# RETRACTED ARTICLE

**This article was retracted on 6 November 2026.**

## RETRACTED: Revisiting: The KUYUY Accelerograph and SIPA System: Towards Low-Cost, Real-Time Intelligent Seismic Monitoring in Peru

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The retraction notice, which explains why this article was retracted, is published on the article page:
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The pages that follow reproduce this version of the article, marked as retracted on every page. Its findings and conclusions should not be relied upon.

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# Revisiting: The KUYUY Accelerograph and SIPA System: Towards Low-Cost, Real-Time Intelligent Seismic Monitoring in Peru

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Accelerographs are essential instruments for quantifying strong ground motion, serving as the foundation of modern earthquake engineering. In Peru, the first accelerographic station was installed in Lima in 1944; since then, various institutions have promoted the expansion of the national network. However, this network's spatial coverage and instrumentation remain insufficient to properly characterize strong motion and support seismic risk reduction policies. In this context, the KUYUY accelerograph is presented as a low-cost, low-noise device equipped with real-time telemetry and high-performance MEMS sensors. Its interoperability with the Intelligent Automatic Processing System (SIPA) enables real-time monitoring and automated signal analysis for seismic microzonation studies and rapid damage assessment, contributing to seismic risk reduction in Peru. The validation process included static gravity calibration, field comparison with a reference accelerograph, and an initial deployment in Lima and Yurimaguas. The results demonstrate the proposed accelerograph's linear response, temporal stability, and amplitude consistency with respect to high-end instruments, with differences below 5-10%.

This is the demonstration PDF of the article.

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