

Welcome from the Chairs

Dear SPAWC 2018 Participants:

On behalf of the organizing committee, it is our pleasure to extend our warmest welcome to all of you to the 19th IEEE International Workshop on Signal Processing Advances in Wireless Communications (SPAWC) in Kalamata, Greece, June 25-28, 2018.

SPAWC, the flagship workshop of the Signal Processing for Wireless Communications and Networking Technical Committee (SPCOM-TC) of the IEEE Signal Processing Society, brings together researchers in signal processing, wireless communications, information theory, optimization and networking from both academia and industry, and provides them the opportunity to interact and exchange ideas in a relaxed setting.

This year we have several innovations. First, we selected themes on emerging research areas around which we have focused our technical program. SPAWC 2018 centers on: (i) machine learning and data analytics, (ii) secure & adversarial systems, (iii) biological communications and signal processing, and (iv) 5G and beyond. As such, we are able to immerse our attendees in these topics at varying degrees of detail. For each theme, we have a plenary talk as well as one invited poster session. We have an excellent set of plenary speakers and we thank them for their participation: Olgica Milenkovic, Rebecca Willett, Leandros Tassioulas, and Aaron Wagner. A second innovation for the SPAWC technical program is the introduction of oral thematic talks. Each of this year's four themes has three invited speakers who will provide additional depth to these emerging topics. The technical program also includes other invited as well as contributed poster sessions. We are also happy to announce two complimentary tutorials and we look forward to engaging tutorial presentations by Lajos Hanzo on quantum signal processing and communications, and Giuseppe Caire on caching in wireless networks.

Another innovative component of SPAWC 2018 is its featured industrial program, which is meant to explore the synergies between the workshop's thematic areas and the needs and upcoming opportunities of local and international industry, with focus on wireless and digital technologies. The industrial program will start with a keynote by Gregory Yovanof, Managing Director of the Strategis Maritime Center of Excellence of Greece, on the role of digital technologies-based innovation for the shipping sector, which is currently undergoing a rapid technological transformation. An industrial panel consisting of leading technology experts representing major industrial players and academic innovation centers will follow, who will discuss the role of signal processing and communication techniques in the shaping of next generation networks. An outreach component to the Kalamata public has also been added, via a special talk, delivered by Engineering Professor and Philosopher Theodosios Tassios on the topic Technology in Ancient Greece.

This year's SPAWC will also feature a conference exhibition, consisting of a number of wireless testbed-based demos. The demos are contributed by academic / industrial research teams and are intended to showcase some advanced / emerging wireless technologies and components related to the workshop's themes.

In terms of statistics, SPAWC 2018 received a record number of 281 paper submissions and, at print time, has more than 250 registered attendees. Of the 50 papers which were eligible for the student paper award, six students were selected as finalists. We would like to acknowledge the many people who contributed to the success of the program. In particular,

we would like to thank the 62 members of the technical program committee as well as the numerous ad hoc reviewers for their thoughtful reviews, our plenary speakers, our thematic speakers, our tutorial speakers, our special session organizers, and all the authors who selected SPAWC 2018 for presentation of their research work. With acceptance rate of 54% for the contributed papers, we are very pleased with the quality of the technical program.

We are also grateful for the work the organizing committee members put in, especially TPC co-chairs, Urbashi Mitra and Waheed Bajwa, special session chair, Rick Brown, plenaries chair, Qing Zhao, tutorials chair, Ioannis Krikidis, publicity chair, Eleftherios Kofidis, publications chair, Angeliki Alexiou, student program and travel grants chair, Piya Pal, and industry liaisons co-chairs, Marios Kountouris and Yupeng Liu. We would also like to acknowledge the help of IEEE staff Nicole Allen, and Albina Gegaj of Triaena.

We are also indebted to our sponsors for their important contributions which made the featured program possible, in particular, the National Science Foundation and Huawei, SPAWC's Gold sponsors, and our Silver sponsors Nokia, Intralot and Navarino. We also thank local businesses Agrovim, Epikouros, Papadimitriou, Inomessiniaki Winery, AFAN Greektomato and Callicounis Distilleries for sponsoring gifts for the SPAWC attendees. Special thanks are also due to the Municipality of Kalamata for its in kind contribution to the Welcome reception.

Kalamata, a city with rich history and abundant natural beauty aspires to become the backdrop for an unforgettable SPAWC experience, full of scientific treasures and human connections. We hope that you will take the opportunity to explore the city and surrounding areas.

Several locals were very excited about this conference and contributed to its success by connecting us with the right people. We are grateful to them, in particular, to Mr. Nikos Zervis, Dr. Haralampia Boleti, Mr. Konstantinos A. Petropoulos, and Kalamata Mayor Panagiotis Nikas and his office staff. We are very excited to welcome you in Kalamata and wish you a memorable workshop!

Athina Petropulu and Constantinos B. Papadias

General Co-Chairs