**ENVIRONMENTAL WASTE MANAGEMENT MADE EASY WITH ARTIFICIAL INTELLIGENCE**

The MUBAS students are addressing some of the environmental problems that are affecting the globe Malawi inclusive. For instance, Municipal Solid waste which has been predicted by the world bank to increase by 70% in 2050. The projections will put pressure on the environment, climate and human health. Thus as a way of addressing the burden posed by mismanagement of solid waste, the students are developing a project called project Deep clean, that aims at achieving a clean, healthy and sustainable environment, “we are conducting research and using deep learning artificial intelligence to combat some of the biggest challenges faced in the environment, these issues also affect our health, so we are taking a stand to improve the quality of life by making management of waste much easier, these solutions can be applied at industrial level and consumer level applications ” said Blessings Mlundira a student studying bachelors of science information technology at MUBAS who also happens to be the lead artificial intelligence developer at project deep clean.

“Despite the Malawi government adopting the approach of ‘zero waste’ that entails that the only way of achieving zero waste is through 100% reuse/recycling, still the rate of reuse/recycling in Blantyre is 5.97% that is according to Blantyre City council. This motivated us to conduct a research at household level in Blantyre: the case of Manase township that has 0.13% reuse/recycle rate. The aim of the research was to understand knowledge, attitude and practices of people towards reuse/recycle of solid waste. The results portrayed that people had medium knowledge and negative attitude towards the topic of interest. Though people had medium knowledge it did not translate to proper practices of solid waste management. The household participants were observed dumping waste in the river, roadsides etc. Hence the research did not just help us understand the KAP, but also paved way for us to effectively come up with the initiative of Project Deep Clean that addresses solid waste management and applicable to everyone. Thus, Project Deep clean system will facilitate in increasing people’s knowledge and positive attitude towards the same. Hence people will be able to practice proper solid waste management methods.” said Towera Grace Banda student studying bachelors of science in environmental health who also happens to be the lead research at project deep clean.

Solutions which have been developed by project deep clean include an automatic waste classification app which classifies different kinds of waste in real time using cameras, including phone cameras, “we included a deep learning virtual assistance called Eliza so people can interact with at a deep human level and help spread environmental awareness and education using voice interactions, text, social media and phone calls” added Mlundira.

“"Environment plays an important role in healthy living and the existence of life on planet earth.” Replied eliza the voice communicating A I when asked why it is important to conserve the environment.

The dean of faculty at the university was very impressed about this project and urged organisations to support these students and help make the world a better place for today and for generations to come through deep machine learning and data science.

“support for this project will give us an upper hand in the fight for a sustainable environment” added Blessings.