

# Regional Report

Norilmi Amilia Ismail

UNISEC MALAYSIA



UNISEC Malaysia

# History of Local Chapter Activities

- **Established in *July 2019***

\*\*Number of

- Member Universities: 4 Universities – USM, UPM, UiTM, IIUM
- Students: 80 students
- Professors : 6

*Previous Activities :*

*1. Participated in CLTP in 2011, 2017 and 2018*



2011



2017



2018

# History of Local Chapter Activities

## 2) Participated in MIC in 2018 – Winner of Special IAF Award



# History of Local Chapter Activities

## *3) Attended 6<sup>th</sup> UNISEC Global Meeting 2018*



# History of Local Chapter Activities

## 4) *Attended 7<sup>th</sup> UNISEC Global Meeting 2019*



# History of Local Chapter Activities

## 5) *Practical Space Project*



UiTM-Sat 1 in BIRDS-2 Program



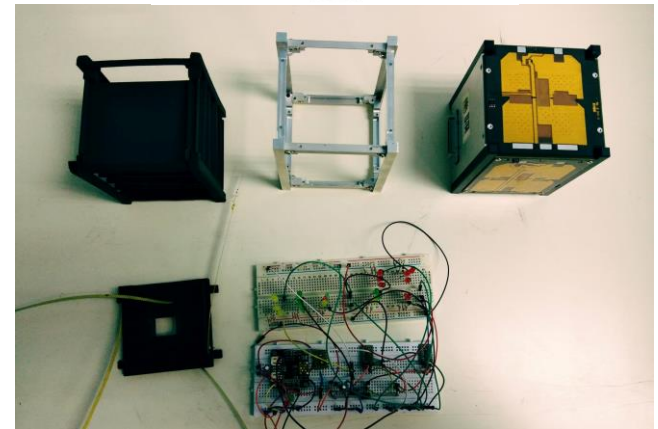
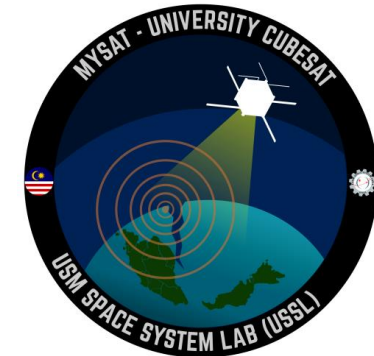
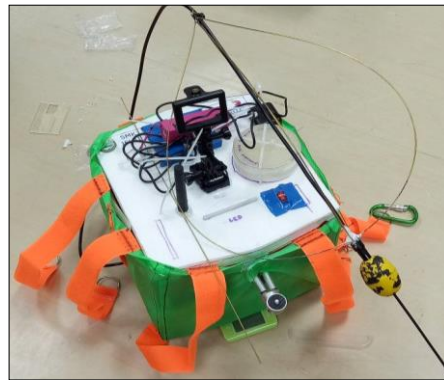
CanSat

# History of Local Chapter Activities

## 6) Practical Space Project (cont.)



High Altitude Balloon



CubeSat - MYSat

# UNISEC-Global Activities in 2019-2020

- *On-going Practical Space Projects – CanSat, HAB, CubeSat*
- *CanSat Competition/Training*





# UNISEC MALAYSIA WORKSHOP 2020

15 - 16 FEBRUARY 2020 || UNIVERSITI SAINS MALAYSIA

"BY THE END OF 2030, LET'S CREATE A WORLD WHERE UNIVERSITY STUDENTS  
CAN PARTICIPATE IN PRACTICAL SPACE PROJECTS IN ALL COUNTRIES"

# KEYNOTE SPEAKERS

UNISEC WORKSHOP 2020  
15 FEBRUARY 2020 | 9.00 AM-12.00PM



**Prof. Ir. Dr. Wan Khairuddin**  
History, Progress and Future of  
Rocketry in Malaysia



**Dr. Norilmi Amilia Ismail**  
High Altitude Balloon to Mimic  
Satellite Technologies



**Dr. Tan Zu Puayen**  
An American-vs-Malaysian High  
Power Rocket Race: STEM and  
Beyond



**Dr. Syazana Basyirah Mohammad  
Zaki**  
The Bright Future of Small  
Satellite

Organiser:     Sponsor: 

