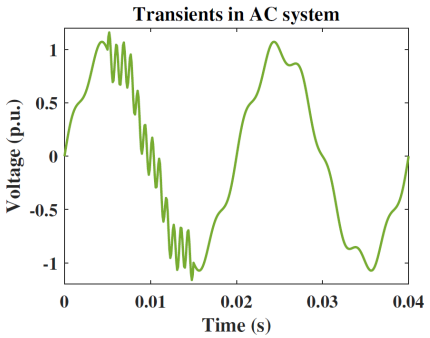
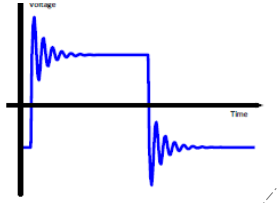
High Voltage Power Electronics-based Arbitrary Waveform Generator

RES creating new stresses

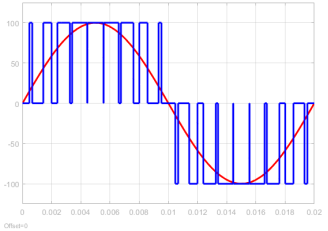
Harmonics & transients

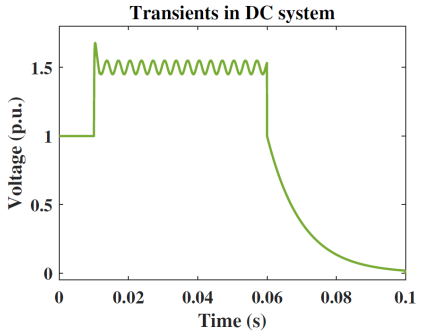


