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The Curious Cryogenic Fish (CCF): Development of a diagnostic robot for large cryostats

Thursday, 27 May 2021 06:24 (18 minutes)

The Curious Cryogenic Fish (CCF) Project aims to develop a robotic device able to operate in large cryostats while filled. The goal is to perform visual inspections, environmental measurements and simple repair tasks, integrating the functionalities of a diagnostic station with the flexibility of an unmanned vehicle.
The idea originates from the particle physics domain, but it has many potential applications, particularly in the field of liquefied gas transport and storage, as well as in cryogenic plant monitoring.
The challenging realisation of the CCF requires not only the integration of a set of existing technologies into a single robotic device operating in a cryogenic environment, but also the extension of those technologies in order to work in that unusual environment.
This paper presents the state of the art of the technologies required for the endeavour, the results of the early feasibility studies carried out, and the necessary future steps to bring the project to maturity.

TIPP2020 abstract resubmission?

Yes, this would have been presented at TIPP2020.

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