Guest Editors' Foreword Special Section on the 4th IEEE International Workshop on Measurements and Networking (M&N) 2017

Naples, Italy, September 27–29, 2017

THE Measurements and Networking (M&N) Workshop has become a biennial privileged forum for the discussion of current and emerging trends on measurements, communications, computer science, wireless systems, and sensor networks, fostering a close and fruitful contact between researchers and practitioners from both academia and industry to debate the role of both measurements for networking and networking for measurements.

The 4th edition of M&N was held in the new San Giovanni University Complex, located in the east area of the city of Naples, and mainly promoted by the innovative Center of Advanced Measurement and Technology Services—CeSMA—of the University of Naples "Federico II," Naples, Italy, hosted in the same complex, by the IEEE IM Italy Chapter and by the IEEE IMS TC-37 M&N. Previous editions of the workshop were held in Coimbra, Portugal, (M&N 2015), Naples, Italy, (M&N 2013), and Capri Island, Italy, (M&N 2011). From the first edition until now, the conference has grown in terms of the number of participants, topics, and scientific sectors involved.

Fifty-two papers were presented in the three-day meeting organized in oral and poster sessions. The technical program has been organized in a single track and has included three special sessions, two oral sessions, two keynotes, and a wide poster session including several topics of interest.

The accepted papers covered a variety of topics, all in the context of measurements for networking and networking for measurements—from distributed measurement systems to wireless sensors network modeling and performance assessment; from synchronization issues to characterization of network equipment; from indoor positioning to antenna characterization and measurements; and from traffic analysis and monitoring to anomaly and intrusion detection. Moreover, a number of papers focused on emerging measurement needs for 5G have been presented.

Three kinds of awards were assigned:

1) Best Paper Award;
2) Best Paper (Young Authors)—authored and presented by a researcher younger than 35 years of age;
3) Best Poster Award.

Professional and challenging discussions animated the Workshop, thus stimulating the authors to extend their papers and to submit technically extended versions for this Special Issue (SI).

After a careful review process of manuscript technically extended beyond the scope of the papers that appeared in the Workshop proceedings, five of them passed the review process in time and qualified for inclusion in this SI.

The variety of selected papers reflects the efforts made by all authors to focus on methodological aspects as well as on technical issues in several fields of M&N. In particular, the published papers deal with the use of sensor networks for several kinds of applications as Unmanned Aerial Vehicle and innovative environmental filtering systems, measurements for optimizing antenna configurations in modern cellular systems, effective methods for estimating software resource usage, effective estimations of magnetic dipole for positioning, and localization in very small-scale applications.

They follow the tradition of the IEEE TRANSACTIONS ON INSTRUMENTATION AND MEASUREMENT (TIM) to publish high-quality papers in the scientific domains of sensor networks, communication networks, and telecommunication systems by considering a methodological measurement approach.

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