ISOCS Workshop





1-4 September 2025, Hakodate, Japan

CHEMICAL SENSING: FROM THE LAB TO THE FIELD

Day 1 (Monday, September 1)

10:15 - 10:30 Opening Remarks

10:30 – 12:00 Rethinking the E-nose: 40+ years, few successes, many lessons, and the way from promise to practice. Genki Yoshikawa, National Institute for Materials Science (NIMS)

Lunch at the Venue

13:00 – 14:30 Methods for successful applications, situations in Europe.

Yanxia Hou-Broutin, Centre National de la Recherche Scientifique (CNRS)

Coffee Break

14:45 – 16:15 Contemporary industrial view on fundamental, applied, and commercialization aspects of chemical sensing innovations. Radislav A. Potyrailo, GE Vernova Advanced Research Center

Dinner at the Hotel

Day 2 (Tuesday, September 2)

Breakfast at the Hotel

9:00 – 10:30 Statistical and technical aspects of sampling - focus on odour collection.

Anne-Claude Romain, Université de Liège

Coffee Break

10:45 – 12:15 Signal preprocessing for chemical sensing arrays. Antonio Pardo, Universitat de Barcelona

Lunch at the Venue

13:15 – 14:45 E-nose applications in the biomedical field: state of the art, challenges, and future perspectives. Raffaele Dellaca, Politecnico di Milano

Coffee Break

15:00 – 15:30 Flash poster presentation from participants (optional)

15:30 – 17:00 Poster presentation from participants (optional)

Dinner at the Hotel



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Day 3 (Wednesday, September 3)

Breakfast at the Hotel

9:00 – 10:30 Odour pollution and instrumental odour monitoring systems: Regulatory framework in Europe, technological and methodological issues, and future perspectives.

Laura Capelli, Politecnico di Milano

Coffee Break

10:45 – 12:15 (Online) Miniature electronic nose system and applications.

Kea-Tiong Tang, National Tsing Hua University

Lunch at the Venue

13:15 – 14:45 Robotic applications of chemical sensors and utilization of AI in olfactory display technology.

Haruka Matsukura, The University of Electro-Communications

Hiroshi Ishida, Tokyo University of Agriculture and Technology

Coffee Break

15:00 – 16:30 Electronic nose standardization and beyond. Hyung-Gi Byun, Kangwon National University

Social Event (Dinner at Hakodate Beerhall & Night View Tour to Mt. Hakodate)

*The charter bus will depart from the hotel at 18:00.

Day 4 (Thursday, September 4)

Breakfast at the Hotel

9:00 – 10:30 Olfactory interface and its application: Odor biosensors, olfactory displays, odor reproduction and scent creation. Takamichi Nakamoto, Institute of Science Tokyo

Coffee Break

10:45 – 11:45 Challenges and future prospects in business development of olfactive technologies: Medical, industrial, and entertainment cases. Keisuke Kimura, Sony Corporation

*Demonstration of the olfactory display developed by Sony is also included.

11:45 – 12:00 Closing Remarks

Lunch at the Venue



