PROJECT

FLAPSENSE

Optical Sensor System for Realtime Proprotor Flapping Angle Monitoring

Funding: European (Horizon 2020)

Duration: Mar 2018 - Feb 2024

Status: Ongoing

Total project cost: €1,056,040

EU contribution: €1,000,240

Call for proposal: H2020-CS2-CFP06-2017-01

CORDIS RCN : 213942

Objectives:

The main objective of the proposed project FLAPSENSE is to design and manufacture a contactless measurement system for real time monitoring of proprotor flapping angle. The system will be integrated in the proprotor assembly and co-rotates with the rotor. It will be based on a highly accurate optical sensing method providing the actual flap motion of the rotor blade to the avionic system.

The Partners DLR, Hit09 and NLR will closely cooperate in order to design, test and manufacture this sensor during the project duration. Besides several laboratory testing at DLR and a test on a rotary test bench at NLR, finally the sensor will be ground, and flight tested on the NextGenCTR Demonstrator.

Parent Programmes:

H2020-EU.3.4. - Horizon 2020: Smart, Green and Integrated Transport

Institute type: Public institution

Institute name: European Commission

Funding type: Public (EU)

Other programmes: JTI-CS2-2017-CFP06-FRC-01-14 Contactless measurement system for real time monitoring of proprotor flapping angle

Lead Organisation:

Deutsches Zentrum Fr Luft Und Raumfahrt E.v

Address:
Linder Hhe
12489 KLN
Germany

Organisation Website:
http://www.dlr.de

EU Contribution: €661,049

Partner Organisations:

Stichting Centrum Voor De Ontwikkeling Van Transport En Logistiek In Europa

Address:
Van Nelleweg 1
3044 BC Rotterdam

Netherlands

Organisation Website:
http://www.cetle.org

EU Contribution: €208,991

Hit09 Srl

Address:
Galleria Storione 8
35100 Padova
Italy

EU Contribution: €130,200

Technologies:

Sensor technologies
Optical sensor

Development phase: Demonstration/prototyping/Pilot Production

STRIA Roadmaps:
Cooperative, connected and automated transport, Vehicle design and manufacturing

Transport mode: Air transport

Transport sectors: Passenger transport, Freight transport

Transport policies: Other specified

Geo-spatial type: Other