SUPER – Stuttgart University Program for Experiencing Research
Project Information

Institute’s Information

Name of Institute  Stuttgart Wind Energy Research Group (SWE)
Contact Person  Christian Molter, Kolja Müller
Phone  +4968568241
E-mail  molter@ifb.uni-stuttgart.de

Duration of Project/Number of Students

June/July  Possible
June/July/August  Would be better
Number of Students  3-5

Name of Project  Windpark 360° Aerial Filming

Beneficial Skills & Knowledge  multicopter UAV, video editing, head tracker goggles, manual skills

Description of Work

For our new wind research site in Schnitlingen (located in the south of Stuttgart) we want to create a 360 degree aerial video filmed by the existing SWE hexacopter. This video will be used to give the audience an impression of the site and will be shown at exhibitions such as the university’s open day.

During the project the group of students can start doing an online research regarding possible 360 degree cameras on the market. Another task is the modification of the hexacopters camera mount. In the current version the hexacopter is used with an Olympus PEN PL-6 camera in combination with a camera gimbal. To get a clear 360° video it may also be necessary to design a retractable landing gear to avoid the legs of the landing gear in the video. After convenient test flights have proven the feasibility of the project a video of the test site will be recorded in flight. Video editing may include adding dynamic graphics (such as text or 3D CAD models) and audio content for explanatory purposes. The goal for the project is the presentation of a complete Information video for the new test site. For the
final stage of the project the students can pick head tracker goggles or dig into DIY head tracker solutions.