



# UNDERGRADUATE PROJECT 1 SBEU 4942

*Introduction on Undergraduate Project*

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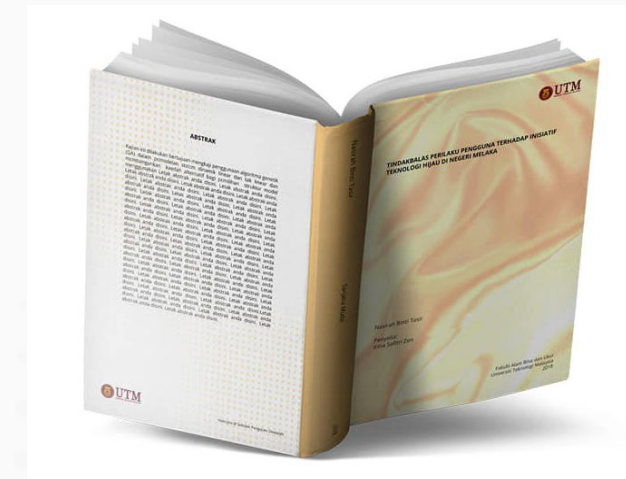
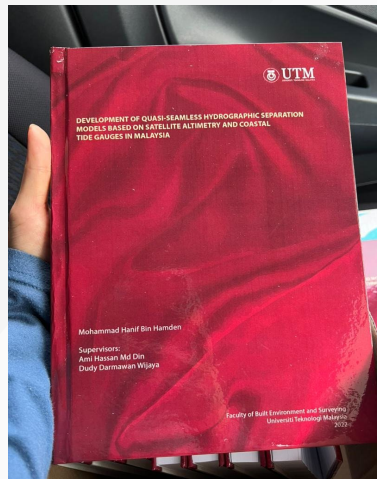
## Project Ideas For **Final Year Students**



# INTRODUCTION

- All final year students Universiti Teknologi Malaysia (UTM) required to make a **project** that involve one of the **important topics** in the **field of study in the faculty** as fulfilling one of the conditions for the award of a Bachelor's degree.
- A report of the project according to a **standard format writing** need to be sent to the Faculty at the end of the study.
- Only students who have achieved a standard of final year is permitted to register PSM.
- The **achievement of students** in the **PSM will be judged** according to the specific **method** and **format**.

# INTRODUCTION



Doctor of Philosophy

Master of Philosophy/  
Master of Science

Bachelor  
Undergraduate Project



# DESCRIPTION ON UNDERGRADUATE PROJECT (PSM)

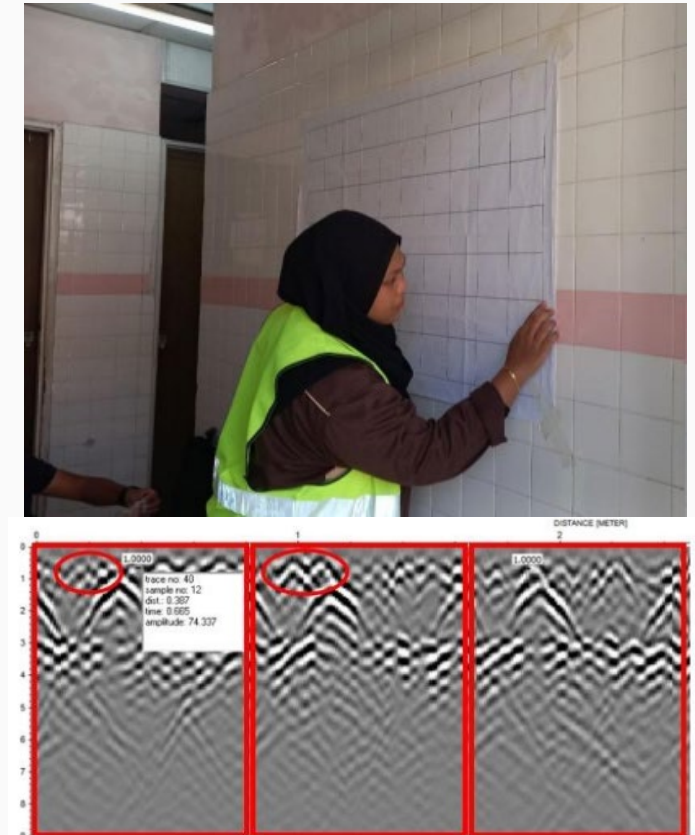
- Undergraduate project (PSM) is a **scholarly studies course** with a **complete small scale academic research** with the aims to develop **students' potential**.
- It requires students to **conduct research** related to the **field of study** in the faculty as well as **report** the same in certain formats.
- Students have to apply **theoretical knowledge, skills** and **experiences** while performing this scholarly study **independently** and **guided**.
- **PSM** must be **provided by final year students** in **fulfilment** of one of the conditions to obtain a **Bachelor degree**.

