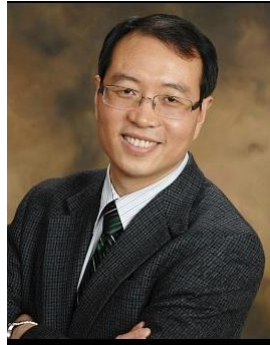


Message from the Workshop General Chairs



Welcome to the ICCCN 2019 Workshops! As an integral part of the main conference, the ICCCN workshop program provides international forums for scientists and engineers from both academia and industry to exchange and share their experiences, research results, and new ideas on hot and emerging topics on computer communications and networks. This year we enjoyed the great privilege to have worked with researchers across the world in organizing six workshops covering a variety of important, exciting and timely topics in the area of computer communications and networks. We received a good number of high quality papers. The acceptance ratio of workshop papers is 46%. These workshops are:

- 2nd International Workshop on Big Data and Machine Learning for Security (BDMLS 2019)
- 1st International Workshop on Smart City Communication and Networking (SmartCityCom 2019)
- 2nd International Workshop on Edge Computing and Networking (ECN 2019)
- 1st International Workshop on Vehicular Networks over Future Internet Architecture (VFIA 2019)
- 1st International Workshop on Social Media Sensing (SMS'19)
- 1st International Workshop on Edge of Things: Enabling Internet of Things Ecosystems through the Edge Computing (EoT 2019)

We would like to thank all the workshop organizers for their leadership and hard work in putting together these excellent workshops. Organizing a workshop is a great contribution to the research community and it requires tremendous effort. We want to thank all workshop committee members and external reviewers for the time dedicated to reviewing the submitted papers. We are also grateful to all authors and invited speakers for contributing their work to these workshops. Many thanks are due to ICCCN General Chair Dr. Raghu Ganti and Prof. Juan Carlos Cano, as well as the ICCCN Program Co-Chairs Prof. Carlos T. Calafate and Prof. Tian He for their support and help on numerous aspects of the workshops. Finally, we would like to thank the Steering Committee Chair, Dr. E. K. Park, for his vision and dedication to maintaining ICCCN as a premiere international conference in computer communications and networks.

ICCCN 2019 Workshop General Co-Chairs

Prof. Pietro Manzoni, Universitat Politècnica de València, Spain

Kewei Sha, University of Houston – Clear Lake, USA

2nd International Workshop on Edge Computing and Networking (ECN 2019)

Message from the Workshop Chairs

Following the success of its first edition in Hangzhou, China, the International Workshop on Edge Computing and Networking (ECN) is continuing this year with its second edition. ECN aims to bring together researchers and practitioners from both academia and industry who are working on novel edge computing and networking technologies as well as their integration, to exchange research ideas and identify new research challenges in this emerging field.

ECN focuses on all modeling, design, implementation, and measurement aspects of future edge computing and networking systems. This year, the workshop program features a keynote speech from Prof. Dr. Schahram Dustdar, TU Wien. As one of the pioneer researchers in the edge computing domain, Prof. Dustdar will share his experience in providing intelligence at the network edge. In addition, the program will include three technical sessions with a total of 8 paper presentations. We would like to thank all the authors, speakers, and attendees for their continued support. We look forward to meeting you at ECN 2019 in Valencia, Spain and hope you will enjoy your stay. We also look forward to your future contribution and participation in upcoming ECN workshops.

Paolo Casari, IMDEA Networks, Spain

Antonio Fernandez Anta, IMDEA Networks, Spain

Lin Wang, VU Amsterdam, Netherlands

ECN 2019 Workshop Chairs

2nd International Workshop on Big Data and Machine Learning for Security (BDMLS 2019)

Message from the Workshop Chairs

Welcome to Valencia, Spain and welcome to the 2st International Workshop on Big Data and Machine Learning for Security to be held on August 1, 2019.