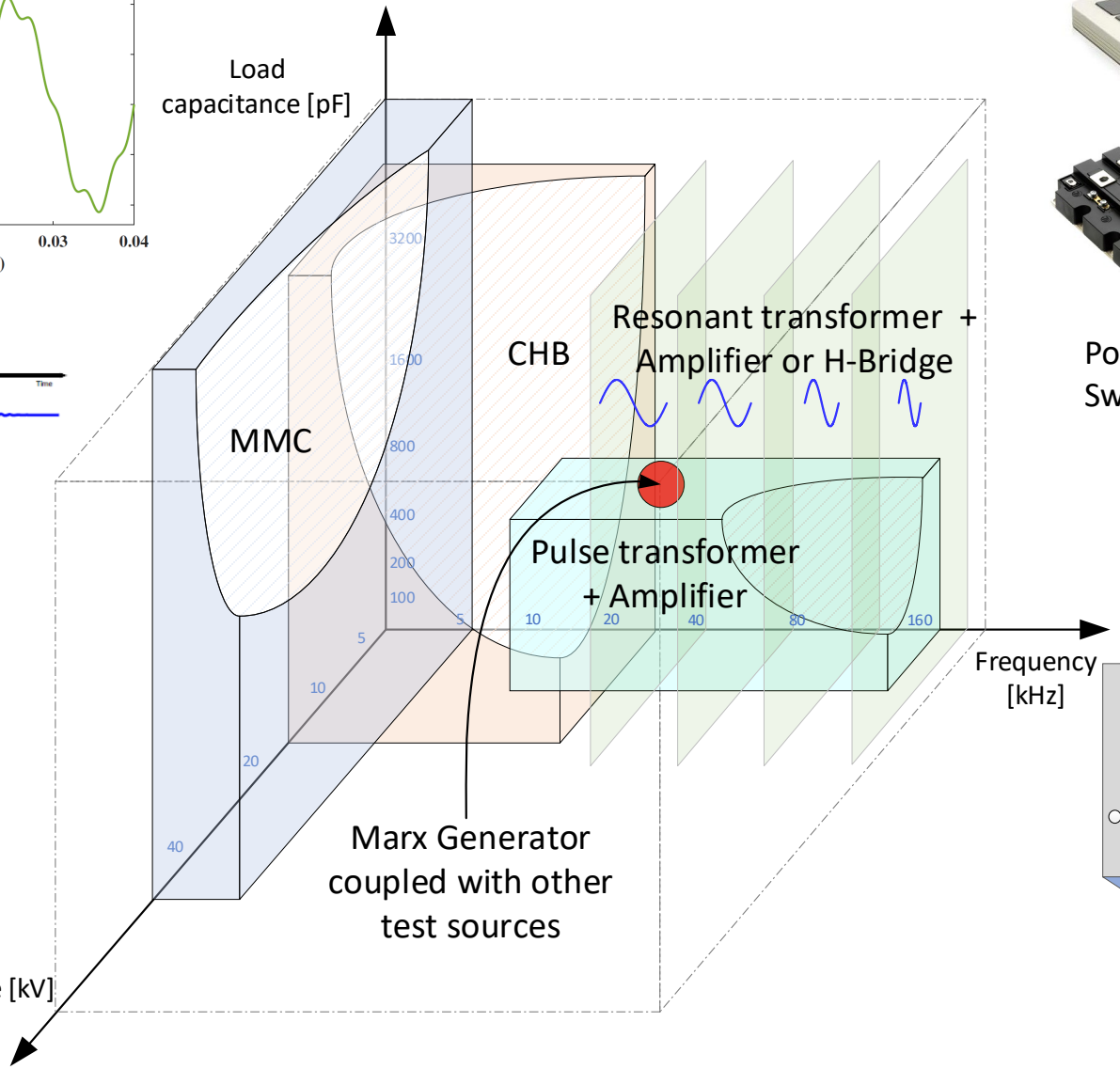
PWM & Pulses



Complex waveforms



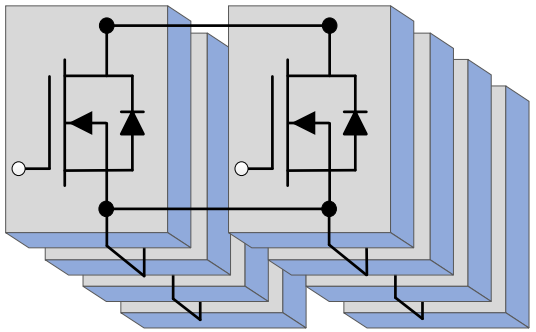




IGBTs

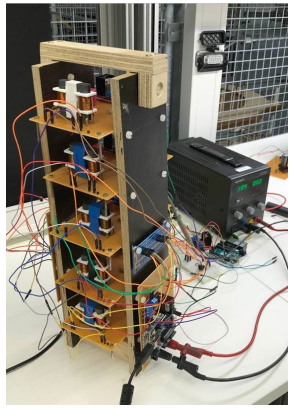
SiC MOSFETs

Power Electronics Switches

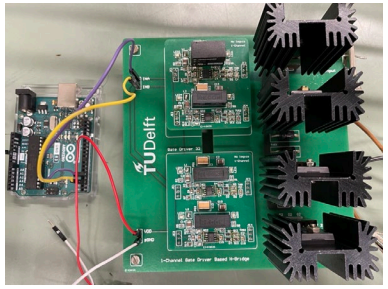


Modular structure

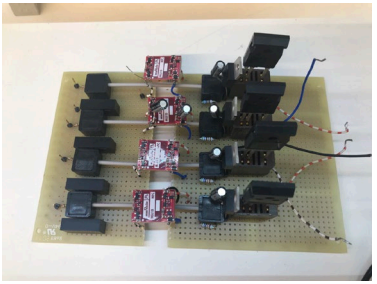
