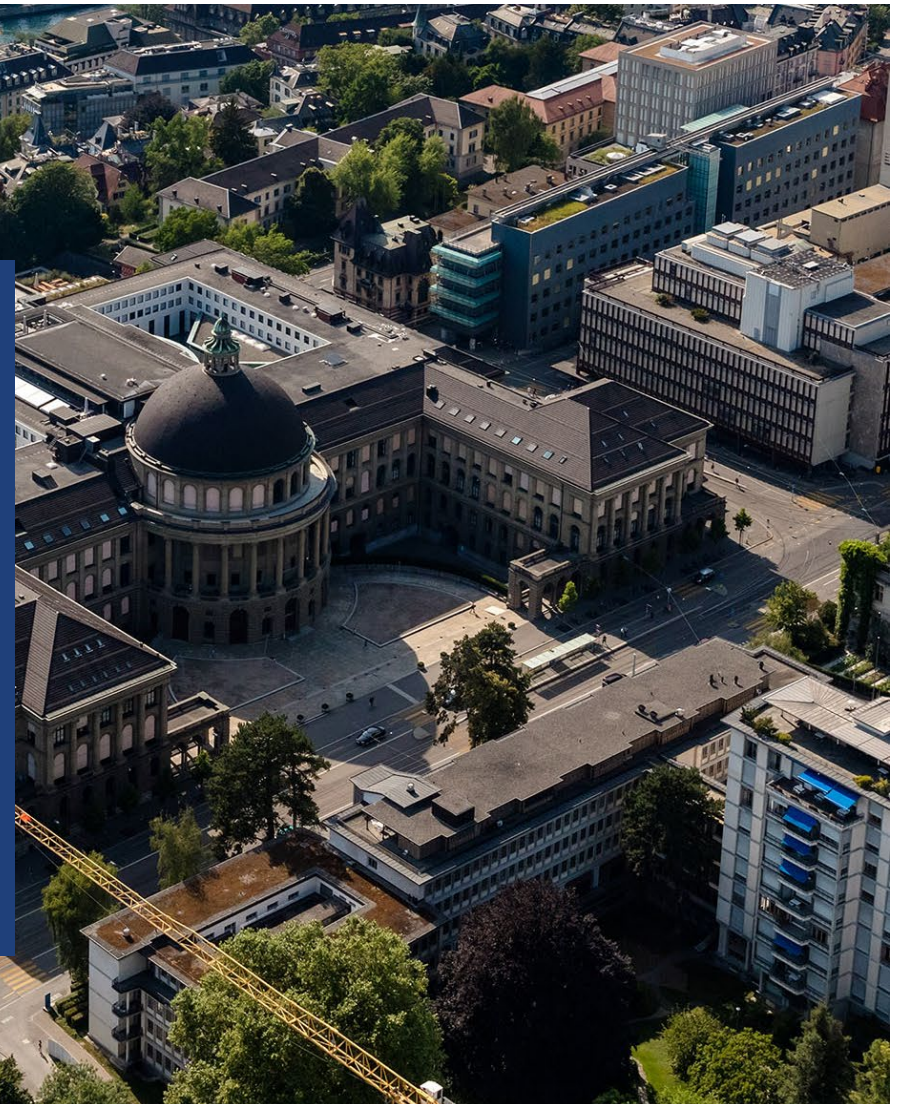


**Informationsveranstaltung am
07.11.2024, 17:00 Uhr**

**Master-Arbeiten und Master-
Projektarbeiten am IBI**

Prof. Dr. B.T. Adey, Prof. Dr. Catherine De Wolf,
Prof. Dr. G. Habert



IBI is structured along 3 main streams

- Infrastructure Management
 - Prof. Dr. Bryan T. Adey
- Circular Engineering for Architecture
 - Prof. Dr. Catherine De Wolf
- Sustainable Construction
 - Prof. Dr. Guillaume Habert





