

# SiC based power electronics for railway applications

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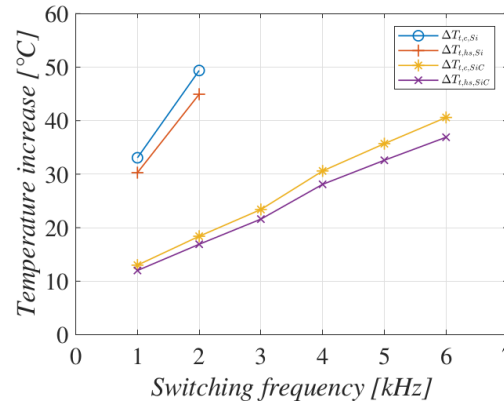
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## Objectives

- Study how to utilize the new and energy efficient power semiconductor material silicon carbide (SiC) in propulsion systems for electrical railway traction.
- Improve the overall propulsion system by studying inverter design, motor design and control. Utilize the characteristics of SiC to achieve benefits on a propulsion system level.



## Selected publications

- M. Lindahl, E. Velandar, M. H. Johansson, A. Blomberg and H.-P. Nee, "Silicon Carbide MOSFET Traction Inverter Operated in the Stockholm Metro System Demonstrating Customer Values," 2018 IEEE Vehicle Power and Propulsion Conference (VPPC). doi: [10.1109/VPPC.2018.8604975](https://doi.org/10.1109/VPPC.2018.8604975).