Co-Organiser:  

# WORKING GROUPS

UNISEC WORKSHOP 2020  
15-16 FEBRUARY 2020

## WG1 - High Altitude Balloon to Mimic Satellite Technologies

High Altitude Balloon has already been an alternative used by the balloonists or space enthusiasts to reach the space. By using this unmanned balloon and launched to the near-space altitude, many research that utilized the upper atmosphere environment can be conducted. Many countries have been using this alternative as a gateway to space and Malaysia too is among the developing nations that use this platform to get access to near space. How we fully utilize of the High Altitude Balloon platform to develop the space sector in this nation?



## WG2 - Bright Future of Small Satellite

Known as a low cost and miniaturized satellite, its rapid escalation in production and launches has granted access for a satellite launch to everyone. Apart from implementing the knowledge of Orbital Mechanics, STEM and Spacecraft Technologies, the developing nations like us can use this advantage to improve our capabilities in surveillance or space explorations. Weighing and scaled at nano and pico-size, the small satellite can conduct missions as the large satellite does. How can we use this passage to enhance and develop our vision in the space sector for this country?



## WG3 - The New cool, Rocketry for the Nation

Rocketry is not any new space technology and has been studied in researches for a long time. Recently, we have seen so many opportunities opened for university students to get involved and participate in this activity through competitions and experiments. Lack of exposures, hands-on practices and suitable launch sites is a few causes that this activity is infamous in Malaysia. What approach can we take to elevate the rocketry activities in this country?



Organiser:     Sponsor: 

Co-Organiser:  



BROUGHT TO YOU BY:



A COLLABORATION PROGRAMME :





BROUGHT TO YOU BY:



A COLLABORATION PROGRAMME :





BROUGHT TO YOU BY:



A COLLABORATION PROGRAMME :



# Workshop Resolutions

- By the end of 2020 all members of UNISEC 2020 will involve in a national-level space project.
- Three space projects have been identified – CANSAT, rocket, and high-altitude balloon
- UNISEC will be the platform of collaboration between students and academics in space engineering
- UNISEC in 2020 will be aiming for visibility and engagement with Malaysia public.

# Plan for 2020 and beyond

*Please describe plan for 2020 and beyond in your local chapter and the region.*

- 1. Rocket , CanSat and High Altitude Balloon Workshop – mentoring program*
- 2. CanSat and Rocket Modelling competition*
- 3. Participate in ARLISS*

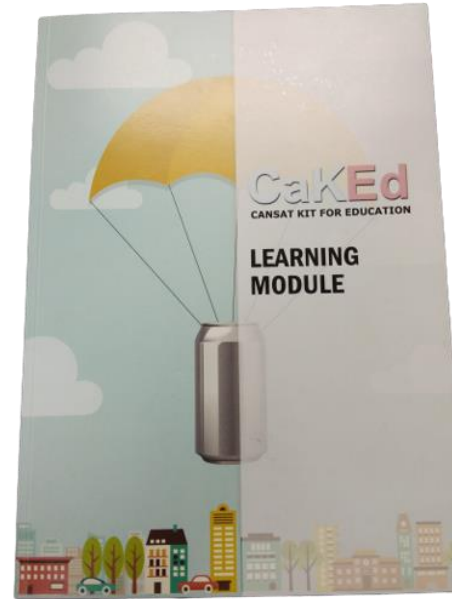
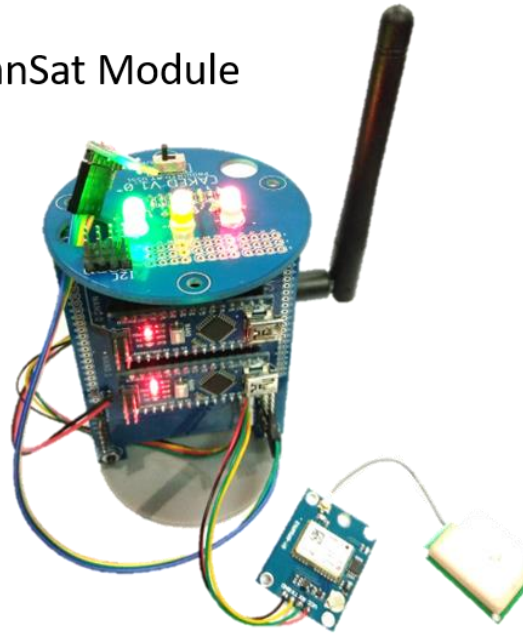
# Activities after CLTP 8

