



2023 REPORT





Young Inventors Challenge 2023

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OUR HEARTFELT THANKS!

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CIMB Foundation

Yayasan Hasanah

Kolej Yayasan UEM

UMW Holdings Berhad

And

To all
Participants, Mentors, Headmasters, Headmistress,
Judges, Volunteers, Supporters,
and Committee Members

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EXECUTIVE SUMMARY

In recent times, we hear about temperature records being repeatedly broken and climate impacts felt in unprecedented wildfires, floods, storms and droughts worldwide. As many countries converge in UAE for COP28 this year, new inherent issues arise, chief amongst them is if the world is on track to meet the sustainability goals and what we can do to achieve these goals.

This year's Young Inventors Challenge (YIC) theme continued with Sustainable Development Goals (SDGs), where YIC's vision is to start students off early on these emerging issue and to encourage high school students to cooperate as a team to solve these issues. The innovation is then communicated and shared through YIC's platform to others across nations to raise awareness and increase discussions amongst them.

This year, 2023, marks the 11th year of YIC. This year we have received 571 applications from across South East Asia and new entrants from South Asia, Africa and Europe. These applicants were asked to write a proposal according to YIC guidelines. We received 508 proposals, which is amongst the highest ever recorded at 88% of applicants. We would like to take this opportunity to thank all the teams for their enthusiasm as well as the YIC secretariat for ensuring that the team's participation was meaningful.

YIC continues to be a growing congregation of young innovators and this is seen with the partnership with The Project Management Institute Malaysia Chapter (PMIMY) to launch the Project Management Competition for Young Inventors Challenge 2023. For this competition, a total of 23 project management report were submitted and evaluated.

The challenge will not be complete without the financial assistance and grants from our funders, many of whom are continuously supporting us annually. Our funders amongst others are CIMB Foundation, Kolej Yayasan UEM, Yayasan Hasanah and UMW Holdings Berhad. Also, a group of volunteers and judges played instrumental role in ensuring that the challenge is a success and the innovations submitted have been judged fairly and diligently.

We hope YIC will continue to boost budding innovators and act as a catalyst to spur young people to come together to share ideas and solve issues together. ASTI is also grateful for our likeminded partners who have come together with a dream of building a world of innovators beginning from the grassroots.

ABOUT ASTI

The Association of Science, Technology, and Innovation (ASTI) is an association of educators, scientists, industry representatives, and individuals who are committed to advancing the role of the scientific community in inspiring the youth of the nation to join and excel in science and other related themes.

The members aspire to revolutionize the method of teaching, understanding, and awareness of the vital role Science, Technology, and Innovation (STI) plays in fulfilling the economic, health, and environmental requirements of the world.

ASTI was set up by the founders of the Science Fair for Young Children (SFYC) on 25th October 2012.

ASTI's Vision: To be the premier association in Malaysia for the promotion of education & understanding in scientific knowledge, technological advancement, and innovative projects both locally and internationally.

ASTI's Mission: To provide leadership in science education and technical support to improve and grow awareness in all areas of sciences through generation, dissemination, and exchange of information & services.

ASTI's Objectives: We provide encouragement & support to the young generation through a variety of activities that can develop & help creativity, invention & innovative results in science, technology & innovation.

INTRODUCTION



1.0


1.1 Background of YIC

The Association of Science, Technology, and Innovation (ASTI) is a non-governmental and non-profit oriented organization (NGO) working towards empowering young children's' interest in science through the hands-on approach where learning is achieved from discovering scientific principles by themselves. In order to achieve this vision ASTI has designed various projects and has successfully gained traction on programs such as the Science Fair for Young Children (SFYC), Young Inventors Challenge (YIC), Creative, and Critical Thinking Camp (CCTC), ASTI Feynman Challenge (AFC), Young Inventors Journal (YIJ) and others. Each of these programs are interlinked in order to provide a holistic and inclusive platform for the young students to the journey of discovery.

YIC is part of this vision, where it requires teams of up to 2-5 students to put their minds together and come up with an invention. The purpose of the program is to build and encourage the creative and inventive capability of young people. ASTI started this program in 2013 as a pilot where 12 teams participated from 12 schools, and the response was remarkable ever since – the project has been growing with over 100 teams shortlisted to participate.

ASTI is proud to mention that Young Inventors Challenge has received international recognition from the Ministry of Education Malaysia for the year 2017 to 2022. In 2019, YIC was also shortlisted from over 1500 education projects from around the world to participate in the conference and competition called “Reimagining Education” held in London that was organised by the respected rating agency, QS international. YIC was also recognized as the top 10 projects run by an ALUMNI of the International Visitors Leadership Programme (IVLP) conducted by the US State department.

The summary of YIC since 2013 is shown as below:

Year	Theme	No. of Participation	Grand Finale (Date & Venue)
YIC 2013	<i>"Green Inventions: Ideas On Sustainability"</i>	 18 registrations received  14 proposals received  14 teams shortlisted  12 teams participated in Grand Finale	Wisma Belia on the 24 August 2013
YIC 2014	<i>"Green Inventions: Ideas On Sustainability"</i>	 156 registrations received  111 proposals received  56 teams shortlisted  49 teams participated in Grand Finale	Dewan Dr.Siti Hasmah, Rumah Puspanita on the 20 September 2014
YIC 2015	<i>"Inventions To Help A Million: To Make The World A Better Place"</i>	 191 registrations received  145 proposals received  63 teams shortlisted  52 teams participated in Grand Finale	Sunway University on the 19 September 2015
YIC 2016	<i>"Invention To Serve ..."</i>	 292 registrations received  204 proposals received  80 teams shortlisted  67 teams participated in the Grand Finale	Sunway University on the 15 October 2016
YIC 2017	<i>"Invention To Serve ..."</i>	 408 registrations received  372 proposals received  117 teams shortlisted  102 teams participated in the Grand Finale	CIDB Convention Centre, Cheras on the 30 September 2017
YIC 2018	<i>"Invention To Serve ..."</i>	 634 registrations received  438 proposals received  156 teams shortlisted  126 teams participated in the Grand Finale	CIDB Convention Centre, Cheras on the 22 September 2018
YIC 2019	<i>Sustainable Development Goals (SDGS)</i>	 446 registrations received  286 proposals received  151 teams shortlisted  132 teams participated in the Grand Finale	Malaysian Global Innovation & Creativity Centre (MAGIC) on the 21 September 2019
YIC 2020	<i>Sustainable Development Goals (SDGs)</i>	 357 registrations received  146 proposals received  115 teams shortlisted  95 teams participated in online competition	Online Viva conducted on 21 and 22 November 2020






YIC 2021	<i>Sustainable Development Goals (SDGS)</i>	 352 registrations received  283 proposals received  150 teams shortlisted  131 teams participated in online competition	Online Viva conducted on the on the 30 October 2021
YIC 2022	<i>Sustainable Development Goals (SDGS)</i>	 451 registrations received  358 proposals received  166 teams shortlisted  121 teams participated in online competition	Online Viva conducted on the 29 October 2022

This year is our 11th year anniversary, we continued with online version since the pandemic. We received a total of 571 applications of which 508 teams submitted proposals related to the theme. The teams are from Malaysia, Indonesia, Thailand, Singapore, Brunei, Philippines, Sri Lanka, India and United Kingdom. We had shortlisted 217 teams to participate in the final competition via Invention Pitch Video and Project Report submission. A total of 155 teams had successfully submitted their Invention Pitch Video and Project Report from 6 countries which was marked by a team of 95 judges.

On the 13th October 2023, we informed the **Top 30** teams that qualified for the Online Viva Session. The VIVA session was conducted on the 4th November 2023 to determine One (1) Platinum, Two (2) Gold, Five (5) Silver, Seven (7) Bronze and Consolation award winners. On the 6th December 2023, we announced the winners via virtual winner's announcement ceremony.

1.2 Aims & Objectives

The aim and objectives of YIC are:

-  To develop future inventors who are effective problem solvers.
-  To give an opportunity to young and future inventors to develop and showcase their inventions.
-  To help young inventors to experience the inventive cycle, from conceptualisation to product/prototype.
-  To introduce the idea of “using inventions as a tool to make a positive change in society”.
-  To give opportunities to young people who are inventive to promote their ideas to the outside world.

By participating in YIC, the participants would also:

- 💡 Produce an original invention and receive recognition for participating in the event.
- 💡 Develop creative and innovative thinking skills.
- 💡 Develop teamwork dynamics to solve problems.
- 💡 Use resources such as the internet, library and experts to hone their research skills.
- 💡 Learn to document their invention project.
- 💡 Enhance self-esteem and confidence.
- 💡 Acquire public presentation and writing skills.

1.3 Target Group

- 💡 Young people aged between 13 and 17 (From 1 to 5).
- 💡 A team consisting of 2 – 5 young people.
- 💡 Teams made up of different cultural backgrounds were highly encouraged.

1.4 Preferred Output and Outcome

Preferred Output	Preferred Outcome
Understand the invention thinking process	Participants with confidence to think and communicate with creative and critical thinking
Understand the Theme: Sustainable Development Goals (SDGS)	Participants understand, and practice/apply Sustainable Development Goals (SDGS)
Learning to work in a team using a collaborative approach	Participants who can work in a multidisciplinary and collaborative manner
Understand project creation and management processes and tools	Participants with the ability to start and complete a project
Ability to produce a functional prototype	Participants who can develop real solutions and products for real life problems

Table 1: Preferred Output and Preferred Outcome

MODE OF IMPLEMENTATION

2.0

2.1 Promotion and Publicity

- This year we were entirely focused on Online Promotions and the official launch was conducted on the 5th April 2023, Wednesday, 5pm via YouTube Live Session. The YIC 2022 winning Team ChemCheck from Philippine Science High School - Central Visayas Campus, Philippines participated in the official launch event.



JOIN US !!

OFFICIAL LAUNCH

Young Inventors Challenge 2023

5 APRIL 2023, WEDNESDAY - 5pm (MYT)

YouTube  shorturl.at/imnyX

Scan to REGISTER & more DETAILS  www.asti.org.my/yic2023



- Information flyers, Promotional Video and Application Call Letters were sent out via emails, Facebook post and Instagram Post.



Young Inventors Challenge 2023

THEME: SUSTAINABLE DEVELOPMENT GOALS

PARTICIPATION is FREE

PRIZES

- 1 Platinum Award RM 2500
- 2 Gold Award RM 1500
- 5 Silver Award RM 750
- 7 Bronze Award RM 400
- 15 Consolation Prize

THE INTRODUCTION

The Young Inventors Challenge 2023 is our 11th Invention/Innovation competition which aims to encourage secondary school students aged 13 - 17 to cooperate as a team (2-5 students) to find innovative solutions to current day problems. YIC 2023 will be conducted Online via Proposal Submission, Invention Pitch Video and Report Submission.

By participating in YIC, the participants would develop creative, critical and problem-solving skills. YIC hopes to develop future inventors who will be the positive change makers of tomorrow.

WHO CAN PARTICIPATE?

- Young people aged between 13 and 17 (Form 1 to 5).
- A team consisting of 2 - 5 young people.
- Teams made up of different cultural background (Highly Encouraged).

WHAT THE TEAMS HAVE TO DO?

The United Nation's Sustainable Development Goals (SDGs) are the blueprint to achieve a better and more sustainable future for all. This year's YIC theme is; Invention to address issues discussed in SDGs. You are required to invent a product and/ or process that is able to provide resolution to a certain level, and have an impact on SDGs.

Participants are required to innovate and produce a working prototype and/ or a working scaled model. A report and pitch video are also required with the aim to commercialize or to put in practice the invention.

For further details, kindly contact Ms. Vanitha Vasu via email to yic2510@gmail.com or WhatsApp to 014-712 4217.

HOW TO PARTICIPATE?

- 1 Form a Team (2-5 people, 13-17 years old)
- 2 Register at shorturl.at/wHM25 by 31 May 2023
- 3 Develop Invention Proposal (Refer Student's Manual)
- 4 Submit Invention Proposal at shorturl.at/vMORX by 31 May 2023
- 5 Shortlisted teams notified via email
- 6 Shortlisted teams guided with Online Trainings
- 7 Develop "Working Prototype"
- 8 Shortlisted Teams Submits
 1. Invention Pitch Video
 2. Project Report
- 9 Online Viva session for Top 20-30 teams
- 10 Winners Announcement Online Live Event

Organizer:  **ASTI**
ASSOCIATION OF SCHOOLS TECHNOLOGY INNOVATION

Funding Partners:  **CIMB FOUNDATION**  **KOLEJ YAYASAN UEM**  **YAYASAN HASANAH**
A foundation of Yayasan Nasional

Scan to REGISTER & more DETAILS  www.asti.org.my/yic2023

- Promotional flyers and materials were sent out as below:
 - Emails to Jabatan Pendidikan Negeri
 - Emails to SMK Schools
 - Emails to International and Private Schools
 - Emails to YIC 2013-2022 Participants
 - Emails to 22 Embassies in Malaysia
 - WhatsApp Messages to over 3000 contacts
- Additionally, Bahagian Sukan Kokurikulum Dan Kesenian has send out “Surat Hebahan” to all Jabatan Pendidikan Negeri and Pejabat Pendidikan Daerah
- Several phone call follow-ups and “ word of mouth ” was carried out
- Frequent Facebook Post was done to increase the number of registration and participation

2.2 Participants Registration

After the official launch and Promotions, the interested students were requested to form a team of 2-5 students. Each team is required to have at least one Mentor and submit their registration to ASTI. ASTI had received a total of 571 registration. Upon receiving the registration, the teams were sent an email with the Students’ Manual and Proposal Writing Guideline Video as a guideline for the preparation of their Invention proposals.

2.3 Proposal Submission by Participants

ASTI received a total of 508 proposals with a wide range of ideas related to the theme from Malaysia, Indonesia, Thailand, Singapore, Brunei Darussalam, Philippines, India, Japan, Sri Lanka, and United Kingdom.

2.4 The Judging Process: Proposal Marking and Shortlisting

- Each proposal that was received was blind reviewed by three different judges.
- The judges received the proposals together with the marking spreadsheet and the guidelines for marking, via email.
- A total of 113 judges consisting of academics and industry experts have volunteered their time to evaluate the proposals.
- The results of each proposal were cross-referenced.
- A total of 217 best proposals were shortlisted, and the shortlisted teams were notified by e-mail on the 18th July 2023
- Table 2 shows the breakdown of registration received, proposals received and shortlisted teams for YIC 2023; according to countries.

