**Group Number 10**

**Members:**

1. Yoseph Matalo
2. David Mukajanga
3. Mainza Chiyobeka
4. Arya Ghimire
5. Project Idea:
   * Solar panel detection: A user enters their geographic information in the platform and discovers the extent of solar energy adoption in their area.
6. Relevance to SDGs:
   * The project aims to address the seventh (7th) sustainable development goal. Specifically, the output of our project will help shed light on the following indicators of this SDG:
     1. 7.1.1: Proportion of population with access to electricity
     2. 7.1.2: Proportion of population with primary reliance on clean fuels and technology
7. Literature Reviews:
   * Previous Projects:
     1. <https://github.com/saizk/Deep-Learning-for-Solar-Panel-Recognition>
     2. <https://github.com/arathee2/solar-panel-detection>
     3. <https://github.com/A-Stangeland/SolarDetection>
     4. <https://github.com/arathee2/solar-panel-detection/blob/master/code/solar-panel-detection.py>
8. Description of data
   * We’ll use satellite images for both training the model, and for prediction when users insert their locations.
   * There are available datasets both in the projects attached above and various other projects in Kaggle. We’ll use those for training. For prediction, we aim at writing a program that can take a screenshot out of Google Earths map data when the user enters their geographical area, and use that screenshot as data for the model to predict on.
9. Approach:
   * We aim to use Neural Networks for image classification tasks. Neural Networks are used in image classification tasks such as handwritten letter recognition, face recognition, and other applications of computer vision, and we think it is an appropriate deep learning approach to be the main engine behind our project.