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## Control system of injection and extraction for synchrotron-based proton therapy facility

*Thursday, 23 May 2024 16:00 (2 hours)*

This control system had been designed for the injection and extraction system of Shanghai Advanced Proton Therapy(SAPT). Interface of the SPELLMAN 100 kV high voltage power supply for septum magnets and Capacitor Charging Power Supply(CCPS) of the pulser for bumper magnets are including in the control design based on Programmable Logic Controller (PLC) s7-1200. The control system realizes the precise digital setting and states reading of the high power supplies and focuses on the remote anti-interference information transmission through the designing of a multi-channel frequency and voltage converter.The system is already stable and reliable working for years in the proton accelerator facility hall.

### Footnotes

### Funding Agency

### Paper preparation format

Word

### Region represented

Asia

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