constrained Internet of Things Devices	Isadora Cardoso-Pereira (Universidade Federal de Minas Gerais, Brazil); Gisele Lobo-Pappa (UFMG, Brazil); Heitor S Ramos (Universidade Federal de Minas Gerais, Brazil)
1570731014	Identification of IoT Devices Based on Feature Vector Split	Ruizhong Du and Shuang Li (Hebei University, China)
1570731122	Towards Improving Fuzzer Efficiency for the MQTT Protocol	Luis Gustavo Araujo Rodriguez and Daniel M. Batista (University of Sao Paulo, Brazil)

Session 12: Internet of Things (2)**Session Chair: Emmanouil Panaousis**

University of Greenwich, UK

#	Title	Authors
1570733108	DoorCollect: Towards a Smart Door Handle for User Identification Based on a Data Collection System for Unsupervised Long-Term Experiments	Eric Klieme, Philipp Trenz and Daniel Paeschke (Hasso Plattner Institute, Germany); Christian Tietz (Senacor Technologies AG, Germany); Christoph Meinel (Hasso Plattner Institute, University of Potsdam, Germany)
1570730091	Reinforcement Learning-Based Anomaly Detection for Internet of Things Distributed Ledger Technology	Anastasios Bikos and Sathish Kumar (Cleveland State University, USA)
1570729028	TW-Fogginess: A Trustworthy IoT System Based on Mist and Fog Computing	Franklin Magalhães Ribeiro Junior (Federal University of ABC (UFABC), Brazil & Federal Institute of Maranhão (IFMA), Brazil); Carlos Kamienski (Universidade Federal do ABC, Brazil)
1570731124	Neural Architecture Search for Resource-Constrained Internet of Things Devices	Isadora Cardoso-Pereira (Universidade Federal de Minas Gerais, Brazil); Gisele Lobo-Pappa (UFMG, Brazil); Heitor S Ramos (Universidade Federal de Minas Gerais, Brazil)
1570731014	Identification of IoT Devices Based on Feature Vector Split	Ruizhong Du and Shuang Li (Hebei University, China)
1570731122	Towards Improving Fuzzer Efficiency for the MQTT Protocol	Luis Gustavo Araujo Rodriguez and Daniel M. Batista (University of Sao Paulo, Brazil)

Session 13: Software Defined and Authentication**Session Chair: Dimitrios Kallergis**

University of West Attica, Greece

#	Title	Authors
1570725462	firmVulSeeker: BERT and Siamese Based Vulnerability for Embedded Device Firmware Images	Yingchao Yu (Software Engineer, China)
1570731365	Virtual Network Function Placement Based on Differentiated Weight Graph Convolutional Neural Network and Maximal Weight Matching	Zeyuan Yang, Rentao Gu and Ji Yuefeng (Beijing University of Posts and Telecommunications, China)

Session 13: Software Defined and Authentication		
1570726968	Scalable QoS-Aware Multicast for SVC Streams in Software-Defined Networks	Jie Cui (School of Computer Science and Technology, Anhui University, China); Lingbiao Kong, Hong Zhong and Xiuwen Sun (Anhui University, China); Chengjie Gu (New H3C Group, China); Jianfeng Ma (Xidian University, China)
1570726875	eQUIC Gateway: Maximizing QUIC Throughput Using a Gateway Service Based on eBPF + XDP	Gustavo Pantuza (Universidade Federal de Minas Gerais, Brazil); Marcos A. M. Vieira (Federal University of Minas Gerais, Brazil); Luiz F. M. Vieira (Universidade Federal de Minas Gerais, Brazil)
1570729497	FKTAN: Fusion Keystroke Time-Textual Attention Networks for Continuous Authentication	Haitian Yang (Institute of Information Engineering, Chinese Academy of Sciences, China); Degang Sun (Chinese Academy of Sciences, China); Yan Wang (Institute of Information Engineering, Chinese Academy of Sciences, China); He Zhu and Ning Li (Institute of Information Engineering, Chinese Academy of Science, China); Weiqing Huang (Institute of Information Engineering, Chinese Academy of Sciences, China)
1570726520	Holder-Of-Key Threshold Access Token for Anonymous Data Resources	Micael Pedrosa and Rui Lebre (University of A Coruña & University of Aveiro, Portugal); Carlos Costa (University of Aveiro, Portugal)

