

Tokyo Annual Meeting



December 3 - 4, 2018

Tokyo, Japan

Digital Olfaction Society Annual Meeting 2018

December 3-4, 2018 – Tokyo, Japan

... The idea is to create devices which can capture odors, turn them into digital data so as to transmit them everywhere in the world ...

(Marvin Edeas, Founder of DOS, 2013)

After the success of the three DOS World Congresses (Berlin, 2013 and Tokyo, 2014-2016) and the two congresses on Olfaction & Issues (Paris, 2010 and Milano, 2016), the scientific committee decided to organize its annual meeting to cover the two topics: **Digital Olfaction Society Annual Meeting** will be held in **Tokyo** in **December 3-4, 2018**.

This meeting will be divided in two parts:

- **Olfaction & Issues 2018: Science, Applications & Strategies**
Day 1 - December 3, 2018
- **Digital Olfaction 2018: Recent Advances & Perspectives**
Day 2 – December 4, 2018

Olfaction & Issues 2018: Science, Applications & Strategies – December 3, 2018

The first part of the meeting is dedicated to **Olfaction & Issues in 2018**. The aim of this first part is to present the latest advances and applications of olfaction in health and sciences, life style and marketing.

The manipulation of olfaction can introduce substantial advantages in health, design and marketing if we integrate odors in appropriate and ingenious ways. The design and marketing of odors is not only associated with perfumes, but also with other items that are typically odorless, such as buildings and places. It is possible to create odors that induce memorable emotions in users. We can accomplish this if we govern and simulate the entire process of production, perception, and evolution of olfactory communication and messages, which must be consolidated with the other sensory receptors.

Olfaction & Issues 2018 will highlight different strategic topics:

- Olfaction 2018: recent scientific advances & perspectives - the sense of smell in health, life style and marketing
- Olfaction & marketing: towards a personalized emotional perspective
- Olfaction & innovations and strategies

Digital Olfaction 2018: Recent Advances & Perspectives – December 4, 2018

In the second day, the scientific committee will allocate time to discuss about **the digital olfaction**, and the oral talks will be combined to demonstrations of olfactory displays. People will take part to those demos and will enjoy mysterious experience to have digital olfaction in the daily life.

The aims of Digital Olfaction part are to discuss:

- The advances of digital olfaction Research & Development
- The practical applications of digital olfaction
- The impact of these applications on our life and lifestyle

Digital Olfaction Society Meeting 2018 will highlight:

- The interdisciplinary sciences related to Olfaction and Digital olfaction.
- The way in which we can transfer the concrete breakthroughs of Research & Development towards industrial applications concerned by digital olfaction.

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- How to design and extend the applications of digital smell technologies to everyday life?
- Digital Olfaction and Artificial Intelligence: in this session, we will highlight how artificial intelligence will push the digital olfaction into and new level.

Call for Innovations and Demonstrations

The Scientific Committee invites all academics and industries to present their innovations and products in the olfaction and digital olfaction world by submitting an abstract.

Moreover, the Scientific Committee invites also the academic and industrial teams to present the most innovative appliances, devices, methods, ideas ... during the demonstration session.

Call for Digital Olfaction Society World Challenge 2018

The Scientific Committee invites all teams to apply for the first world challenge of the Digital Olfaction Society.

How does it work?

The idea is the following:

- 1) capture odors from Tokyo
- 2) turn them into digital data
- 3) transmit and retribute them in Paris

DOS Date

The first transmission of odors will be present during Tokyo Digital Olfaction Meeting on December 4.

If your team is able to manage this challenge, please contact us before July 3 to present your project.

We look forward to welcoming you in Tokyo for this particular event.

Marvin Edeas – Founder of the Digital Olfaction Society

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Preliminary Program

Day 1 – December 3, 2018 – Olfaction & Issues

7h30 Welcoming of attendees

8h55 Opening Ceremony

Session 1: Olfaction 2018: Recent Scientific Advances & Perspectives

The Sense of Smell in Health, Life Style & Marketing

9h00 – 12h30

Olfaction science & applications

Taste, olfaction and effects on the gut

Olfaction, appetite and obesity: the brain mechanisms

The olfactory system as a metabolic sensor?

