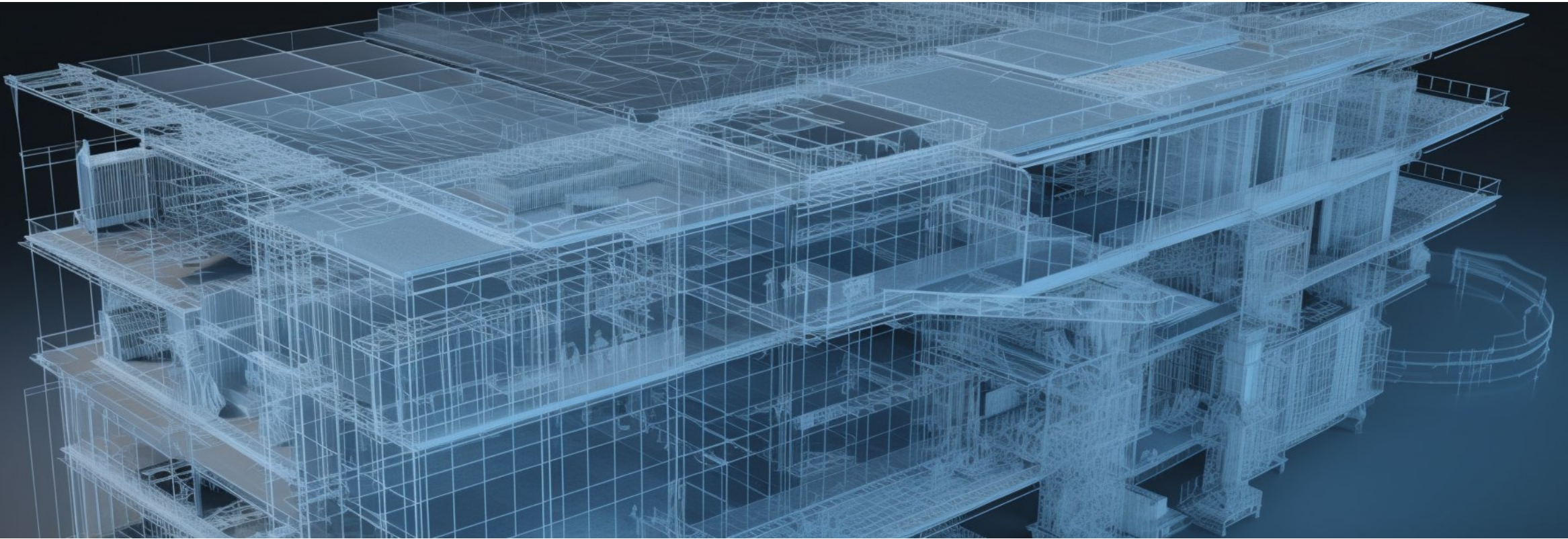


MASTER PROGRAM AICEM:

