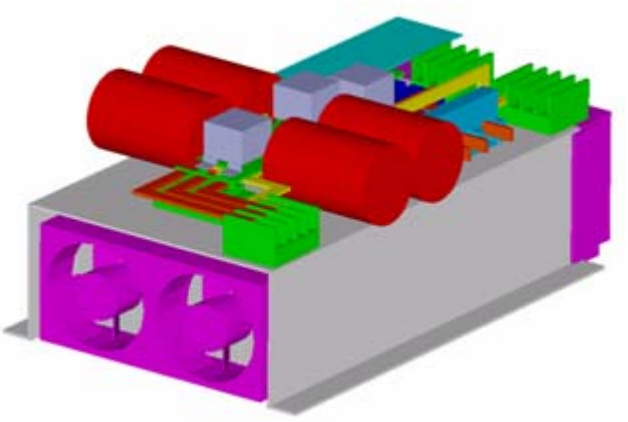
ESTD
Engineering Science & Technology Division

Hybrid Electric Vehicle Converter Modeling

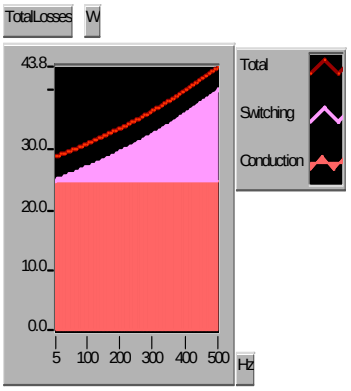
Goal

Develop a physics-based dynamic computer model for determining losses, efficiencies, and temperatures in the electric and electronic system for a hybrid electric vehicle.



Approach

Develop a user-interactive graphics-based executable that is application independent.



Technology Applications

- Supports optimization by calculating cost and performance as design parameters change
- Calculates environmental response of a drive system as load conditions are altered
- Aids interpretation of experimental drive system data.
- Provides a technical tool for selection of HEV drive systems that can meet PNGV targets

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