Country	No. of Registration	No. of Proposal Submission	No. of Proposal Shortlisted
Brunei Darussalam	7	7	5
India	1	1	1
Indonesia	10	10	5
Japan	1	1	0
Malaysia	248	225	80
Philippines	128	106	61
Thailand	89	81	31
Singapore	79	72	33
Sri Lanka	4	4	1
Uganda	1	0	0
United Kingdom	3	1	0
Total	571	508	217

Table 2: Breakdown of Registration Received, Proposals Received and Shortlisted Teams

ONLINE TRAINING



3.0

In order to ensure that the training methodology is consistent and standardized for all the participants, the working group decided to conduct Online Trainings via YouTube Live Sessions. The working group committee believes that Online Trainings are a cost-effective and sustainable way of providing training to the participants.

3.1 Preparation of the Online Training Materials

The Working Group Committee together with ASTI's R&D department developed the content, materials and PowerPoint presentation slides for the Online Trainings. Training videos were also recorded and shared with participants via ASTI's Youtube Channel with Working Group Committee members being the Trainers.

3.2 Online Trainings and Videos

Online Trainings Videos were shared via ASTI's YouTube Channel as per details below:

Dates	Titles	Description
10 April 2023	YIC 2023 Training Video 1: Proposal Writing Guideline	Provide guideline on How to prepare an Invention Proposal.
25 April 2023	YIC 2023 Training Video 2: Mentoring and Guiding the Students	Provide guidance and examples on how a mentor could guide the students throughout the journey of YIC. Trainer: Ms. Honnelley E. Balo, Roxas National Comprehensive High School, Roxas, Palawan, Philippines

3 May 2023	YIC 2023 Training Video 3: Introduction to ASTI, YIC, Invention, Innovation and Design	Provides an introduction to the participants on the inventions and innovation categories Trainer: Mr.Tan Cher Hao
3 May 2023	YIC 2023 Training Video 4: Sustainable Development Goals (SDGS)	Layout all the 17 SDG Goals with example of inventions and innovations related to it. Trainer: Ts.Dr.Umaiya Munusamy.
10 May 2023	YIC 2023 Training Video 5: Problem Identification	Explains various problem identification methods Trainer: Dr Mohamed Yunus Yasin
10 May 2023	YIC 2023 Training Video 6: Project Planning and Project Management	Provides steps by step procedures and guideline on conducting a project. Trainer: Dr. Lee Tze Yan
26 July 2023	YIC 2023 Training Video 7: Guideline for Invention Pitch Video and Project Report Writing	Provides details on the steps and timeline the participants need to follow after shortlisting. Gives explanation on the requirements for Invention Pitch Video and Project Report and submission deadlines. Trainer: Dr.Nur'ain Salehen
9 August 2023	YIC 2023 Training Video 8: Judging Criteria for Invention Pitch Video and Project Report Writing	Gives a guideline to the participants on the marking criteria for the Invention Pitch Video and Report. Trainer: Dr. Lee Tze Yan

Table 3: Online Trainings Schedules

3.3 Online Training Details and Pictures

YIC 2023 Training Video 1: Proposal Writing Guideline

<https://www.youtube.com/watch?v=ZvCDXdFvkb8&t=20s>



YIC 2023 Training Video 2: Mentoring and Guiding the Students

https://www.youtube.com/watch?v=0xRcl3_p3_U&t=4s



YIC 2023 Training Video 3: Introduction to ASTI, YIC, Invention, Innovation and Design

<https://www.youtube.com/watch?v=pv2AM1cFtCE&t=14s>



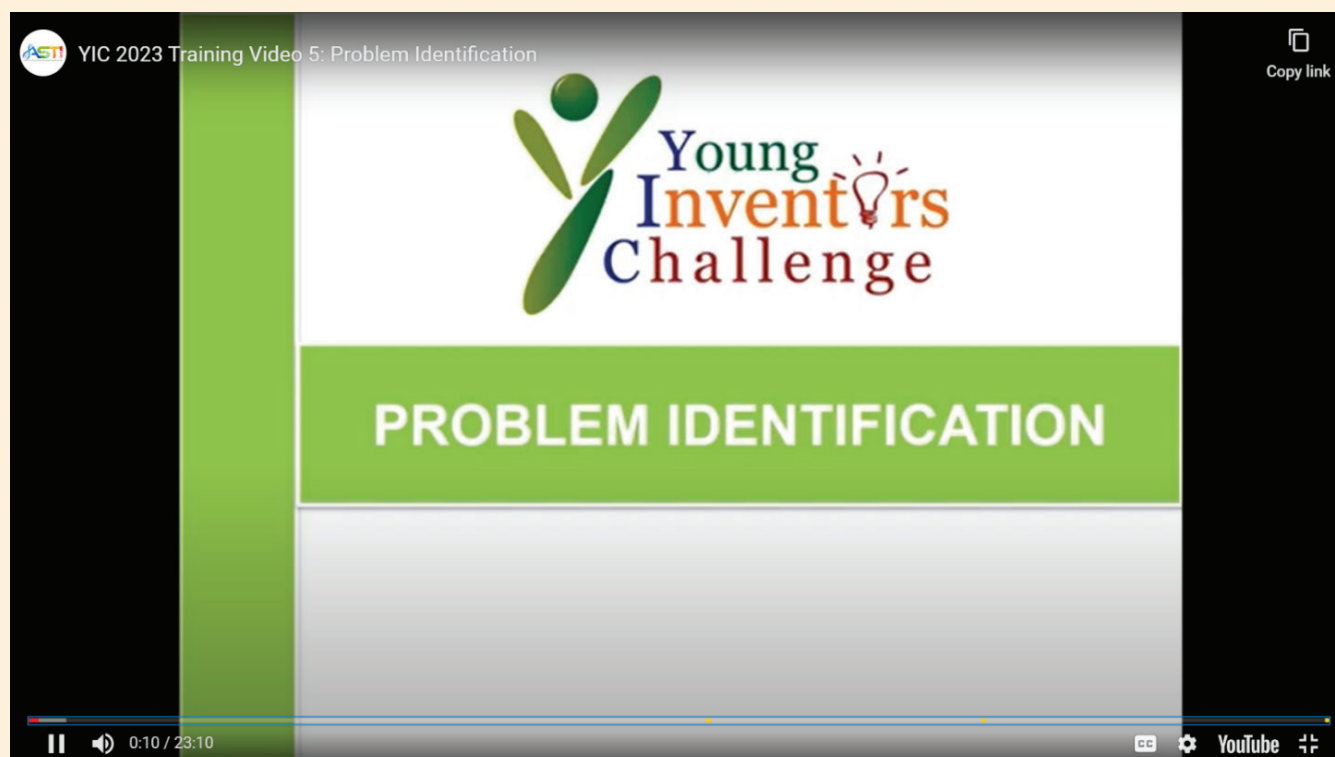
YIC 2023 Training Video 4: Sustainable Development Goals (SDGs)

<https://www.youtube.com/watch?v=YMyoMn7ACyU&t=17s>



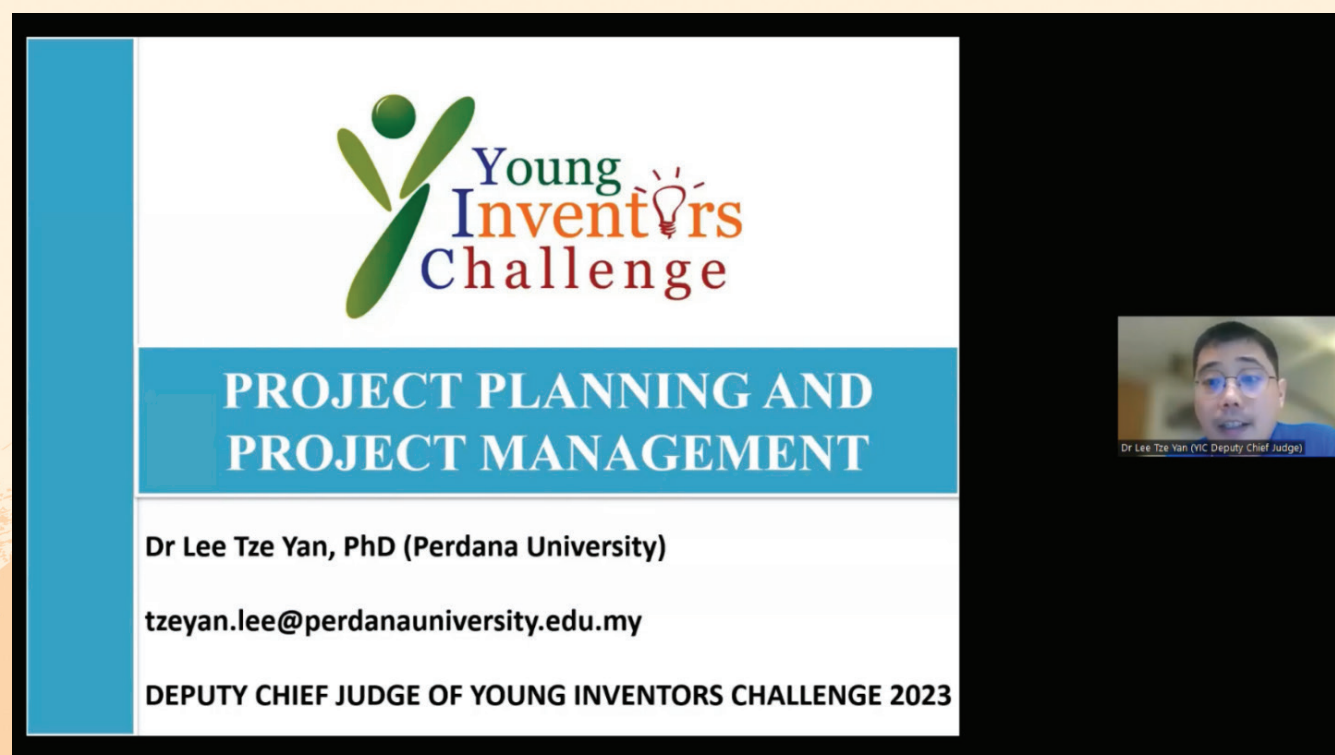
YIC 2023 Training Video 5: Problem Identification

https://www.youtube.com/watch?v=9dvrvvhWZ_o&t=7s



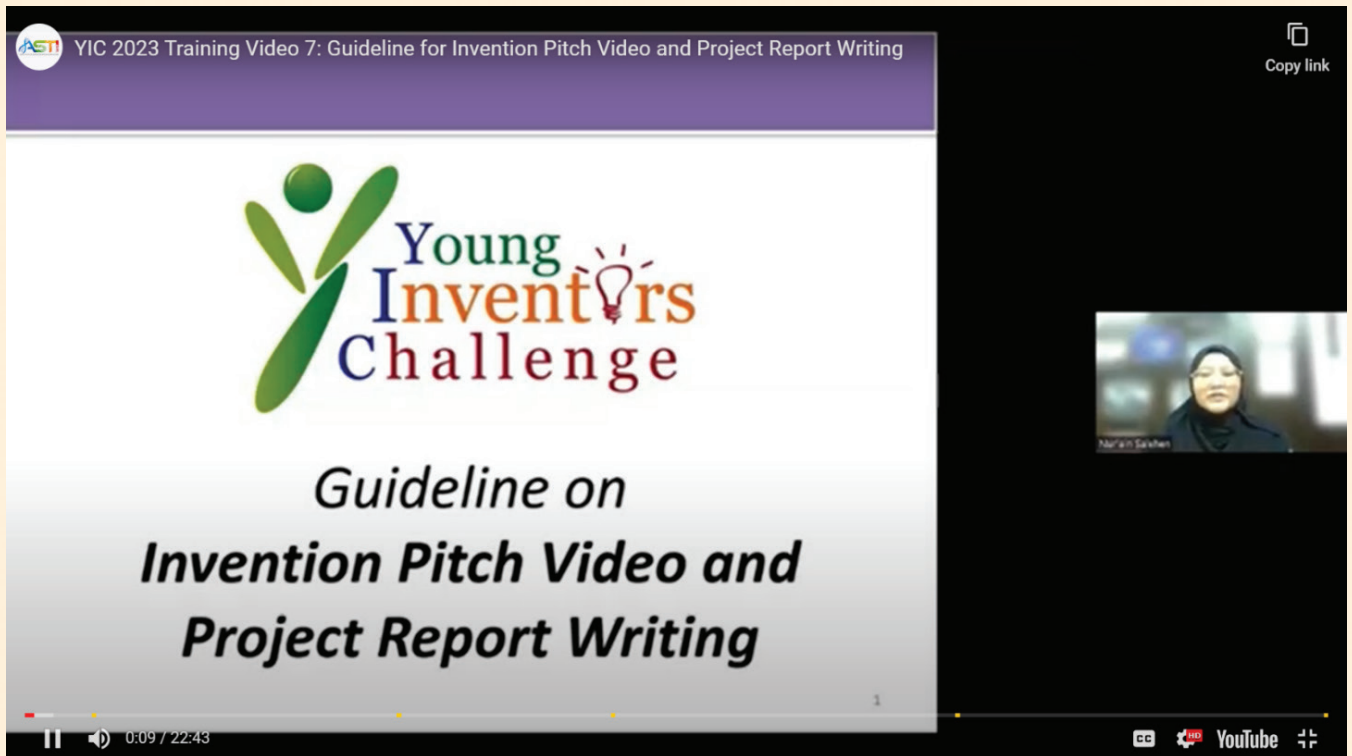
YIC 2023 Training Video 6: Project Planning and Project Management