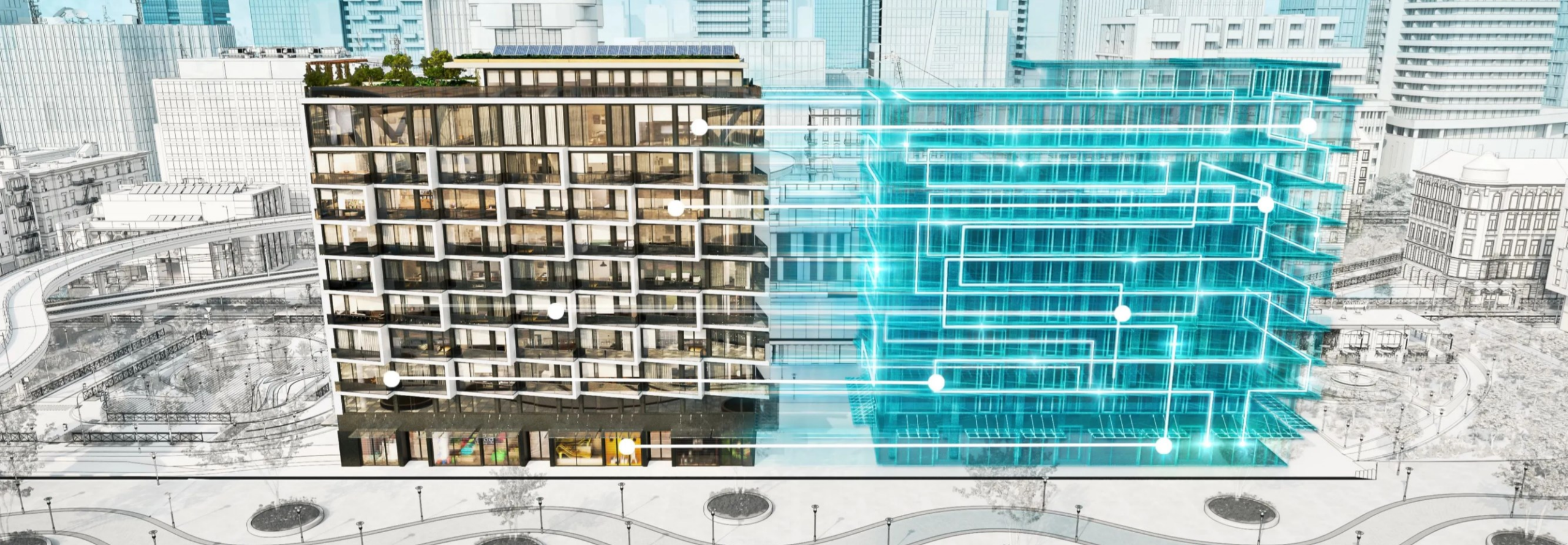
Artificial **I**ntelligence in **C**ivil **E**ngineering and **M**anagement -EN
(Inteligență Artificială în Inginerie Civilă și Management) -RO



Program responsible: Assoc. Prof. Zsolt NAGY, PhD, Eng. Habil

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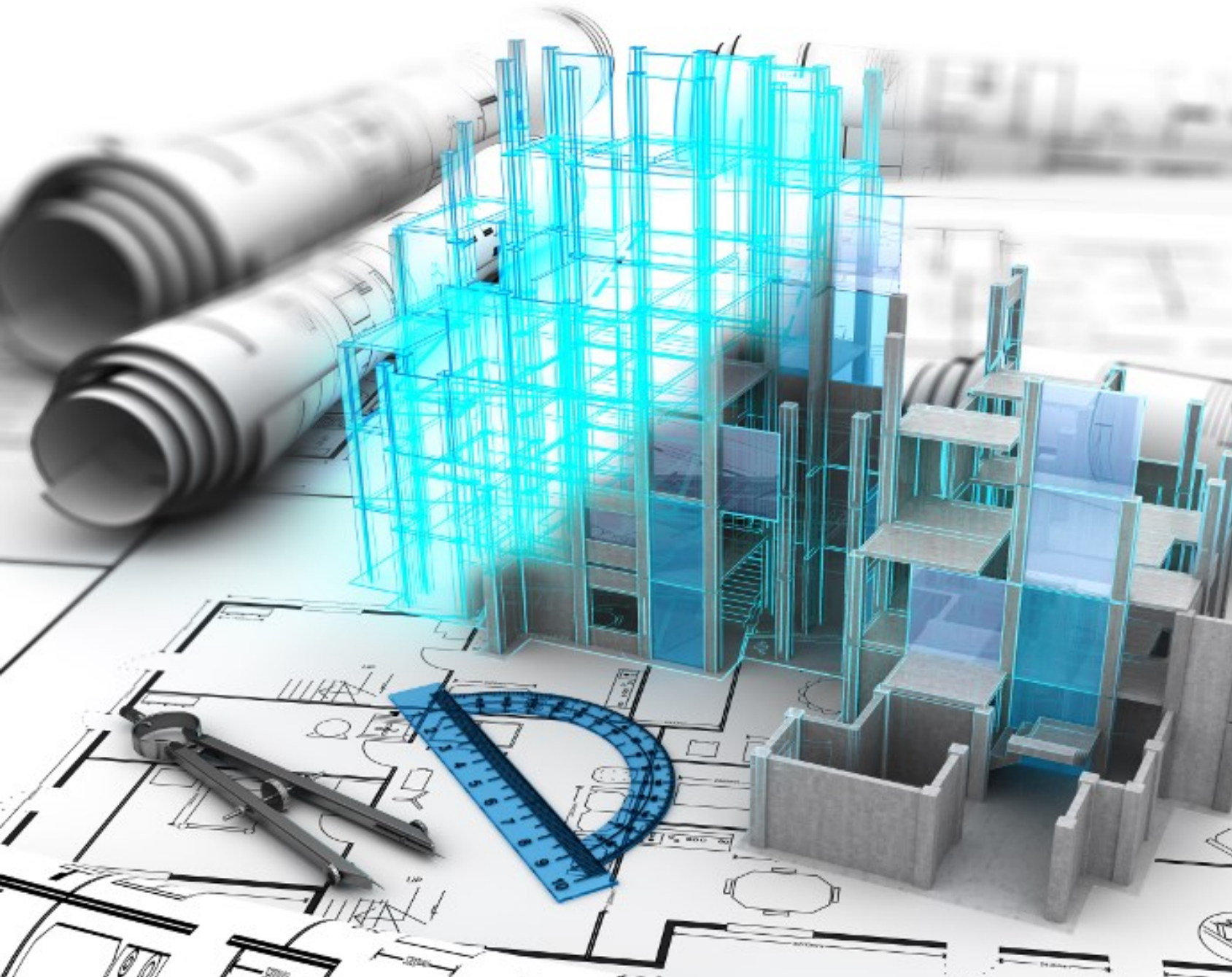


