

Design, Data and Society

AR2AA010-A_AiDAPT Lab

Artificial Intelligence in Architectural Design

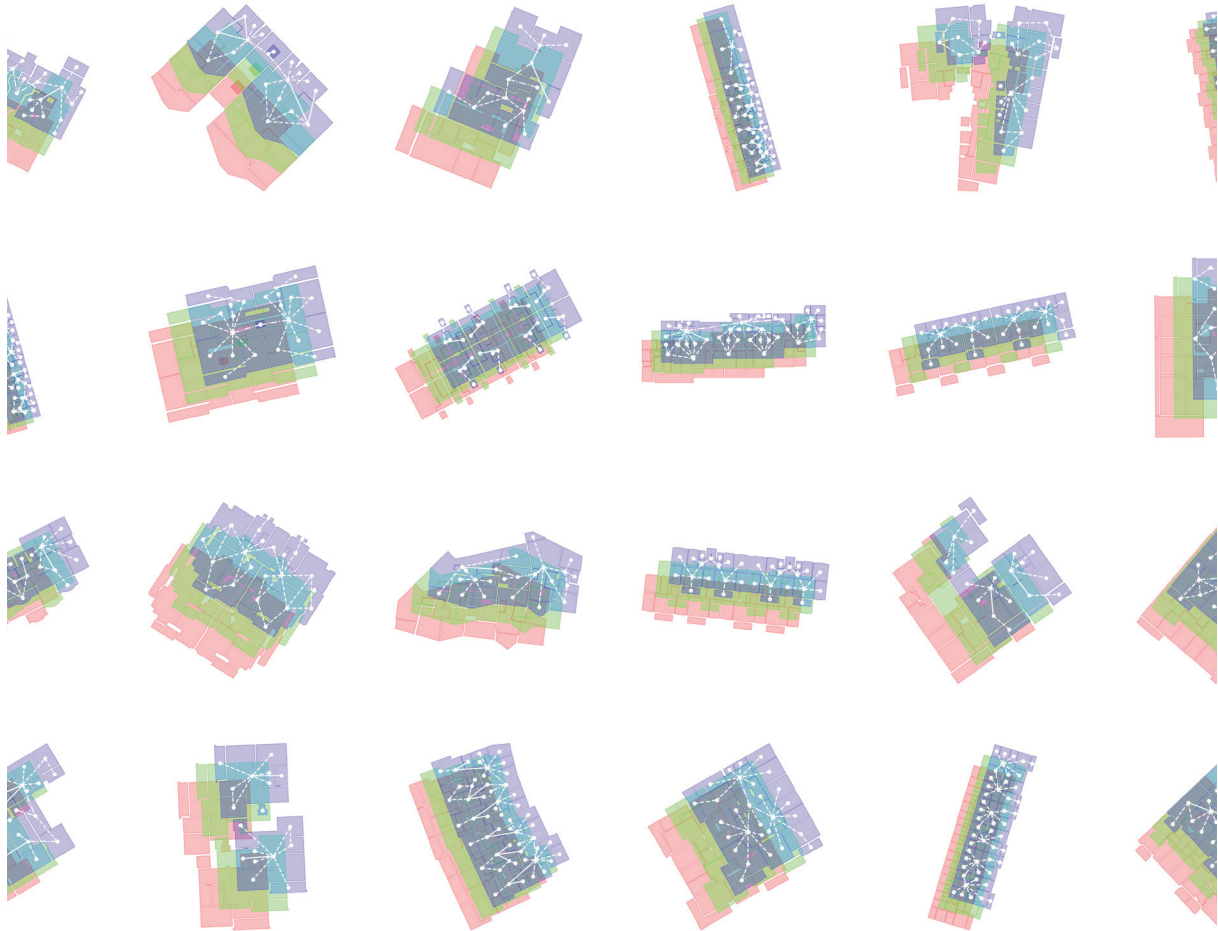


Image: Visualizing floorplans from the "Modified Swiss Dwelling Dataset" using RGB image layers and overlaying graph representations by Casper van Engelenburg, AiDAPT Lab

Tutors

Seyran Khademi (coordinator)
Casper van Engelenburg
Fatemeh Mostafavi
Georg Vrachliotis

Code	AR2AA010-A
Credits	5 ECTS
Location	Netherlands
Excursion	Yes**
Costs	50€

**Only for MSc2 projects*

Project type Multidisciplinary

** only in the EU, green/yellow zones are allowed.

How can we effectively navigate the vast amount of architectural imagery found in archives, collections, social media, and the internet to develop innovative design concepts? How can we harness the potential of generative AI not only to effectively communicate our architectural design ideas but also to pioneer new horizons in architectural creativity?

The aim of the "AI in Architectural Design" seminar is to unlock and channel the creative potential of architects in the era of artificial intelligence. To accomplish this goal, we equip students with coding skills in data science, machine learning, and computer vision. Moreover, we provide valuable resources, and methods for quantitatively curating and evaluating visual architectural data. This data encompasses various elements, including building photographs, architectural blueprints, aerial images, and contextual information related to structures.

This course accommodates a diverse range of participants, welcoming both novices (with zero-programming knowledge) and students with prior programming experience. It blends practical, hands-on exposure to open-source tools and Python programming with engaging lectures and seminars.

Our approach to learning draws inspiration from real-world architectural projects and is enriched by on-site field visits within the Netherlands.

Students will work collaboratively in thematic groups of 2-3, engaging in data-driven research to explore the course concepts in depth. Their progress and understanding will be assessed through mid-term and final presentations, providing valuable feedback and opportunities for showcasing their acquired skills.