https://www.youtube.com/watch?v=dG2brK_kZto&t=15s



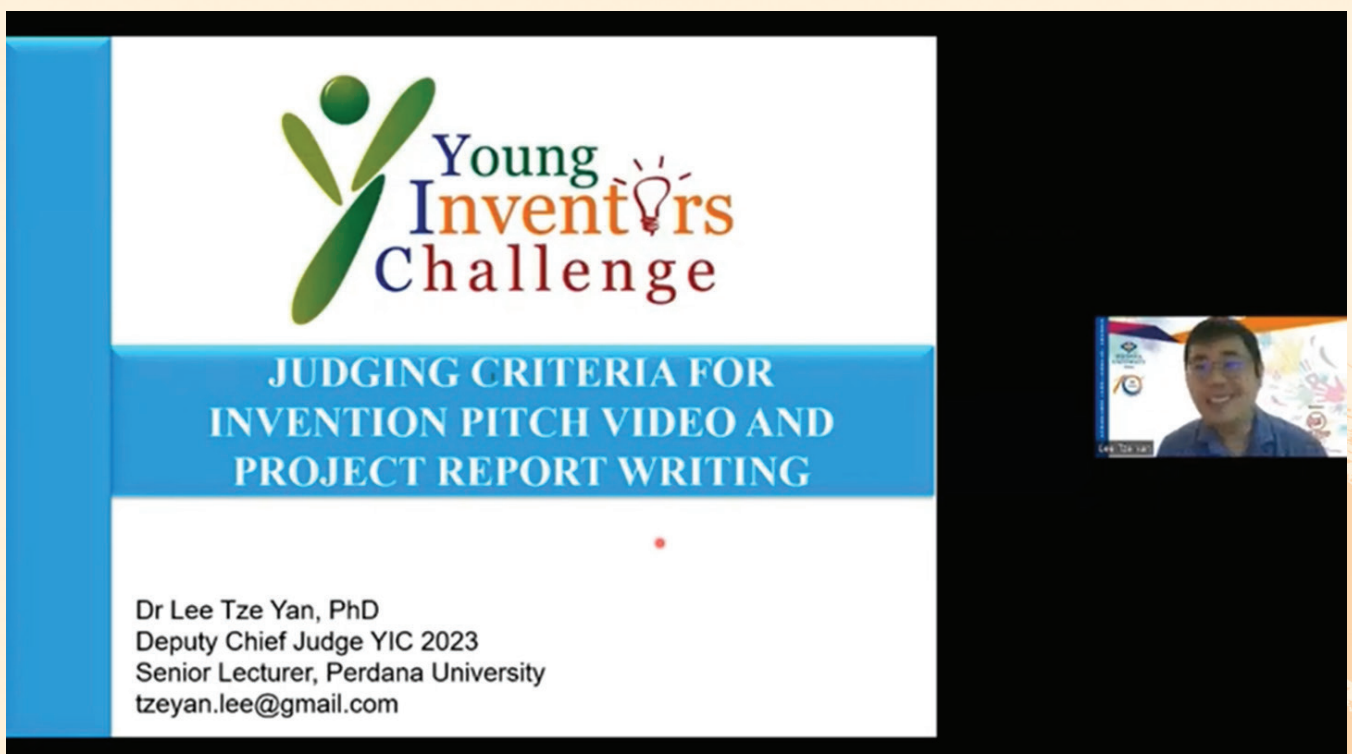
YIC 2023 Training Video 7: Guideline for Invention Pitch Video and Project Report Writing

<https://www.youtube.com/watch?v=UrxxrhbJABU&t=2s>



YIC 2023 Training Video 8: Judging Criteria for Invention Pitch Video and Project Report Writing

<https://www.youtube.com/watch?v=E7Z6xGRYs5s&t=2s>



THE ONLINE EVENT AND JUDGING

4.0

4.1 YIC 2023 Participants

A total of 217 teams were shortlisted to take part in the Young Inventors Challenge 2023 via Invention Pitch Video and Project Report Submission. A total of 155 teams successfully completed this stage of the competition by submitting their 5 minutes invention pitch video and 5 pages project report. Table 4 shows the List of Teams Participated in YIC 2023.

NO	COUNTRY	SCHOOL NAME	TEAM NAME
1	BRUNEI DARUSSALAM	MA'HAD ISLAM BRUNEI	THE SMART SPARKLERS
2	BRUNEI DARUSSALAM	MA'HAD ISLAM BRUNEI	BENDAHARA
3	BRUNEI DARUSSALAM	SEKOLAH MENENGAH BERAKAS	TEAM SCIENTIFIC ENIGMAS
4	INDONESIA	MAN 2 PONOROGO	SANSEVIERIA TEAM
5	INDONESIA	SMA NEGERI 5 YOGYAKARTA	BIOGAS GANK
6	INDONESIA	SMA NEGERI BALI MANDARA	PATIK TEAM
7	INDONESIA	SMAK BPK PENABUR SINGGASANA	OXNOTES
8	MALAYSIA	AKADEMI SAINS PENDANG	THE HATS
9	MALAYSIA	LABUAN INTERNATIONAL SCHOOL	LIS CBL 21
10	MALAYSIA	MAKTAB SULTAN ABU BAKAR	THE REVOLUTIONERS
11	MALAYSIA	MRSM TUN GHAFAR BABA	ANOX
12	MALAYSIA	SEKOLAH MENENGAH IMTIAZ YAYASAN TERENGGANU BESUT	GENZONIC.CO

NO	COUNTRY	SCHOOL NAME	TEAM NAME
13	MALAYSIA	SEKOLAH MENENGAH IMTIAZ YAYASAN TERENGGANU BESUT	INNOVATERFORCE
14	MALAYSIA	SEKOLAH MENENGAH IMTIAZ YAYASAN TERENGGANU BESUT	GENZO.IO
15	MALAYSIA	SEKOLAH MENENGAH KEBANGSAAN CYBERJAYA	GREEN MEANS GO (GMG)
16	MALAYSIA	SEKOLAH MENENGAH KEBANGSAAN DATUK ONN	INNOVATORS
17	MALAYSIA	SEKOLAH MENENGAH KEBANGSAAN JALAN EMPAT	MINI-VEN
18	MALAYSIA	SEKOLAH MENENGAH SAINS BATU PAHAT	EXTRAORDINAIRE
19	MALAYSIA	SEKOLAH MENENGAH SAINS BATU PAHAT	SCENT OF SAVIOR
20	MALAYSIA	SM ALL SAINTS	GREEN INNOVATORS
21	MALAYSIA	SM SAINS TUANKU JAAFAR	STJ ESTELLE
22	MALAYSIA	SM ST MICHAEL, PENAMPANG SABAH	4 LIFERS
23	MALAYSIA	SM ST MICHAEL, PENAMPANG SABAH	TEAM MIZU
24	MALAYSIA	SM ST MICHAEL, PENAMPANG SABAH	GEMSTONES
25	MALAYSIA	SM ST MICHAEL, PENAMPANG SABAH	FEC TEAM
26	MALAYSIA	SMA MAIWP KL	HBYTE
27	MALAYSIA	SMJK AVE MARIA CONVENT IPOH	THE ELITE VISIONARIES
28	MALAYSIA	SMJK AVE MARIA CONVENT IPOH	GREEN KNIGHT
29	MALAYSIA	SMJK CHUNG LING BUTTERWORTH	LTS ENGINEERING
30	MALAYSIA	SMJK CHUNG LING BUTTERWORTH	TECHNO-POWER CLB
31	MALAYSIA	SMJK CHUNG LING BUTTERWORTH	GINA WORST SUBJECT
32	MALAYSIA	SMJK HENG EE	DREAMERS
33	MALAYSIA	SMJK SAM TET	THE FORTITUDE

NO	COUNTRY	SCHOOL NAME	TEAM NAME
34	MALAYSIA	SMK (P) BANDARAYA	THE DREAMERS
35	MALAYSIA	SMK AGAMA KUALA SELANGOR	BIXLON
36	MALAYSIA	SMK AMINUDDIN BAKI KL	KINETIC PEOPLE
37	MALAYSIA	SMK BANGSAR	STEM SMKB
38	MALAYSIA	SMK BINTULU	X-PROS
39	MALAYSIA	SMK BINTULU	IT WARRIORS
40	MALAYSIA	SMK CONVENT BUKIT NANAS	CATCHING TREMORS
41	MALAYSIA	SMK CYBERJAYA	GOLD TIGER
42	MALAYSIA	SMK CYBERJAYA	ASTRID
43	MALAYSIA	SMK DAMANSARA UTAMA, COLLINZ INTERNATIONAL SCHOOL	Y-KNOT TECHIES
44	MALAYSIA	SMK DATUK HAJI AHMAD BADAWI	HEATBGONE
45	MALAYSIA	SMK DATUK PETER MOJUNTIN, PENAMPANG, SABAH	SIMPLE INNOVATORS TEAM
46	MALAYSIA	SMK DATUK PETER MOJUNTIN, PENAMPANG, SABAH	DPM INNOVATION
47	MALAYSIA	SMK IBRAHIM	REDSTONE ROCKETRY
48	MALAYSIA	SMK JALAN EMPAT BANDAR BARU BANGI	GO GREEN JESS 2.0
49	MALAYSIA	SMK KAI CHUNG	ATOMIC REACTORS
50	MALAYSIA	SMK KAI CHUNG	ECOSQUAD
51	MALAYSIA	SMK LUAR BANDAR NO.1 SIBU	THE DREAM TEAM
52	MALAYSIA	SMK MULONG, KOTA BHARU	SMKMULONG 2023
53	MALAYSIA	SMK PADANG BERAMPAH SIPITANG	S2MR
54	MALAYSIA	SMK PADANG NEGARA	SPANERA 3
55	MALAYSIA	SMK PEKAN II KOTA BELUD	NOCENS
56	MALAYSIA	SMK PEKAN II KOTA BELUD	BELLATOR FORTIS

NO	COUNTRY	SCHOOL NAME	TEAM NAME
57	MALAYSIA	SMK SEKYEN 4 BANDAR KINRARA	THE FUTURE'
58	MALAYSIA	SMK SRI KURAU	SRIAU FIGHTER
59	MALAYSIA	SMK ST ANTHONY SARIKEI	SAS EXPLORERS
60	MALAYSIA	SMK ST ANTHONY SARIKEI	SAS VOYAGERS
61	MALAYSIA	SMK SUNGAI TIRAM	DEBUNGA
62	MALAYSIA	SMK TAWAU	ILHAM
63	MALAYSIA	SMK TUNKU ABDUL RAHMAN	STAR-NATION
64	MALAYSIA	SMK USJ 13	THE LUWAK
65	MALAYSIA	SMK USJ 13	THE SCIENTIFIC WIZARDS
66	MALAYSIA	SMKA DURIAN GULING	SLI DGES
67	MALAYSIA	ST JOHN INSTITUTION	VERT
68	MALAYSIA	ST JOHN INSTITUTION	GOLDEN EAGLES
69	MALAYSIA	ST JOHN INSTITUTION	EAGLEMAVERICKS
70	MALAYSIA	ST JOHN INSTITUTION	THE GOLDEN INVENTORS
71	MALAYSIA	TAYLOR'S INTERNATIONAL SCHOOL PUCHONG	FASTPLAST
72	MALAYSIA	TAYLOR'S INTERNATIONAL SCHOOL PUCHONG	THE INCREDIVENTORS
73	MALAYSIA	TAYLOR'S INTERNATIONAL SCHOOL PUCHONG	SHORTDUO AND GUY
74	MALAYSIA	WESLEY METHODIST SCHOOL KUALA LUMPUR INTERNATIONAL	GALATIA
75	MALAYSIA	WESLEY METHODIST SCHOOL KUALA LUMPUR INTERNATIONAL	ABOVE & BEYOND
76	PHILIPPINES	ALABEL NATIONAL SCIENCE HIGH SCHOOL	TEAM CRAMMER
77	PHILIPPINES	ALABEL NATIONAL SCIENCE HIGH SCHOOL	AL1
78	PHILIPPINES	ALAMINOS CITY NATIONAL HIGH SCHOOL	HUNDRED ISLAND YOUTH INNOVATORS TEAM 8
79	PHILIPPINES	ALAMINOS CITY NATIONAL HIGH SCHOOL	HUNDRED ISLANDS YOUNG INVENTORS TEAM 4

NO	COUNTRY	SCHOOL NAME	TEAM NAME
80	PHILIPPINES	ALAMINOS CITY NATIONAL HIGH SCHOOL	HUNDRED ISLANDS YIC #12
81	PHILIPPINES	ALAMINOS CITY NATIONAL HIGH SCHOOL	HUNDRED ISLANDS YOUNG INVENTORS TEAM 1
82	PHILIPPINES	ALAMINOS CITY NATIONAL HIGH SCHOOL	HUNDRED ISLANDS YOUNG INVENTORS TEAM 13
83	PHILIPPINES	ALAMINOS CITY NATIONAL HIGH SCHOOL	HUNDRED ISLANDS YOUNG INVENTORS TEAM 16
84	PHILIPPINES	ALAMINOS CITY NATIONAL HIGH SCHOOL	HUNDRED ISLANDS YOUNG INVENTORS TEAM 18
85	PHILIPPINES	ALAMINOS CITY NATIONAL HIGH SCHOOL	HUNDRED ISLANDS YOUNG INVENTORS TEAM 20
86	PHILIPPINES	ALAMINOS CITY NATIONAL HIGH SCHOOL	HUNDRED ISLAND YOUNG INVENTORS TEAM 6
87	PHILIPPINES	ALAMINOS CITY NATIONAL HIGH SCHOOL	HUNDRED ISLANDS YOUNG INVENTORS TEAM 7
88	PHILIPPINES	ALAMINOS CITY NATIONAL HIGH SCHOOL	HUNDRED ISLANDS YOUNG INVENTORS TEAM 17
89	PHILIPPINES	ALAMINOS CITY NATIONAL HIGH SCHOOL	HUNDRED ISLANDS YOUNG INVENTORS TEAM 22
90	PHILIPPINES	ALAMINOS CITY NATIONAL HIGH SCHOOL	HUNDRED ISLANDS YOUNG INVENTORS TEAM 19
91	PHILIPPINES	ALAMINOS CITY NATIONAL HIGH SCHOOL	YOUNG INVENTORS CHALLENGE INDIVIDUAL
92	PHILIPPINES	ALAMINOS CITY NATIONAL HIGH SCHOOL	HUNDRED ISLANDS TEAM 27
93	PHILIPPINES	ALAMINOS CITY NATIONAL HIGH SCHOOL	HUNDRED ISLAND YOUTH INVENTORS TEAM 15
94	PHILIPPINES	ALAMINOS CITY NATIONAL HIGH SCHOOL	HUNDREDS ISLANDS YOUNG INVENTORS TEAM 25
95	PHILIPPINES	BAYAMBANG NATIONAL HIGH SCHOOL	TEAM PYRO
96	PHILIPPINES	BAYAMBANG NATIONAL HIGH SCHOOL	MICRO- INNOVATORS
97	PHILIPPINES	CAVITE SCIENCE INTEGRATED SCHOOL	RENAISSANCE
98	PHILIPPINES	ILIGAN CITY NATIONAL HIGH SCHOOL	AQUALERT