WHY AICEM MASTER?

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- It is aimed for engineers with various specializations and architects, as well as graduates from other fields of study;
- The disciplines allow specialization in 3 distinct fields: design/execution (1), transport infrastructure (2), construction management (3);
- It will work according to the requirements of the socio-economic environment;
- Teaching language: English.



Main objectives of the master program

- Management of processes, specifically for the field of Civil Engineering assisted by BIM models;
- Automation of the calculation methods for different structural types,
- Advanced methods for design of structural elements in the field of Civil Engineering;
- Automatic generation of the design results for the technical documentation of the project;

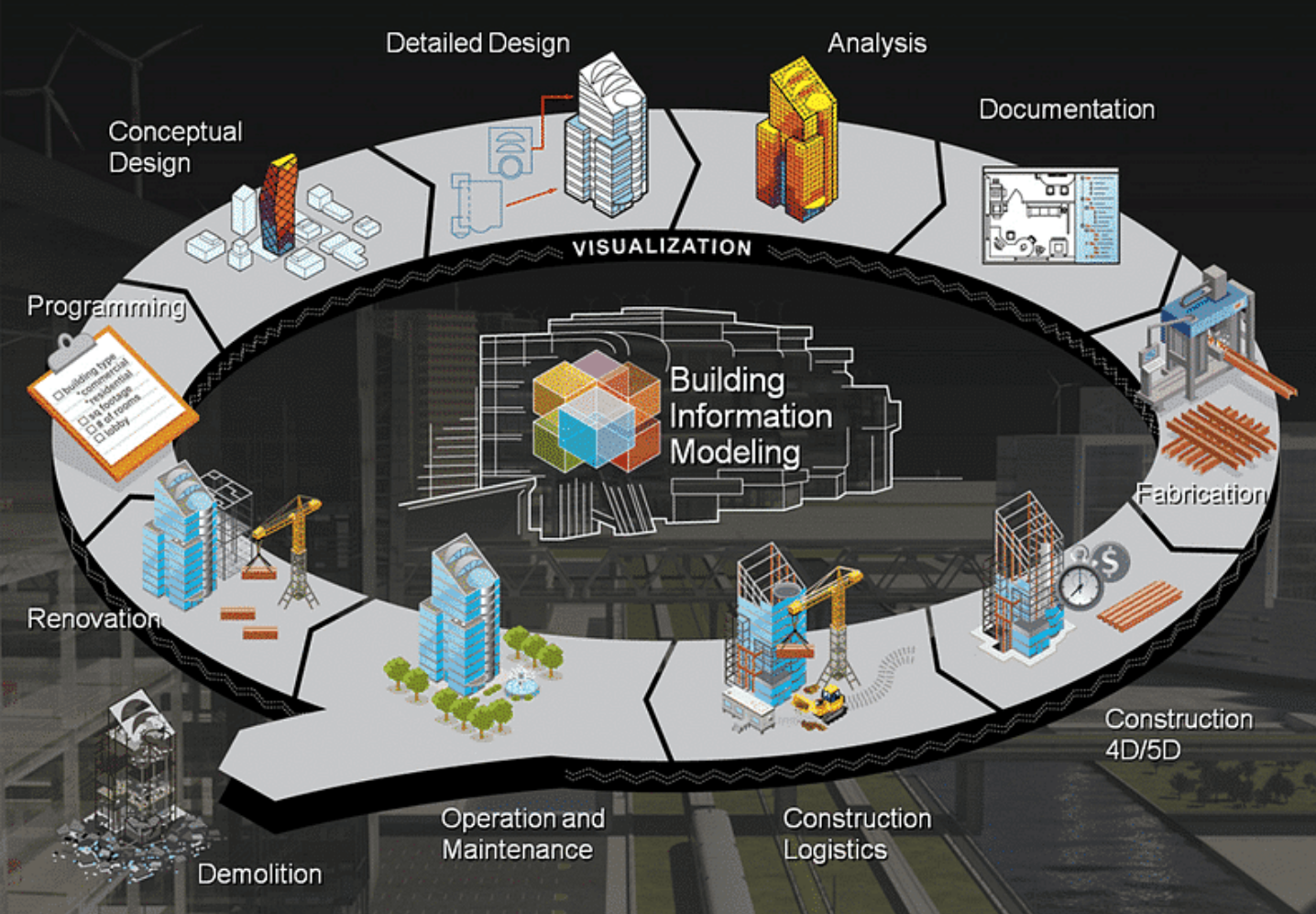


Competences provided by the master's program

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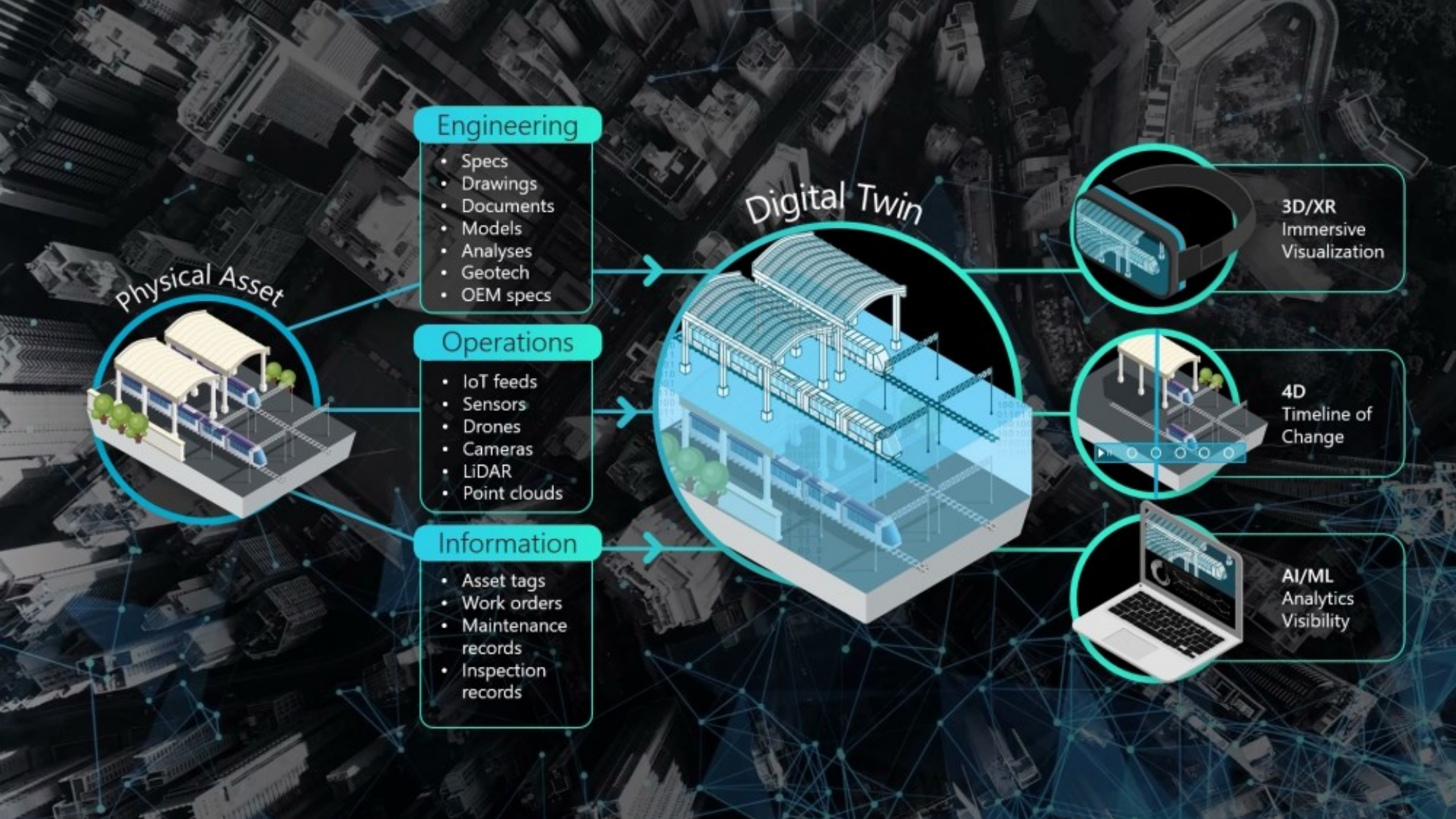

