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SUSTAINABLE NEIGHBORHOODS AND ENERGY SHARING

Module Building Energy Performance

C25 IN-DEPTH MODULE

This module is part of an ongoing collaboration with BIG/ ARE and part of a STUDENT COMPETITION which is financially supported by ARE with generous prizes. Students who participate in the module are automatically registered for the competition. Prizes are awarded at the end of the academic year based on evaluation by an independent jury.

In this course, the focus is on the development of urban, architectural and energy design strategies for the creation of sustainable neighborhoods which allow energy balancing at the neighborhood level and energy sharing between people, spaces and buildings. Concepts for energy storage, synergies between different uses and integrated mobility concepts will be researched and developed. A microgrid can redistribute energy and make locally generated renewable energy available to all end users with minimum losses. This local self-contained intelligent power supply network connects all local renewable energy systems, energy storage systems and consumers to allow the formation of an energy community with energy sharing between all uses on the entire site.

However, innovative approaches to organizing the spaces and the different uses and of configuring the architectural and urban design can also contribute to more effective ways of sharing energy.

The design task "F7 Aspern" is a real-life urban planning task currently being prepared for a design competition. The goal is to design energy sharing concepts which reduce the community's carbon footprint, lower the energy cost for the community members and provide a resilient local energy system, in order to promote environmental, economic, and social sustainability.

REGISTRATION

Wednesday
01. March, 17:00

LV 159.780

Summer semester
2023

WITH

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SE
Energy and Architecture

SE
Energy Analysis

UE
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