

# Distinguished Lecture: Tiny and Efficient - Power Management as a Key Functional in Microelectronic System

**Date:**  
**15 September 2021**

**Time:**  
**18:00 to 19:00**

**Location:**  
**Zoom platform**

## Space is limited

To reserve your seat,  
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## Synopsis

Power management comprises integrated circuits for highly efficient power supplies and for controlling power switches. These have recently gained tremendous importance in order to make electronic solutions for global growth areas such as renewable energies, autonomous driving and biomedical more compact, more energy-efficient and more reliable. Future applications in the field of machine learning and AI will only be possible with intelligent power management to supply complex processors and sensors. This talk gives an overview at system and circuit level of current and future challenges, along with examples including the topics of automotive, wearables, GaN, and current measurement.

## Speaker

Prof. Dr.-Ing. Bernhard Wicht  
Leibniz University Hannover, Germany



Bernhard Wicht has 20+ years of experience in analog and power management IC design. He received the Dipl.-Ing. degree in electrical engineering from University of Technology Dresden, Germany, in 1996 and the Ph.D. degree (Summa Cum Laude) from University of Technology Munich, Germany, in 2002. Between 2003 and 2010, he was with Texas Instruments, Freising, responsible for the design of automotive power management ICs. In 2010, he became a full professor for integrated circuit design and a member of the Robert Bosch Center for Power Electronics at Reutlingen University, Germany.

Since 2017, he has been heading the Chair for Mixed-Signal IC Design at Leibniz University Hannover, Germany. His research interest includes IC design with focus on power management, gate drivers and high-voltage ICs. Dr. Wicht was co-recipient of the 2015 ESSCIRC Best Paper Award and of the 2019 First Prize Paper Award of the IEEE Journal of Emerging and Selected Topics in Power Electronics. In 2018, he received the faculty award for excellent teaching at his university. He invented seventeen patents with several more pending. He currently serves as a member of the Technical Program Committees of ESSCIRC and ISSCC.

## Co-organizer



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