Intermediate report CIT

2019 Week 20

Work done in last week and this week:

* A material detection algorithm with good accuracy based on the data from AD10.
* Implemented a real-time and testable material detection algorithm.
* Built a simple automatic drill controller based on material detection, T.O.F data (depth) and readings from ad10
* Tested material detection and simple automatic drill controller today (15th May ’19).
* Both the material detection and the simple controller produced good results (i.e. we have working versions of material detection and automatic controller :D) but must be fine-tuned/tested for consistency and better performance.

In-progress for next 2 weeks:

* Build smart phone app for control, visualization.
* Finetune the material detection and automatic drill controller.
* Build environment for drilling (reward function, terminal states, transitions etc.)
* Train the DQfD algorithm on the cleaned and pre-processed drill data and finally test it on the drill once everything looks good.