## **FYP Final Report Template**

(Extracted from Project Handbook. Please refer the project handbook too)

NOTE: This is just a general guideline, your supervisor may discard/add some more points on the basis of your project.

- 1. Cover Page
- 2. Title and Declaration sheet
- 3. Abstract
- 4. Contents
  - 4.1. Table of Contents
  - 4.2. Table of Figures
- 5. Introduction [Write this section in parallel with the system development]
  - 5.1. Project briefing
    - 5.1.1. You can include project overall working, problem domain and your system act as a technical solution to the problem (It's up to you how you want to structure this section, there is no hard and fast rule)
    - 5.1.2. In case if your Project implements AI (also need to mention)
      - 5.1.2.1. Need to mention which AI aspect are you addressing (NLP, Computer vision, Machine learning, Robotics)
      - 5.1.2.2. Is is based on supervised learning, unsupervised learning (how would you justify this)
      - 5.1.2.3. Need to present the flow of: Mathematics behind AI and description of models implementing AI
      - 5.1.2.4. Agent Description
  - 5.2. Aims [Should have already been completed but update as per necessary]
    - 5.2.1. Do not get confused aims with objectives, a very common mistake! Aim should be more in generic rather than detail (detail would be the objective).
  - 5.3. Objectives [Should have already been completed but update as per necessary]
    - 5.3.1. Objectives should imply what your system is trying to solve. It should not be something like ( to make the system, to make web applications.. wrong)
  - 5.4. Artefact [Should have already been completed but update as per necessary]
    - 5.4.1. FDD (Functional Decomposition Diagram)
    - 5.4.2. Explain system as a whole
    - 5.4.3. Explain each sub systems you have come up with
  - 5.5. Academic Question [Should have already been completed but update as per necessary]
    - 5.5.1. Also explain the academic question in detail
  - 5.6. Scope and Limitation of the project [Write this section in parallel with the system development]
  - 5.7. Report Structure [When all the major portion of the report is completed at the end]
- 6. Literature Review [Initial review should have been completed. For the detail report, write this section in parallel with the system development]

- 6.1. Research/investigation from which the remainder of the report is based upon. Include all key literature you have found. You are not trying to answer the academic question in this section. It is the basis for answering the academic question. Compare, contrast and evaluate what is found show understanding. Create a discussion where possible.
- 6.2. Could be similar systems or could be in the form of research papers or both
- 6.3. If system implementing AI
  - 6.3.1. Research paper along with the related algorithm, maths
  - 6.3.2. Ideas behind AI, about intelligence that your system is tried to achieve
  - 6.3.3. Comparing the algorithm performance (only discussion part and mathematical function that may be used later on)
- 7. Project Methodology [Before starting the system development]
  - 7.1. You should be focusing on the WHY part? Why have you chosen a particular methodology? How does it suit your proposed system ... (do not write about what is that methodology)
  - 7.2. Remove the definition part of the SCRUM/DSDM/XP, focus on why you have chosen that particular framework?
  - 7.3. You may include gantt showing only a major milestone/deliverable. Do not include detail gantt chart here, detail gantt chart should be later down in the report (in the section **Evidence of Project Management**)
- 8. Different Technology and Tools used for the project [in parallel with the system development]
  - 8.1. Please justify why these tools and techniques (not the definition)
  - 8.2. Which programming language? Which framework (backend/frontend)?
  - 8.3. What tools? IDE, GIT client
  - 8.4. Icon package, any particular font in the system (optional)
  - 8.5. Use of any particular unit testing framework, mock testing framework
  - 8.6. Use of any particular package manager (Bower, node package manager NPM, composer, Grunt, ...)
- 9. Artefact Designs [in parallel with the system development]
  - 9.1. <Sub System 1> / Deliverable 1 (recommended) / Milestone 1
    - 9.1.1. SRS
    - 9.1.2. All the design/modelling diagrams Activity Diagram, Wireframe, use Case Diagram, ERD, Class Diagram, Sequence Diagram (Refer to the FYP planning diagram where FDD and the concept of incremental and iteration was discussed)
    - 9.1.3. **Testing**
  - 9.2. Sub System 2 / Deliverable 2 / Milestone 2
    - 9.2.1. Repeat
    - 9.2.2. Repeat
  - 9.3. If system implementing AI,
    - 9.3.1. If have used something like path finder, shortest route calculation (initial state, successor function, goal test, path cost)
    - 9.3.2. PEAS Description (Performance, Environment, Actuator, Sensor) If involves mechanical devices
    - 9.3.3. Environment portfolio if involves mechanical devices

- 9.3.4. Data Collection
- 9.3.5. Model Development
- 9.3.6. Optimization Evaluation
- 9.3.7. Need to mention how the implemented AI has been integrated into the application (API and its description, how it has been done)
- 9.3.8. Comparing the Algorithm performance (with test data)
- 9.3.9. Al testing plotting accuracy (for eg. A/B testing) benefit for poster presentation diagram
- 9.3.10. Confusion Matrix
- 9.3.11. ROC Curve
- 10. Conclusion [After the system development is completed]
  - 10.1. Now, refer back to the aims, objectives and academic questions
  - 10.2. What has been discovered, what conclusions can be drawn from your report.
- 11. Critical Evaluation of the Project [After the system development is completed]
  - 11.1. Final report (do your own self reflection on your report, how was it, what were the good things that you were able to present in the report ... there is no hard and fast rule)
  - 11.2. Findings and process
  - 11.3. System too
  - 11.4. Planning, management, quality of sources found, etc.
  - 11.5. You should also include a section on Self-reflection. (what did you learn by doing this project, did it help in your professional/personal development and such)
- 12. Evidence of Project Management [No world count for this section]
  - 12.1. Logbooks [Continuous work as per supervisor meeting]
  - 12.2. Gantt Chart [Update as per necessary]
- 13. Reference and Bibliography [No world count for this section]
- 14. Appendices [in parallel during system development] [No world count for this section]
  - 14.1. Any long mathematical derivations or calculations, detailed technical drawings, or tables of raw data if required to mention
  - 14.2. User manual for your system (For end user) if needed
  - 14.3. System configuration detail, if needed
  - 14.4. Client approval/proof letter if it is a prestigious project
  - 14.5. Feasibility test document if you have produced
  - 14.6. Cost estimation document if have produced
  - 14.7. Survey form and its data if have undertaken and used