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Programming the load readout board micro-controllers used in the development of a Burn-In test bench for the ATLAS TileCal Phase-II Upgrade

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The University of the Witwatersrand will be producing over 1200 Low Voltage Power Supplies (LVPS) to power the on-detector electronics of the Tile Calorimeter (TileCal) ATLAS detector in preparation for the Phase II upgrade. Two burn-in type test stations are currently being developed in the high-throughput electronics laboratory. The Load readout board is used to read and control/adjust parameters of four channels electronic dummy load board, and several parameters. In this talk, we discuss how different commands for each PIC micro-controller are written and used to shift bits into the register of the Digital to Analog converter (DAC) contained on the dummy load to control the load current. A hexadecimal source file is thus generated and typically used by programmable logic devices which provides general information of the configured functions.

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

Yes

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

MSc

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