- Develop CanSat Kit for education (CaKEd) for school and provide training to them.
- supplied to Malaysia space agency for CanSat competition in 2019





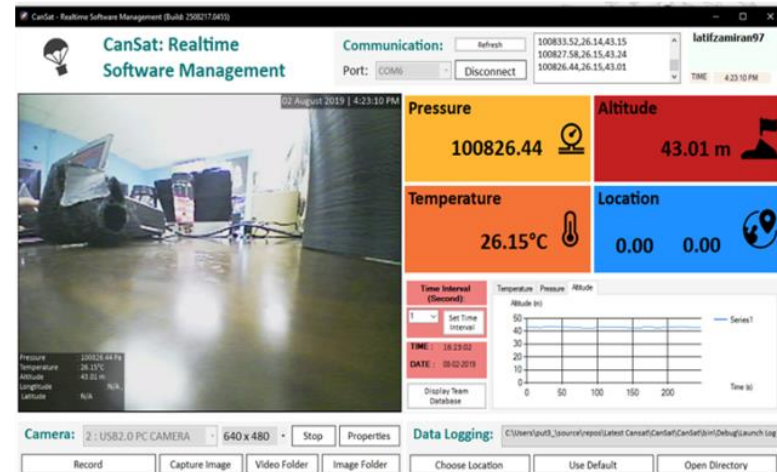
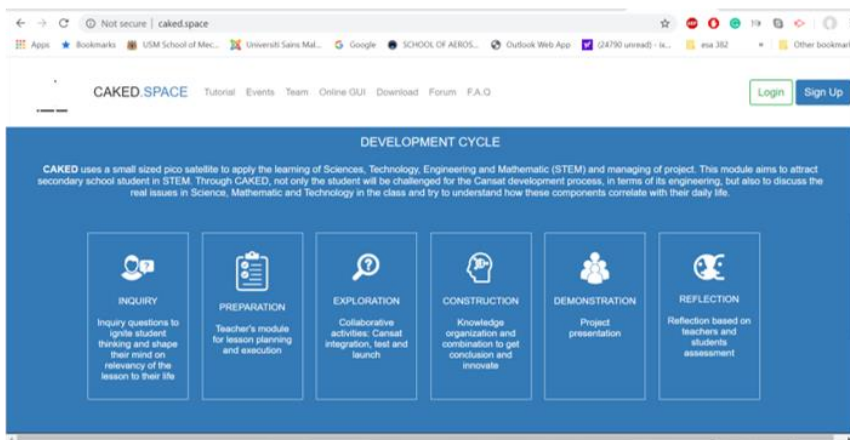
## CanSat Module



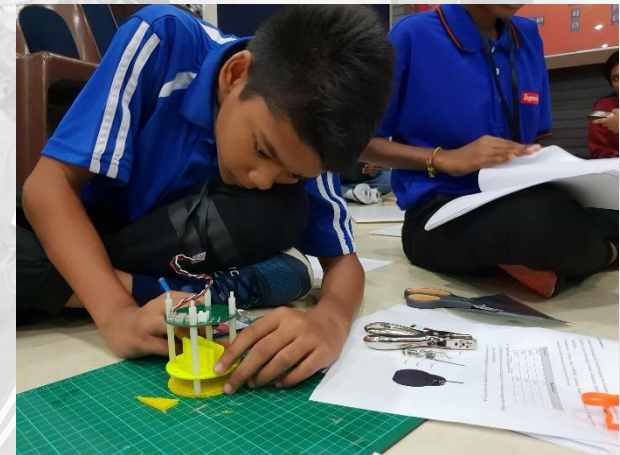
## Learning Module

## Ground Station Interface

## Website



uni make  
Towards National 4<sup>th</sup> Industrial Revolution  
**CANSAT WORKSHOP**



Thank you  
Q&A

[norilmi@gmail.com](mailto:norilmi@gmail.com)