# **Introduction**

In this report, we will explain the design procedure of the push pull converter for the METU EE 464 – Hardware Project. Basically, we will look at the circuit and magnetic design. Then, we will examine the simulation results. After that, we will talk about the implementation procedure. Finally, we will look at the test results of the implementation.

# **Topology Selection**

There are many topologies to design an isolated DC-DC converter such as flyback, forward, push pull etc. Each of them has some advantages and disadvantages. So, we want to select the topology as different from the other hardware project. As a result, we decided to design a “Push Pull Converter”.

**Advantages**

* Good transformer core utilization
* Easier to base drive (low side switching)
* Small Filter and Transformer
* Interleaved Structure

**Disadvantages**

* Voltage stress on the FET’s is twice the input voltage
* Asymmetric switch signals cause a flux walking in the core
* Number of the semiconductors are larger than the other topologies