# GOALS AND PHILOSOPHY

- To enhance students' **knowledge** and **skills** in the process of knowledge, **proliferation mind**, **problem solving** independently.
- To **deliver** a procurement through scientific training or supervised with embodies hopes to produce students who have the **skills** and **commitment**.
- To give students an **exposure** and **experience** to carry out **scientific research** in a systematic and professional.

# OBJECTIVES

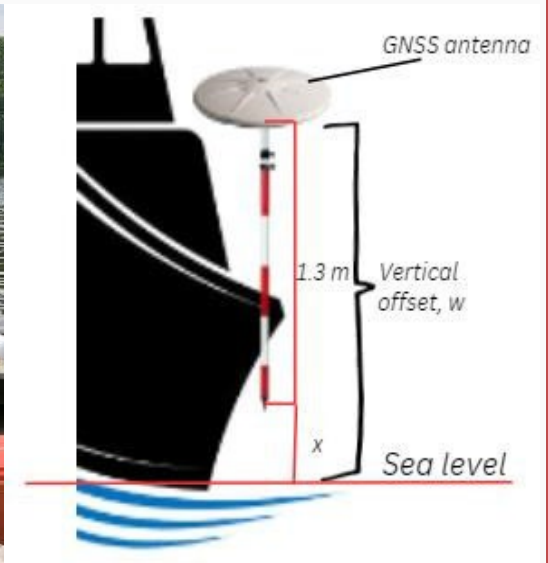
- Train students to apply their **theoretical knowledge, skills and experience** systematically and professionally to enable them to:
  - ✓ **Identify** and **analyze** research problems **critically** and **analytically**.
  - ✓ **Searching** for information and **making references** related to the study.
  - ✓ **Planning** an appropriate **research framework** and **methodology**
  - ✓ **Carrying** out the study (including overcoming methodological problems encountered while conducting the study)





# OBJECTIVES

- ✓ Able to use and **expand academic knowledge** as well as **practical experience**.
- ✓ Able to **think** and **solve problems** and **process objectively**, analytically, critically and systematically.
- ✓ **Complete the project** within the set time frame
- ✓ **Writing a research** report / thesis.
- ✓ **Present and argue** research results **orally** and in **writing**.





**UTM**  
UNIVERSITI TEKNOLOGI MALAYSIA

**FINAL YEAR PROJECT  
LOGBOOK**

*SBEU 4942 - UNDERGRADUATE PROJECT I*

*SBEU 4944 - UNDERGRADUATE PROJECT II*

NAME : .....

STUDENT ID : .....

SESSION : .....

TITLE : .....

SUPERVISOR(S) : .....

# PSM LOGBOOK

- The PSM logbook (log file) is a combination of **general guidelines** for the **PSM implementation** and also a **way to document all PSM activities** throughout the **two semesters**.
- It is an important mechanism for the Faculty/Supervisor to **evaluate** and **assess** a **student's attitude and ability** and to **monitor the status of the student's project** throughout the semester.

# Reminder

1. This logbook must be **presented to your supervisors** to be evaluated and graded.
2. All **activities conducted must be recorded** at the activities section in the logbook. **Signatures of relevant persons** can also be recorded as proof of your claim at the activities section (optional but highly recommended).
3. This logbook must be **submitted to your supervisors** along with your FYP Report/Thesis Draft to be graded by your supervisor at the required date.
4. A student can be **given the failure grade** by the Faculty if he/she was found **not able to achieve the minimum requirement of this subject** (subject to approval or suggestion by the supervisor).



## FINAL YEAR PROJECT LOGBOOK

*SBEU 4942 - UNDERGRADUATE PROJECT I*

*SBEU 4944 - UNDERGRADUATE PROJECT II*

NAME : .....

STUDENT ID : .....

SESSION : .....

TITLE : .....

.....

.....

SUPERVISOR(S) : .....

.....

# TURNITIN REPORT

- The **Turnitin Similarity Report** quantifies **how similar your work is to other** pieces of writing, highlighting any areas in your paper that match outside sources.
- Using that information, educators can determine **if the matches are appropriate or not**, based on assignment expectations and your school's acceptable thresholds.
- **Continue reading to better understand** what this information means and **how you can use it to improve your writing.**

turnitin-Kang Xin Jie

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PRIMARY SOURCES

<b>1</b>	Submitted to Universiti Teknologi Malaysia Student Paper	<b>6%</b>
<b>2</b>	tidesandcurrents.noaa.gov Internet Source	<b>3%</b>
<b>3</b>	www.slideshare.net Internet Source	<b>1%</b>
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# SYNOPSIS & SUPERVISOR FORM



