

**Srdjan Lukic**

**Abstract - WBG Medium Voltage EV Fast Charger**

This talk will outline the efforts to design, build, and deploy a medium-voltage electric vehicle fast charger using commercially available wide bandgap semiconductor devices. The proposed system will supply DC charging power to an electric vehicle battery by utilizing off-the-shelf SiC devices to rectify and step down a single-phase medium-voltage input. The team has designed and built a modular fast charger prototype, which is currently being tested and further optimized in the laboratory. The talk will outline the design philosophy, the technical issues faced, and the proposed solutions. The talk will also cover the emerging trends and requirements for EV fast charger deployment.