Prototypes



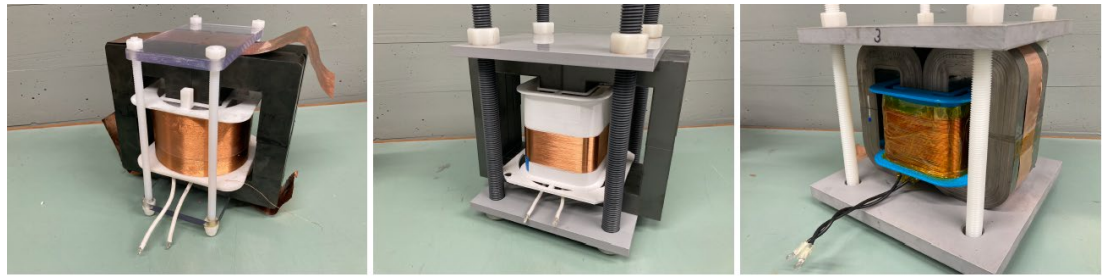
Low voltage 5 levels CHB



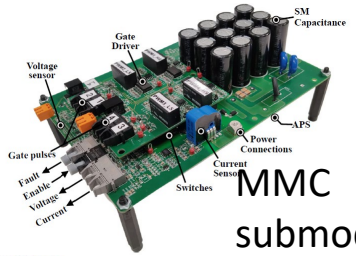
1 kV, 12 A H-Bridge



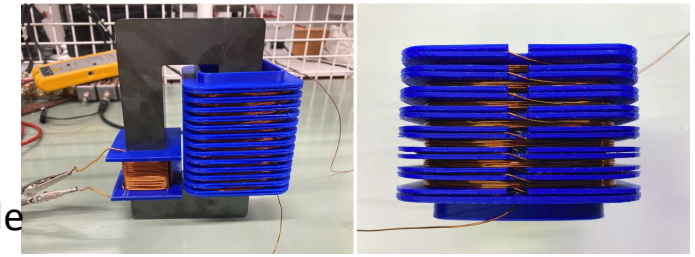
HB 4.5 kV, 1 A



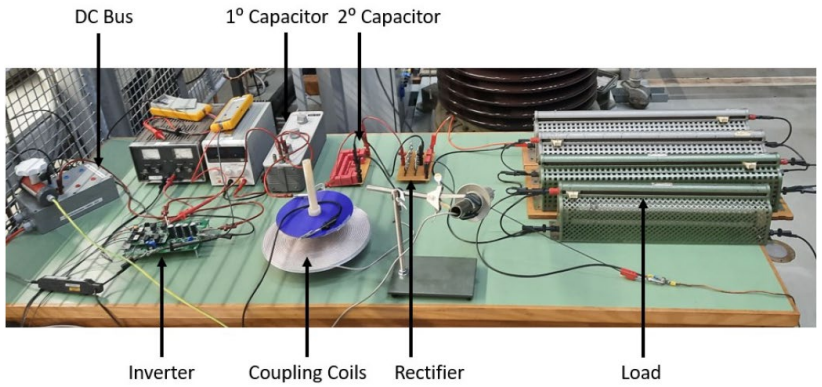
Pulse transformer



