



# Elektrotechnisches Kolloquium

der Bergischen Universität Wuppertal

Die Fakultät für Elektrotechnik, Informationstechnik und Medientechnik lädt zur Teilnahme an folgender Vortragsveranstaltung mit anschließender Diskussion ein:

Es spricht Frau Prof. Dr. Sahar Qaadon, German Jordanian University

Lehrstuhl für Elektromobilität und Energiespeichersysteme

Prof. Dr.-Ing. Benedikt Schmülling

über das Thema

## AI-Driven Innovations in Signal Processing for Predictive Battery Health and Sustainability

### **Inhalt:**

In this colloquium, Dr. Sahar Qaadon from the German Jordanian University will present her work on leveraging artificial intelligence and machine learning with advanced signal processing techniques to enhance battery health prediction and lifecycle management.

The main focus of the work will be on integrating data-driven solutions, such as physics/probabilistic-informed neural networks to address different challenges such as nonlinearity and stochastic degradation behaviors in batteries.

The objective of this approach is to bridge the gap between theoretical advances and practical applications contributing to sustainable development goals (SDGs) 7 (clean energy access), 9 (industry innovation), 12 (sustainable consumption), 13 (climate action), 17 (global partnerships) and supporting innovation in electromobility and beyond.

**T e r m i n:**

**11.02.2025, 10 Uhr**

**O r t:**

Bergische Universität Wuppertal  
Campus Freudenberg, Seminarraum FME (FME.01.04)