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- Advanced design and execution of structures using BIM;
- Parametric design and digital fabrication;
- Structural optimization and sensitivity analysis;
- BIM modelling in road infrastructure;
- Structural health monitoring;
- Digitization of the construction field ;
- Integrating augmented reality and virtual reality into CAD design and analysis;
- 3D printing for various materials – development and technology;
- Photogrammetric and topographic scanning techniques in the BIM process;
- Experimental methods to evaluate the behavior of structures ;
- Deep learning.

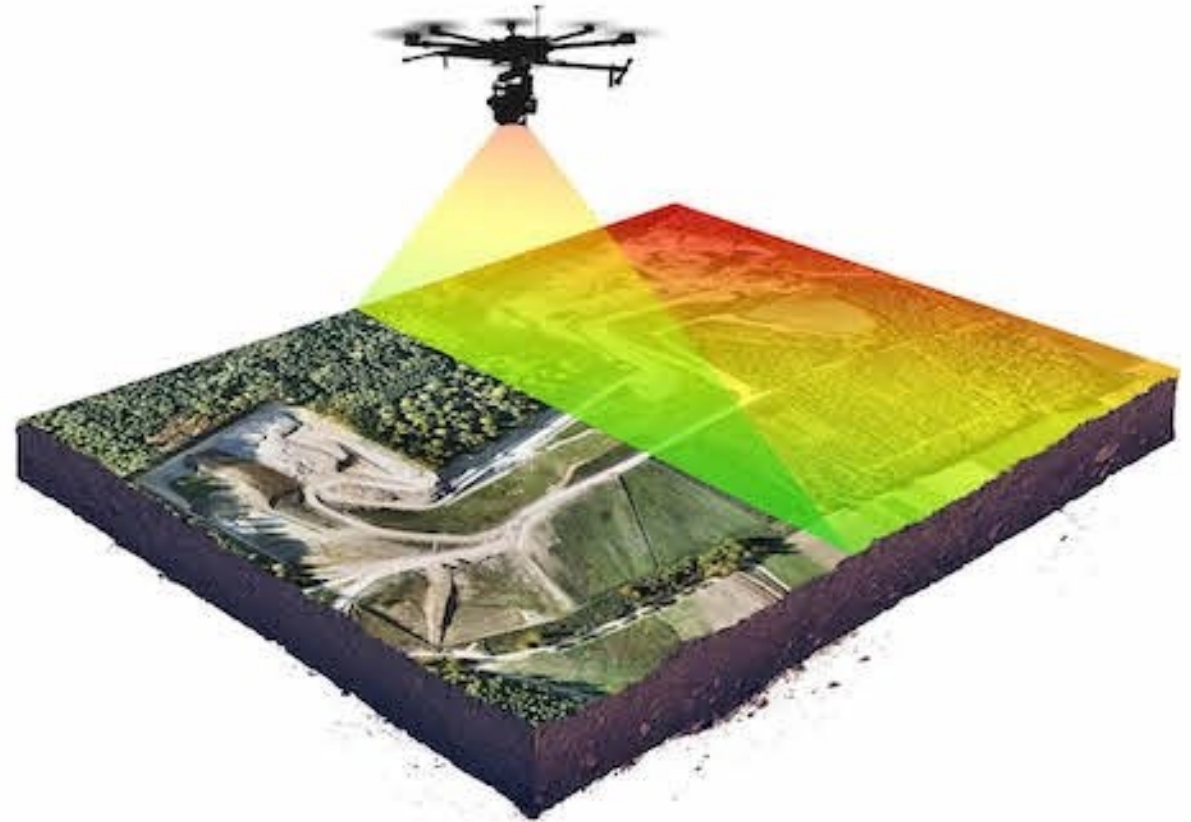
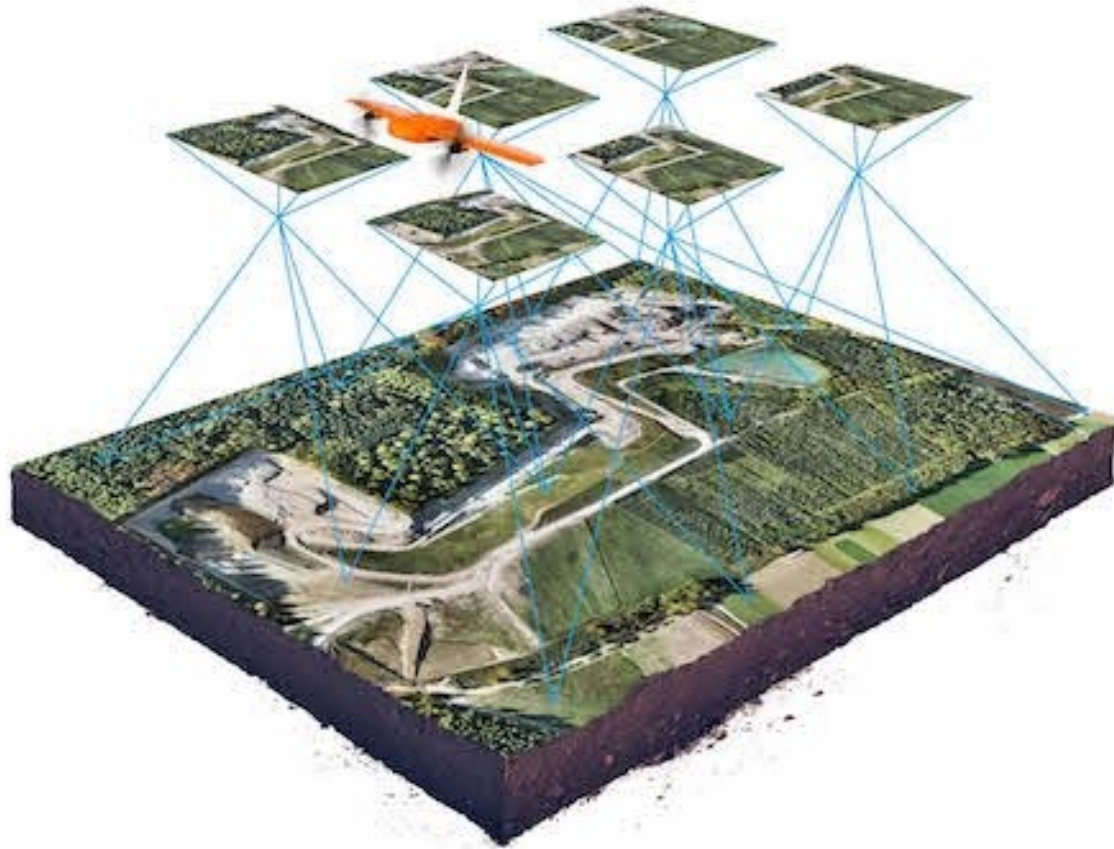


- Implementation of Building Information Modeling technology;
- Collaborative process management between several interested parties (architecture, engineering, construction) to allow the planning, design and realization of a construction in a single 3D model;
- Digitization methods and the potential of digital information exploitation.