NO	COUNTRY	SCHOOL NAME	TEAM NAME
99	PHILIPPINES	ILIGAN CITY NATIONAL HIGH SCHOOL	TEAM ZAIBOT
100	PHILIPPINES	ILIGAN CITY NATIONAL HIGH SCHOOL	SENSOBOY
101	PHILIPPINES	ILIGAN CITY NATIONAL HIGH SCHOOL	HYDROBOT
102	PHILIPPINES	MISAMIS ORIENTAL GENERAL COMPREHENSIVE HIGH SCHOOL	COGNITION COLLECTIVE
103	PHILIPPINES	ORIENTAL MINDORO NATIONAL HIGH SCHOOL	ECORMINIANS
104	PHILIPPINES	ORIENTAL MINDORO NATIONAL HIGH SCHOOL	ORMINIONS
105	PHILIPPINES	PHILIPPINE SCIENCE HIGH SCHOOL - CENTRAL VISAYAS CAMPUS	BUCHI
106	PHILIPPINES	PHILIPPINE SCIENCE HIGH SCHOOL - CENTRAL VISAYAS CAMPUS	WAGAS
107	PHILIPPINES	PHILIPPINE SCIENCE HIGH SCHOOL - CORDILLERA ADMINISTRATIVE REGION CAMPUS	ANAHAW
108	PHILIPPINES	PHILIPPINE SCIENCE HIGH SCHOOL - CORDILLERA ADMINISTRATIVE REGION CAMPUS	MISS KESIYA
109	PHILIPPINES	PHILIPPINE SCIENCE HIGH SCHOOL - CORDILLERA ADMINISTRATIVE REGION CAMPUS	LIKHA
110	PHILIPPINES	PHILIPPINE SCIENCE HIGH SCHOOL - MAIN CAMPUS	PSHS MAIN CAMPUS
111	PHILIPPINES	PHILIPPINE SCIENCE HIGH SCHOOL SOUTHERN MINDANAO CAMPUS	BUTIL NG KINABUKASAN
112	PHILIPPINES	SAN NICOLAS NATIONAL HIGH SCHOOL	S.A.F.E.R. - SAN NICOLAS AUTONOMOUS FRONTIERS FOR EMERGENCY RESPONSE
113	SINGAPORE	ANDERSON SERANGOON JUNIOR COLLEGE, EUNOIA JUNIOR COLLEGE, ST JOSEPH'S INSTITUTION	YICSLAYERS
114	SINGAPORE	COMPASSVALE SECONDARY SCHOOL	MR SORTY
115	SINGAPORE	RAFFLES GIRLS' SCHOOL	TEAM MENTAL

NO	COUNTRY	SCHOOL NAME	TEAM NAME
116	SINGAPORE	RAFFLES GIRLS' SCHOOL	DUST B-OUT
117	SINGAPORE	RAFFLES GIRLS' SCHOOL	STEM WHAM
118	SINGAPORE	RAFFLES GIRLS' SCHOOL	TEAM ECHINACEA
119	SINGAPORE	RAFFLES GIRLS' SCHOOL	TEAM STERLING
120	SINGAPORE	RAFFLES GIRLS' SCHOOL	TEAM MAXIMA
121	SINGAPORE	RAFFLES GIRLS' SCHOOL	GROUP 61 (LATEST)
122	SINGAPORE	RAFFLES GIRLS' SCHOOL	SMOKING PLANETS
123	SINGAPORE	RAFFLES GIRLS' SCHOOL	VALTURES
124	SINGAPORE	RAFFLES GIRLS' SCHOOL	TECH TURTLES
125	SINGAPORE	RAFFLES GIRLS SCHOOL (SECONDARY)	ZORAL
126	SINGAPORE	RAFFLES GIRLS SCHOOL (SECONDARY)	FIVEFORFUTURE
127	SINGAPORE	RAFFLES GIRLS SCHOOL (SECONDARY)	33
128	SINGAPORE	RAFFLES GIRLS SCHOOL (SECONDARY)	TEAM CHANGE THE WORLD
129	SINGAPORE	RAFFLES GIRLS SCHOOL (SECONDARY)	5 FINGERS
130	SINGAPORE	RAFFLES GIRLS SCHOOL (SECONDARY)	PH7
131	SINGAPORE	RAFFLES GIRLS SCHOOL (SECONDARY)	TEAM QUADRUPLE C: COOLING YOUR CORN ON A CORB COOL
132	SINGAPORE	RAFFLES GIRLS SCHOOL (SECONDARY)	TEAM TBC
133	SINGAPORE	RAFFLES GIRLS SCHOOL (SECONDARY)	TEAM YOUNG INNO -SLAY-TORS
134	SINGAPORE	SINGAPORE CHINESE GIRLS' SCHOOL	THE SOUNDPROOFERS
135	SINGAPORE	SINGAPORE CHINESE GIRLS' SCHOOL	SCHALLENGERS
136	SINGAPORE	WESTWOOD SECONDARY SCHOOL	WESTWOOD D&T

NO	COUNTRY	SCHOOL NAME	TEAM NAME
137	THAILAND	BUNGAN	BK DEVELOPERS
138	THAILAND	CHIANG MAI UNIVERSITY DEMONSTRATION SCHOOL	SSS (SAM SAO SATIT)
139	THAILAND	DAMRONGRATSONGKROH SCHOOL	COFFEE BERRY BORER IN THE COFFEE FARM
140	THAILAND	DEMONSTRATION SCHOOL OF KHON KAEN UNIVERSITY	SMD INNOVATION PROJECT
141	THAILAND	HATYAIWITTAYALAI	GLEAM
142	THAILAND	ISLAMIC SCIENCE DEMONSTRATION SCHOOL PRINCE OF SONGKHLA UNIVERSITY	BEAUTIFUL WORLDS WITH OUR HANDS
143	THAILAND	KHONKAENWITTAYAYORN SCHOOL	UPADS ANDY2K
144	THAILAND	MONTFORT COLLEGE	JELLYFISH
145	THAILAND	MONTFORT COLLEGE	TRIO BOFFIN
146	THAILAND	MONTFORT COLLEGE	GAIN GIRLS
147	THAILAND	MONTFORT COLLEGE	BPM
148	THAILAND	MONTFORT COLLEGE	ROTTEN ORANGE
149	THAILAND	PHIMANPHITTHAYASAN SCHOOL	NPA
150	THAILAND	PHIMANPHITTHAYASAN SCHOOL	PS PHIMAN
151	THAILAND	PHIMANPHITTHAYASAN SCHOOL	PS
152	THAILAND	THANYARAT SCHOOL	BODDY
153	THAILAND	TRIAM UDOM SUKSA SCHOOL OF THE SOUTH	HERBAL SCENT DIFFUSER
154	THAILAND	VAREE CHIANGMAI SCHOOL	NATURE 'S NURTURE
155	THAILAND	VAREE CHIANGMAI SCHOOL	MANGO ANALYZERS

4.2 Judges Training

The YIC 2023 Judging team was led by Chief Judge Dr. Nur'ain Salehen and Deputy Chief Judge Dr. Lee Tze Yan. Judges from various professional backgrounds were recruited to mark YIC's Invention Pitch Video and Project Report. A total of 95 judges agreed to be on board and the Judges Training video was recorded and distributed to the judges prior to the marking.

4.3 The Invention Pitch Video and Project Report Marking

The Invention Pitch Video and Project Report marking started on the 20th September 2023 and the judges were given 17 days for the marking process. A total of 95 judges, consisting of university lecturers, scientists, environmental consultants, intellectual property experts, etc marked the Invention Pitch Video and Project Report from all the 155 teams and submitted the results on the 6th October 2023. Subsequently, the judging panel had shortlisted the Top 30 teams to participate in online viva session.

4.4 Announcement of Top 30 Teams

The Top 30 teams who proceeded to the next stage of the competition which was the Online Viva Session were announced via email on the 13th October 2023 and the details are as follows.

NO	COUNTRY	SCHOOL NAME	TEAM NAME
1	BRUNEI DARUSSALAM	SEKOLAH MENENGAH BERAKAS	TEAM SCIENTIFIC ENIGMAS
2	INDONESIA	SMA NEGERI BALI MANDARA	PATIK TEAM
3	INDONESIA	SMAK BPK PENABUR SINGGASANA	OXNOTES
4	MALAYSIA	LABUAN INTERNATIONAL SCHOOL	LIS CBL 21
5	MALAYSIA	MRSM TUN GHAFAR BABA	ANOX
6	MALAYSIA	SEKOLAH MENENGAH IMTIAZ YAYASAN TERENGGANU BESUT	INNOVATERFORCE
7	MALAYSIA	SEKOLAH MENENGAH IMTIAZ YAYASAN TERENGGANU BESUT	GENZONIC.CO
8	MALAYSIA	SEKOLAH MENENGAH SAINS BATU PAHAT	EXTRAORDINAIRE
9	MALAYSIA	SM SAINS TUANKU JAAFAR	STJ ESTELLE
10	MALAYSIA	SM ST MICHAEL, PENAMPANG, SABAH	GEMSTONES

NO	COUNTRY	SCHOOL NAME	TEAM NAME
11	MALAYSIA	SMA MAIWP KL	HBYTE
12	MALAYSIA	SMJK CHUNG LING BUTTERWORTH	TECHNO-POWER CLB
13	MALAYSIA	SMJK HENG EE	DREAMERS
14	MALAYSIA	SMK BINTULU	X-PROS
15	MALAYSIA	SMK BINTULU	IT WARRIORS
16	MALAYSIA	SMK CONVENT BUKIT NANAS	CATCHING TREMORS
17	MALAYSIA	SMK DAMANSARA UTAMA, COLLINZ INTERNATIONAL SCHOOL	Y-KNOT TECHIES
18	MALAYSIA	SMK DATUK HAJI AHMAD BADAWI	HEATBGONE
19	MALAYSIA	SMK TAWAU	ILHAM
20	MALAYSIA	ST. JOHN'S INSTITUTION	GOLDEN EAGLES
21	PHILIPPINES	ALAMINOS CITY NATIONAL HIGH SCHOOL	HUNDRED ISLAND YOUTH INNOVATORS TEAM 8
22	PHILIPPINES	ALAMINOS CITY NATIONAL HIGH SCHOOL	HUNDRED ISLAND YOUTH INNOVATORS TEAM 4
23	PHILIPPINES	ALAMINOS CITY NATIONAL HIGH SCHOOL	HUNDRED ISLAND YOUTH INNOVATORS TEAM 6
24	PHILIPPINES	CAVITE SCIENCE INTEGRATED SCHOOL	RENAISSANCE
25	PHILIPPINES	ORIENTAL MINDORO NATIONAL HIGH SCHOOL	ORMINIONS
26	PHILIPPINES	SAN NICOLAS NATIONAL HIGH SCHOOL	S.A.F.E.R. - SAN NICOLAS AUTONOMOUS FRONTIERS FOR EMERGENCY RESPONSE
27	SINGAPORE	RAFFLES GIRLS' SCHOOL (SECONDARY)	TEAM CHANGE THE WORLD
28	SINGAPORE	RAFFLES GIRLS' SCHOOL (SECONDARY)	FIVE FOR FUTURE
29	THAILAND	CHIANG MAI UNIVERSITY DEMONSTRATION SCHOOL	SSS (SAM SAO SATIT)
30	THAILAND	MONTFORT COLLEGE	BPM

Table 5: List of Top 30 teams

4.5 Online Viva Session

One week before the Online Viva session, all the 30 teams were given a trial run to test their video, audio and connectivity. YIC also provided them with a guideline and terms and conditions that had to be followed during the online viva session.

The online viva session was conducted on the 4th November 2023 as per the schedule shown in Table 6. The sessions were conducted through Zoom Meet and a total of 29 teams participated, presented and answered questions from the judges on the scheduled time. Three panels of judges evaluated each team.

GROUP 1	TIME	COUNTRY	SCHOOL NAME	TEAM NAME
SLOT 1	9.00AM TO 9.30AM	MALAYSIA	SMJK CHUNG LING BUTTERWORTH	TECHNO-POWER CLB
SLOT 2	9.45AM TO 10.15AM	MALAYSIA	SEKOLAH MENENGAH IMTIAZ YAYASAN TERENGGANU BESUT	INNOVA TERFORCE
SLOT 3	10.30AM TO 11.00AM	MALAYSIA	LABUAN INTERNATIONAL SCHOOL	LIS CBL 21
SLOT 4	11.15AM TO 11.45AM	MALAYSIA	SMAK BPK PENABUR SINGGASANA	OXNOTES
SLOT 5	12.00PM TO 12.30PM	MALAYSIA	SEKOLAH IMTIAZ YAYASAN TERENGGANU BESUT	GENZONIC.CO
SLOT 6	12.45PM TO 1.15PM	MALAYSIA	SMK TAWAU	ILHAM

GROUP 2	TIME	COUNTRY	SCHOOL NAME	TEAM NAME
SLOT 1	9.00AM TO 9.30AM	MALAYSIA	SMK BINTULU	IT WARRIORS
SLOT 2	9.45AM TO 10.15AM	MALAYSIA	SMK CONVENT BUKIT NANAS	CATCHING TREMORS
SLOT 3	10.30AM TO 11.00AM	PHILIPPINES	ORIENTAL MINDORO NATIONAL HIGH SCHOOL	ORMINIONS
SLOT 4	11.15AM TO 11.45AM	PHILIPPINES	CAVITE SCIENCE INTEGRATED SCHOOL	RENAISSANCE
SLOT 5	12.00PM TO 12.30PM	PHILIPPINES	SMJK HENG EE	DREAMERS
SLOT 6	12.45PM TO 1.15PM	MALAYSIA	SMK DATUK HAJI AHMAD BADAWI	HEATBGONE

