

## Conference Report on 2019 IEEE International Conference on Fuzzy Systems (FUZZ-IEEE 2019)

**T**he IEEE International Conference on Fuzzy Systems (FUZZ-IEEE 2019) is the leading conference in the field of fuzzy systems. This year marked the 28th edition of this important conference, and this year's FUZZ-IEEE received important financial sponsorship from the University of Missouri: College of Engineering, Electrical Engineering and Computer Science Department, the Center for Geospatial Intelligence, and the Center for Eldercare and Rehabilitation Technology; the College of Computing at Michigan Technology University; and from the Lab for Uncertainty in Data and Decision Making at the University of Nottingham. The meeting was held at the JW Marriott in vibrant New Orleans, LA, from June 23–26, 2019. **Laissez les Bons Temps Rouler!**

This year's technical program was rich and varied, with a special 2018 IEEE Frank Rosenblatt Award Keynote, given by the esteemed Dr. Enrique Ruspini, 3 plenary talks, and 4 invited presentations. The conference was packed with opportunities for networking and technical exchange. There was a full slate of tutorials on Sunday, followed by three days of hard-hitting parallel sessions and a plenary poster session that also included a new experiment with Late Breaking Research entries. There was a morning long session devoted to a competition for human and smart machine co-learning on the game of Go. Another novel aspect at FUZZ-IEEE this year



**FIGURE 1** Part of the conference swag. Hint: this is not a USB drive.



**FIGURE 2** Enrique Ruspini receiving the 2018 IEEE Frank Rosenblatt Medal from IEEE Past President, Jim Jefferies.

was a formal program that matched young authors with mentors to help them continue down a path toward their goals. Thanks to Christian Wagner for running this event and to the CIS and the University of Nottingham's LUCID Center for sponsoring—it was a fun and inspiring time for both the mentors and mentees and we hope that these types of events live on in future conferences.

### Some Conference Details

We accepted 249 papers to the conference from a pool of 333 submissions resulting in a 74.8% acceptance rate. Of the accepted papers, 120 were scheduled to be presented in oral sessions, 15 in poster presentations, and the remaining in oral special sessions. This year we also introduced the ability to submit “Late Breaking Research” abstracts. There were 13 late breaking research posters presented during the poster session alongside the standard poster submissions. In addition, we had seven tutorials spanning a range of topics. Our highlighted Rosenblatt Medal Winner Presentation and plenary talks this year were:

- ❑ Rosenblatt Medal Winner's Presentation: Similarity and Fuzzy Logic in Cluster Analysis, Speaker: Enrique Ruspini
- ❑ Plenary Talk: Data Explainability Through Linguistic Expression of Extracted Knowledge, Speaker: Marie-Jeanne Lesot
- ❑ Plenary Talk: Fuzzy Rule-Based Classifier Design: Accuracy, Interpretability and Explanation Ability, Speaker: Hisao Ishibuchi
- ❑ Plenary Talk: Explorations in BIG Data and sMall Data with a Fuzzy Perspective, Speaker: Lawrence Hall

We also had four invited presentations:

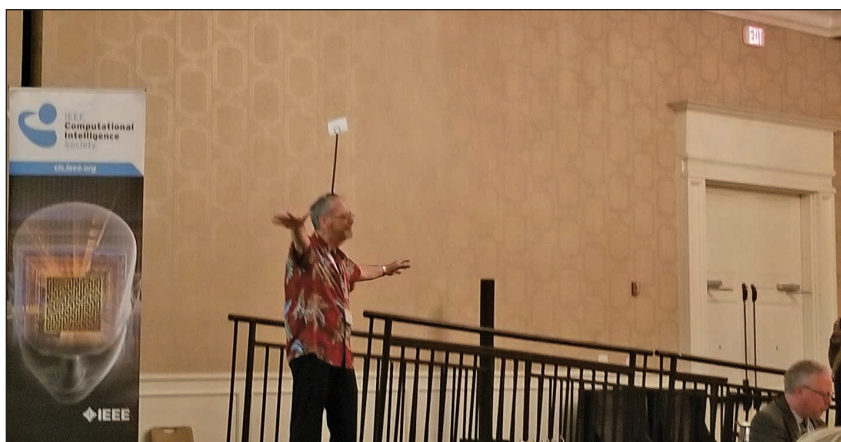
- ❑ Learning Control and Knowledge Transfer Between Aerial Robots for Improved Accuracy in Trajectory Tracking, Speaker: Erdal Kaycan
- ❑ Do Fuzzy Sets Matter? An Interdisciplinary Point of View, Speaker: Christian Wagner