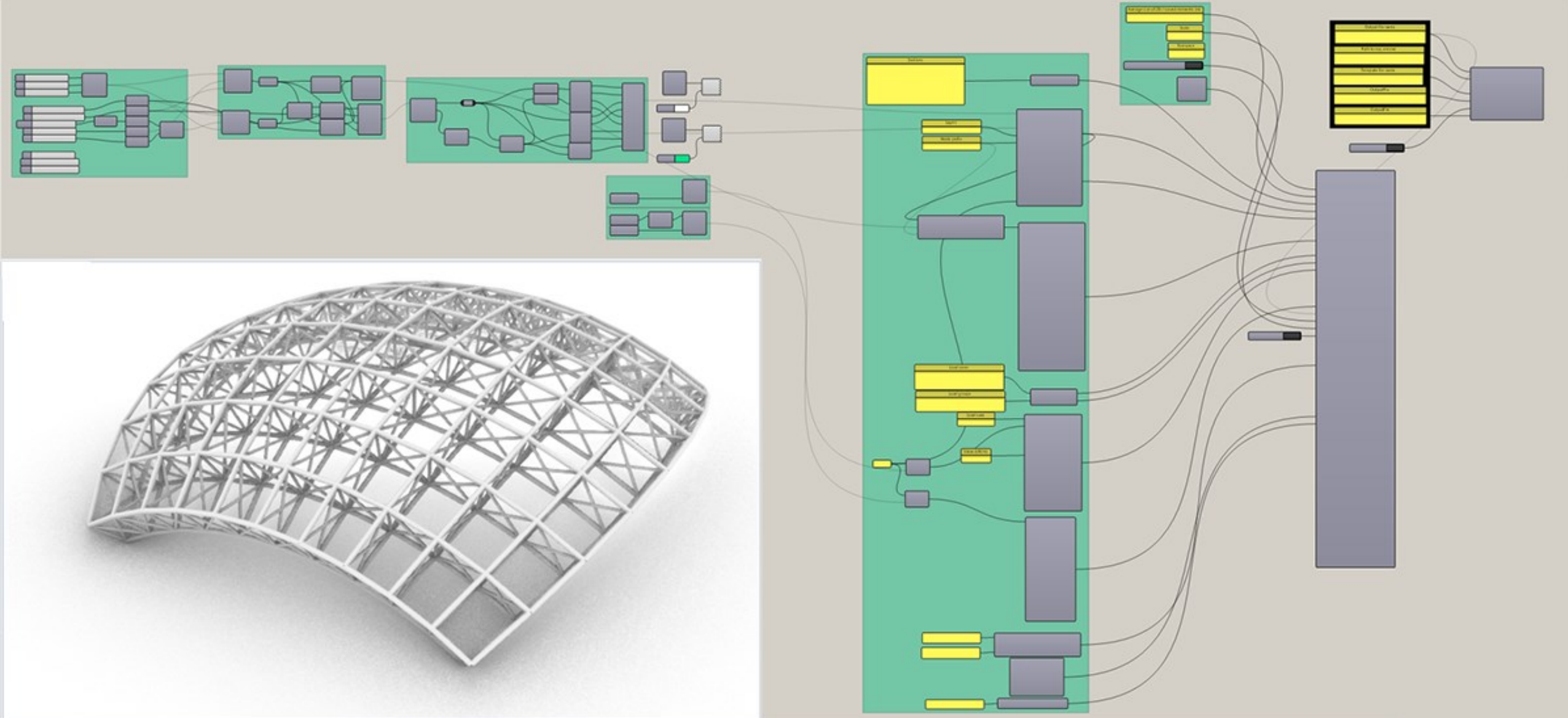
What you will study?
BIM Technology



What you will study? Digital Twin Technology



What you will study?
3D scanning process



What you will study?
Parametric design



What you will study? Construction management in the digital age



Thank you for your attention!