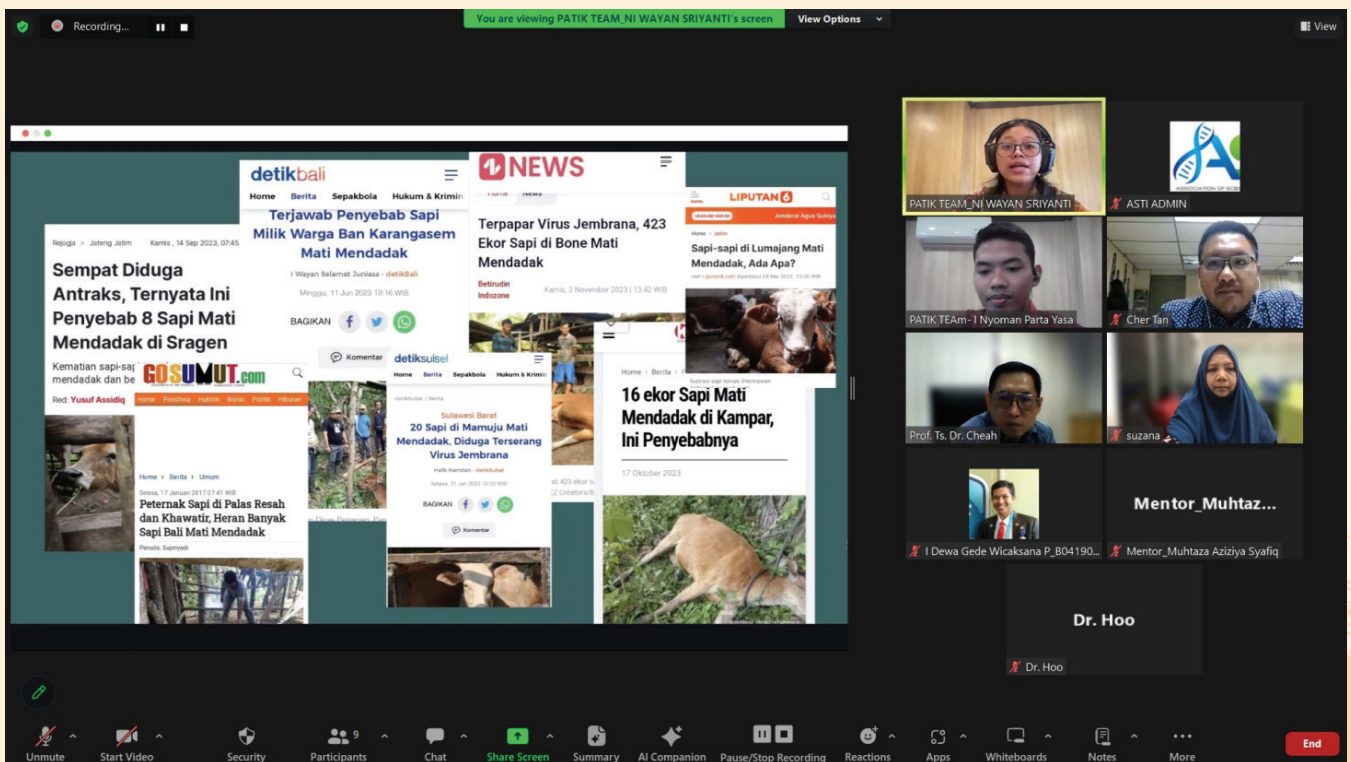
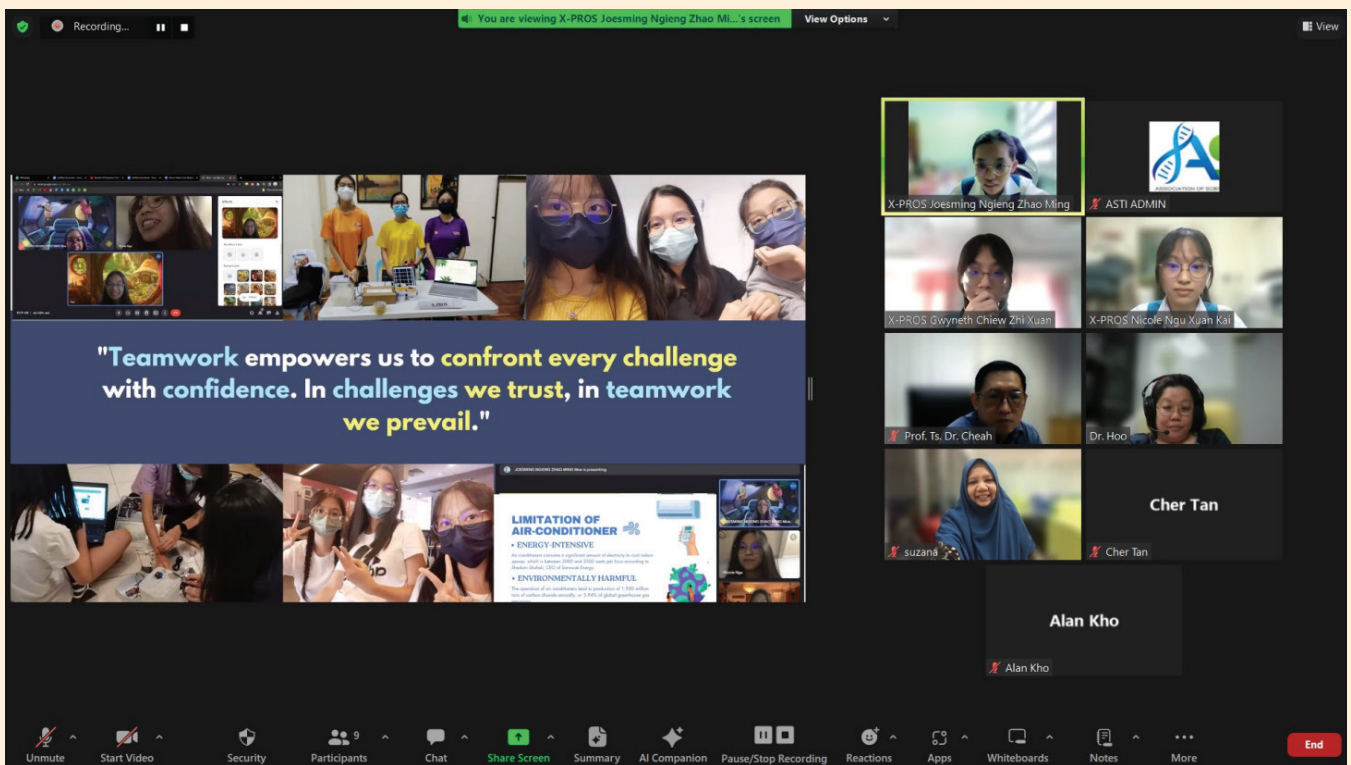
GROUP 3	TIME	COUNTRY	SCHOOL NAME	TEAM NAME
SLOT 1	9.00AM TO 9.30AM	THAILAND	CHIANG MAI UNIVERSITY DEMONSTRATION SCHOOL	SSS (SAM SAO SATIT)-PULLOUT
SLOT 2	9.45AM TO 10.15AM	THAILAND	MONTFORT COLLEGE	BPM
SLOT 3	10.30AM TO 11.00AM	MALAYSIA	SEKOLAH MENENGAH SAINS BATU PAHAT	EXTRAORDINAIRE
SLOT 4	11.15AM TO 11.45AM	MALAYSIA	SM ST MICHAEL, PENAMPANG, SABAH	GEMSTONES
SLOT 5	12.00PM TO 12.30PM	MALAYSIA	SMA MAIWP KL	H-BYTE
SLOT 6	12.45PM TO 1.15PM	MALAYSIA	MRSM TUN GHAFAR BABA	ANOX

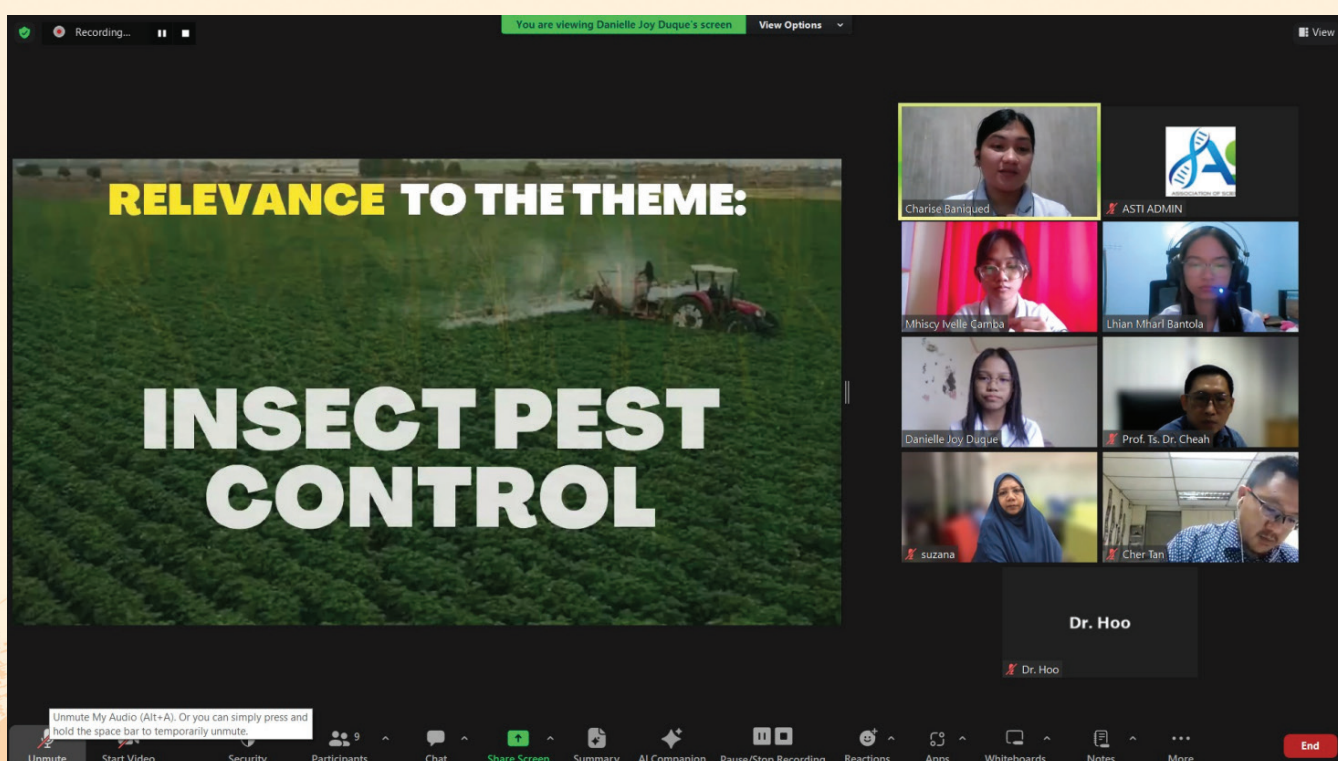
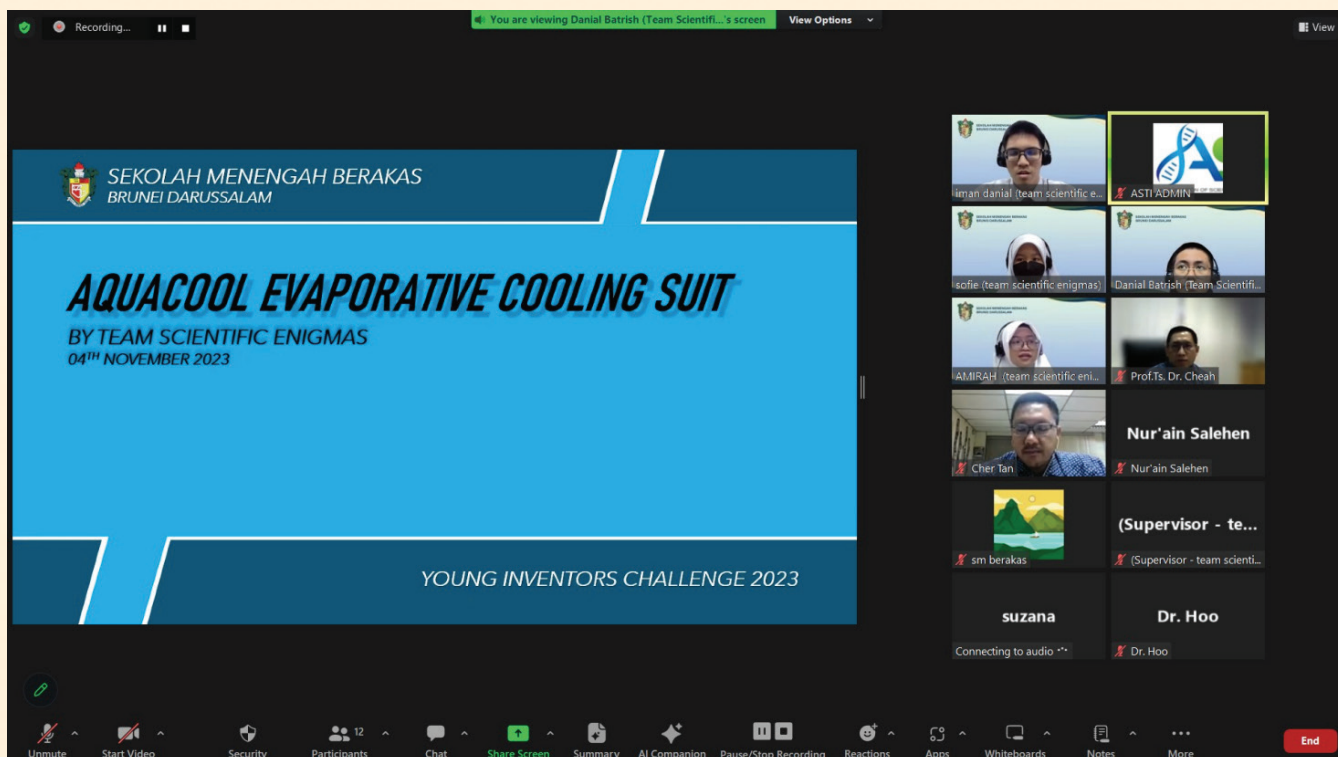
GROUP 4	TIME	COUNTRY	SCHOOL NAME	TEAM NAME
SLOT 1	9.00AM TO 9.30AM	MALAYSIA	ST. JOHN'S INSTITUTION	GOLDEN EAGLES
SLOT 2	9.45AM TO 10.15AM	MALAYSIA	SM SAINS TUANKU JAAFAR	STJ ESTELLE
SLOT 3	10.30AM TO 11.00AM	PHILIPPINES	SAN NICOLAS NATIONAL HIGH SCHOOL	S.A.F.E.R. - SAN NICOLAS AUTONOMOUS FRONTIERS FOR EMERGENCY RESPONSE
SLOT 4	11.15AM TO 11.45AM	SINGAPORE	RAFFLES GIRLS' SCHOOL (SECONDARY)	FIVE FOR FUTURE
SLOT 5	12.00PM TO 12.30PM	PHILIPPINES	ALAMINOS CITY NATIONAL HIGH SCHOOL	HUNDRED ISLAND YOUNG INVENTORS TEAM 6
SLOT 6	12.45PM TO 1.15PM	MALAYSIA	SMK DAMANSARA UTAMA, COLLINZ INTERNATIONAL SCHOOL	Y-KNOT TECHIES

