1. Prepare students to enter the SiC industry by providing insights and know-hows of SiC fabrication and device characteristics and emphasizing SiC circuit advantages over Si through low-cost TCAD/SPICE simulation.

2. Learning experience is further enhanced with hands-on SiC DC-DC converter building lab.

3. Enable fast conversion of Si technology engineers to SiC technology through a concise and a comprehensive course.

4. Enable rapid dissemination of SiC knowledge through low cost teaching materials.

Additional impacts

1. Each module of the course can be converted to short course and lab section for industrial use.

2. Each module of the course can be embedded into other classes (e.g. Device part into Advanced Device Physics class)

3. Course can be updated easily by replacing SiC MOSFET with other novel devices.