

Lecture Announcement

Winter Semester 2026/27

Sustainable Energy Systems

Lecturer:

Prof. Dr.-Ing. Georg Frey



Source: Title Page of IEEE Energy Sustainability Magazine, February 2006

Further information:

Scope and Credits: 2 SWS (3 CP)

Lecture: Introductory meeting: October 19,
14:00, in Building A5 1 Room -1.22

Start: October 19, 2026

Location: Room -1.22, A5.1

QR-Code Teams:



Description:

Students gain knowledge in technologies used in sustainable energy systems. They are informed about pros and cons and are able to select suitable solutions under given conditions.

Content:

We start with an overview of sustainable technologies for electricity, heat, and transportation. For all technologies, we look at basic principles, simplified mathematical models (incl. exercises with modeling and simulation tools), availability (spatial and temporal), and sustainability (needed raw materials, longevity, recycling, re-use). Based on this, students contribute with presentations on technologies or questions of their own choice.

Target group:

Students of master programs Sustainable Materials and Engineering and Systems Engineering.