

Modernization of the laboratory for IC engines

The modernization of the Laboratory for IC engines will be focused on measuring results from combustion of variety of standard and renewable fuels and their blends in IC engines (Euro 3).

USED FUELS

Traditional cooperation with the Faculty of technology (Laboratory for fuels) is making it possible for us to use the biodiesel they are producing from local crops. Also most of the fuels and blends will be purchased from the gas stations in Macedonia.

The fuel characteristics will be tested at our own test laboratory and at the Laboratory for Fuels at the Chemical Faculty.

IC ENGINES

We will require two IC engines (Diesel and Otto) with the computer unit and the possibility to chip tune the parameters of the engines, mapping the motor. This way we will have the dependence between: output power, fuel economy and emissions.

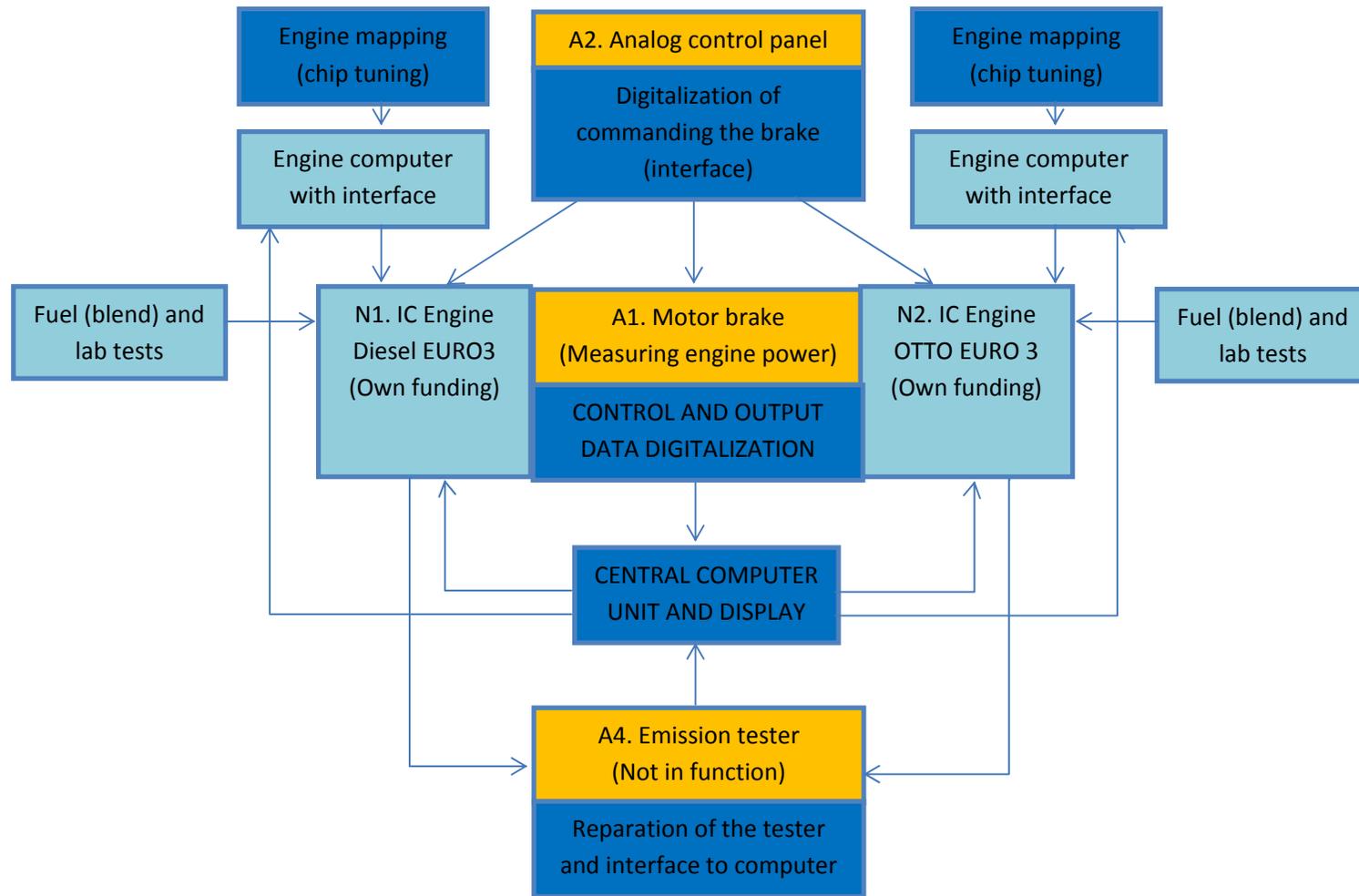
MEASURING

We will be able to measure:

- Emissions (NO_x, TSP, CO and HC)
- Torque and engine power
- Fuel characteristics

and make the correlation between them. This way the students can explore the connection of combustion parameters, EGR, O₂ level, etc. on the power and emissions, and also explore the usage of different fuels in the IC engines.

After this we can try to obtain the end of the pipe line solutions, Catalizator, DPF, Ad Blue system etc., so that the student can explore the possibilities of the systems after combustion.



Current equipment

QIMSEE Support

Own investment