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The Use of a Burn-in Station for Stress-Testing of the LVPS back-end electronics for the Tile Calorimeter

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Abstract. The Tile Calorimeter (TileCal) is a hadronic sampling calorimeter which forms a part of the ATLAS detector, one of the major experiments at the Large Hadron Collider (LHC). As part of the scheduled Phase-II upgrade of the LHC, and subsequently TileCal, the backend electronics are undergoing an upgrade to their Low Voltage Power Supply (LVPS) systems; electronics have a high mortality rate in the first few months of deployment, which necessitates the development of a method for testing electronics to ensure the minimisation of these early-stage fatalities. A burn-in station is a sophisticated system which artificially ages the electronics, while monitoring the input and output loads that each individual circuit board is experiencing - which can ultimately be used to ensure that the produced electronic components can function with minimal chance for failure.

Apply to be considered for a student ; award (Yes / No)?

Yes

Level for award;(Hons, MSc, PhD, N/A)?

MSc

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