

**TPT3101 Final Year Project (FYP1) Meeting Log**  
**Trimester 1, 2022/23 (Trimester ID:2210)**

<b>Meeting Date:</b> 28/9/2022	<b>Meeting No.:</b> 3
<b>Meeting Mode:</b> Physical	
<b>Project ID:</b> 2078	<b>Project Type:</b> Research-based
<b>Project Title :</b> Satellite Image Segmentation using Vision Transformer	
<b>Student ID :</b> 1201302740	<b>Student Name:</b> Muhammad Haziq Faiz Bin Mohd Ripin
<b>Student Programme and Specialisation:</b> B.C.S (Hons) Data Science	
<b>Supervisor Name:</b> Dr. Loh Yuen Peng	<b>Co-Supervisor Name:</b> (if applicable)
<b>Collaborating Company:</b> (if applicable)	<b>Company Supervisor Name:</b> (if applicable)

## 1. WORK DONE

*[Please write the details of the work done, after the last meeting]*

**Tasks:** Problem Formulation and Project Planning / Background Study or Literature Review / Requirement Analysis or Theoretical Framework / Design or Research Methodology / Prototype Development or Proof of Concept / Draft Report Completion

*(Please strike out the tasks, which are not applicable for the work done, after the last meeting)*

### Details (in point form):

- Finished Chapter 1 and Chapter 2 of the report
- Chapter 3 is about 80% completed.
- Trained a U-Net model with Vaihingen dataset. I used segmentation-models-pytorch to achieve this. Achieved mIOU of 7.5 which is really bad compared to other literatures. Need to identify the mistake in the model.
- Training a SegFormer model using HuggingFace library.
- Training a Swin Transformer V1 model using Timm library.
- Identified class imbalance in Vaihingen, Potsdam, LoveDa, DeepGlobe and GID-15 dataset.

## 2. WORK TO BE DONE

*[Please write the details of the work to be done, before the next meeting]*

**Tasks:** Problem Formulation and Project Planning / Background Study or Literature Review / Requirement Analysis or Theoretical Framework / Design or Research Methodology / Prototype Development or Proof of Concept/ Draft Report Completion

*(Please strike out the tasks, which are not applicable for the work to be done, before the next meeting)*

**Details (in point form):**

- Trains a SegFormer model using HuggingFace library.
- Trains a Swin Transformer V1 model using Timm library.
- These 2 will serve as the baseline for my project.

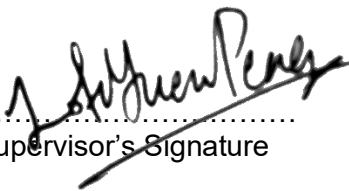
### 3. PROBLEMS ENCOUNTERED AND SOLUTIONS

*[Please write the details of the problems encountered, after the last meeting and provide the solutions / plan for the solutions]*

- Can't run Swin Transformer model. Need to improve Python/Pytorch.
- Keep on studying about transformer.

### 4. COMMENTS (Supervisor / Co-Supervisor / Company Supervisor)

Very good progress. Keep it up.

  
.....  
Supervisor's Signature

.....  
Student's Signature

.....  
Co-Supervisor's Signature  
(if applicable)

.....  
Company Supervisor's Signature  
(if applicable)

### **IMPORTANT NOTES TO STUDENTS:**

1. Items 1 – 3 are to be completed by the students prior to the meeting. Item 4 is to be completed by the supervisor / co-supervisor / company supervisor.
2. Student has to upload the soft copies of the meeting logs in Google Classroom and also attach them along with interim (FYP1) report.  
Minimum requirement is SIX Meeting Logs (Period: Week 3 to Week 13). Students can have fortnightly meetings with the supervisor.
3. Log sheets provide the basis for evaluating the General Effort (Project Management, Attitude, and Technical Competency) of the student, by the supervisor and also for checking the attendance requirement of the student, by the FYP Committee.

This also provide the student with feedback from the supervisor / co-supervisor / company supervisor on the tasks done and provide the plan for the upcoming tasks. This can provide the motivation for the student to give consistent and efficient effort throughout the period of FYP.

4. Student who fails to meet the minimum requirement (six nos.) of log sheets will not be allowed to submit FYP report.