Session 14: Wireless Networks (1)		
Session Chair: Tania Panayiotou University of Cyprus, Cyprus		
#	Title	Authors
1570733071	A Novel MLP Based on Compensation Method for the Effects of High Power Amplifier Nonlinearities in Non-Linear SCMA Systems	Imen Abidi (Sup'com, Tunisia)
1570724940	A Joint Optimization Approach for UAV-Enabled Collaborative Beamforming	Yanheng Liu, Tingting Zheng and Geng Sun (Jilin University, China); Jing Zhang (Changchun University of Science and Technology, China); Jiahui Li (Jilin University, China)
1570729558	Scheduling Optimization of Charging UAV in Wireless Rechargeable Sensor Networks	Yanheng Liu, Hongyang Pan, Geng Sun and Aimin Wang (Jilin University, China)
1570727249	Design of Frequency-Reconfigurable UWB Filtenna with Independently Controllable Two Rejected Bands	Moheddine Smari (Innov'Com Laboratory, Supcom, University of Carthage, Tunisia); Saber Dakhli (Innov'Com Laboratory, SUPCOM, University of Carthage Tunis, Tunisia); Fethi Choubani (Innov'Com Laboratory, SUPCOM, University of Carthage, Tunisia); Jean-marie Floch (IETR-INSA Rennes, France)

Session 14: Wireless Networks (1)

1570727007	A GSO Protected Area Calculation Model Based on Controllable NGSO System Parameters	Weiqing Huang (Institute of Information Engineering, Chinese Academy of Sciences, China); Yiqing Liu (Institute of Information Engineering&Chinese Academy of Sciences, China); Wen Wang (Institute of Information Engineering, Chinese Academy of Sciences, China); Jingru Geng (University of Chinese Academy of Sciences, China)
1570730198	A Chaos-Based Encryption Scheme for OFDM-IM Systems	Xiaohui Zhang, Shunliang Zhang and Zhuang Qiao (Institute of Information Engineering, Chinese Academy of Sciences, China)

Session 15: Wireless Networks (2)

Session Chair: Shiva Pokhrel
Deakin University, Australia

#	Title	Authors
1570727129	In-Network Data Aggregation for Information-Centric WSNs Using Unsupervised Machine Learning Techniques	Marcelo Eduardo Pellenz (PPGla - Pontifical Catholic University of Parana (PUCPR), Brazil); Rosana Lachowski (PUCPR, Brazil); Edgard Jamhour (PPGIA, Pontificia Universidade Catolica do Parana, Brazil); Glauber Brante (Federal University of Technology - Paraná (UTFPR), Brazil); Guilherme Luiz Moritz (Federal University of Technology - Parana, Brazil); Richard Demo Souza (Federal University of Santa Catarina, Brazil)
1570732503	Deep Quantile Regression for QoT Inference and Confident Decision Making	Tania Panayiotou (University of Cyprus & KIOS Research Center, Cyprus); Hafsa Maryam (KIOS Research and Innovation Center of Excellence, University of Cyprus, Cyprus); Georgios Ellinas (University of Cyprus, Cyprus)
1570729441	Min Hop and Foremost Paths in Interval Temporal Graphs	Anuj Jain (University of Florida & Adobe Systems Inc., USA); Sartaj Sahni (University of Florida, USA)
1570726181	Evaluating the L4S Architecture in Cellular Networks with a Programmable Switch	Bertrand Mathieu (Orange Labs, France); Stephane Tuffin (Orange Innovation, France)
1570726483	Identify What You are Doing: Smartphone Apps Fingerprinting on Cellular Network Traffic	Liuqun Zhai and Zhuang Qiao (Institute of Information Engineering, Chinese Academy of Sciences, China); Zhongfang Wang (School of Cyber Security, University of Chinese Academy of Science & Institute of Information Engineering, Chinese Academy of Sciences, China); Dong Wei (Chinese Academy of Sciences & Institute of Information Engineering, China)

Session 15: Wireless Networks (2)

1570730914	Evaluation of the Reduction of NDT in WSN with Asymmetric Schedule-Based Asynchronous Duty Cycle Mechanisms	André Saraiva (Universidade Federal Fluminense & Instituto de Computação, Brazil); Diego Passos and Celio Albuquerque (Universidade Federal Fluminense, Brazil)
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Session 16: Distributed Ledger (1)**Session Chair: Panayiotis Kotzanikolaou**

