Advances in artificial intelligence (AI) and signal processing are driving the growth of the AI market as improved appropriate technologies is critical to offer enhanced drones, self-driving cars, robotics, etc. Two major factors enabling market growth are emerging AI technologies and growth in intelligent signal processing. Today, more and more sensor manufacturers are using machine learning to sensors and signal data for analyses.

AI market growth is driven by increasing adoption of cloud-based applications and services growing big data increasing demand for intelligent virtual assistants advances in signal processing. The major restraint for such market is the limited number of AI technology experts.

The series of ASPAI conferences have been launched to fill-in this gap and provide a forum for open discussion and development of emerging artificial intelligence and appropriate signal processing technologies focused on real-word implementations by offering Hardware, Software, Services, Technology (Machine Learning, Natural Language Processing, Context-Aware Computing, Computer Vision and Signal Processing). The 1st ASPAI conference has taken place in Barcelona (Spain) in 2019. The ASPAI' 2020 conference is organized by IFSA with the media partners IOS Press and World Scientific.

The topics of interest include (but not limited):

### Artificial Intelligence:

- AI Algorithms
- Intelligent System Architectures
- Hybrid Intelligent Systems
- Artificial Neural Networks
- Expert Systems
- Intelligent Networks
- Parallel Processing
- Pattern Recognition
- Pervasive Computing and Ambient Intelligence
- Programming Languages Artificial Intelligence
- Soft Computing and Applications
- Artificial Intelligence Tools & Applications
- CAD Design & Testing
- Computer Vision and Speech Recognition
- Fuzzy Logic, Systems and learning
- Computational Theories, Learning and Intelligence
- Computational Neuroscience
- Soft Computing Theory and Applications
- Software & Hardware Architectures
- Web Intelligence Applications & Search
- Ambient Intelligence
- Artificial Immune Systems
- Autonomous and Ubiquitous Computing
- Bayesian Models and networks
- Data Fusion
- Distributed AI
- Machine Learning
- Deep Learning
- Learning and Adaptive Sensor Fusion
- Multisensor Data Fusion Based on Neural and Fuzzy Techniques
- Applied Artificial Intelligence
- Self-Organising Networks
- Virtual and Augmented Reality
- Emotion Detection

### Signal Processing:

- Signal Processing Theory and Methods
- Sensor Array and Multichannel Signal Processing
- Multivariable Sensor Systems
- Digital Signal Processing
- Image and Video Processing
- Multichannel Signal Processing
- Biomedical Signal Processing
- Biometrics
- Chaotic and Fractal Systems
- Computer Vision and Pattern Recognition
- Image and Video Processing
- Information Theory and Coding
- Speech Signal Processing
- Signal Processing for Communications and Networking
- Radar and Sonar Signal Processing
- Satellite Signal Processing
- Nonlinear Signal Processing
- Statistical Signal Processing
- Signal Processing for Internet of Things
- Coding
- Wavelet Transformation
- Theory and Application of Filtering
- Spectral Analyze
- Multidimensional Signal Processing

### Deadlines:

- Submission (2-page abstract): 15 January 2020
- Notification of acceptance: 5 February 2020
- Registration: 25 February 2020
- Camera ready (4-6 pages paper): 1 March 2020
The Gala Dinner will take place on Berlin comfort and elegant modern river cruise boat MS 'Brazil', to enjoy the river Spree. We will have a truly unique evening (a culinary and cultural trip all in one) in the beautiful German capital - Berlin. It will be a treat for the eyes and stomach. You'll discover the enchantingly lit waters of Berlin by night as you savor the flavors of a hearty, gourmet dinner. Over the Gala Dinner, the cruise boat takes you to all the top spots like the Bellevue Castle, House of World Cultures, Government district, Friedrichstraße, Museum Island, Berlin Cathedral, Nikolai quarter, turn in front of the Mühlendammlock and back to Gotzkowsky bridge, further to Charlottenburg Castle - turn and back to Gotzkowsky bridge.

One event - three publications!

1. All registered abstracts will be published in the conference proceedings (Flash drive edition of published Proceedings with the ISBN).
2. Authors will be invited to submit full-page extended papers to one of special journals' issues, which are published in both formats: print and electronic:
   - Sensors & Transducers (ISSN 2306-8515, e-ISSN 1726-5479) by IFSA Publishing
   - Integrated Computer-Aided Engineering (ISSN: 1069-2509, e-ISSN: 1875-8835) by IOS Press
   - International Journal of Neural Systems (ISSN: 0129-0657, e-ISSN: 1793-6462) by World Scientific
3. The limited number of full-page papers published in the Sensors & Transducers journal will be selected by the Editorial Board to extend for open access books' chapters for the Book Series on 'Advances in Signal Processing: Reviews', Vol. 2 or 'Advances in Artificial Intelligence: Reviews', Vol. 2, which will be published by IFSA Publishing in 2020/2021.

Special Sessions:

Emerging Trends in Machine Learning and Deep Learning Techniques, Session Chairman: Prof. Sandeep Singh Sengar (SRM University, AP - Amaravati, India)

Knowledge-based Systems throw Intelligent Measurements, Session Chairman: Prof. Svetlana V. Prokopchina (Financial University, Moscow, Russia)

Chairman:
Prof., Dr. Sergey Y. Yurish (IFSA, Spain)
e-mail: aspai_2019@sensorsportal.com

Advisory Chairman:
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Gala Dinner and Social Programme

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