

# “The machine-olfaction competition”

## Regulation

### 1. Introduction

We are pleased to announce the 4<sup>th</sup> edition of the **Sniffest**, a student competition created for machine olfaction that has now been extended to electronic tongue as well. Since its creation, Sniffest aims to attract new talent to the sensor community, create advance perspectives in the field by promoting practical and original solutions using sensors-associated valuable skills.

In the 4<sup>th</sup> edition, which will take place during the ISOEN conference, to be held in Grapevine, Texas, from May 12 – 15, the students will have the opportunity to show their capacities, bringing their own equipment to the test in ISOEN 2024.

### 2. Eligibility

To be eligible to participate in the event, the students must be enrolled in an undergraduate or graduated degree (including PhD) program at an accredited university and must be sponsored by a senior researcher (e.g., faculty mentor, industry collaborator). Students interested in participating must submit an application file **to email [potyrailo@ge.com](mailto:potyrailo@ge.com) by deadline, 24<sup>th</sup> of April, 2024**. Two is the minimum for each team, allowing up to 4 team members (maximum), and a maximum of 2 teams *per* laboratory are allowed. The application must include the following information:

- Team name;
- Affiliation (name of the school);
- Team roster (name of the students);
- Sponsor (name and contact information), and
- A brief narrative (500 words) of the team’s qualifications, motivation to compete, and proposed solution.

The sponsor will be asked to provide a letter of recommendation. The letter should state the capabilities of the team, resources (e.g., equipment, facilities) that will be made

# “The machine-olfaction competition”

available to the team, and commitment to cover travel and lodging expenses for at least one member of the team.

A team of technical experts will review. Selections will be based on the team’s qualifications, originality and feasibility of the solution, and the endorsement from the sponsor. Invitations will be announced within 5 days after submission.

## 3. The Event

The 4<sup>th</sup> edition of Sniffest will be focusing on a Texan fan favorite: **Barbecue Sauce (BBQ)**

The teams are encouraged to optimize their sampling protocols for **BBQ** analysis at home and discuss with organizers any specific sampling requirements beforehand.

The competition will take place in the afternoon of Day 2. The competition will consist of two rounds: a qualification round, and a final round. In the **qualification round** the teams will have 20 minutes to identify a specific characteristic of limited number of **barbeque** samples and qualify to the final round. The **final round** will follow a similar format, but with a more challenging detection problem.

In the event of ties, preference will be given to teams with the shortest sample-testing time and the most mobile design.

Each team will be provided with a booth to set up their equipment. Teams are encouraged to engage with the audience by preparing live demos of their system and a poster presentation of their design. The winning team will also have an opportunity to present their design in an oral presentation on Day 3 of the conference.

## 4. Financial support

ISOEN does not have financial resources to cover travel and lodging expenses for participants in the competition. However, we will provide free registration for one

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student per team, and a 50% discount of the student registration rate for one additional team member wishing to attend.

## 5. Q&A

**What if I am not selected or missed the deadline?** You may still participate in the competition. However, only those teams that have been selected will be eligible to receive fee discounts. If you decide to participate, please let us know one month prior to the conference so we can allocate space for your team (on an as-available basis).

**Can I bring my own sensors or sensor boards?** In this edition you are encouraged to do so.

**What type of sensors can I use?** In this edition of Sniffest both electronic noses and electronic tongues are welcome

**What type of computing platform can I use?** You are free to use any computing platform, including embedded computers (e.g., Arduino, Paspberry PI), mobile devices (e.g., smartphones, tablets) or laptops. However, we encourage teams to design for portability, since that is one of the evaluation criteria that will be used (see section 4).

Coordinators:

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