University of Piraeus, Greece

#	Title	Authors
1570730188	BAFL: An Efficient Blockchain-Based Asynchronous Federated Learning Framework	Chenhao Xu, Youyang Qu, Peter Eklund, Yong Xiang and Longxiang Gao (Deakin University, Australia)
1570726793	Connecting Self-Sovereign Identity with Federated and User-Centric Identities via SAML Integration	Hakan Yildiz (Technische Universität Berlin & SNET, Germany); Christopher Ritter, Lan Thao Nguyen, Berit Frech and Maria Mora Martinez (Technische Universität Berlin, Germany); Axel Küpper (TU Berlin, Germany)
1570731085	Secure and Efficient Allocation of Virtual Machines in Cloud Data Center	Xiaojie Tao (Institute of Information Engineering, Chinese Academy of Sciences & School of Cyber Security, University of Chinese Academy of Sciences, China); Liming Wang and Zhen Xu (Institute of Information Engineering, Chinese Academy of Sciences, China); Ru Xie (Institute of Information Engineering, Chinese Academy of Sciences & School of Cyber Security, University of Chinese Academy of Sciences, China)
1570731958	A Microservices and Blockchain Based One Time Password(MBB-OTP) Protocol for Security-Enhanced Authentication	Alessio Catalfamo, Armando Ruggeri, Antonio Celesti, Maria Fazio and Massimo Villari (University of Messina, Italy)
1570731312	A Self-Sovereign Decentralized Identity Platform Based on Blockchain	Ya Chen (Institute of Information Engineering, University of Chinese Academy of Sciences, China); Chao Liu (Institute of Information Engineering, Chinese Academy of Sciences, China); Yu Wang and Yazhe Wang (Institute of Information Engineering, Chinese Academy of Sciences, China)

Session 17: Distributed Ledger (2)**Session Chair: Thomas Dasaklis**

Hellenic Open University, Greece

#	Title	Authors
1570726614	Potential Risk Detection System of Hyperledger Fabric Smart Contract Based on Static Analysis	Penghui Lv (University of Chinese Academy of Sciences, China); Yu Wang, Yazhe Wang and Qihui Zhou (Institute of Information Engineering, Chinese Academy of Sciences, China)
1570729603	VoFSQ: An Efficient File-Sharing Interactive Verification Protocol	Shuai Su, Fangyuan Yuan, Yulin Yuan and Li Zeng (Institute of Information Engineering, Chinese Academy of Science & School of Cyber Security, University of Chinese Academy of Sciences, China); Chi Chen (Institute of Information Engineering & CAS, China)
1570731318	OverlapShard: Overlap-Based Sharding Mechanism	Yanan Liu (Peking University, China); Huiping Sun (Peking University & School of Software & Microelectronics, China); Xu Song and Zhong Chen (Peking University, China)
1570730956	BlockDL: Privacy-Preserving and Crowd-Sourced Deep Learning Through Blockchain	Shili Hu, Jiangfeng Li, Qinpei Zhao, Chenxi Zhang, Zijian Zhang and Yang Shi (Tongji University, China)
1570732591	The Cost of Immortality: A Time to Live for Smart Contracts	Dimitri Henri Saingre and Thomas Ledoux (IMT Atlantique, France); Jean-Marc Menaud (IMT-A & INRIA & LS2N, France)

Session 18: Applications (1)**Session Chair: Fabrice Theoleyre**

University of Strasbourg, France

#	Title	Authors
1570730977	Robust Human Activity Recognition System with Wi-Fi Using Handcraft Feature	Kang Yin and Chengpei Tang (Sun Yat-sen University, China); Xie Zhang (Sun Yat'sen University, China); Hele Yao (Shaoyang University, China)
1570711447	Cross-Language Plagiarism Detection Model Based on Multiple Features	Gang Liu, Yichao Dong and Guangxi Li (Harbin Engineering University, China)

Session 18: Applications (1)		
1570726951	A Motion-Based Seq-Bbox Matching Method for Video Object Detection	Min Li (Institute of Information Engineering, Chinese Academy of Sciences, China); Linghan Li and Ruwen Bai (School of Cyber Security, University of Chinese Academy of Sciences, China); Junxing Ren (Institute of Information Engineering, Chinese Academy of Sciences, China); Bo Meng (School of Optics and Electronics, Beijing Institute of Technology, China); Yang Yang (School of Cyber Security, University of Chinese Academy of Sciences, China)
1570727166	Multi-Scale Relation Network for Person Re-Identification	Yi Ma, Tian Bai, Wenyu Zhang, Jian Hu, Shuang Li and Mingzhe Lu (University of Science and Technology of China, China)
1570725056	Data Aggregation for Privacy Protection of Data Streams Between Autonomous IoT Networks	Renato Caminha Juaçaba, Neto (University of Strasbourg & ICube - Laboratoire des Sciences de L'ingénieur, de L'informatique et de L'imagerie, France); Pascal Mérindol (Université de Strasbourg, France); Fabrice Theoleyre (CNRS, France)
1570748509	A Cross-Layered Readahead Architecture for Multi-Tiered Storage Systems (POSTER/Short)	0

