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Type: **Poster Presentation**

## Redesign of the High Voltage Controller Card in Mobidick4

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### Abstract content <br> &nbsp; (Max 300 words)

This research redesigns the HV drive to provide high voltage to the photo multiplier tubes during tests relating to the verification of the electronics pertaining to the upgrade of the Atlas Tile Calorimeter (TileCal). This HV drive forms part of MobiDICK4 which is an improvement of the MobiDICK test bench used to analyze the front-end electronics of the TileCal. This stand alone test bench, Mobidick4, combines a front-end GUI (Willy), ADC trigger read out, CAN bus interface, HV drive, LED pulse generator, a power distributor, and an external low voltage power supply for the full certification of the front-end super-drawer electronics. This work has reviewed the architecture of the HV drive which is the high voltage controller card in MobiDICK4 by simulating a printed circuit board with Cadence tools adding more functions that are deficient in the previous design.

Keywords: HV drive, Test bench, MobiDICK4

### Apply to be<br> considered for a student <br> &nbsp; award (Yes / No)?

Yes

### Level for award<br>&nbsp;(Hons, MSc, <br> &nbsp; PhD)?

PhD

### Main supervisor (name and email)<br>and his / her institution

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### Would you like to <br> submit a short paper <br> for the Conference <br> Proceedings (Yes / No)?

No

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