Objective: Develop a high-voltage switch block of series-connected SiC MOSFETs using current source gate driver and snubber circuit for medium voltage drive and high power converter applications.

Features:

- **Dynamic Vds voltage sharing:**
  1. highly synchronized gate signals by special current-source gate driver design;
  2. snubber circuit design;

- **High efficiency & High voltage:** SiC MOSFET has much lower switching loss than IGBT and higher voltage than GaN HEMT.

Applications:

- **Medium voltage drive and HVDC**

Schematic of the standard series connected SiC MOSFETs block

3kV half-bridge converter based on series connected SiC block