Session 19: Applications (2)		
Session Chair: Sarandis Mitropoulos Ionian University, Greece		
#	Title	Authors
1570729805	Deep Reinforcement Learning-Based Routing Optimization Algorithm for Edge Data Center	Zhao Jixin (Soochow University, China)
1570725617	DeepGAN: Generating Molecule for Drug Discovery Based on Generative Adversarial Network	Mengdi Xu, Jiandong Cheng, Yirong Liu and Wei Huang (University of Science and Technology of China, China)
1570726817	Improved Face Detector on Fisheye Images via Spherical-Domain Attention	Jingbo Miao (University of Chinese Academy of Sciences, China); Yanwei Liu (Institute of Information Engineering, Chinese Academy of Sciences, China); Jinxia Liu (Zhejiang Wanli University, China); Antonios Argyriou (University of Thessaly, Greece); Zhen Xu and Yanni Han (Institute of Information Engineering, Chinese Academy of Sciences, China)
1570730937	Research and Application of Reinforcement Learning Recommendation Method for Taobao	Lan Huang (Jilin University, China); Xiaofang Zhang (Jilin University & China, China); Yan Wang and Xuping Xie (Jilin University, China)

Session 19: Applications (2)		
1570725155	Reducing Communication Overhead of Federated Learning Through Clustering Analysis	Ahmed Abbas Mohsin Al-Saedi and Veselka Boeva (Blekinge Institute of Technology, Sweden); Emiliano Casalicchio (Sapienza University of Rome, Italy)
1570751201	A Museum Artefact Monitoring Testbed Using LoRaWAN (POSTER/Short)	0

Session 20: Applications (3)		
Session Chair: Theofanis Raptis National Research Council (CNR), Italy		
#	Title	Authors
1570725095	Mobile Augmented Reality for Craniotomy Planning	Marcel Alves and Daniel Oliveira Dantas (Universidade Federal de Sergipe, Brazil)
1570732999	Supporting Elderly People During Medical Emergencies: An Informal Caregiver-Based Approach	Yuanyuan Shen (Auckland University of Technology, New Zealand); Md Akbar Hossain and Sayan Kumar Ray (Manukau Institute of Technology, New Zealand)
1570732233	Hand Gesture Recognition Using CNN & Publication of World's Largest ASL Database	Ashwin Kannoth, Cungang Yang and Manuel Guanipa Larice (Ryerson University, Canada)
1570733023	An Effective Data Structure for Contact Sequence Temporal Graphs	Sanaz Gheibi, Tania Banerjee, Sanjay Ranka and Sartaj Sahni (University of Florida, USA)
1570732624	Lightweight Deep Learning Applications on AVX-512	André R Carneiro (Federal University of Rio Grande do Sul & LNCC, Brazil); Matheus da Silva Serpa (UFRGS, Brazil); Philippe O. A. Navaux (Federal University of Rio Grande do Sul & Informatic Institute, Brazil)

Session 21: Communications and Computing in a New World		
Face -to-Face Session		
Session Chair: Adel S. Elmaghraby University of Louisville, Louisville, KY 40292, USA		
#	Title	Authors
1570732322	Blockchain Address Transparency with DNS	Mara Caldeira (INESC-ID, Instituto Superior Técnico, Universidade de Lisboa, Portugal); Miguel Correia (INESC-ID & Instituto Superior Técnico, Portugal)

Session 21: Communications and Computing in a New World

Face -to-Face Session

1570726895	Short-Term Ambient Temperature Forecasting for Smart Heaters	Danilo Carastan-Santos (Federal University of Rio Grande do Sul, Brazil); Anderson Andrei Da Silva (University Grenoble-Alpes, France); Denis R. Trystram (Grenoble Institute of Technology, France); Alfredo Goldman (USP, Brazil); Angan Mitra (Qarnot Computing, France); Yanik Ngoko (Research Engineer, France); Clément Mommessin (University of Leeds, United Kingdom (Great Britain))
1570733090	Fair Delegation of Digital Services Without Third Parties	Andreas Guillot (University of Strasbourg, France); Fabrice Theoleyre (CNRS, France); Cristel Pelsser (University of Strasbourg, France)
1570726518	GPU-Accelerated Discrete Event Simulations: Towards Industry 4.0 Manufacturing	Moustafa Faheem (Queen's University Belfast, United Kingdom (Great Britain)); Adrian Murphy and Carlos Reaño (Queen's University Belfast, United Kingdom (Great Britain))
1570731114	On the Data Analysis of Participatory Air Pollution Monitoring Using Low-Cost Sensors	Mohamed Anis Fekih and Walid Bechkit (Univ Lyon, INSA Lyon, Inria, CITI, France); Herve Rivano (Inria & Université de Lyon, INRIA, INSA Lyon, CITI, France)
1570724456	DSM: Data Sharing Management System for In-Vehicle Communication	Hana Krichene (CEA, France); Paul Dubrulle (ALKALEE, France); Raphael Millet (CEA, France)