

### September 2016

# Autumn Newsletter

Volume 1, Number 1

#### **Executive Committee**

President Prof. Krishna Persaud

Vice President Dr. Patrick Mielle

Treasurer Dr. Jan Mitrovics Secretary Prof. Achim Lilienthal

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*Asia Regional Chair* Prof. Hiroshi Ishida (Japan)

North America Regional Chair Prof.Ricardo Gutierrez-Osuna (USA)

*Europe, Middle East & Africa Regional Chair* Professor Julian W Gardner (UK)

Education Chair Dr Agustin Gutierrez-Galvez (Spain)

Industry Chair Dr Sandrine Isz (AlphaMOS, France)

Awards Chair Prof. Udo Weimar (Germany)

#### **ISOEN 2017**

http://isoen2017.org

#### Meetings of Interest

IEEE Sensors 2016 30<sup>th</sup> Oct-2<sup>nd</sup> Nov 2016, Orlando, FL www.ieee-sensors2016.com

3<sup>rd</sup> World Congress on Digital Olfaction, Tokyo, Japan 7<sup>th</sup>-8<sup>th</sup> December 2016 http://www.digital-olfaction.com/

SENSORNETS 2017 19<sup>th</sup>-21<sup>st</sup> February 2017, Porto, Portugal http://sensornets.org

European Chemoreception Organization Congress (ECRO), Cambridge, UK 2<sup>nd</sup>-5<sup>th</sup> September 2017 www.ecro-online.com

UK Semiochemical Network (UKSN) 18<sup>th</sup>-19<sup>th</sup> July 2017 http://uksemiochemistry.com

7th Euro Biosensors & Bioelectronics Conference 10<sup>th</sup>-12<sup>th</sup> July 2017 Berlin, Germany http://biosensors.conferenceseries.cor

ISOCS Web Page

https://www.olfactionsociety.org

# What has ISOCS been doing?

This is a long overdue newsletter and time has flown rapidly. So with apologies to the community for the delay, it is time to take stock of events that have occurred in the last year. Giorgio Sberveglieri as president of ISOCs handed over the baton of presidency of ISOCS to myself at the 16<sup>th</sup> Symposium of Olfaction and Electronic Nose held in Dijon 28<sup>th</sup> June to 1<sup>st</sup> July 2015. We thank Patrick Mielle together with his co-workers as well as Sandrine Isz of AlphaMOS for the excellent organization of this meeting that was attended by researchers from all over the world. We thank Giorgio for steering ISOCS throughout his presidency and for organization of the winter school on "Electronic Noses and their Panorama of Sensors" 8<sup>th</sup>-13<sup>th</sup> March 2015 in the beautiful location of Ponte di Legno - Brescia, Italy.

Thanks to the efforts of Julian Gardner who was our previous treasurer, ISOCS was registered as a charity under number 1151074 at the charity commission of England and Wales. It is good to reiterate that the purpose of ISOCS is to advance the education of the public in general (and particularly among scientists) in the fields of olfaction and chemical sensing and to promote research for the public benefit in all aspects of that subject and to publish useful results.

Taking up the baton as president is no easy task, and in order to keep our organization alive and retain worldwide interest, we have been working hard behind the scenes. The Executive Committee has since held monthly virtual meetings and we have had many discussions that have led to some of the events described in this newsletter.

In the tradition of previous winter schools, we are in the early stage of planning a winter school to be held early 2017 in a beautiful location in Europe. Further details will be posted on the ISOCS web site.

Our North American Regional Chair Ricardo Gutierrez-Osuna has been working tirelessly of the last year to organize the next ISOEN conference that will be held in Montreal, Canada on May 28<sup>th</sup>-31<sup>st</sup>, 2017. Please see http://isoen2017.org/ for details.

We now have the task of the finding a host for ISOEN 2019. Over the past few years the meeting has circulated between Europe, Asia and North America. **We invite bids** for hosting ISOEN 2019, particularly from our colleagues in Asia.

Krishna Persaud



Announcing ISOEN 2017 (http://isoen2017.org/)

**The International Symposium on Olfaction and Electronic Nose (ISOEN)**, the world's premiere technical conference in artificial chemoreception (olfaction and taste), will be held at McGill University in Montreal, Canada, on May 28-31, 2017.



Sponsored through the IEEE Sensors Council in the USA, we are putting together a conference that promises to be exciting and innovative, and that opens new topics and events not covered in previous conferences, including a new student competition (see below).

