

## New LPME research building TU Kaiserslautern



### SHORT DESCRIPTION

Construction of the LPME (Laboratory for Ultra-Precision and Micro-Engineering) research building of the Technical University of Kaiserslautern

### THE PROJECT

The building to be constructed is a research building of the TU Kaiserslautern as a three-storey new building in solid construction. The main component of the building shell comprises the construction of two structures, in this case the laboratory building consisting of a precision measurement room with test bench, administration and office area and the directly adjoining covered delivery yard with gas cylinder storage in in-situ concrete construction.

### SERVICES IN DETAIL

- Main building approx. 63 m x 49 m
- Delivery yard 14 m x 15 m
- Total height approx. 14 m
- 7,420 m<sup>2</sup> gross floor area with 6,470 m<sup>2</sup> useable area will be constructed, gross volume 37,300 m<sup>3</sup>

- In-situ concrete approx. 6,800 m<sup>3</sup>
- Reinforcing steel approx. 950 to
- Prestressing steel approx. 9 to
- Formwork slabs ca. 8,500 m<sup>2</sup>
- Formwork walls ca. 8.975 m<sup>2</sup>
- Formwork for columns approx. 695 m<sup>2</sup>

## CHALLENGES

Short construction time, increased exposed concrete requirements for both normal concrete and coloured concrete in anthracite with smooth formlining and OSB panel formlining. Production of a prestressed in-situ concrete hollow core slab approx. 620 m<sup>2</sup>. A test stand consisting of three special foundations is to be constructed. These foundations must be placed in a low-vibration, free-floating manner on pneumatically mounted spring cushions.

## FACTS

<b>Location</b>	Kaiserslautern , Germany
<b>Status</b>	Under construction
<b>Construction volume (value of our services)</b>	4.58 M EUR
<b>Start of construction</b>	June 2020
<b>Completion</b>	March 2021
<b>Building owner</b>	Land Rheinland-Pfalz vertreten durch Ministerium der Finanzen, vertreten durch Landesbetrieb Liegenschafts- und Baubetreuung Niederlassung Kaiserslautern
<b>Contracting entity</b>	Land Rheinland-Pfalz vertreten durch Ministerium der Finanzen, vertreten durch Landesbetrieb Liegenschafts- und Baubetreuung Niederlassung Kaiserslautern
<b>General management</b>	Implenia Construction GmbH, NL Mitte, GS Mannheim, Bernd Grundel
<b>Project management</b>	Dipl.-Ing. Kai Schuster, Implen Construction GmbH
<b>Architect</b>	Arge AV1 Architekten GmbH und ASPLAN
<b>Construction management</b>	Dipl.-Ing. Kai Schuster, Implen Construction GmbH
<b>Construction management</b>	Dipl.-Ing. Kai Schuster, Implen Construction GmbH

## SERVICES

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Tesch

Industrial construction

Civil engineering

Concrete construction

Infrastructure



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<https://implenia.com/en/references/detail/ref/new-lpme-research-building-tu-kaiserslautern/>

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