

Information Booklet



By IEM-UTM Student Section



TABLE OF CONTENTS

1.0. INTRODUCTION	3
2.0. COMPETITION OVERVIEW	4
3.0. ELIGIBILITY	4
4.0. THE CHALLENGE	5
4.1. MAIN FOCUS	5
5.0. RULES AND SUBMISSION GUIDELINES	6
5.1. PHASE ONE (ONLINE)	6
5.2. PHASE TWO (PHYSICAL)	8
6.0. JUDGING CRITERIA	9
6.1. PHASE ONE (ONLINE)	9
6.2. PHASE TWO (PHYSICAL)	10
7.0. PRIZES	11
8.0. REGISTRATION	12
8.1. REGISTRATION INFORMATION	12
8.2. REGISTRATION PAYMENT	12
9.0. COMMUNICATION	13
10.0. CHANGE OF AGENDA	13
11.0. ACCOMODATION AND TRASPORTATION	13
12.0. PRIVACY AND DISCLAIMER	14
13.0. ETHICS AND CONDUCT	15



1.0. INTRODUCTION

InvencMax is the flagship event of the Institution of Engineers Malaysia - UTM student section (IEM-UTM SS), Universiti Teknologi Malaysia. It is an innovative invention competition that gives students the opportunity to relate to the current issues in the world as well as to incentivise STEAM awareness in their studies. Since 2021, we start our journey to organize this competition annually to attract undergraduate students to apply their knowledge by relating it to real-world issues. Due to the pandemic of COVID-19, the last two years of competition are done in online. In the history of this event, we successfully attract local and foreign undergraduate students to join our competition. This year, InvencMax 3.0, is a national hybrid competition that will be done in the combination of online session and physical session.

We propose to involve the upcoming generation in reaching Sustainable Development Goals (SDG) by creating sustainable products with marketing values. By attending this competition, you will be trained in different aspects including systematic planning of product design and marketing analysis of product demand through the program we planned. You will acquire self-learning and development skills by going through the mentorship session, pitching workshop and science exhibition. Your effort in the competition will be the sweetest memory in your university life and the best preparation towards your career path.



2.0. COMPETITION OVERVIEW

- **Theme**
Everyday Technology
- **Topic**
Telehealth & Debris Elimination
- **Pitching Date**
20th May 2023
- **Platform**
UTM Hall

3.0. ELIGIBILITY

- a) This competition is open to **Malaysia and Singapore undergraduate students** from any field of study, preferably from a science and engineering background.
- b) Each participating team are only allowed to send a minimum of **three (3)** and a maximum of **five (5)** team members including the team leader for the competition. The combination is listed below.
 - i. Minimum 3 members : One (1) team leader + Two (2) team members
 - ii. Maximum 5 members: One (1) team leader + Four (4) team members
- c) All team members from each team are encouraged to be from the same educational institution.
- d) All team members are allowed to receive help from other parties (lecturer, teacher, advisor, researchers, etc). However, only those three (3) to five (5) registered participants will receive any form of the award based on the registered participants.

4.0. THE CHALLENGE

“Everyday Technology: Telehealth & Debris Elimination” is an idea highly related to the importance of human and natural health.

Starting in 2020, there was a new type of virus that almost conquer and destroy human lives. We experience the millions of lives lost and take years to overcome the pandemic. This is a hard time for humans, but without our existence, the environment is healing from pollution. According to The New York Times, Coronavirus has led to an astonishing shutdown of economic activity and a drastic reduction in the use of fossil fuels. In China, the pandemic caused a drop in carbon emissions of an estimated 25 percent, which is equivalent to 200 million tons of carbon dioxide. In the short term, nature shows us how ecological would be without human activities. After the tragedy of the pandemic, the world has formed new behaviours of lifestyles to fight against the virus. To prevent the spreading of COVID-19, the healthcare and medical system enters the post-pandemic era. With health awareness about the symptoms of disease, the community start to pay attention to the minor changes in the body. Hence, there are two major concerns that occur after the crisis, which are health and the environment.

In this competition, the participants are required to propose **only ONE (1) innovative product** related to health and the environment.

4.1. MAIN FOCUS

Participants can consider **ONE** of the suggested issues listed for the proposed innovation product. (Any other issues regarding the theme are also acceptable.)

- a) Health
- b) Environment
- c) Waste Management
- d) Household product



5.0. RULES AND SUBMISSION GUIDELINES

This competition consists of **2 phases**, which are **PHASE ONE (Online)** and **PHASE TWO (Physical)**.

5.1. PHASE ONE (ONLINE)

The first phase of the competition requires the participants to submit the initial innovation proposal, poster, virtual prototype and marketing video (optional) of the final concept design. All accepted submissions will be judged by professional juries from industry and academia. The participants are required to submit the required documents through the Google Form by **12th May 2023, 11.59 pm MYT**.