Switzerland



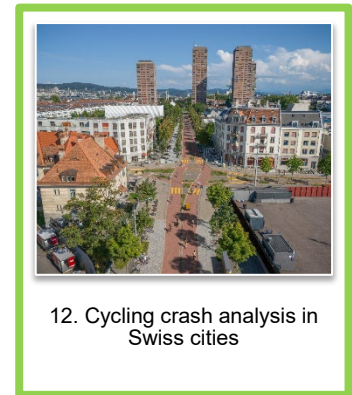
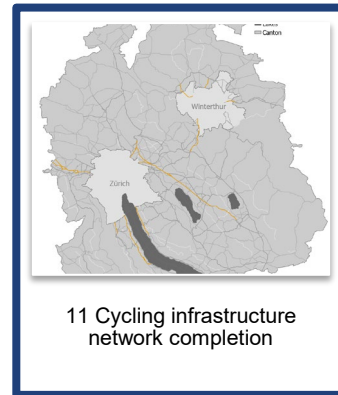
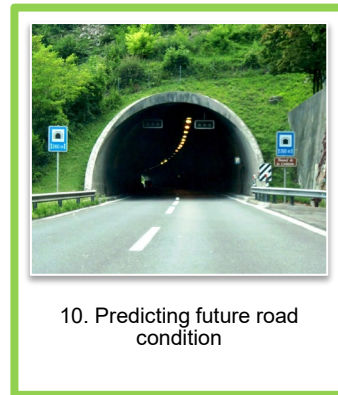
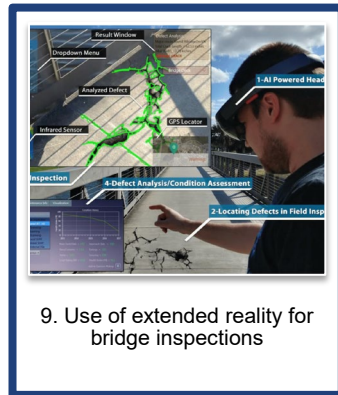
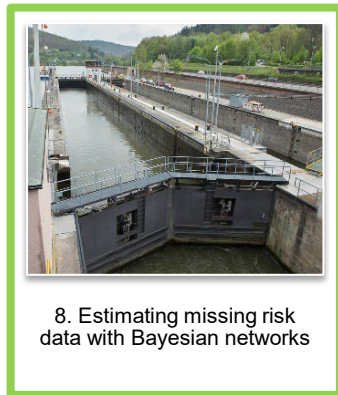
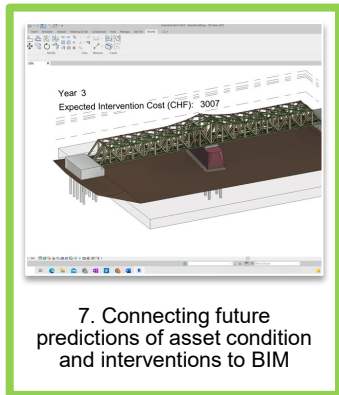
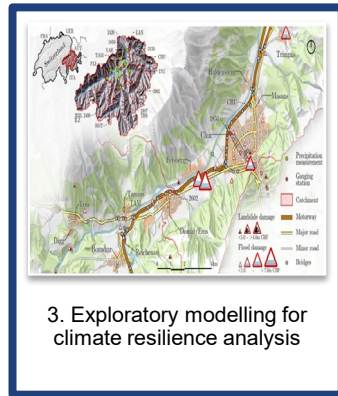
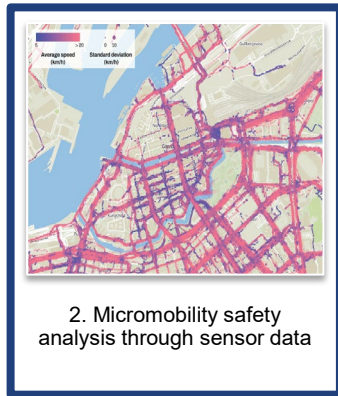
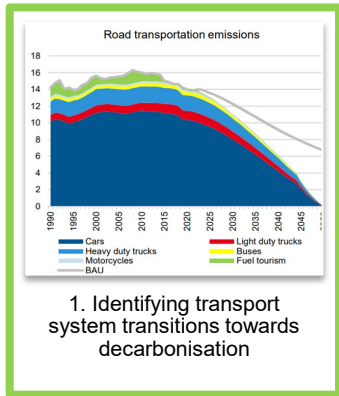
Singapore

Infrastructure Management Group

Topics

Master project
and thesis

Master thesis



cea

Circular Engineering for Architecture

Prof. Catherine De Wolf

ETH zürich

Topics

Master project and thesis

Master thesis

Leveraging AI for Intelligent Information Extraction from PDF Documents for Material Reuse in Architecture.

material	mask	image	material	mask	image
reinforced concrete			XPS insulation		
unreinforced concrete			hard insulation		
precast concrete			soft insulation (computer-aided)		
masonry			soft insulation (hand-drawn)		
slit			not relevant		

Material segmentation and classification using 2D architectural drawings

Chat with pre-demolition audit inventory – identify urban-wide hazardous materials using data mining and search augmentation

Pathways to Circularity: Investigating Product Take-Back Systems in the Construction Industry

COMPAS

COMPAS LCA – a software package for life cycle assessment

Development of a pre-demolition audit and inventory tool

The Chair for Sustainable Construction gathers a group of scientists, engineers and architects who aim to ground sustainability in all disciplines involved in the built environment.

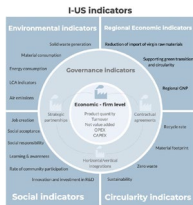


The objective is to identify the relevant parameters that influence the environmental impacts of buildings across spatial and temporal scales in order to implement sustainable practices throughout the development of innovative strategies adapted to each stakeholder.

Topics

Master project and/or thesis

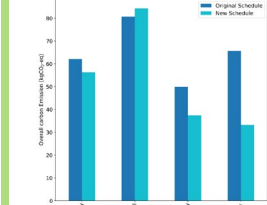
Master thesis



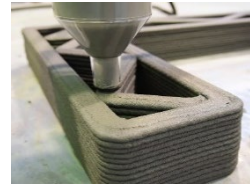
Circular economy indicators for urban-industrial symbiosis assessment



Carbon Intensity Estimation of Hyperloop Construction – A Case Study on EuroTube



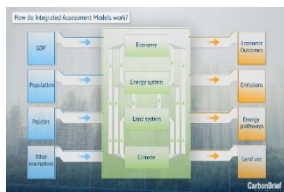
Optimizing Prefabrication Schedules to Minimize Carbon Emissions



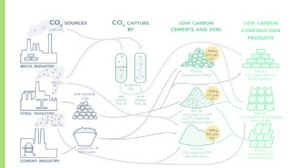
Optimising 3D-printed concrete structures for carbon capture and storage



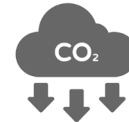
Assessing "net-zero" strategies for the renovation of the HIL building



Building WLC emissions in IAMs for climate change mitigation



Estimation of CO2 and waste streams availability for carbon capture and storage in construction products in Europe



Carbonate now or later? Dynamic LCA of construction products subject to enforced and natural carbonation



Assessment according to ESGs framework of water pipe maintenance technology

MFA

Supply chain, stakeholders

LCA materials & technologies

Materials Development