**Registration Form and Project Title Selection**  
**Undergraduate Project I (SBEU4942) / II (SBEU4944)\***  
 Session 20 \_\_\_\_ / \_\_\_\_  
*(Fill in 2 copies)*

**Student and Project Details :**

1. Student Name : \_\_\_\_\_
2. Telephone No. : \_\_\_\_\_
3. Identity Card No. : \_\_\_\_\_
4. Matric No & Program : \_\_\_\_\_
5. Status. Please Tick (/): Confidential ( ) Restricted ( ) Open Access ( )
6. Proposed Project Title\* : \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

7. Project Category: Research/Software Development/Technology Design\*\*

**Supervisor(s) :**

1. Name : \_\_\_\_\_  
 Faculty/Department : \_\_\_\_\_  
 Signature : \_\_\_\_\_ Date : \_\_\_\_\_  
 Telephone No. : \_\_\_\_\_
2. Name : \_\_\_\_\_  
 Faculty/Department : \_\_\_\_\_  
 Signature : \_\_\_\_\_ Date : \_\_\_\_\_  
 Telephone No. : \_\_\_\_\_

Date : \_\_\_\_\_ Student Signature : \_\_\_\_\_

*Nota :* First Copy - Student / Supervisor  
 Second Copy - PSM Coordinators

\* strike out whichever is not applicable



<b>PROJECT TITLE</b>	
<b>SYNOPSIS</b>	<ul style="list-style-type: none"> <li>• A synopsis is a brief summary which gives readers an overview of the main points.</li> <li>• Describes the plan for your research project</li> </ul>
<b>OBJECTIVES</b>	
<b>STUDENT SIGNATURE</b>	<b>SUPERVISOR SIGNATURE</b>
_____ NAME : _____ MATRIC NO. : _____	_____ NAME : _____ COP : _____

# SYNOPSIS & SUPERVISOR FORM -

## Example

<b>TITLE</b>	Interpretation of Sea Surface Temperature (SST) over Malaysian Seas using Multi-mission Satellite Altimetry
<b>SYNOPSIS</b>	Sea Surface Temperature (SST) has been recognized as one of the major global climate variables. Multi-mission satellite altimeter plays a crucial role in monitoring a surface temperature as it provides high-density coverage which can improve the limited coverage over in-situ data from weather buoy observation. This study aims to analyse the sea surface temperature using multi-mission satellite altimetry data over Malaysian seas. The satellite altimetry missions of TOPEX, ERS-1 and ERS-2 will be used in this study where the data cover from 1993 to 2022. These satellite altimetry data will be retrieved and processed by using Radar Altimeter Database System (RADS) to interpret its model pattern over the period of 29 years. In this study, the SST data will be interpolated and visualized its pattern. The SST model is essential to determine interactions with the weather system, climatic phenomenon and changes such as El Nino-Southern Oscillation (ENSO) as well as sea level rise. The reliability of the SST model derived from multi-mission satellite altimetry will be assessed by comparing it with the in-situ ADCP buoy data. It is expected that Root-Mean-Square-Error (RMSE) of sea surface temperature differences are below 1.00°C. In conclusion, sea surface temperature measured from the multi-mission satellite altimetry is suitable to be employed for the analysis of future trends in Malaysia climate change as well as weather events based on the long term and near-real-time along track observations.
<b>OBJECTIVES</b>	<ul style="list-style-type: none"> <li>• To extract the Sea Surface Temperature (SST) using multi-mission satellite altimetry via Radar Altimeter Database System (RADS).</li> <li>• To interpret seasonal characteristics of the Sea Surface Temperature by interpreting SST models.</li> <li>• To evaluate the SST derived from satellite altimetry with the ground-truth data.</li> </ul>