Submission Requirements:

a. Initial Innovation Proposal

- The proposal should be done in the presentation slide.
- Submit Only One (1) **PDF file**.
- Maximum of slides should not exceed **25 pages** excluding cover pages, team member introduction pages and appendices pages.
- The template of the Initial Innovation Proposal can be accessed [here](#).

b. Poster

- Submit Only One (1) **PNG file**.
- **Potrait A3** size file.
- Content:
 - Overall idea and concept of innovative product
 - Functionality of the innovation product
 - Marketing analysis of innovation product
 - Ideally impact of innovative products on society and Sustainable Development Goals (SDGs)

c. **Virtual/Physical Prototype**

- Submit Only One (1) **PNG file**.
- **1:1 ratio picture**
- You may choose to submit either one of the prototype picture.
- **Virtual Prototype:** You may draw the virtual prototype with a digital drawing tool or any prototyping tools available online to aid your drawing such as SolidWorks, AutoCAD.
- **Physical Prototype:** You may capture your physical prototype picture using smartphone or camera.

d. **Marketing Video (#Optional)**

- Submit Only One (1) **MP4 file**.
- Maximum **ONE (1) minute** length
- You may choose to show your real product through recording, rendered virtual product showcasing, or a simple explanation of the working process or concept of the innovative product in the video.
- The video will be posted for the aim of publicity to promote your innovative product in the public voting contest.

*Remarks:

- a. The (**#Optional**) choice in the submission will not be accounted as one of the judging criteria for **PHASE ONE**.
- b. All submissions in **PHASE ONE** will be posted for the public to view on InvencMax 3.0 social media platforms.
- c. You are required to submit the file according to the **FILE FORMAT and FILENAME** which will be given later in the submission form.
- d. You are suggested to submit the rendered virtual prototype and marketing video. The rendered virtual prototype and marketing video will be posted for the public to view and help in boosting your vote in the public voting contest.

5.2. PHASE TWO (PHYSICAL)

The second phase is a physical phase. It involves the **Physical Pitching** to the judges with the limited time and exhibition booth (with real innovative product/prototype). The time allocation will be **7 minutes pitching session** and **5 minutes Q&A session**. The exhibition booth will be set up by the participants at the exhibition hall before the pitching session starts.

- a. The participants are required to submit the latest pitching slide to the organisers by **18th May 2022, 11.59 pm MYT**. You are **NOT ALLOWED to make any changes** to your idea or pitching slide after submission.
- b. You should follow the requirements for submission below.
 - One (1) **PPT file**
 - Both files should have the same content.
 - **Bill of Material (BOM)** should be included in your slide.
 - You may access the example of **BOM** [here](#).
- c. The participants are required to bring the **Real Innovative Prototype** for the exhibition.
- d. The participants shall bring their own materials to design their booth. Detailed information of the booth will be given after the **PHASE ONE** submission.
- e. The participants are suggested to print out your submission **Poster** in **PHASE ONE** for the exhibition purpose.
- f. The concept of your innovative product should meet a few aspects of Global Sustainable Development Goals (**SDG**) listed by the United Nations.
For more information do visit: <https://sdgs.un.org/goals>.

6.0. JUDGING CRITERIA

The innovative product will be judged based on the following criteria:

6.1. PHASE ONE (ONLINE)

In **PHASE ONE**, all accepted submissions will be judged by both professional juries.

Criteria for professional juries:

- i. Originality, creativity and novelty of the idea proposed.
- ii. Technical difficulty.
- iii. Model content.
- iv. Critical thinking reflected in the prototype.
- v. Practicality and impact of the innovative product (individual, community, health, economic growth, green environment).
- vi. Commercialisation potential of the innovative product (idea proposed can be improved, upgraded).
- vii. Bonus marks will be given if there is any quality quote that strongly describes the poster/prototype.

6.2. PHASE TWO (PHYSICAL)

In **PHASE TWO**, the physical pitching session and the booth exhibition will be judged by professional juries and the popularity voting contest (30%).

- a. Criteria for professional juries:
 - i. Originality and creativity of the idea proposed (new idea or adaptation idea).
 - ii. Level of consumer-friendly (affordability, user-friendly, price to produce).
 - iii. Clarity of presentation (The use of visual, oral communication and effective public speaking, detailed presentation).
 - iv. Q&A session.
 - v. Design of the innovative product (materials used, aesthetics).
 - vi. Prototype's appearance and presentation.
 - vii. Design of exhibition booth (Creativity).

- b. Criteria for popularity voting contest:
 - i. All competing teams are required to submit their poster, the virtual prototype image and a short video (**#Optional**) to the organising committee, which will be posted on InvencMax 3.0 social media platforms.
 - ii. The first voting session is done online through posting on InvencMax 3.0 social media platforms.
 - iii. The second voting session is done physically through the visit of UTMians and outsiders during the science exhibition.
 - iv. The voting platform and procedure will be announced after all the submissions are done.

7.0. PRIZES

- a. Every participating team member will receive a physical participation certificate along with merchandise upon submitting all the content requested in Phase 1.
- b. The Top 3 winning teams of 1st, 2nd and 3rd place will receive:
 - i. **Group achievement certificates** for each winning team.
 - ii. **Cash prizes** for each winning team.
 - iii. **Mock cheque** for each winning team.
 - iv. **Hamper** for each winning team.
- c. Other special awards will be announced and presented.
- d. All the decisions made by the judges are **final** and **appeal** is **NOT ALLOWED**.

