

Advanced Building Materials



Testing and application examples are also included, in particular the application of relatively new high-performance construction materials to design and building practice.



The scientific bases for the manufacture and use of these high-performance products form the core structure of the course.

This course aims to investigate a number of high-performance materials, such as concrete, steel, fiber-reinforced cement, fiber-reinforced plastics, polymeric materials, masonry materials and coatings.



Following the latest trends in the construction industry, the course provides valuable insights into the use of advanced building materials, as these products are more environmentally friendly and possess greater recyclability potential than conventional construction materials.



Advanced Building Technologies

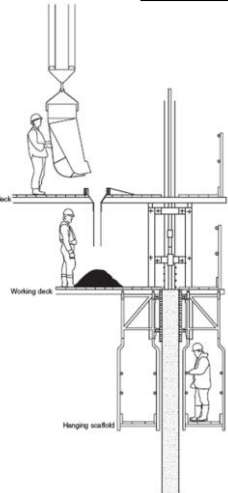
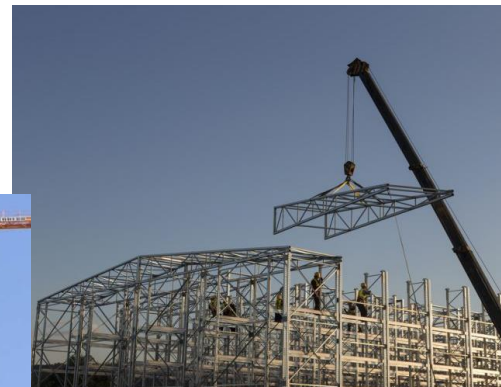
The lecture is structured according to the following content:

- Special technologies for plain concrete works and reinforced concrete works: *The technology works of sprayed concrete* which is applied for new constructions or in case of repair and restoration.



- Precast concrete structures*: The technology of fabricating precast concrete elements and prestressed concrete elements; Transport, storage, handling and assemblage; Execution of connections and joints.

- The technology of mounting and joining elements in case of *metallic structures*



- The technology of specialized performant formwork systems: *Climbing and sliding formworks*