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DESIGN, IMPLEMENTATION, AND TESTING THE CENTRAL CONTROLE MODULE AND  
INFORMATION MANAGEMENT FOR CHASQUI PICO-SATELLITE

**Abstract**

This project is about the design and implementation of the Central Control Module and Information Management, called CCMI module, it is part of the peruvian pico-Satellite *Chasqui*, which aims at development about satellite technology at the *Universidad Nacional de Ingenieria* through the design, analysis, assembly, integration, test, launch and operation of a pico-satellite of Cubesat technology. *Chasqui* will take earth pictures and data sensor, also it will download this information to earth station. CCMI module manages and monitors the information between all *Chasqui's* subsystems, it is also responsible for taking photographs. To meet the objectives, it has inside its electronic circuit a microcontroller which is able to efficiently manage data and communications protocols that serve to integrate all the electronics targets that make up the satellite. This paper shows software and hardware development, some parts of the design show levels of contingency, it is to counteract the effects of radiation, power loss or failure of any *Chasqui's* subsystems. Finally CCMI was tested inside thermal vacuum and using a tethered balloon.