Content: Write a ***technical report*** covering the following topics for your chosen Helicopter, see below.

Preparation: Lecture slides and optionally 1 – 6 and "Basic Helicopter Aerodynamics" (Newman/Sneddon).

Report: Submit the report via Moodle (via link) in PDF format. Make sure you put the Name/Number of the group, Your Name(s), Student number(s) on the front page of the report.

Deadline: ***Friday January 12th 2024***

Helicopters, Assignment

A. Description of the helicopter
General description and data
Aerodynamics; Design choices and explanation *(airfoil, rotor blades, tail rotor, fuselage etc.)*
The main rotor hub and its components
Additional stabilizing components
B. Helicopter Performance (Calculations & Graphs)
Hover ceiling *(for MTOM – OEM)* • OGE • IGE
Performance curves *(Power Req. vs. Airspeed)* • @sea level: different weights: *(MTOM – OEM)* • @different altitudes. *(at 0ft SL, 6000ft, max. PA)* • @hover ceiling IGE • @hover ceiling OGE
C. Verification and validation
Uncertainty of parameters *(influence of different parametric factors in the equations)*
Sensitivity of parameters on results (*big vs. small differences due to unknown aspects / assumptions*)
Validation of results (*Compare with manufacturers data*)