**DISSERTATION SUPERVISION LOGBOOK**

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| **Institute** |  |
| **Programme** |  |
| **Dissertation**  **Title** |  |
| **Supervisor** |  |
| **Student** |  |
| **Student ID No** |  |

**Note**

1. It is the **student’s responsibility** to ensure that this logbook is correctly documented and maintained, and that Supervisor recommendations and signatures are acquired after each and every meeting.
2. This logbook is to be submitted together with the dissertation.
3. The institute reserves the right **to not accept** the student’s dissertation for evaluation if this logbook is **not filled in correctly** and **duly signed** by the student and supervisor as indicated.

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| **Meeting Number : 1** | **Date of meeting : 15/10/2021** |
| **Issues discussed at the meeting (*to be filled in by Student*)** | |
| **Supervisor recommendations (*to be filled in by Supervisor*)**   * Finish off Literature Review * Try to identify another algorithm that can be used for research * Begin collating photographs that will be used in research | |

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| **Date of Next Meeting** | **Student Signature** | **Supervisor Signature** |
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| **Meeting Number : 2** | **Date of meeting : 5/11/2021** |
| **Issues discussed at the meeting (*to be filled in by Student*)** | |
| **Supervisor recommendations (*to be filled in by Supervisor*)**   * Revise literature review with given comments * Continue working on photograph collection – these should be done by next week. | |

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| **Date of Next Meeting** | **Student Signature** | **Supervisor Signature** |
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| **Meeting Number : 3** | **Date of meeting : 12/11/2021** |
| **Issues discussed at the meeting (*to be filled in by Student*)**   * Created annotation script that converts from VIA application to a format suitable for machine learning. * Took 3 photos of every item that will be used in classification. * Created automated script for image re-sizing | |
| **Supervisor recommendations (*to be filled in by Supervisor*)**   * Prepare a list of all the items with a value for their weight, calorie, and calories per cm2, and calories per pixel. * Test detecting multiple objects on the same plate, whilst training with individual items only. | |

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| **Date of Next Meeting** | **Student Signature** | **Supervisor Signature** |
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| **Meeting Number :** | **Date of meeting : 19/11/2021** |
| **Issues discussed at the meeting (*to be filled in by Student*)** | |
| **Supervisor recommendations (*to be filled in by Supervisor*)**   * Try experiment again, trying to keep items in the same position as the model was trained. * Use previously trained model (pastizzi) to detect pastizz in plate with multiple items. * Start working on image augmentation:   + Function to rotate image by x degrees   + Function to rotate polygon by x degrees, and centre point * Test for previous functionality:   + Create canvas with image size   + Load image   + Function to draw boundary | |

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| **Date of Next Meeting** | **Student Signature** | **Supervisor Signature** |
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| **Meeting Number :** | **Date of meeting : 29/11/2021** |
| **Issues discussed at the meeting (*to be filled in by Student*)** | |
| **Supervisor recommendations (*to be filled in by Supervisor*)**  Create a loop that takes the existing images and applies rotation of 10 degrees step for each image. Re-train the model with the augmented images. | |

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| **Date of Next Meeting** | **Student Signature** | **Supervisor Signature** |
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| **Meeting Number :** | **Date of meeting : 14th February 2022** |
| **Issues discussed at the meeting (*to be filled in by Student*)** | |
| **Supervisor recommendations (*to be filled in by Supervisor*)**   * Annotate new photos * Train model with new data set starting with a training-test split of 70/30. Repeat this iteration three times with different seeds to get the average. * Same process can be attempted with a different split ratio e.g. 60/40 * Research suggested configuration for MRCNN * Start writing methodology (can start first part, photo and annotation). | |

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| **Date of Next Meeting** | **Student Signature** | **Supervisor Signature** |
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| **Meeting Number :** | **Date of meeting : 07th March 2022** |
| **Issues discussed at the meeting (*to be filled in by Student*)** | |
| **Supervisor recommendations (*to be filled in by Supervisor*)**   * Start writing methodology (can start first part, photo, and annotation). * Test prediction with an image which is of a different size from the training set * Check for image pre-processing (resizing, etc) * Prediction Results   + Calculate area of pixels for each predicted mask   + Calculate overlap of original mask with predicted mask for each class.   + For results, we will use columns: Original Size, Predicted Size, Difference in Sizes. Repeat the same thing for calories   + Confusion matrix for classes | |

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| **Date of Next Meeting** | **Student Signature** | **Supervisor Signature** |
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