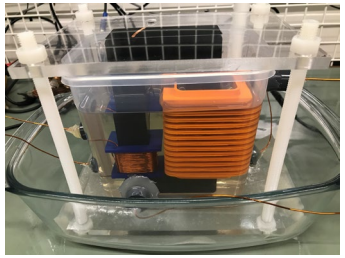
MMC submodule

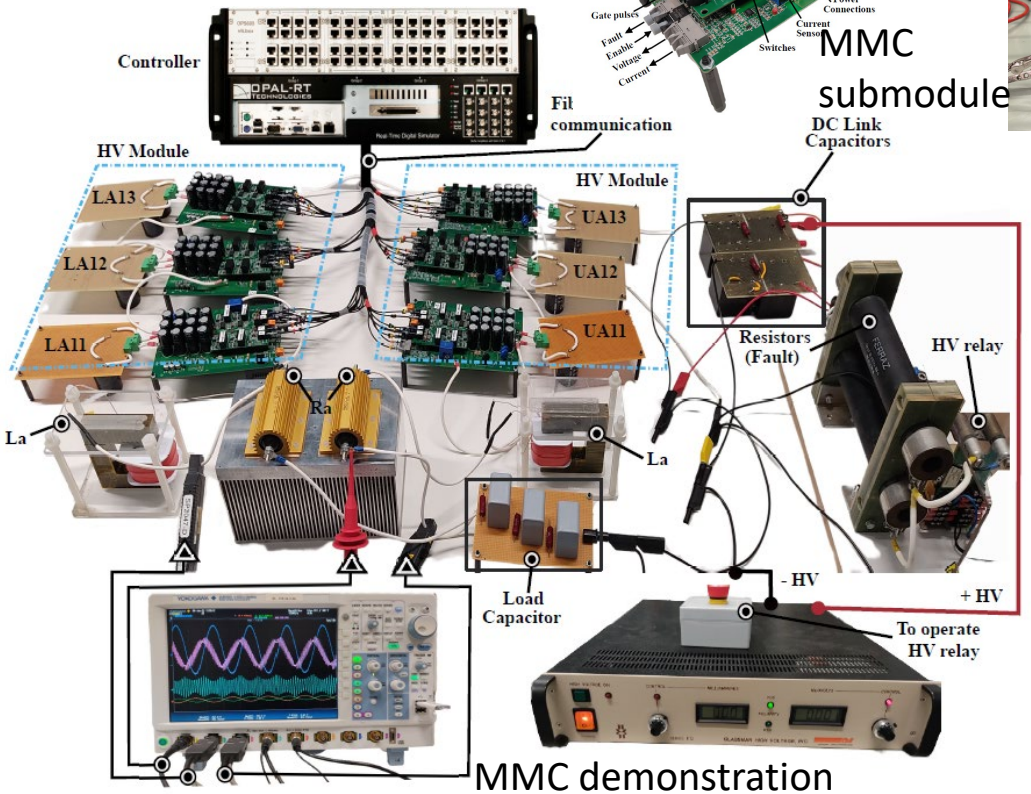


Resonant transformers

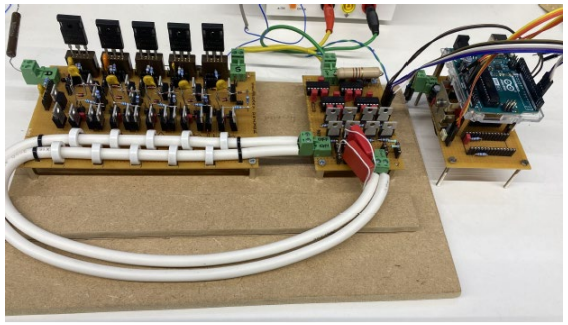


Air-core resonant transformer

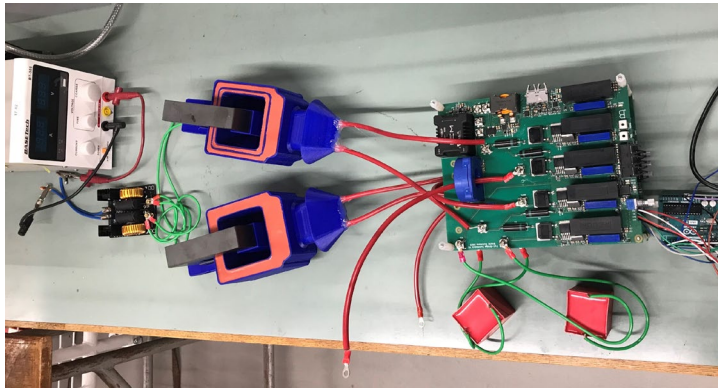




MMC demonstration



Switch 6 kV, 12 A



CHB demonstration, 8 kV 2 levels