PROJECT

MODIFLAW

Theoretical and experimental evaluations of strain field modification induced by flaws in loaded composite structures

Funding: European (Horizon 2020)

Duration: Jul 2020 - Feb 2022

Status: Ongoing

Total project cost: €435,000

EU contribution: €435,000

CORDIS RCN : 228821

Objectives:

The main objectives of the project is to develop, apply and validate numerical models of the strain field modification induced by the presence of flaws with different kind of morphology and size and to define virtual morphology for diagnostic indications provided by the Structural Health Monitoring (SHM) data and software on damaged representative sub-components and structures.

The project results will contribute also to innovative low cost and low weight processes and SHM technologies which will be integrated into the Outer Wing Box on ground demonstrator and into the Fuselage structural demonstrator with the objective to obtain: structural weight reduction, manufacturing and assembling recurring cost reduction, maintenance improvement and implementation of new eco-compatible materials and processes.

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-CS2-2019-CFP10-REG-01-18 Theoretical and experimental evaluations of strain field modification induced by flaws in loaded composite structures

Lead Organisation:

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EU Contribution: €435,000

Technologies:

Composite materials
Finite Element Analysiss for optimal strain sensor placement in composite structures

Development phase: Research/Invention

STRIA Roadmaps: Vehicle design and manufacturing, Other specified

Transport mode: Air transport

Transport sectors: Passenger transport, Freight transport

Transport policies: Other specified

Geo-spatial type: Other