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Control system design and implementation of in-vacuum tapper undulator for Taiwan Photon Source

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The In-Vacuum Tapper Undulator (IUT24) is a critical component of the Taiwan Photon Source (TPS), responsible for generating high-intensity synchrotron radiation across a wide range of photon energies. The control system for the IUT24 is based on the Experimental Physics and Industrial Control System (EPICS) framework, providing robust control and monitoring capabilities for the undulator's various subsystems. This system integrates a variety of control components such as motors, power supplies, vacuum systems, temperature sensors, and interlocks to ensure precise operation and safety. The primary goal of this report is to summarize the design and implementation of the control system for the IUT24 undulator, covering key aspects such as motor control, vacuum monitoring, temperature regulation, and safety interlocks.

Footnotes

Paper preparation format

Word

Region represented

Asia

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