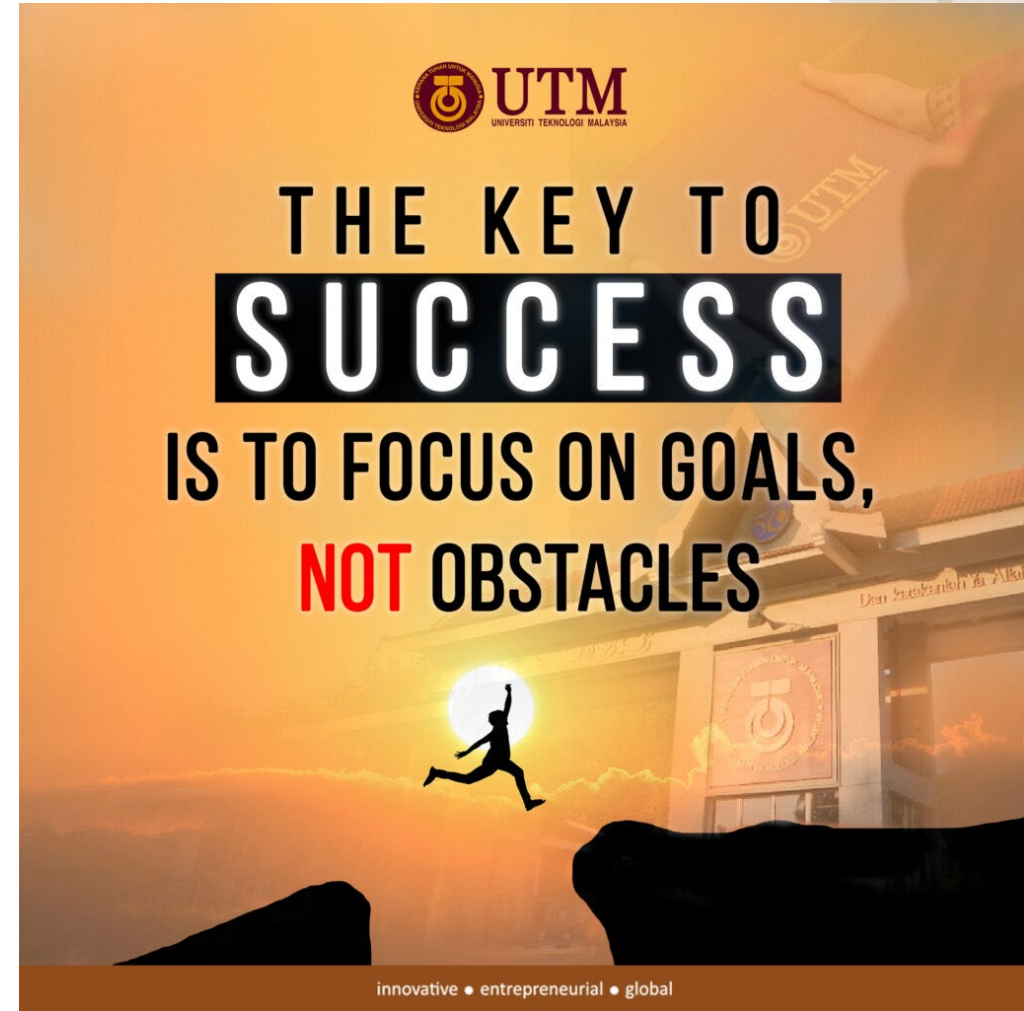
<b>TITLE</b>	Reliability of GDM2020 for NDCDB
<b>SYNOPSIS</b>	National Digital Cadastre Database (NDCDB) is a cadastral database stored all information of land parcels throughout Peninsular Malaysia that undergone final survey maintained and managed by Department of Surveying and Mapping Malaysia (DSMM). Geocentric Datum for Malaysia 2000 (GDM2000) has been used as a geodetic datum based on Malaysian Geodetic Reference Frame 2000 (MGRF2000) aligned International Terrestrial Reference Frame 2000 (ITRF2000) at epoch 2000.0 for map projection from GDM2000 to Geocentric Cassini Plane Coordinate. However, Sundaland plate motion due to Earthquake in Sumatra were not considered in MGRF2000 and causing coordinate shifts towards existing Continuously Operating Reference Station (CORS) in Peninsular Malaysia. Thus, NDCDB is affected as well. The establishment of International Terrestrial Reference Frame 2014 (ITRF2014) provided the updated realization of International Terrestrial Reference System (ITRS). Malaysian Geodetic Reference Frame 2020 (MGRF2020) were established compatible with ITRF2014 at epoch 2020.0. and Geocentric Datum for Malaysia 2020 (GDM2020) created corresponding to MGRF2020. This study aims to apply GDM2020 to land parcels in Taman Univesriti, Johor Bahru. Surveying type of Global Navigation Satellite System (GNSS) equipment will be used to survey boundary marks on field. The data will undergo datum transformation from GDM2000 to GDM2020 and compared with existing data of land parcels from NDCDB using ArcGIS Pro. The outcome of the study will see significant changes between coordinate projected by Geocentric Cassini from GDM2000 and GDM 2020. In conclusion, realisation of GDM2020 towards NDCDB across Peninsular Malaysia shall be applied immediately.
<b>OBJECTIVES</b>	<ol style="list-style-type: none"> <li>1. To perform fieldwork to collect data of boundary marks of land parcels.</li> <li>2. To perform datum transformation from GDM2000 to GDM2020.</li> <li>3. To analyse the difference between projected coordinate of boundary marks using GDM2000 and GDM2020.</li> </ol>

# KINDLY REMINDER

Buat ~~PhD~~<sup>PSM</sup> ni ada  
byk peraturan:



Antara peraturan yang  
terpenting ialah, kita buat  
~~PhD~~<sup>PSM</sup> bukannya bertujuan  
untuk menyelamatkan dunia...  
Nak menyelamatkan dunia itu  
kerja team The Avengers 😊



# THANK YOU



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