**FIGURE 3** Tim jamming with the New Orleans Jazz group at the banquet.



**FIGURE 4** Conference Program Co-Chairs, Alina Zare and Derek Anderson giving Daniel Sanchez the award for Best Paper.



**FIGURE 5** Jim “entertaining” the crowd during a break in the action at the banquet. Seems fitting, the picture is a little fuzzy.







**FIGURE 8** What would an event in New Orleans be without a “traveling” New Orleans Brass Band. They led the banquet attendees out at the end.



Technological University, and the University of Nottingham for their important sponsorship. Finally, we are pleased that the One World Alliance signed on to be the official travel partner for FUZZ-IEEE.

We believe that everyone had an inspiring experience at FUZZ-IEEE 2019, and that all our attendees and their friends had a great time in the Big Easy. Laissez les bon temps rouler!

Let’s all meet for the next successful edition of FUZZ-IEEE as part of WCCI 2020 in Glasgow, Scotland.

## *President’s Message* (continued from page 3)

Magazine. I am also extremely grateful to the general chairs, program chairs and other members of conference organizing committees who undertake the responsibility of hosting their colleagues with high-level quality scientific programs and enjoyable social gatherings. Conferences enable us to get together at least once a year. Please join one of the ten congresses and conferences sponsored by the IEEE CIS in 2020. In particular, I will be happy to see you in Glasgow, UK, for IEEE WCCI 2020, July 19–24 ([wcci2020.org](http://wcci2020.org)) and in Canberra, Australia, for IEEE SSCI 2020, December 1–4 ([ieeessci2020.org](http://ieeessci2020.org)).

Of all aspects of living together in the Computational Intelligence community, I would like to focus on two of the most important ones to me: the place of women and the emergence of young generations, the two being intertwined. Since the inception of the Women in Computational Intelligence Committee in 2004, the IEEE CIS has constantly promoted the right of its women members to have the same opportunities as men in their scientific life and in the Society life. We strive to

build diverse committees and editorial boards, and aim to put forth candidate lists that are representative in terms of gender. To increase the number of women in the IEEE CIS, it is important to have more girls attracted to the topics we work on. All efforts will be done to develop innovative summer schools or activities along the year for high school students, in order to make Computational Intelligence appealing to both girls and boys and to make them aware of the involvement of Computational Intelligence in all aspects of our modern life, including the most sophisticated.

Relations with industry are also among my priorities, as they achieve several of the goals I discussed above. They contribute to show that Computational Intelligence is at the core of many industrial artificial intelligence successes. They attract the young generation, excited by modern real-world applications. They propose challenges to researchers who have to cope with the complexity of the real world, the size and the speed of digital data, the necessary security and ethics of devices and communications, and the request of sustainable development, to cite

but a few of the issues in Computational Intelligence applications. A convincing way to prove the quality of our research is to show its success in real-world applications, such as aerospace engineering, robots, biomedical engineering, eldercare or brain-computer interfaces, for instance. The IEEE CIS technical challenge on fraud detection, organized last year, was a spectacular proof of the interest of researchers for industrial challenges. It will be my great pleasure to see a new CIS industry-focused conference launched next year, please stay tuned!

I will be remotely present for all of you during the next two years. Do not hesitate to share with me any real-world realization or success story, any original initiative for kids or, more generally, for education, any successful activity of your chapter, any action to improve women’s involvement in the CIS activities. I strongly believe that, by sharing our experiences, we can all together make the CIS even more responsive to its members’ needs and wishes. Feel free to send me any suggestion or question at [b.bouchon-meunier@ieee.org](mailto:b.bouchon-meunier@ieee.org).