8.0. REGISTRATION

8.1. REGISTRATION INFORMATION

Registration deadline: 8th April 2023 11.59 pm MYT

Registration form: https://bit.ly/invenmax3rd_Registration

Registration fees per team:

Malaysia University	Singapore University
MYR 250.00 only	SGD 80.00 only

8.2. REGISTRATION PAYMENT

Registration Fees Payments should be made to the following bank account.

Bank's Name: CIMB BANK

Account Number: 7637387999

Beneficiary's Name: CHOO YUAN HUO

Recipient Reference: INVENCMAX3 REG

Other Payment Details: [YOUR GROUP NAME]

*Remarks: Please follow the instruction in the registration form and **attach the bank receipt** when submitting the registration form.

- All required documents or validation needed will be listed in the registration form.
- Participants are allowed to start research, virtual prototyping, and brainstorming ideas after submitting the registration.
- A briefing session will be conducted for all members after the registration period.
- The competition is open to local university students only.



9.0. COMMUNICATION

- a. All presentations, verbal communications, written documentation and competition should be conducted in **English**.
- b. For more details and information, please contact the organisers via:
Official Event Email | ieminvincmax@gmail.com
Wei Ren | <https://wa.me/+60137490479>
Cuan Kai | <https://wa.me/+60164488271>
- c. Upon confirming the team's participation, the respective team leader will be added to a WhatsApp group for communication purposes.

10.0. CHANGE OF AGENDA

- a. In case of emergencies or unforeseen circumstances, InvencMax 3.0 organising committee reserve the right to change the agenda without prior notice.
- b. All participants will be informed of any changes in rules, agenda and clarification via email or social media channels.

11.0. ACCOMODATION AND TRASPORTATION

- a. Accommodation and transportation will not be provided to participants.
- b. InvencMax 3.0 organising committee would like to help with the arrangements for teams that need assistance in finding accommodation.
- c. InvencMax 3.0 organising committee would like to help in the arrangements of transportation in **Johor Bahru, Johor area ONLY** according to the needs of the participants.

12.0. PRIVACY AND DISCLAIMER

- a. Any personal information participants choose to provide will only be used for the purpose of this competition and will not be disclosed to any third party without prior consent from participants unless required by law.
- b. InvencMax 3.0 organising committee reserves the right to modify any rules and regulations of the competition without prior notice. InvencMax 3.0 organising committee will inform the participants of any changes at their earliest convenience. Participants hold the responsibility to constantly check the respective communication channels for the latest updates.
- c. InvencMax 3.0 organising committee reserve the right to accept or decline any individual, team or organisation participating in InvencMax 3.0, with or without prior notice or reason.
- d. The innovative product must be in the form of a virtual and a physical prototype. The cost for the preparation of the innovative product will be fully covered by the participants.
- e. All submissions must be made within the stated submission deadline. The qualification of participants shall be forfeited if the submission is incomplete, illegible, misdirected or late.
- f. The appointment of the panel of judges for this competition is the sole responsibility of InvencMax 3.0 organising committee.
- g. Any kind of prior communication between participants and judges is prohibited.
- h. By participating in this competition, participants agree to the possible inclusion of participants' innovative products in any media coverage by InvencMax 3.0 organising committee and the sponsors, such as press releases or publications.
- i. Photos or videos taken (if any) during InvencMax 3.0 and information related to InvencMax 3.0 will be shared among InvencMax 3.0 organising committee and be published for publicity purposes of the event.
- j. Once the payment is done, the request for refund or cancellation is prohibited and participants shall have no further claim against InvencMax 3.0 organising committee.



- k. Once the registration form is submitted, the number of participants for each team is fixed and not allowed to be added.
- l. Accommodation and transportation fee of participants during the competition is fully borne by participants. Participants may acquire help from InvencMax 3.0 organising committee in booking the accommodation only.
- m. The food and beverages during the **PHASE 2** period will be fully provided by InvencMax 3.0 organising committee. Any extra food and beverage purchase is fully borne by participants.
- n. Any part of the property of InvencMax 3.0 organising committee at any time during the competition period is destroyed or damaged by participants shall be fully borne by participants. InvencMax 3.0 organising committee shall have a further claim against participants.

13.0. ETHICS AND CONDUCT

- a. All participants of the competition are bound by an honour code to behave responsibly and ethically.
- b. All participants must wear **FORMAL** attire during the competition day.
- c. Any misconduct or behaviour not in accordance with the rules and regulations may result in the disqualification of the participating team.
- d. Once the participants submit the registration form, participants are confirmed to agree to all the **PRIVACY AND DISCLAIMER**. The qualification of participants shall be forfeited by InvencMax 3.0 organising committee if any violation is found without prior written consent, approval or permission of InvencMax 3.0 organising committee.





THANK YOU



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