GROUP 5	TIME	COUNTRY	SCHOOL NAME	TEAM NAME
SLOT 1	9.00AM TO 9.30AM	SINGAPORE	RAFFLES GIRLS' SCHOOL (SECONDARY)	TEAM CHANGE THE WORLD
SLOT 2	9.45AM TO 10.15AM	MALAYSIA	SMK BINTULU	X-PROS
SLOT 3	10.30AM TO 11.00AM	INDONESIA	SMA NEGERI BALI MANDARA	PATIK TEAM
SLOT 4	11.15AM TO 11.45AM	BRUNEI DARUSSALAM	SEKOLAH MENENGAH BERAKAS	TEAM SCIENTIFIC ENIGMAS
SLOT 5	12.00PM TO 12.30PM	PHILIPPINES	ALAMINOS CITY NATIONAL HIGH SCHOOL	HUNDRED ISLANDS YOUNG INVENTORS TEAM 4
SLOT 6	12.45PM TO 1.15PM	PHILIPPINES	ALAMINOS CITY NATIONAL HIGH SCHOOL	HUNDRED ISLAND YOUTH INNOVATORS TEAM 8


Table 6: Online Viva Schedule

4.6 Online Viva Pictures





Recording... You are viewing Hugh Spence Sas' screen View Options




EM WAVES (MICROWAVE)

Thyronjay Palaza ASTI ADMIN
 Ram Allen Ranches Gabriella Allyson Mae Esguerra
 DWAYNE XAVIER USON Hugh Spence Sas
 Cher Tan Prof. Ts. Dr. Cheah
 PROJECT ADVISER_KRIS CRISTHO... Dr. Hoo

Unmute Start Video Security Participants Chat Share Screen Summary AI Companion Pause/Stop Recording Reactions Apps Whiteboards Notes More End


Recording... Remaining Meeting Time: 09:13 | Upgrade to Pro

Scientific Methods




VARK

- VARK is a learning styles questionnaire that helps students learn better by suggesting the study strategies that are the best for them



Visualisation

- Visualisation is the process of creating mental images of what people are trying to learn



Time and Study Performance

- Best time to study is between 10:00 am and 2:00 pm and between 4:00 pm and 10:00 pm.

Julian Siah
 Yongkang Chua
 Poh Sim Ean
 N Azhar Ahmad
 MONASH University
 Janarthanan



4.7 Announcement of the Winners

The Young Inventors Challenge 2023 winners were announced on the 6th December 2023 at 5pm through YouTube Live Session. The YouTube Live Session started with the welcoming note and background information sharing by the Moderator Ms. Padmini Kanniah. Mr.Tan Cher Hao gave the opening remarks about YIC. He congratulated all the teams who participated in YIC 2023. The virtual event was continued with a short speech from Dr. Joshua Netto, President of Project Management Institute Malaysia Chapter. Dr Joshua highlighted that he was very happy to be partnering with ASTI for Project Management Competition 2023.

The Virtual Winners Announcement Ceremony was graced by Ms.Florence Tan, Deputy Chief Technologist (DCT) for NASA's Science Mission Directorate (SMD) at Nasa Headquarters. Ms. Florence Tan spoke about her personal journey to NASA. She ended the speech by saying "I'd like to congratulate all of you for making it this far, and I hope that's not the end of your journey, but the beginning. And I also congratulate YIC for providing a platform forum for these amazing young persons to showcase their ability". The speech was very motivational and inspirational.

The session continued with video wishes from some of our funders. This year's Young Inventors Challenge would not be possible without the support from our honourable funders. The YIC 2023 was funded by CIMB Foundation, Kolej Yayasan UEM, Yayasan Hasanah and UMW Holdings.

The YouTube event was followed by the judging feedback and remarks by Dr.Nur'ain Salehen, Chief Judge, Dr. Lee Tze Yan, Deputy Chief Judge and Mr.Faizal Noor Batcha, Judging Advisor. Dr.Nur'ain Salehen mentioned that the judges had a hard time judging the participants because of quality of the entry. Dr. Lee Tze Yan added that the judgment was focused on creativity, innovation, competence in presentation and safety measures.

The thanking remark was delivered by Dr.Mohamed Yunus Yasin. Throughout his speech, he urged the participants not to give up and continue their creative journey, regardless of the outcome. Dr Yunus also expressed his gratitude and appreciation to the funders who made this event possible. He also thanked everyone involved in YIC 2023 and in making the event a great success.

The Virtual Winners Announcement Ceremony continues with the presentation of awards to the winners. The Platinum Award, Gold Award, Silver Award, and Bronze Award winners were announced through a multimedia presentation. The details of the winning teams are shown in the table 7 below:

RANKING	COUNTRY	SCHOOL NAME	TEAM NAME
PLATINUM AWARD CHAMPION	SINGAPORE	RAFFLES GIRLS' SCHOOL (SECONDARY)	FIVE FOR FUTURE
GOLD AWARD 1ST RUNNER UP	PHILIPPINES	CAVITE SCIENCE INTEGRATED SCHOOL	RENAISSANCE
GOLD AWARD 2ND RUNNER UP	INDONESIA	SMA NEGERI BALI MANDARA	PATIK TEAM
SILVER 4TH PLACE	MALAYSIA	SMK DAMANSARA UTAMA, COLLINZ INTERNATIONAL SCHOOL	Y-KNOT TECHIES
SILVER 5TH PLACE	MALAYSIA	SMK BINTULU	IT WARRIORS
SILVER 6TH PLACE	MALAYSIA	SM ST MICHAEL, PENAMPANG, SABAH	GEMSTONES
SILVER 7TH PLACE	MALAYSIA	SMJK CHUNG LING BUTTERWORTH	TECHNO-POWER CLB
SILVER 8TH PLACE	PHILIPPINES	ALAMINOS CITY NATIONAL HIGH SCHOOL	HUNDRED ISLAND YOUTH INNOVATORS TEAM 8
BRONZE 9TH PLACE	THAILAND	MONTFORT COLLEGE	BPM
BRONZE 10TH PLACE	MALAYSIA	LABUAN INTERNATIONAL SCHOOL	LIS CBL 21
BRONZE 11TH PLACE	MALAYSIA	SEKOLAH MENENGAH SAINS BATU PAHAT	EXTRAORDINAIRE
BRONZE 12TH PLACE	MALAYSIA	SM SAINS TUANKU JAAFAR	STJ ESTELLE
BRONZE 13TH PLACE	SINGAPORE	RAFFLES GIRLS' SCHOOL (SECONDARY)	TEAM CHANGE THE WORLD
BRONZE 14TH PLACE	PHILIPPINES	ORIENTAL MINDORO NATIONAL HIGH SCHOOL	ORMINIONS
BRONZE 15TH PLACE	MALAYSIA	SMK TAWAU	ILHAM

Table 7: Young Inventors Challenge 2023 Winners

PROJECT MANAGEMENT COMPETITION

5.0

For the first time, The Project Management Institute Malaysia Chapter (PMIMY) and The Association of Science Technology and Innovation (ASTI) jointly launched Project Management Competition for Young Inventors Challenge 2023. A total of 23 teams submitted their Project Management Report. The top 3 positions, first, second and third place winners were chosen and awarded. One team was recognised by the Project Management Institute Malaysia Chapter (PMIMY) on 9th December 2023 under the student's category during their award ceremony. The list of winners are shown in table 8 below:

PLACING	COUNTRY	STATE	SCHOOL NAME	TEAM NAME
1ST PLACE WINNER	PHILIPPINES	MINDANAO	MISAMIS ORIENTAL GEN COMPREHENSIVE HIGH SCHOOL	COGNITION COLLECTIVE
2ND PLACE WINNER	SINGAPORE	SINGAPORE	RAFFLES GIRLS' SCHOOL (SECONDARY)	PH7
3RD PLACE WINNER	PHILIPPINES	PHILIPPINES	ALAMINOS CITY NATIONAL HIGH SCHOOL	HUNDRED ISLANDS YOUNG INVENTORS TEAM 16
3RD PLACE WINNER	MALAYSIA	PULAU PINANG	SMK DATUK ONN	THE INNOVATORS

Table 8: Project Management Competition 2023 Winners

FUNDING AND BUDGET

6.0

Funding

Young Inventors Challenge 2023 was funded and supported by CIMB Foundation, Kolej Yayasan UEM, Yayasan Hasanah and UMW Holdings. These funding organisations are the backbones of the success and achievement of YIC 2023. The funds received are shown in Table 9.

No	Funders/Sponsors	Fund Allocation (RM)
1	CIMB Foundation	45,750.00
2	Kolej Yayasan UEM	25,000.00
3	Yayasan Hasanah	15,000.00
4	UMW Holdings Berhad	5,000.00
TOTAL		90,750.00

Table 9: YIC 2023 Funding

Account Statement of YIC 2023

Income and Expenses Statement for the Project Period Ended 31st December 2023

Income	Fund Allocation (RM)
CIMB Foundation	45,750.00
Kolej Yayasan UEM	25,000.00
Yayasan Hasanah	15,000.00
UMW Holdings Berhad	5,000.00
TOTAL INCOME	90,750.00
Less: Expenditure	
Module Development, IP generation and Internal licenses	15,000.00
Flyers and Cover letter Designing and Printing	1,000.00
Promotion (Letter Postage)	1,000.00
Evaluation & Research	1,000.00
Prizes & Souvenirs	12,050.00
Judging Process and Procedures	5,000.00
Designing	1,430.00
Promotion and Printing	5,000.00
Travel and Transportation	500.00
Project Utilities and Stationaries	12,000.00
Virtual Winners Announcement Ceremony	5,000.00
Project Manager Salary and Benefits	22,240.00
Project Officer Salary and Benefits	36,450.00
TOTAL EXPENDITURE	117,670.00
Excess of (Expenditure)/Income*	(26,920.00)

*The excess of expenditure was underwritten by The Association of Science, Technology and Innovation (ASTI)

SURVEY ANALYSIS

7.0

Participant's Survey Analysis

The participant's survey was conducted through a google form. The google link survey form was distributed to the participants via email and WhatsApp messages. A total of 35 respondents have completed the survey. The analysis of the survey is summarised as below.

