

## FRAUNHOFER-GESELLSCHAFT ORGANISATION FOR APPLIED RESEARCH IPA/IGB Stuttgart (Germany)

### NEW BUILDING

<b>Client:</b>	Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e. V., München
<b>Architects:</b>	HASCHER JEHL Architektur, Berlin
<b>Our services:</b>	Full structural design Preliminary design Final design Approval documentation Execution drawings Preparing of contract award Project supervision Structural fire protection Earthquake Engineering
<b>Brief description:</b>	<p>Fraunhofer-Gesellschaft organisation for applied research IPA / IGB Stuttgart Construction of a large new technical centre for two institutes / laboratories</p> <p><b>IPA</b> Research in the fields of robotic systems, orthopaedics and movement systems, production and process automation and technical information processing</p> <p><b>IGB</b> Research in the fields of energy efficiency of processes, anaerobic fermentation of biomass to biogas, treatment of waste water, "white" biotechnology, functionalisation of materials and surfaces by means of plasma processes and tissue engineering.</p> <ul style="list-style-type: none"><li>- 6-storey concrete structure including basement</li><li>- building dimensions 90 m x 30 m x 29 m</li><li>- individual foundation and bed plate with complete basement</li><li>- internal lift shafts and external staircase cores made of reinforced concrete for building bracing</li><li>- composite construction consisting of composite columns and composite beams</li><li>- flat ceilings</li><li>- in punching shear areas, deployment of C40/50 concrete to transfer extremely high punching shear loads</li><li>- shoring of high column loads up to 1,200 metric tons with 70 cm high steel girders</li><li>- composite structure over existing service duct of adjacent existing building</li><li>- shoring of three upper storeys to achieve desired absence of columns in the mezzanine with welded 1.4 m high composite steel beams of up 22 m length</li><li>- deployment of half-finished parts as floor slabs with spans between 5 m and 10 m</li><li>- partially hollow block ceilings for weight saving reasons with large spans</li></ul>
<b>Completion:</b>	2016

