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Energy calibration and slow control monitoring at RENO

The RENO(Reactor Experiment for Neutrino Oscillation) is an experiment to measure the smallest neutrino mixing angle theta_13 using anti-neutrinos emitted from the Hanbit nuclear power plant in Korea. A slow control and monitoring system has been installed for PMT high voltage suppliers, water level of a veto detector component, temperatures, moisture in air, etc. We will present the performance of the system during the 3 year data-taking period. The energy response of the RENO detector was studied with an MC simulation, using several radioactive sources to obtain energy calibration constants for the prompt energy of reactor neutrinos.

We will present an improved energy calibration method and results to be used for the recent theta_13 measurement.

Primary author: Dr CHOI, JUNE HO (Dongshin University)

Presenter: Dr CHOI, JUNE HO (Dongshin University)

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