

# HIC

History of Industrialization in Construction



### Exercise

The use of precast concrete parts has long been labeled as monotonous, but today's prefabricated construction elements actually show a high degree of differentiation in the architectural design.

**Try to design a simple two-storey dwelling unit made of precast concrete. The property is fictional and can be determined by you.**

Thereby the focus is on the **load-bearing structure** and the structural behaviour of the material concrete. After planning the load-bearing structure you have to design the **building envelope** for your design of the detached house.

### Final presentation

Din A3-upright for the final presentation should contain the following:

- **floor plan sections 1:200**
- **1 axonometric drawing** of the load-bearing structure and the constituting elements
- **1 perspective** of the whole building

### Organisation

tutorial/ presentations:

Due to the current situation, all meetings and presentations will only be held online:

1. zoom download and install:

<https://zoom.us>

2. access data of zoom for every meeting:

**Meeting-ID: 677 4785 0141**

**Kenncode: EBB**

3. Individual work or workgroups of two

Please send an email to

[friederike.schmitz@tum.de](mailto:friederike.schmitz@tum.de)

with the following informations until

16.04.2021:

last name, first name

matriculation number

[mailaddress@mytum.de](mailto:mailaddress@mytum.de)

>> individual work / workgroups for two

### Lectures:

There are no physical lectures in the summer semester. Educational films will be uploaded on moodle, for dates see semester schedule.

<https://www.moodle.tum.de>

<b>Dates</b>	<b>Films</b>	<b>Tutorials</b>	<b>Specials</b>
14.04.2021 9:45am	film 01	-	introduction and hand-out of the structural exercise
21.04.2021 9:45am	film 02	-	lecture visiting Prof. Alejandro. R. Montoya
28.04.2021 9:45am	film 03	tutorial	
05.05.2021 9:45am	film 04	-	intermediate presentation
12.05.2021 9:45am	film 05	tutorial	
19.05.2021 9:45am	film 06	-	lecture visiting Prof. Alejandro R. Montoya
26.05.2021 9:45am	film 07	tutorial	
02.06.2021 9:45am	film 08	tutorial	
09.06.2021 9:45am	film 09	-	intermediate presentation
16.06.2021 9:45am	film 10	tutorial	
23.06.2021 9:45am	-	tutorial	
<b>30.06.2021 9:45am</b>			<b>final presentation of the exercise with plans</b>

**Programm  
of the film-lectures:**

- 01 Industrialisation of building
- 02 Standardisation
- 03 Kit & Set
- 04 Systems
- 05 Modularity
- 06 Historical examples
- 07 Housing & universities
- 08 Politics
- 09 Critique & improvement of  
conventional building
- 10 The future

**Further informations:**

**Literature:**

Vom Systembau zum Bauen mit System  
Prof. F. Musso, Verlag Ludwig, 2016

Bauen mit Betonfertigteilen im Hochbau,  
A.Steinle, H. Bachmann, M. Tillmann,  
Ernst&Sohn, Febr. 2018

**Examples of architects:**

Otto Steidle, Genter Str. 13, München

Ensamble studio, [www.ensemble.info](http://www.ensemble.info)

**Internet pages:**

[www.beton.org](http://www.beton.org)

[www.fdb-fertigteilbau.de](http://www.fdb-fertigteilbau.de)

[www.elematic.com](http://www.elematic.com)

[www.hemmerlein-sichtbeton.de](http://www.hemmerlein-sichtbeton.de)

[www.klebl.de](http://www.klebl.de)