Olfaction and ageing: what is the impact of olfaction on seniors' appetite and well-being?

Olfactory communication of stress and anxiety

Effects of odors and fragrances on mood and physiology

Odors, fragrances, emotions and ageing

Olfaction and perfumes: towards a new generation of perfumes

11h45 Short oral presentations & Call for innovations

12h30 Lunch Break & Poster Session

Session 2: Olfaction & marketing: Towards a personalized emotional perspective

14h00 – 15h30

How the incorporation of scents could enhance the immersive virtual experience?

How odor contexts influence the perception of facial expressions of emotions?

Olfaction as a tool for marketing communication

15h00 Short oral presentations & Call for innovations

15h30 Coffee Break & Poster Session

Session 3: Olfaction & Innovations

16h00 – 18h30

Exploration into olfaction and experimental strategies

Presentation of recent innovations and innovative ideas

Olfaction & pheromones

Short oral presentations & Call for innovations:

18h30 End of the first day

20h00 DOS Dinner 2018

To participate to the dinner, please register online before November 19.

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Day 2 – December 4, 2018 – Digital Olfaction

8h25 Opening of the second day

Session 1: Recent Advances of Digital Olfaction Research & Development

8h30 – 10h00

Olfaction, obesity & skin-ageing: strategies to modulate olfactory receptors

Digital olfactory nanoarrays for disease detection from breath and skin

A metric approach to olfactory perceptual space

Odor processing in biological and artificial olfactory systems

Nanomechanical gas sensor: recent advances & perspectives

Electronic-nose-based analysis

Short oral presentations & Call for innovations

Session 2: Odor Sensing and Odor Visualization

10h00 – 12h00

Development of molecular recognition materials for bioinspired odor cluster sensing

Biochemical gas sensor with fiber-optic fluorometry for odorless formaldehyde vapor

Odor visualization by multispectral fluorescence imaging and odor feature value analysis

“Scent camera” for real-time imaging of breath (body) ethanol after alcohol drinking

11h00 Coffee Break & Poster Session

Short oral presentations & Call for innovations

Session 3 – Digital Olfaction & Artificial Intelligence

12h00 – 13h00

New revolution and new ideas

Short oral presentations & Call for innovations

13h00 Lunch Break & Poster Session

Session 4 - Olfactory Display & Applications

14h00 – 15h30

Novel powder based olfactory display

Programmable, wearable, multi-fragrance olfactory display

Study of wearable olfactory display using surface acoustic wave device

Application of starbons on olfactory display

Reducing the trailing tail of vortex rings by partial scent filling to improve localization performance of scent delivery

Relationship between scent effects and video content with emotional properties

Influence of odors on the users' evaluation of industrial products

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Difference of olfactory detection between measuring methods by olfactory display using pulse ejection

Short oral presentations & Call for innovations

15h30 Coffee Break & Poster Session

Digital Olfaction Displaying & Demonstrations

16h00 – 17h30

General presentation of each demonstrations

Before the practical demonstration, we invite each team to present orally their technology and the process of demonstration (5-10 minutes by team). During Demonstrations Session, each team will have a dedicated space to show, demonstrate, explain and discuss about his project.

If you are interested to present your innovation in this demonstration session, please don't hesitate to contact us.

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How does it work?

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- 1) to capture odors from Tokyo
- 2) to turn them into digital data
- 3) to transmit and reconstitute them in Paris

DOS Date

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17h30 Discussion - Questions / Answers about Digital Olfaction

- What is most crucial for progressing the field of digital olfaction forward and to keep it as innovative as possible: new advanced materials? New transducers? Algorithms? Product design? Applications?
- How lab results in digital olfaction could be translated to commercial production, while passing through all regulatory (tough) roles. An example could be given for the case of the use of digital olfaction as a diagnostic tool for diseases.

Final Discussion & Concluding Remarks

- Perspectives & Opportunities
- Next strategic step for Digital Olfaction Society: Digital Olfaction and Artificial Intelligence: the next tsunami

18h00 End of DOS Annual Meeting 2018

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Who will attend DOS Annual Meeting 2018?

