

Doktorvortrag am ISEA

Dienstag, 18. Juni 2019

Bibliothek des ISEA, Jägerstraße 17-19, 52066 Aachen

08.30 Uhr Dipl.-Ing. Michael Fleischer

„Anti-Vibration Control for Traction Vehicles“

Kurzfassung

Michael Fleischer

Anti-Vibration Control for Traction Vehicles

So far the traction drive-train was not considered in the traction control software as all mechanical parameters were unknown. Thus an award-winning parameter identification and estimation scheme is presented and facilitates predictive maintenance of the traction drive-train. Based on the identified parameters, several active and passive control schemes are developed featuring an ingenious control approach – the “Mercedes among the traction control schemes”. The latter achieves an optimal symbiosis of active and passive traction controllers and provides an outstanding traction performance. Finally, the natural identification scheme, parameter identification and estimation method, virtual sensors and the anti-vibration control schemes are experimentally validated with data from a high-performance locomotive.

