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EPICS-Based Accelerator Magnet Control System for the SC200 Protontherapy Facility

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The SC200 Facility in Hefei, China, will implement a protontherapy installation. It consists of a 200 MeV superconducting cyclotron, one Gantry treatment room and one fixed beam room. Both treatment rooms are equipped with a two dimensional magnetic scanning system. The facility is currently being assembled and first beam is expected in early 2020.

The control system for the cyclotron magnet measurement is based on the EPICS framework. It integrates the control of the System integrated High-precision Gauss meter, three-dimensional motion platform, power supply and the water cooling system. The three-dimensional motion platform equipped with Hall probes allow users to set motion parameters on the software and perform magnetic field measurement tasks with multiple motion trajectories. The system realizes online data collection, monitoring and real-time storage. Operation through a unified GUI is simple which guarantees high experimental efficiency.

Minioral

Yes

IEEE Member

No

Are you a student?

No

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