UNIVERSITI MALAYA

IChemE ADVANCING CHEMICAL ENGINEERING WORLDWIDE


NACES 2023

# NACES 2023

NATIONAL CHEMICAL ENGINEERING SYMPOSIUM 2023

# RULES & REGULATION

CHEMICAL ENGINEERING CHALLENGE

**16 - 17 December 2023**

**Universiti Malaya (UM),**
**Kuala Lumpur**

# THEME

## Mainstreaming Lab-grown Food: Chemical Engineers to the rescue!

**Population growth, land scarcity, climate change, and food security are all interrelated global issues that are placing great strain on the planet. By 2050, there will be 9.7 billion people on the planet, and the need for food is anticipated to rise. However, with approximately 40% of the land on the planet being used for agriculture, we are already facing a land shortage. Extreme weather events and shifting weather patterns are making the problem worse and reducing crop yields and food production. Food security as a result is becoming harder to maintain, especially in developing nations. We must come up with sustainable methods that boost food production while reducing their negative effects on the environment to address these issues. Sustainable agricultural methods, reducing food waste, promoting plant-based diets, and the development of technology like lab-grown food might all be part of the solutions.**

**Chemical engineers are essential to the advancement and acceptance of food produced in laboratories. They are well positioned to address the technical difficulties of scaling up cell-based meat production since they are experts in the design and optimisation of chemical processes. This theme will explore the interdisciplinary nature of lab-grown food production, highlighting the critical role that chemical engineers play in developing and optimising the various stages of the process, from cell cultivation to final product formulation. It will also look into the difficulties the industry is currently facing, such as the need to create sustainable, cost-efficient production methods that fulfil high requirements for food safety and quality. The theme will emphasise the most recent advancements in food production from lab-grown sources and their possible effects on the environment and the food sector. Overall, the theme will give participants a forum to interact and debate how chemical engineering may help develop a future food system that is sustainable.**

# OBJECTIVES

1. **To enhance and promote problem-solving, time managing and critical thinking skills.**

2. **To test participants' theoretical skills.**

# COMPETITION DESCRIPTION

- **This is an INDIVIDUAL competition.**
- **This competition consists of ONE PHASE only via an ONLINE platform.**
- **Chemical Engineering Challenge is where the participants will be tasked with multiple choice questions (MCQ) and subjective questions.**

# ELIGIBILITY

1

**Participants must be full-time undergraduate students enrolled in the Chemical Engineering Program (or equivalent) offered by one of the participating universities/ institutions.**

2

**Participants must submit an APPROVED original copy of their student identity card (Matriks Card) together with the LATEST module registration file.**

3

**Each participant is only allowed to participate in ONE (1) physical mode competition and ALL online mode competitions are allowed to participate.**

# FORMAT

- **The Chemical Engineering Challenge will be conducted via Quizizz.**

- **Each participant must follow the guideline to set the name during the competition:**
  - **Name: Name of University/Institution_Full Name**
  - **Example: UM_Lai Zheng Ping**

- **Failure to set a proper name during the competition will lead to null results for that particular stage/section.**

- **The format of the competition may SUBJECT TO CHANGE depending on the total number of registered participants. Any changes in the format will be informed through our social media and WhatsApp group.**

# RULES & REGULATION

- **Each campus is entitled to send a maximum of TEN (10) participants.**

- **Participants are advised to check your internet connections before the competition starts. If participants face any technical problem before the online quiz session starts, they are required to inform any of the committee involved. Organiser are not responsible for any unanswered question submitted after the competition.**

- **Electronic external aids are strictly prohibited. Disqualification will occur immediately if an objection with evidence is received.**

- **Participants can attempt the quiz ONLY ONCE.**

# SCORING

1 **Objective Questions**

- **ONE (1)** point will be awarded for every correct answer.

2 **Subjective Questions**

- **THREE (3)** point will be awarded for every correct answer.

3 **No marks deduction for incorrect answer.**

4 **In case if the overall results are tied between two participants, the winner will be selected based on the number of subjective questions answered correctly.**

# RESULT

**The winners of the competition will be informed one week earlier to come to the NACES 2023 Closing Ceremony on 17 December 2023 for a prize giving session.**

# PRIZES

## CHEMICAL ENGINEERING CHALLENGE

| 1st | 2nd | 3rd |
|---|---|---|
| RM 200 | RM 150 | RM 100 |

**Top three winners will receive trophies and cash prizes.**

**All entries will be given a certificate of participation.**

# IMPORTANT NOTES

**Each participant must agree to be bound by the official contest rules. The organizer has all the rights to eliminate or disqualify any participants that violate the guidelines as stated above. Such actions may be taken by the host without any prior notice.**

**The judges' decisions are final and any appeals to the decisions will not be entertained.**

**Participants must complete the registration form by 18 October 2023 11: 59 pm to be eligible for participation.**

**Any changes on the confirmed participants' list must be informed before 20 October 2023 11:59 pm.**

# IMPORTANT NOTES

**Registration fees are non-refundable.**

**The contents of this booklet are subjected to amendment and improvisation. Participants will be notified when the amendments are made.**

# CONTACT INFORMATION


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**https://umevent.um.edu.my/NACES2023**

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