Lehrstuhl für Hubschraubertechnologie
Fakultät für Maschinenwesen
Technische Universität München

Lehrstuhl für Hubschraubertechnologie

Design of a VTOL Aircraft for Urban Air Mobility Scenarios

Beschreibung:

The aim of the project is to present a conceptual design of a vertical take-off and landing (VTOL) aircraft, which is capable of performing a certain mission within the scope of Urban Air Mobility, while addressing and discussing major technological, operational and certification issues.

Participants will be given a baseline scenario, including requirements that have to be met by the concept.

The team analyzes possible missions and market environment and identifies VTOL configurations that could satisfy requirements, including e. g. type of propulsion, lift generation, controls, operation scheme.

Sizing and Design of the aircraft will be performed with state of the art tools, such as the NASA Design and Analysis of Rotorcraft (NDARC) tool and CAD software. Python Tools developed at the Institute of Helicopter Technology will be given for use and enhancement.

Accompanying lectures will cover the respective physical, technological and legal aspects of VTOL aircraft Urban Air Mobility.

Besides a broad gain of knowledge on UAM and VTOL applications, students will be able to push their skills in code development, project management and communication.

Ansprechpartner:

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