Experience of control system development for the technological system of the ITER facility from the design stage to factory testing [[1]](#footnote-1)\*)

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All Instrumentation and Control (I&C) systems for the ITER go through several design stages. The first stage is the development and design review of the conceptual design of the control system (CDR). Further, the conceptual design is worked out and turned into a preliminary one, so the second stage is the development and design review of the preliminary design of the control system (PDR). After the successful PDR, the final design stage (FDR) begins. At the FDR stage, the I &C design is finalized and the system architecture is frozen. Based on the results of the FDR, the IO issues comments that need to be addressed in order to finalize the system documentation at the MRR manufacturing stage. MRR is the stage when all documentation for the system is prepared and fixed, and you can proceed to the manufacture and commissioning of the control system at the facility. The final stage of factory testing (FAT) takes place after a long commissioning and various tests of the control system, first with a simulator, and then with a main system. FAT passes with the direct presence of the customer and after its successful completion, the system is prepared for shipment to ITER.

This paper presents the experience of designing control system for a technological system, on ITER site from the design stage to commissioning with access to factory acceptance tests.

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1. \*) [abstracts of this report in Russian](http://www.fpl.gpi.ru/Zvenigorod/L/E/ru/KI-Mironov.docx) [↑](#footnote-ref-1)