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The development of a test station for the ATLAS Tile Calorimeter Low Voltage Power Supplies

The initial architecture of the Large Hadron Collider (LHC) was so that it can deliver proton-proton collisions at a centre-of-mass energy of 14\,TeV and with instantaneous luminosity of \(1\times10^{34} cm^{-2}s^{-1}\). The Phase II upgrade of the LHC will increase the luminosity by at least 5 times. The present electronics in the detector is not equipped to handle the expected radiation from higher luminosity. Therefore, all on-detector electronics of the Hadronic Tile Calorimeter (TileCal) will be upgraded. The on-detector electronics are powered by the Low Voltage Power Supply (LVPS). South Africa is responsible for the production 50\% of the core of the LVPS. Here we describe the design and development of a burning station for the electronic boards.

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

yes

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

MSc

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