Contribution ID: **269** Contribution code: **MOPCO28** Type: **Poster Presentation**

Web Streaming Integration for the TLS Beam Size Monitoring Broadcast System

Monday 8 September 2025 16:00 (2 hours)

The beam size monitor broadcast system at the Taiwan Light Source (TLS) has traditionally used analog coaxial cables and modulators to transmit measurement images and data to control rooms and beamline stations via televisions and tuners. While simple and network-independent, this setup suffers from low resolution, frequent interference, and aging hardware with no ongoing maintenance. This paper presents a lightweight, non-intrusive upgrade that replaces the legacy system with a web-based real-time streaming solution. By capturing the existing output from the measurement system and streaming it using standard web technologies, users can access beam size visuals on any browser-enabled device, gaining better image quality and improved stability while eliminating traditional broadcast maintenance. As TLS is scheduled to be decommissioned in 2027, this solution offers a fast, low-risk, and cost-effective modernization path without altering existing instruments or computing environments. The system is currently under testing, and this paper describes its architecture, implementation, and preliminary results.

Footnotes

Funding Agency

I have read and accept the Conference Policies

Yes

Author: HSU, Lin-Pin (National Synchrotron Radiation Research Center)

Co-authors: LIAO, Chih-Yu (National Synchrotron Radiation Research Center); WU, Chunyi (National Synchrotron Radiation Research Center); LIAO, Jin-Kun (National Synchrotron Radiation Research Center); WU, Zi.Qi (National Synchrotron Radiation Research Center)

Presenter: HSU, Lin-Pin (National Synchrotron Radiation Research Center)

Session Classification: MOP

Track Classification: MC07: Data Acquisition and Processing Platforms