Distribution of Respondent by Gender

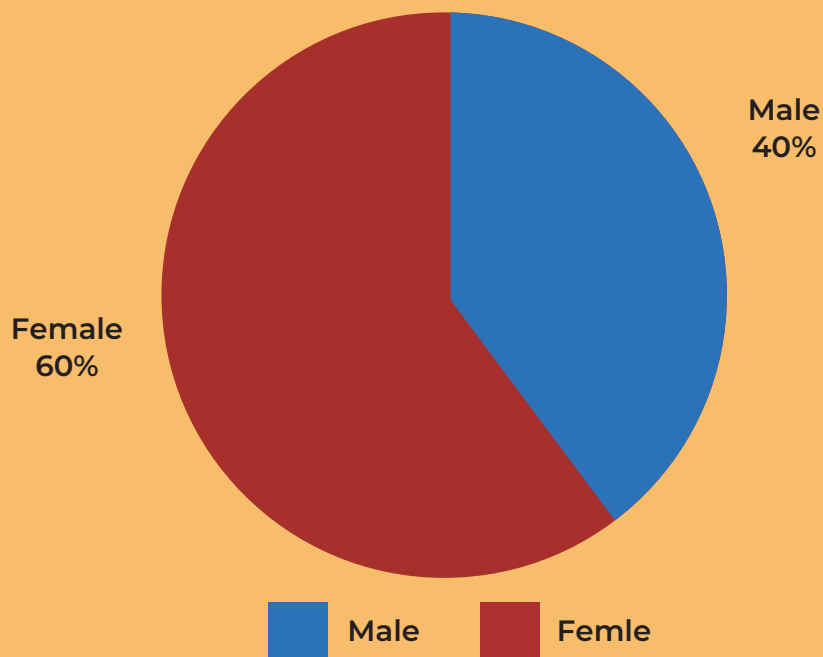


Figure 1: Distribution of Respondent by Gender

Distribution of Respondent by Ethnicity

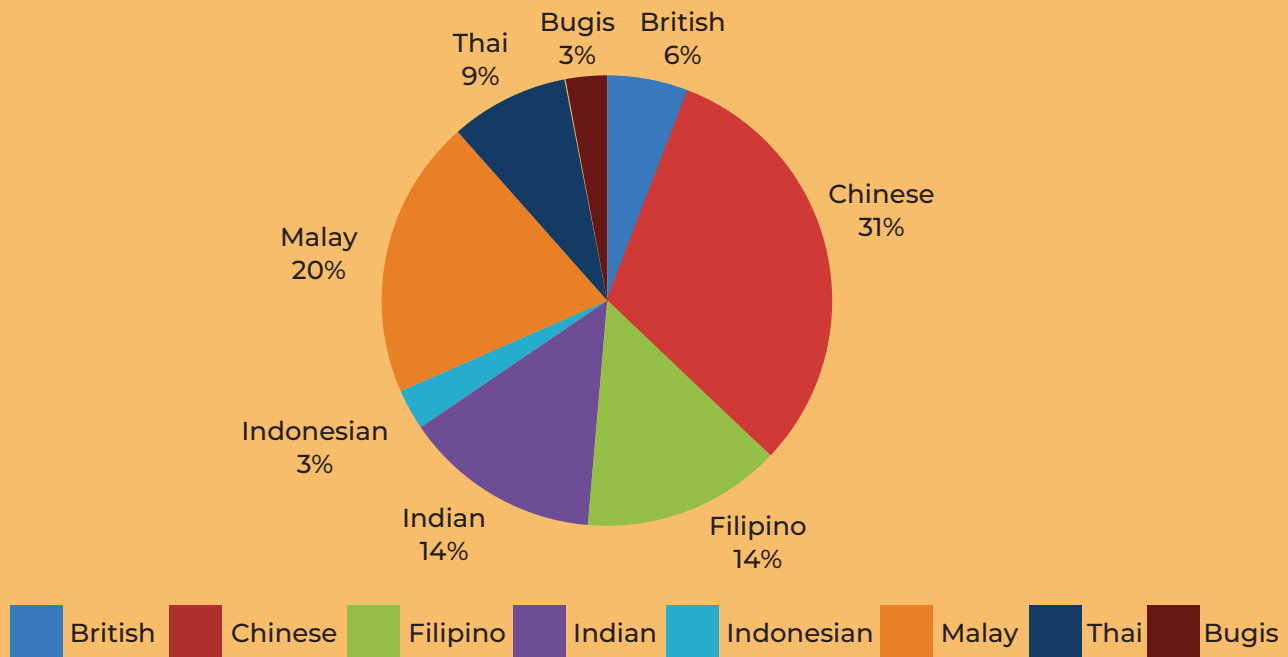


Figure 2: Distribution of Respondent by Ethnicity

Distribution of Respondent by Ethnicity

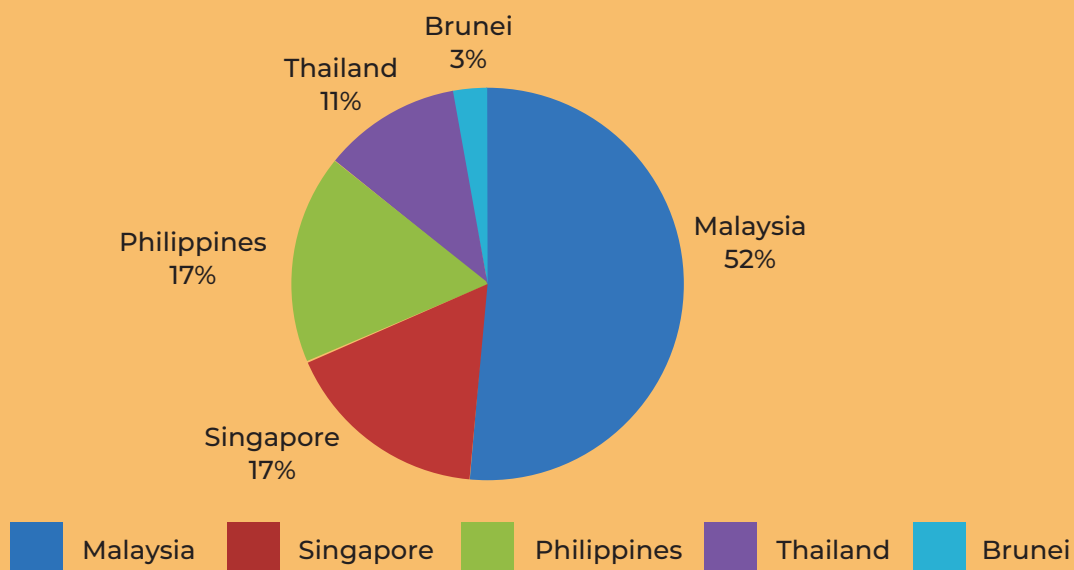


Figure 3: Distribution of Respondent by Country

Figure 1, 2 and 3 shows the respondents' gender, ethnicity and countries respectively. As can be seen from graph 1, the distribution of female is more compare to male respondent. Furthermore, students of Malay, Chinese and Indian ethnicity percentages are 20%, 31% and 14% respectively. Meanwhile there are respondents from the ethnicity of Filipino, Thai, Indonesia and Bugis as YIC is an international competition. On the other hand, figure 3 shows the countries representation and the highest percentage was from Malaysia followed by Singapore, Philippines and Thailand.

Respondent's Satisfaction Level on Students Manual and Online Training Provided

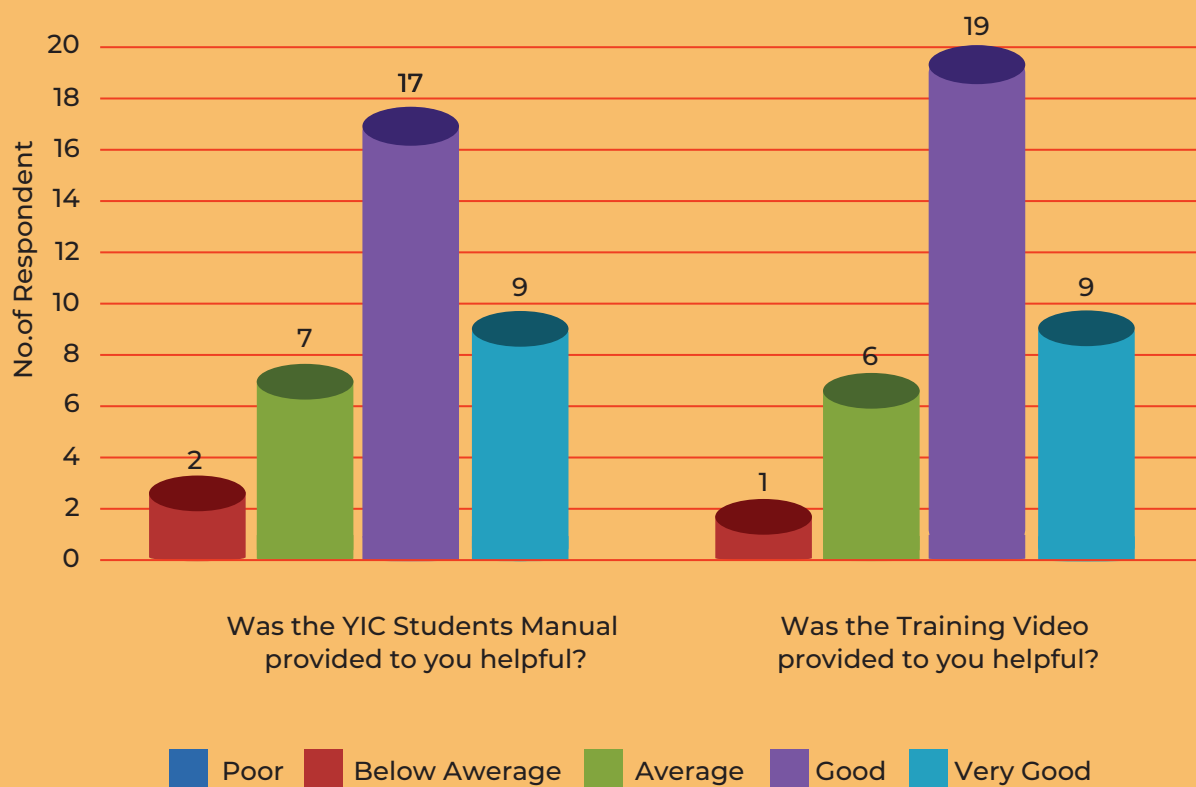


Figure 4: Respondent's Satisfaction Level on Students' Manual and Online Training Provided

The feedback obtained from respondents' opinion on the helpfulness of the students' manual and satisfaction on Training Videos was presented in figure 4. As can be seen from figure 4, almost 74% of the students rated good and very good for helpfulness of the students' manual. Meanwhile a total of 28 respondents rated good and very good for the helpfulness of training video provided. From this analysis we can conclude that YIC students' manual and YIC online trainings served its purpose to guide and provide students with adequate information. There was a total of 8 online training videos given to the students thought the journey of YIC on various topics.

Respondents' Opinion on Invention Process

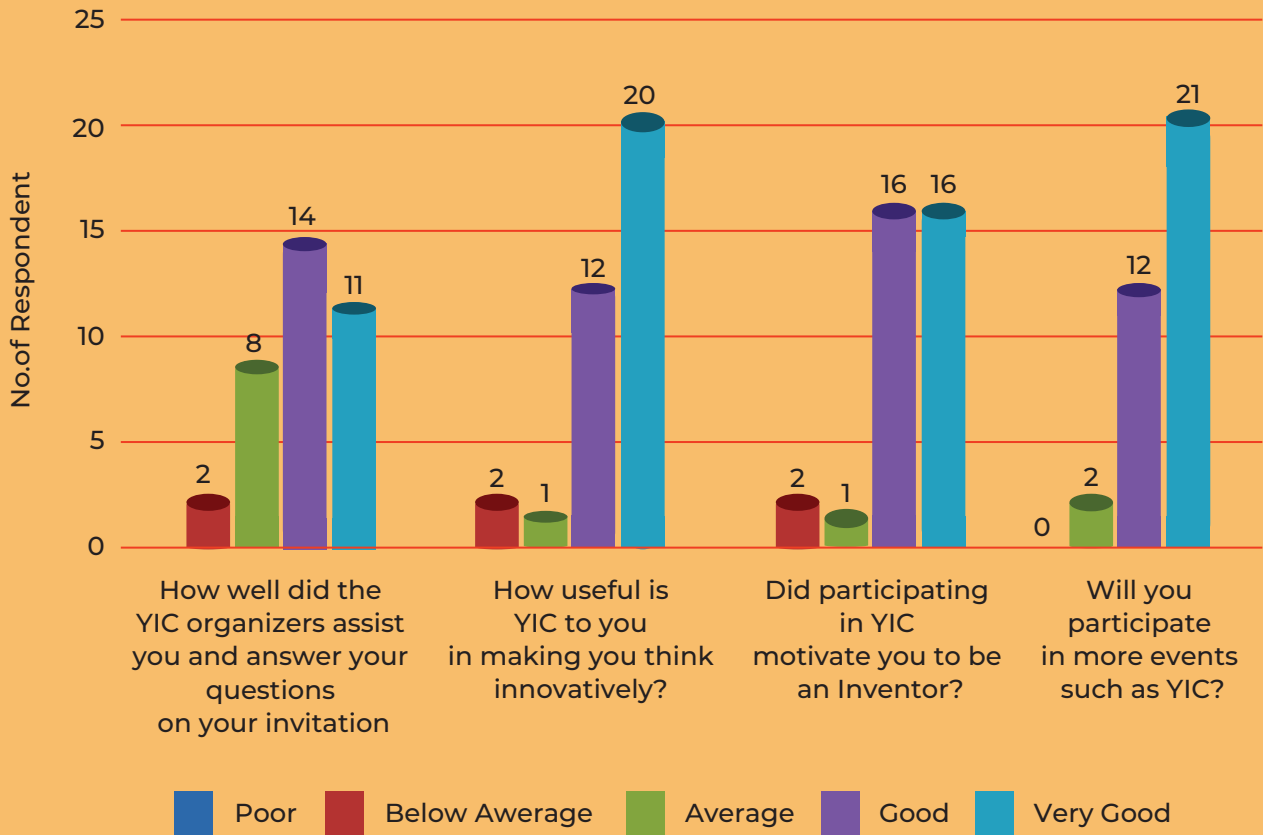


Figure 5: Respondents' Opinion on Inventions Process

Students were also requested to rate the assistance provided by the organizers and how well the organizers answered their questions on inventions. Based on the survey conducted, 71 % of the respondents have rated good and very good which indicates participants were satisfied and happy with the assistance and continuous guidance provided by the organisers in a timely manner. Besides, the result also indicates that the students believe that YIC actually made them to think innovatively during the process of developing the inventions/innovations. Figure 5 also indicates that YIC has effectively incorporated the motivating dimension to learners, as 91% of participants responded positively. Furthermore, 94 % of students are interested in taking part in more events, such as YIC as can be seen in figure 5.

How Much Did YIC Help You Gain the Following Skills?

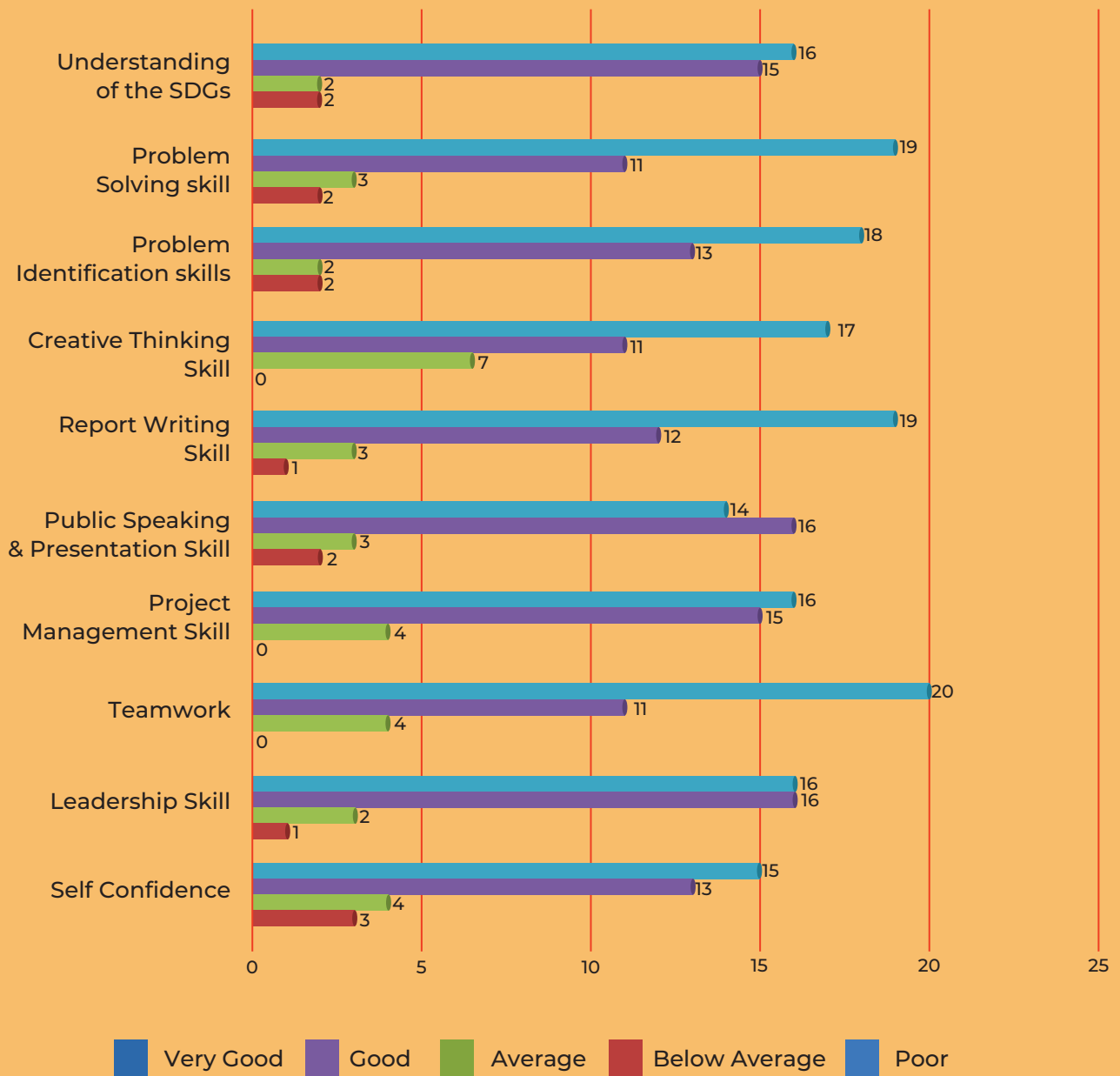


Figure 6: How Much Did YIC Helped Students Gain the following Qualities

The result of the chart shown in figure 6 clearly explains that YIC has successfully helped students to gain certain qualities and skills such as self-confidence, leadership, teamwork, project management, public speaking & presentation, report writing, creative thinking, Problem identification, problem-solving and understanding of SDGs. More than 80% of students rated good and very good for all the aspects, and only less than 7 students rated average and below average for all skills assessed. This indicates that YIC has played an essential role in encouraging students to acquire these interpersonal skills. In a conclusion, the practice of all these skills has made students to be qualified and thrive in the YIC 2023.