With the development of the Internet, cyber security becomes more and more important. Facing the increasingly cyber-attack, the traditional methods to protect the information system are becoming lagging and powerless. Fortunately, artificial intelligence and big data offer a completely new and challenging opportunity to the security practitioners. Cyber security intelligence and analytics is among one of the fastest growing interdisciplinary fields of research bringing together researchers from different fields such as information security studies, criminology, cyber security, big data analytics, machine learning, etc. to detect, contain and mitigate advanced persistent threats and fight against malicious cyber activities.

The aim of Internet Workshop on Big Data and Machine Learning for Security (BDMLS) is to provide a platform to the researchers and practitioners from both academia as well as industry to meet and share knowledge and results in theory, methodology and applications of cyber security using big data and machine learning.

The success of BDMLS2019 is attributed to the dedication and hard work of many people. We would like to thank the organization team of ICCCN for providing exceptional events, workshops and keynote talks in addition to an outstanding collection of technical papers.

Xiaofeng Lu, Beijing University of Posts and Telecommunications, China

Baojiang Cui, Beijing University of Posts and Telecommunications, China

BDMLS 2019 Workshop Chairs

1st International Workshop on Smart City Communication and Networking (SmartCityCom 2019)

Message from the Workshop Chairs

Welcome to Valencia, Spain and welcome to the 1st International Workshop on Smart City Communication and Networking to be held on August 1, 2019.

Cities worldwide are entering an era, where residents and environments are tightly connected through intelligent technologies for the greater prosperity. In this paradigm, connectivity is the platform and foundation. Current communication and networking solutions cannot support the scalable, heterogeneous, interoperable, energy-efficient, error-free, high-speed, and intelligent connectivity for smart cities.

The 1st SmartCityCom workshop aims at bringing together researchers, developers, and practitioners to propose visions, insights and solutions to smart cities from the communication and networking perspectives. Our goal is to provide a venue for scholars to publish recent advances in next generation communications and networking systems, algorithms, theories, protocols, applications, experiments, and testbeds. We are very honored to serve this year as Program Chairs. We are also very proud of this year's program.

The success of SmartCityCom 2019 is attributed to the dedication and hard work of many people.

We would like to thank the organization team of ICCCN for providing exceptional events, workshops and keynote talks in addition to an outstanding collection of technical papers. In particular, we would like to thank the Organizing Committee Advisory Members Professor Rudra Dutta, Professor Admela Jukan, Professor George Rouskas, Professor Gong Zhang, Professor Xiaobo Zhou, and Professor E. k. Park, the Executive Chair Professor Tarek Abdelzaher, General Co-Chairs Dr. Raghu Ganti, and Professor Juan Carlos Cano, TPC Co-Chairs Professor Carlos Calafate, and Professor Tian He, Publicity Co-Chairs Professor Enrique Hernandez, and Professor Kang Chen, Publication Chair Professor Johann Marquez-Barja, Poster Chair Professor Kang Chen, Local Arrangement Chair Professor Jose Oliver, Sponsorship Chair Professor Giancarlo Tortino, and the Workshop General Chairs Professor Pietro Manzoni and Professor Kewei Sha.

We would also like to thank all authors for submitting their top quality papers, and to the SmartCityCom program committee members for their thorough evaluation and valuable comments. We hope you will enjoy the SmartCityCom technical program.

Shuhui Yang and Bisma Smida

Program Chairs, SmartCityCom 2019

1st International Workshop on Vehicular Networks over Future Internet Architecture (VFIA 2019)

Message from the Workshop Chairs

Welcome to the 1st International Workshop on Vehicular Networks over Future Internet Architecture (VFIA), which is taking place in conjunction with 28th International Conference on Computer Communications and Networks (ICCCN- 2019). VFIA will establish itself as a premium venue for the dissemination of novel and state-of-the-art technologies, broadly in the domain of networking, future internet and vehicular networks. Further, VFIA will provide an environment for exchanging novel technologies and research paths, not only from experts within academia, but also from industry.

In the first edition of VFIA, we have made our best possible measures to make it a successful and fruitful event. Due to high dedication of the organizing and TPC members, we have selected a set of high-quality papers for oral presentations, which are split into two technical sessions.