ISOEN emphasizes interdisciplinary approaches addressing all aspects of odor and taste measurement, from basic theory to

McGill University Campus

applications, and provides a forum for

scientists, engineers and practitioners to share their latest findings, innovations and products. Topics of interest include but are not limited to:

- Odor sampling: headspace analysis, dynamic sampling, pre-concentration
- Chemical sensors: gas, biosensors, ion-selective, optical
- Sensor systems: electronic noses, electronic tongues, micro-spectrometers
- Data analysis: signal processing, pattern recognition, chemometrics
- Industrial applications: quality control, food safety, medical diagnostics, environmental monitoring
- Odor generation: olfactometry, olfactory displays
- · Bio-engineering: cell-based olfactory sensors, bio-inspired algorithms

Now in its 17th edition, ISOEN 2017 will be organized around the theme of **internetscale chemical sensing** with mobile, wearable, and distributed sensors. In particular, we welcome contributions in the following areas:

- Crowd sensing with consumer-grade instruments
- Wearable sensors for exposure monitoring
- Autonomous sensing with aerial, ground and underwater robots
- Algorithms for distributed chemical sensing

For 2017, we are pleased to announce the creation of **Sniffest**, the student competition for machine olfaction. Sniffest seeks to attract new talent to the machine olfaction community and advance the field by promoting practical and original solutions to odor-measurement problems. Sniffest will provide qualified students with free sensors, hardware and software tools to design and build their own instruments, and the opportunity to showcase them at ISOEN 2017. Additional details about the competition will be posted at the conference website <a href="http://isoen2017.org/">http://isoen2017.org/</a>



Call for Tutorials and Special Sessions

Proposals for tutorials and special sessions are invited to ISOEN 2017. A proposal should include a topical title, rationale for the session, contact information for the organizer(s), a list of tentative invited speakers, and an outline of the session. A proposal template is available at the ISOEN 2017 website:

Proposals will be evaluated based on the timeliness of the topic, its uniqueness, and qualifications of proposers and invited speakers. The proposers are expected to have a PhD degree and a publication track record in the proposed area.

Please submit your proposals by email to Chris Dyer (<u>cdyer@conferencecatalysts.com</u>) no later than November 6, 2016. Accept/reject decisions will be announced by December 4, 2016. The list of accepted special sessions and tutorials will be posted on the website thereafter.

Paper submissions to special sessions should be done through EDAS, the official paper submission site for ISOEN 2017. When submitting a paper for a special session, authors should select the appropriate special session from the list of topics provided. Papers submitted to special sessions will undergo the same peer-review process as regular papers. Special sessions having fewer accepted papers than required may be cancelled and the accepted papers moved to regular sessions.

# Penang School November 2015

The 11th Asian Conference on Chemical Sensors (ACCS 2015), was held in Penang, Malaysia 16<sup>th</sup>-18<sup>th</sup> November 2015. This was organized by Universiti Malaysia Perlis. ISOCS organized a school for students as an adjunct to the conference on the topic "Chemical Sensing: Fundamentals, Current Technologies and Applications"

# This course covered

- Fundamentals on e-nose and e-tongue
- Overview on chemical sensor technologies
- Biosensors for chemical detection
- Sampling technologies
- Data analysis: classification and data fusion
- Food, health, and environmental applications
- Mobile applications
- Mobile robot olfaction

### Speakers included:

- Prof. Krishna Persaud, University of Manchester, UK
- Dr. Nicolae Barsan, Tübingen University, Germany
- Dr. Patrick Mielle, INRA, Dijon, France
- Dr. Jan Mitrovics, JLM Innovation, Germany
- Dr. Ammar Zakaria, Perlis University, Malaysia
- Prof. Ali Yeon Md Shakaff, Perlis University, Malaysia
- Dr. Nor Idayu Mahat, University of Utara, Malaysia
- Dr. Masaaki Habara, Intelligent Sensor Tech., Inc., Japan
- Prof. Hiroshi Ishida, Tokyo U Agriculture and Tech, Japan
- Dr. Sing Muk NG, Swinburne Sarawak Research Centre, Malaysia

We thank the local organizer Ammar Zakaria for all his help in making this school successful.



# Smart Anything Anywhere Tutorial -Otranto June 2016

Pietro Siciliano had organized a workshop in Italy in 2015 on the topic "Micro-Nano-Bio-ICT convergence" that was highly successful. From 25<sup>th</sup> to 29<sup>th</sup> June 2016 a joint event with ISOCS was organized, focusing on Sensing for the emerging world of "Smart Anything Everywhere".

In this context, the focus was on Sensors and Smart Systems devices that provide particular intelligent functionality by combining micro/nanoelectronic components with physical, chemical, and biological sensors and actuators on fully integrated systems, will catalyse increasing technology development for a broad range of powerful applications addressing societal challenges.

ISOCS ran tutorial course as an adjunct to this workshop.

# The topics covered were

- Introduction to Chemical Sensing
- New challenges for gas sensors in mobile, healthcare and IoT
- Smart Sensors in Homes and Mobile Phones for Environmental Monitoring
- MOX sensors for air quality measurements. Experiments with low power modes of MOX sensors.
- Design, calibration and in field multisensory air quality tests in the EuNetAir Action.
- Learning over distributed chemical sensor data
- Dense environmental monitoring with stationary and mobile sensing nodes

### The teachers were

- Krishna Persaud
- Jan Mitrovics
- Julian Gardner
- Saverio de Vito
- Santiago Marco
- Achim Lilienthal



Tutorial Group Otranto, Italy, June 2016

All of the organization of these schools could not have been done without the sterling efforts of our education chair Augustin Gutierrez-Galvez, and we thank him profusely.