Would you like to participate in an entrepreneur competition based on your invention for YIC 2023?

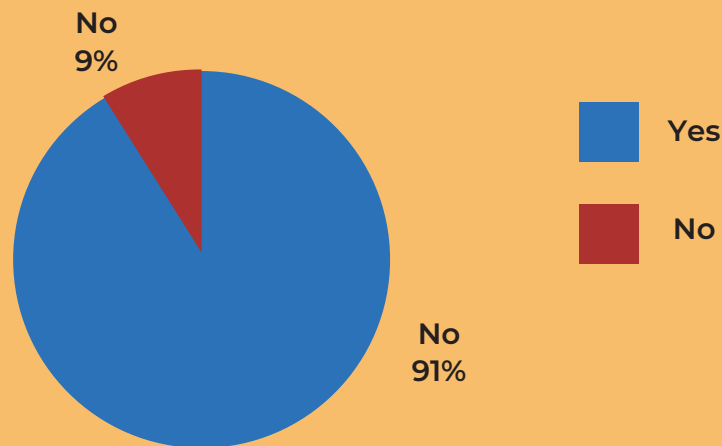


Figure 7: Respondents' Opinion on participating in Entrepreneur Competition

The participants were asked if they would like to participate in an entrepreneur competition based on their invention submitted for YIC 2023 and 91% of them responded YES which shows the students are very much interested in bringing their Invention to the next level which is commercialisation by learning to be an entrepreneurs.

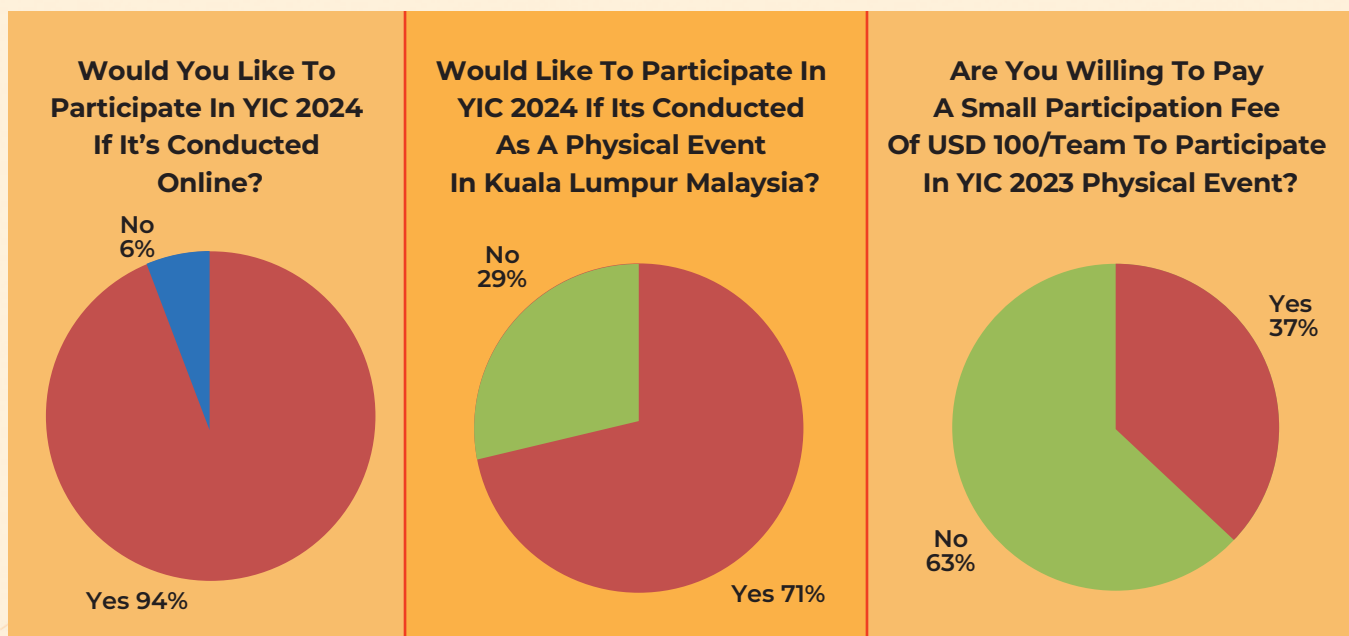


Figure 8: Respondents' Opinion on YIC 2024

Figure 8 explains the student's opinion on their participation in YIC 2024. Students were asked if they would like to take part in the YIC 2024 if it's conducted online and 94% responded "YES". Meanwhile the same students were asked if they are interested to take part in YIC 2024 physical event in Kuala Lumpur and 71% of them responded "YES". This indicates that, the participants prefer both Online and Physical event for YIC 2024. When asked about willingness to pay small participation fee of USD 100 per team to participate in a physical event, 37% said "YES" whereas 63% said "NO".

ACHIEVEMENT OF THE PROJECT

8.0

YIC has seen a phenomenal growth in the 11 years of operation from 2013-2023

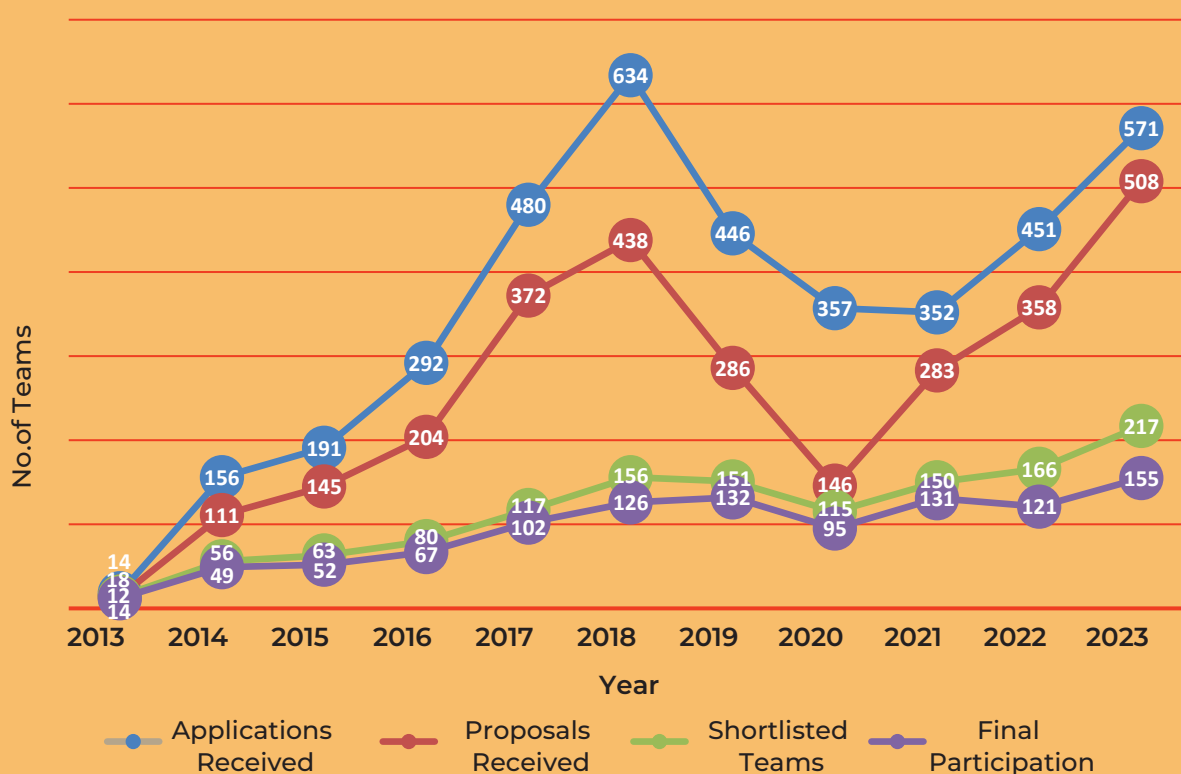


Figure 9: Comparison of Participation from YIC 2013-2023

Figure 9 shows the growth of YIC since 2013. As can be seen in graph, there is an increase in the number of applications received between 2013 to 2018 and a slight decrease in 2019. This decrease was caused by the participation fee of RM 400 per team that was charged for the first time due to financial constraints. In 2020 & 2021, the number of application received was further decreased due to Covid-19 pandemic and YIC going online. In 2022 and 2023, we have seen a increase trend in the number of applications received. The line chart also shows an increase in proposal received and shortlisted teams for the year 2023 as the participant gets familiar with Online Events and Competitions. This proves that schools and students are very interested in participating in the Online Young Inventors Challenge.

Table 10 shows the breakdown of YIC finale participation by country.

	YIC 2013	YIC 2014	YIC 2015	YIC 2016	YIC 2017	YIC 2018	YIC 2019	YIC 2020	YIC 2021	YIC 2022	YIC 2023
MALAYSIA	12	49	51	58	81	79	67	55	74	59	68
SINGAPORE	0	0	1	0	1	1	2	2	2	6	24
PHILIPPINES	0	0	0	9	4	14	25	9	25	30	37
THAILAND	0	0	0	0	14	24	14	21	25	19	19
INDONESIA	0	0	0	0	2	7	3	3	2	2	4
CHINA	0	0	0	0	0	1	3	0	0	0	0
BRUNEI DARUSSALAM	0	0	0	0	0	0	1	1	2	3	3
VIETNAM	0	0	0	0	0	0	16	0	0	0	0
TIMOR LESTE	0	0	0	0	0	0	1	0	0	0	0
INDIA	0	0	0	0	0	0	0	4	1	1	0
UNITED KINGDOM	0	0	0	0	0	0	0	0	1	1	0
	12	49	52	67	102	126	132	95	131	121	155

Table 10: YIC Final Competition Participation 2013 -2023

Table 10 shows the participation by country for YIC from 2013 to 2023. From 2013, we have managed to reach out to more schools in countries like Singapore, Philippines, Thailand and Indonesia. The student's participation and invention ideas are outstanding. In the coming years, we hope to reach out to even more countries.

RECOMMENDATIONS FOR THE FUTURE

9.0

YIC Working Group Committee SWOT Analysis and Recommendations

Strength

- Successfully completed 11th year consecutively
- The theme “Sustainable Development Goals (SDGs)” received well by all participants
- Experienced Project Director, Chief Judge and organizing committee
- Improved online Viva Judging Methodology in terms of more involvement from judges
- Continuous international participation
- Cost savings from online training, travelling
- Effective YouTube live training with more views
- Good coordination and communications among committee member for overall YIC programme through online meeting
- Flexibility and agility in organizing and managing the events
- More robust judging process and improvement of judging rubric
- Good motivators with involvement from NASA and Volunteer teachers
- Excellent and dedicated judges/volunteers
- Students learned Presentation and Communication Skills
- Continuous support from existing funders
- Working together with Project Management Institute
- New experience for the students to participate in Project Management Competition

Weakness

- Online barriers for rural and underprivileged schools
- Not able to see and test the working prototype physically
- Not able to meet each other (Networking and learning from each other)
- Unable to do mentor session with the teachers/mentors
- Viva session is only for the selected teams
- The virtual prize giving ceremony lacks physical euphoria
- Reduced contact time with the participants
- Lack of long-term funders
- Submission of same ideas/projects for multiple competition

Threat

- Possible decrease in funding due to economic slowdown
- Publicity to press especially online events
- Many online competitions
- Many organisations copying the YIC model
- Significant increase cost of travel
- Changes of academic calendar year

Opportunity

- More international participation
- More international partners/funders
- Online engagement improves students 21st century skills
- More engagement with industry partners
- Increase awareness on entrepreneurship among the participants
- Possibility on product patent and commercialization
- Opportunities to collaborate with multiple organisations

Recommendations

- Reach out to schools in more Countries
- Encourage new invention and innovation
- Identify ways to encourage participation from rural, indigenous, refugees etc. communities
- Look for more sponsors and local industrial partners
- More publicity
- Match making participants with various inventions industries
- Encourage participation from schools outside of Asia
- Increase publicity via social media live interviews
- Look into improving and updating rules and regulations of the competition
- Encourage participants in joining entrepreneurship program
- Explore to make YIC Physical again

CONCLUSION



10.0

In conclusion, YIC 2023 was a great success. We have attracted a number of teams from different states in Malaysia, as well as from other countries, including the Philippines, Thailand, Singapore, Indonesia, Brunei Darussalam, United Kingdom and India. Furthermore, several schools from countries like Philippines, Thailand, Singapore, and Indonesia have been participating continuously in YIC since 2015.

Our survey shows a high level of satisfaction from all of our stakeholders. We believe that this program shall serve as an excellent platform for young creative and inventive students to showcase their talent and possibly build their career in this area. We are working towards achieving our aim of creating inventors among the students as the participants learn the concept of invention and innovation.

We would like to express our sincere appreciation and gratitude to all the participants, mentors, headmasters, headmistress, judges, volunteers, supporters, funders, and well-wishers who have shown continuous support to YIC. We also would like thank all those who contributed directly or indirectly in one way or another in making Young Inventors Challenge 2023 a huge success.



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