People who are interested in all aspects of olfaction and digital olfaction are invited to join this congress to gather the information of recent progress, share it with others and spread the information all over the world. Moreover, participants are encouraged to present their recent advances, innovations and demonstrations as well as presentations since we can share the experience of olfaction and digital olfaction together. The goal of this annual meeting is to establish the international link related to olfaction and digital olfaction among a variety of fields such as biology, medicine, computer science, electronics, chemistry, mechanical engineering, psychology, art etc...

People from industries as well as academics are welcome. The conference will gather international researchers and academics, R&D departments in link with all the field of olfaction, digital olfaction, chemistry, mathematics, physics, biochemistry, electronics, engineering, computer science, food and cosmetic industries, olfactory intelligent systems companies, marketing managers, investors and all other stakeholders in olfaction and digital olfaction industries in order to answer these questions.

Among hot topics presented at the Digital Olfaction Society Annual Meeting 2018

- Devices to capture odors
- Odors turned into digital data
- Restitution of odors by the transmission of these data
- Artificial olfaction and biologically-inspired models
- New Generation of Sensors & E-nose
- High Smell Technologies as electronic noses, neural circuits in olfactory systems, artificial intelligence olfaction systems
- Biosensor systems, software program, chemical engineering, Telecommunication
- Environmental control
- Biomedical applications in olfactory treatments and diagnosis
- Translational Research in Digital Olfaction
- Cancer & Olfaction: from Dogs to Digital Olfaction
- Robotics & Digital Olfaction
- Olfactory Display & its Applications
- Odor Sensing
- The powerful of Olfactive Markers
- Artificial Intelligence and Digital Olfaction

Call for Innovations and Demonstrations

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Moreover, the Scientific Committee invites also the academic and industrial teams to present the most innovative appliances, devices, methods, ideas ... during the demonstration session:

- Digital Scent Media: Scented SMS, e-mail, websites, USB flash driver, CD, DVD, scented-print
- Digital olfaction at the service of Human Health: Pattern mimicking the sniffing dogs, e-aromachology, nursing-homes, psychiatric hospitals, smell icons for blind people, olfactory diagnosis
- Formation and Olfactory Memory : Class-rooms, cooking shows
- Olfactory Marketing & Neuromarketing: Olfactive ads, olfactory packaging, interactive website, QR olfacodes, scented-menu....

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- Food Industry : Quality & safety control of food products
- Digital Cosmetology : Own fragrance creation on line, smell-E-market
- Olfaction and Jewellery : Revolutionary watches, alarm-radio, scented brooch
- Olfactory Entertainment : Olfactory 3D movie-theaters, home's gadgets, guided-tour in biology & perfumery museums
- Digital scents at the service of Army: Simulating training systems, detection of danger, perfumes of military attack, explosive detection devices
- Interactive scented games : Odorant teddy, video games
- Housekeeping, Coziness & Safety at home
- Olfaction & Auto industry : Olfactive attention assistance for tired driver
- Artificial Intelligence and Digital Olfaction
- And many others...

Digital Olfaction Society - Network Session

The Network Session is organized during DOS demonstrations session.

The objective of the Network Session is to provide a platform which brings together stakeholders involved in olfaction and digital olfaction, and especially in the field the valorization of digital olfaction applications and products:

- Food industries
- Cosmetics
- Phone companies
- Car Industries
- Artificial Intelligence
- Others

DOS 2018 Demonstrations

The Scientific Committee invites all academic & industrial teams to present the most innovative appliances, devices, methods, ideas ... in the digital olfaction field.

You would like to present your innovative devices during DOS Demonstrations 2018?

We remind you that you can submit your project and abstract by the online form **until October 30**.

DOS 2018 Innovation Award

The DOS World Congress will present the most innovative appliances, devices, methods, ideas... that will be judged by a panel of industrial, engineers and members of the press, who delivered the Innovation Award after having had the opportunity to meet and interact with the new equipment.

For more information: www.olfaction-site.com