1) Session 1: VANET, FANET, and Information Centric Networking

2) Session 2: MANETs' management

The organizing committee of VFIA is very grateful to ICCCN, for possible arrangements of VFIA along with ICCCN. We also thank the authors who contributed towards VFIA, in order to make it as success. Finally, we wish you all a very pleasant stay in Valencia and hope you will find the VFIA 2019 a memorable experience.

Farhan Ahmad and **Chaker Abdelaziz Kerrache**

VFIA 2019 Workshop Chairs

1st International Workshop on Social Media Sensing (SMS'19)

Message from the Workshop Chairs

Welcome to SMS 2019 – the 1st International Workshop on Social Media Sensing, held in conjunction with the 28th International Conference on Computer Communications and Networks (ICCCN 2019) in Valencia, Spain, July 29 – August 1, 2019.

The workshop aims to foster a forum for academia, industry, and the research and development community to share their knowledge, exchange experiences and ideas, and discuss challenges and future research directions in the area of social media sensing.

In recent years, the checking of the preferred social media platform has become the first thing to do at wake-up time, and the last thing to do before falling asleep. With no doubts, social media revolutionized the content ecosystem and the behavior of millions of people: billions of users daily interact with social media platforms to communicate, collaborate and share information.

Not surprisingly, social media are being used to understand people's opinions and to measure citizens' feelings. Indeed, this knowledge represents a critical factor in strategic decision processes, as it may be helpful in identifying problems and strengthening strategies. However, the use of social media data to get insights about people and society is not trivial as the analysis embraces many different disciplines such as computer science, social engineering, psychology, semiotics, and economics.

SMS received a total of 21 submissions from 26 authors of 5 countries. Each paper was reviewed by at least three Program Committee members and evaluated according to the criteria of relevance, originality, technical soundness, maturity, and presentation quality. Decisions were made based on the review results. 9 papers out of the 21 submissions were accepted as full papers.

These papers are grouped in the following 2 technical sessions: i) Social Media and Public Health; ii) Social Media and Society.

We would like to thank all the authors for their submissions to SMS 2019, the TPC Chairs Manuela Montangelo and Catia Prandi, the Program Committee and the reviewers for their valuable time, the ICCCN Workshop chairs Kewei Sha and Pietro Manzoni for their support and advice throughout the workshop organization. We thank you for attending the workshop!

Marco Furini, University of Modena and Reggio Emilia, Italy

Silvia Mirri, University of Bologna, Italy

SMS 2019 Workshop Chairs

1st International Workshop on Edge of Things: Enabling Internet of Things Ecosystems through the Edge Computing (EoT 2019)

Message from the Workshop Chairs

The first edition of EoT – 2019 workshop has been held in Valencia, Spain from July 29 to August 1, 2019 in conjunction with the 28th International Conference on Computer Communications and Networks (ICCCN 2019). The Workshop aimed at collecting research papers from computer scientists who investigate the several topics under the Edge of Things (EoT) umbrella providing innovative research as well as technical contributions fostering the creation of a new value chain and an energized IoT ecosystem spanning from the network core to the edge.

The EoT 2019 workshop received 15 submissions from international authors. Each contribution has been reviewed at least by three experts of the fields belonging to the program committee or their strict collaborators. Only 7 high quality papers have been accepted for publication in proceedings. The accepted papers focus on relevant topics in the context of Edge of Things architectures and applications. This year's conference also featured two invited talks. Authors presented both theoretical and practical contributions. In many papers the technical presentation is complemented with evaluation activities supported by qualitative and quantitative analysis of experimental results, which have been collected in simulated environment or in real demonstrators.

The successful organization of EoT 2019 was possible thanks to the dedication and hard work of a number of individuals. Specifically, we would like to thank our steering and program committee and all the reviewers who provided valuable feedback to authors to improve their work.

The Workshop Chairs

Claudio Savaglio, University of Calabria, Italy

Salvatore Venticinque, University of Campania "Luigi Vanvitelli", Italy

Teemu Leppänen, University of Oulu, Finland

Atay Ozgovde, Galatasaray University, Turkey