Message from the SMC-IT 2017 General Chair

The 6th IEEE International Conference on Space Mission Challenges for Information Technology (SMC-IT 2017) convenes on September 27-29, 2017, at a new venue on the campus of Universidad de Alcalá, Spain. It will be the first time to leave the American territory to be held in the city of Cervantes. For 3 days, experts in different fields of science and space technology will present and discuss their recent research, with distinguished experts from the major space agencies (NASA and ESA) as well as leading companies and universities in the sector. This forum provides the opportunity for system designers, engineers, scientists, practitioners, and space explorers to foster technical interchange on all hardware and software aspects of IT applications in space missions. Topics such as advances in robotic exploration, autonomy in space missions or how to apply machine learning techniques to analyze the data received from current missions will be presented.

Since inception, SMC-IT has focused on current IT practices and challenges as well as emerging information technologies with applicability for future space missions. IT in all aspects of the space mission are explored, especially those of a cross-cutting multi-disciplinary nature – one of the distinguishing characteristics that sets SMC-IT apart from other domain specific conferences. This includes ground systems, science data processing, software engineering and reliable software, virtual and augmented reality, engineering and development tools, modeling and simulation methods, human and robotic systems interfaces, high performance computing, autonomous systems, image processing and visualization, operations, and telecommunications. The entire IT lifecycle of mission development is covered, including conceptual design, engineering tools development, integration and test, operations, science analysis, quality control, and outreach.

SMC-IT 2017 continues the tradition of combining the best of both worlds: one part of the conference provides a forum for disseminating the results from peer reviewed papers that are published in the conference proceedings, and the other part of the conference is comprised of interactive Mini-Workshops that include presentations and lively interactions with conference participants. Most of these are special one day tracks organized by individual chairs that explore a specific technical theme in great detail. At the time we are going to press with the conference proceedings, we have eight such workshops in various stages of preparation covering a wide range of technical topics.

SMC-IT 2017 continues under the sponsorship of the IEEE Computer Society. We would like to acknowledge their support and helpful advice throughout the conference planning process.

Conferences like this require a lot of planning and hard work. In particular, we would like to offer our thanks and acknowledge the endless hours of work contributed by the committee members, and especially the authors and presenters, who form the backbone of the meeting. We also would like to acknowledge the support of Universidad de Alcalá for providing local arrangements for SMC-IT 2017.

We hope that you enjoy SMC-IT 2017 and return to future installations of the conference series.

Maria D. R-Moreno
SMC-IT 2017 General Chair