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The Personnel Access System for FAIR

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Once completed, the Facility for Antiproton and Ion Research in Europe GmbH, FAIR, is to be one of the leading nuclear physics laboratories in Europe and one of the largest and most versatile accelerator complexes worldwide. FAIR can serve a number of experiments simultaneously, using fast-cycling synchrotrons. In this context, safety of personnel has the highest priority. The essential function of the Personnel Access System (PAS) is to prevent the presence of personnel in areas with particle beam or its secondary radiation. A particular challenge for FAIR is the large number of areas where personnel can access. For efficiency, it is required that during access to some areas, the beam operation continues in other areas of FAIR. For other hazards (e.g. electrical hazards, RF, laser beams) in certain areas, the PAS ensures that only personnel with adequate authorization can access and provides a safety signal to switch off hazardous equipment. Based on safety PLCs for the control system, the PAS uses some novel technologies such as hand vein scanners and safety radar systems.

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Footnotes

I have read and accept the Privacy Policy Statement

Yes

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