Research Program of the FIT in 2019

Future Fields

Adaptive and Active Polymer Materials
Development of interactive and intelligent functional materials, foils and surfaces, as well as material-integrated (micro)systems

Biomimetic, Biobased and Bioactive Materials Systems
Bioinspired and biomimetic construction of materials systems. Development of new active hybrids by integration of synthetic and biological components. Bioactive functionalization of materials and (micro)systems to enable them to interact with proteins, cells and tissues.

(Micro)Systems for Energy Conversion, Storage and Energy-autonomy
Development of materials and (micro)systems for energy conversion and storage as well as development of energy autonomous embedded (micro)systems using bioinspired approaches.

Core Facilities

Imaging of Materials Systems
Specialised laboratory for microscopy and tomography, establishment of a competence network 3D visualization

Functional Processing
Manufacturing technique for bioinspired materials with focus on nanolithography, film technology, and generative processes

Modelling and Simulation of Materials Systems
Concept development, modelling and simulation of interactive materials systems