Meeting summary: 21/02/19

## Present during meeting

* Lajos Török (Supervisor)
* Erik Schaltz (Supervisor)
* Nicolás Murguizur
* Nicolai Fransen
* Estefanía Ruiz
* Aitor Teran
* Mihai Rusu
* Faheem Achmad

## Meeting Agenda

1. Work organization and planning
2. Inverter test design and setup
3. Motor Model created
4. Control methods
5. DSP architecture and interface PCB
6. Tasks for the next sprint
7. Others

## Meeting discussion

1. Work organization and planning
   1. Gantt diagram was shown to supervisors as well as task organization system (sprints).
   2. **We have created two boards on the Trello software, Gantt and Semester project (sprints). For visualizing the Gantt, a “power up” called BigPicture needs to be added to the Board, do this in the menu of the Gantt board. Also email notifications should be disabled (otherwise emails are sent constantly about Trello changes), to do this go to Profile-Settings-Notifications and change notification frequency as well as desktop notifications. Please, feel free to add any comments anywhere you consider. Links for the different boards are below. You should be able to see the boards by clicking on them.**
      * **Gantt:** https://trello.com/invite/b/ADuwYE0t/38b5504c908b9a1d5781037934a51515/gantt
      * **Semester project:** https://trello.com/invite/b/SDoh9M2N/0fc8e637956b5a9f8366c9c1a7680ecd/semesterproject
2. Inverter test design and setup
   1. Dead-time: It was agreed that the 1µs delay time was good for initial tests and at any point it would be possible to correct it.
   2. Vds spikes: Maybe run some more tests with different probes to make comparisons. Spikes could be due to reverse recovery of the diodes.
3. Motor Model created
   1. It was discussed whether it is important to find the motor parameters ourselves, conclusion is that it is advised to do so because it would be a good learning experience and it would make the project more reliable. However, the process would take time and it can be performed after other more higher priority tasks. Main drawback is that motor parameters need to be calculated with free shaft and the load motor must only be connected once, so decision must be taken soon.
4. Control methods
   1. One approach for referencing flux would be with the DC voltage and duty cycles.
   2. The encoder parameters would be found in the lab (already done).
5. Interface PCB
   1. It doesn´t make much sense to measure the voltage on the motor since it would need to have a very high sampling frequency, probably this is not necessary. One option for doing this would be to filter the signal at the interface board but this may lead to certain problems.
6. DSP and software architecture
   1. Implementing user interface should be easy enough with Gui composer so this is recommended.
   2. No further comments on the architecture and software structure.
7. Tasks for the next sprint
   1. Next sprint tasks were discussed and next meeting will be arranged on the morning of 7th of March.
8. Others
   1. Supervisors agreed to bring the go-kart to the lab for visual inspection.
   2. Work permit will be managed asap for new work place.