Hacking for Embodied Carbon: Investigations into digital solutions

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Zoom Link: TBA
Max Enrollment: 16

Theory with individual/group project introduction (1 class) -
Class 1 - Introduction to Embodied Carbon & LCA –

- Terminology
- Stages across LCA
- Carbon breakdown in a building
- Standards & guidelines
- Certifications, policies & by-laws
- EPDs
- LCAs & methodologies, firm culture
- Carbon data and benchmarking
- Tracking carbon inventory and offsetting
- Case Studies & examples

Workshop on tools (2 classes) –
Class 1 - Early-Design Embodied Carbon Analysis
   Tools – Learn Carbon, Cardinal LCA

Class 2 - Whole Building Life Cycle Assessment
   Tools – OneClick LCA, Tally, Athena

Project (2 classes) -
Class 1 - Students are expected to bring their own project and can work in groups. A few project ideas are:

- Comparison between façade assemblies for operational vs embodied carbon
- Parametric tool to integrate structural design for CLT, Concrete & steel with embodied carbon accounting
- Material recovery – Analyze the Gund Hall through 3D scanning for materials we can upcycle, recycle, etc.
- Bring your studio project!

Class 2 – Troubleshooting(1 hr) & Presentations(1 hr)