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An ATCA framework for the ATLAS TileCAL Front to Back End Electronics for the Phase II Upgrade at the LHC

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Abstract content
   (Max 300 words)
Formatting &
Special chars

The Large Hadron Collider at CERN is scheduled to undergo another major upgrade in what is called Phase II in the year 2022. During this upgrade the ATLAS collaboration will do major modifications to the detector to account for the increased luminosity by a factor of ten. A large proportion of the current front end electronics will be upgraded and relocated to the back end of the detector. In order to achieve this the TileCal has set up a demonstrator program to integrate these two aspects. A radically new system will be required to house, manage and connect this new hardware. The proposed solution will be an Advanced Telecommunication Computing Architecture (ATCA) which will not only house but also allow advanced management features and control at a hardware level through the Intelligent Platform Management Interface. The details and current setup of the ATCA and how it will be part of the TileCal upgrade Demonstrator program will be presented in full.

Apply to be
 considered for a student
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Yes

Level for award
 (Hons, MSc,
   PhD)?

PhD

Main supervisor (name and email)
and his / her institution

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

Yes

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