[1] 5kVA output power single phase inverter by using enhancement mode GaN transistor at 50kHz switching frequency with the design of the output filter inductor based on a multilayer, high current PCB magnetics.

in this thesis three items are highlighted. First one is systematic approach is used to design the inverter. The losses of transistors are calculated by analytically with regarding modulation index. Second one pcb inductor design and last one is 5kVA single phase inverter which has not made up to now with GaN

[1] H. Meşe and I. Çadırcı, “Natural-air-cooled 5 kVA single-phase GaN inverter with paralleled multilayer PCB magnetics,” *J. Eng.*, 2017.