Preface

The Spanish Thematic Network on Speech Technology (RTTH) and the International Speech Communication Association (ISCA) Special Interest Group on Iberian Languages (SIG-IL) are pleased to present a selection of papers from the IberSPEECH 2016 conference—*IX Jornadas en Tecnologías del Habla* and the V Iberian SLTech Workshop—that was held in Lisbon, Portugal, during November 23–25 2016.

The IberSPEECH series of conferences have become one of the most relevant scientific events for the community working in the field of speech and language processing of Iberian languages. This is demonstrated by the increased interest and success of previous editions, starting in Vigo 2010 with FALA and continuing in Madrid 2012 and Las Palmas de Gran Canaria 2014 with the new denomination: IberSPEECH. Prior to these past joint editions of the *Jornadas en Tecnologías del Habla* and the Iberian SLTech Workshop, separate events were held. The former ones have been organized by the RTTH (http://www.rthabla.es) since 2000. This network was created in 1999 and currently includes over 200 researchers and 30 research groups in speech technology all over Spain. The latter (Iberian SLTech) have been organized by the SIG-IL (http://www.il-sig.org/) of the ISCA since 2009. Overall, these events have attracted the attention of many researchers over the years, mainly from Spain, Portugal, and from other Iberian-speaking countries in Latin America, but also from several other research groups from all around the world. These previous efforts have contributed to the consolidation of a strong and active community addressing the problems of speech and language automatic processing of Iberian languages.

The IberSPEECH 2016 conference –the third of its kind using this name– brought together the *IX Jornadas en Tecnologías del Habla* and the V Iberian SLTech Workshop events, and it was co-organized by INESC-ID Lisboa, the RTTH, and the ISCA SIG-IL. Maintaining the identity of previous editions, this new event represented not only a step forward for the support of researchers in Iberian languages, but also a new challenge for the community, since it was the first edition to be held outside Spain. In order to promote interaction and discussion among all the members of the community, the Organizing Committee planned a three-day event with a wide variety of activities, such as technical paper presentations, keynote lectures, evaluation challenges, presentation of demos and research projects, and recent PhD thesis.

This *Lecture Notes in Artificial Intelligence* volume contains only a selection of the full regular articles presented during the IberSPEECH 2016 conference. To ensure the quality of all the contributions, each submitted article was reviewed by three members of the Scientific Review Committee, who provided feedback to improve the final article version, in addition to acceptance/rejection recommendations for the Technical Program Committee. Authors of the accepted papers had time to address the comments before submitting the camera-ready versions. We had 48 regular full papers submitted and only 27 of them were selected for publication in this volume. This selection was

based on the scores and comments provided by our Scientific Review Committee, which includes over 66 researchers from different institutions mainly from Spain, Portugal, and Latin America, but also from France, Germany, Hungary, Italy, Norway, Sweden, UK, and the USA, to whom we also would like to express our deepest gratitude. The selected articles in this volume are organized into four different topics:

- Speech Production, Analysis, Coding and Synthesis
- Automatic Speech Recognition
- Paralinguistic Speaker Trait Characterization
- Speech and Language Technologies in Different Application Fields

The Organizing Committee of IberSPEECH is extremely proud of the contents of this volume. We trust that we have achieved and delivered the scientific quality standards that the researchers in the field of speech and language technologies for Iberian languages value.

As mentioned previously, besides the excellent research articles included in this volume, the conference included a wide variety of scientific activities that are worth mentioning in more detail, particularly, the ALBAYZIN Technology Competitive Evaluations, the Special Session contributions, and the keynote lectures.

The ALBAYZIN Technology Competitive Evaluations have been organized alongside the conference since 2006, promoting the fair and transparent comparison of technology in different fields related to speech and language technology. In this edition we had two different challenge evaluations: Speaker Diarization and Search on Speech. The organization of each one of these evaluations requires the preparation of development and test data, which is released along with a clear set of rules to the participants, and gathering and comparing results from participants. This organization was carried out by different groups of researchers with the support of the ALBAYZIN Committee. Although article contributions and results from the evaluations are not included in this volume, we would like to express our gratitude to the organizers and also to the participants of these evaluation challenges.

In addition to full articles, a subset of which are represented here, and to system description papers of the ALBAYZIN participants, Special Session papers were also included in the conference program. These were intended to describe either progress in current or recent research and development projects, demonstration systems, or PhD Thesis extended abstracts to compete in the PhD Award.

Moreover, we had the pleasure of hosting three extraordinary keynote speakers: Prof. Elmar Nöth (University of Erlangen-Nuremberg, Germany), Dr. Bhuvana Ramabhadran (IBM T.J. Watson Research Center, USA) and Prof. Steve Renals (University of Edinburgh, UK). We would like to acknowledge their extremely valuable participation that helped to elevate the quality of the overall event.

Finally, we would like to thank all those whose effort made possible this conference, including the members of the Organizing Committee, the Local Organizing Committee, the ALBAYZIN Committee, the Scientific Reviewer Committee, the authors, the conference attendees, the supporting institutions, and so many people who gave their

best to achieve a successful conference. We would also like to thank Springer for the possibility of publishing another volume of selected papers from an IberSPEECH conference.

November 2016   Alberto Abad
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