

PROJECT

MDD

Denis Ferranti JTI-CS2-2017-CfP07-LPA-01-40

Funding: European (Horizon 2020)

Duration: Nov 2018 - Apr 2020

Status: Complete

Total project cost: €1,069,675

EU contribution: €1,069,675



Call for proposal: H2020-CS2-CFP07-2017-02

[CORDIS RCN : 218807](#)

Objectives:

The scope of the topic is to develop novel mechanical drive disconnect (MDD) solutions for an electric machine. The solution will focus on rapid response to faults within harsh environments. The project will be aimed at their development and integration into new technologies that will be developed and demonstrated in WP 1.6 of LPA IADP.

The Denis Ferranti group addresses this scope making use of its technical strengths in design, manufacture and testing set against a firm financial footing and unique intellectual property in relation to the topic (gearboxes, clutches, induction machines, permanent magnet). In particular, we have a patent application pertaining to a Mechanical Drive Disconnect and a patent pertaining to fire mitigations (fault tolerant architectures, mitigations to single point failures and thermal fuses) which may enable a more efficient realisation of the Rolls-Royce “mechanical disconnect” patent.

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-CfP07-LPA-01-40 Novel mechanical drive disconnect for embedded Permanent Magnet machines

Lead Organisation:

Denis Ferranti Meters Limited

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EU Contribution: €1,069,675

Technologies:

Safety systems
Fault finding and monitoring systems

Development phase: Validation

STRIA Roadmaps: Infrastructure
Transport electrification, Vehicle design and manufacturing,

Transport mode: Road transport

Transport sectors: Passenger transport

Transport policies: Environmental/Emissions aspects, Safety/Security

Geo-spatial type: Other