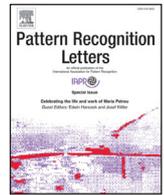




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Editorial for special section at Pattern Recognition Letters - IbPRIA 2019



Now in its 9th edition, IbPRIA has become a key research event in pattern recognition and image analysis in the Iberian Peninsula organized by the national IAPR associations for pattern recognition in Spain (AERFAI) and Portugal (APRP). Most of the research presented during the event, therefore, came from authors from Spain and Portugal.

Out of the 401 authors who published in IbPRIA 2019, 29% were from Spain and 20% were from Portugal. More than 50% of the authors were from another 32 countries from all around the world, with high representation from countries like: Algeria, Brazil, Colombia, India, Italy, or Mexico. Our efforts to strengthen the bonds between the research conducted in the Iberian Peninsula and other countries was patent in the program, which emphasized interactive poster sessions, and included a special session dedicated to international research cooperation.

IbPRIA 2019 received 137 submissions. The review process for IbPRIA 2019 was diligent and required careful consideration of more than 400 reviews from 100 reviewers who spent significant time and effort in reviewing the papers. In the end 99 papers were accepted, which is a 72% of acceptance. To form the final program 30 papers were selected for oral presentations (22% acceptance rate) and 69 as poster presentations. The program consisted of 7 oral sessions on the following topics: machine learning, image representation, image processing, biometrics, and document analysis. Three poster sessions included papers on all previous topics and also on the most important applications of nowadays technologies.

On the other hand, we are witnessing a deep transformation in our field, now increasingly dominated by advances occurring in the industry. We also tried to integrate IbPRIA in this vortex by including in the program a number of panel discussions with world research leaders from companies like Google, Microsoft, Telefonica, Vodafone, and Accenture.

Among all the 137 submissions, only two works were awarded: (1) the IAPR Best Student Paper Award and (2) the IAPR Best Paper Award. We hope that this Special Section including improved versions of these two awarded works will result in a fruitful section for the pattern recognition research community. Finally, we would like to thank all who made IbPRIA 2019 possible, especially the authors, the reviewers, and the IbPRIA community at large.

This special Section is composed by the following two works:

- (1) Iago Suarez, Ghesn Sfeir, Jose M. Buenaposada, Luis Baumela, "BEBLID: Boosted Efficient Binary Local Image Descriptor"

This work presents a new binary local image descriptor whose accuracy is close to SIFT and has a computational efficiency better than

ORB. It is suitable to be used with computationally limited devices, such as mobile phones or drones. This work received the IbPRIA 2019 Best Student Paper Award.

- (2) Isabel Rio-Torto, Kelwin Fernandes, Luis F. Teixeira, "Understanding the Decisions of CNNs: An In-model Approach"

This work introduces a new method to train a CNN that outputs simultaneously a class label and a visual explanation for the input image, in contrast to state-of-the-art methods that relegate explanation to a post-processing step. This work received the IbPRIA 2019 Best Paper Award.

Guest editors

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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