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# EPICS at IFMIF-DONES: functionality and possible improvements

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IFMIF-DONES (International Fusion Materials Irradiation Facility - DEMO-Oriented NEutron Source) is an accelerator-based neutron irradiation facility being constructed in Granada, Spain, as part of the European fusion roadmap. Its primary objective is to generate a neutron field with a fusion-like energy spectrum to test materials for their use in fusion reactors. The construction of IFMIF-DONES is supported by in-kind contributions from various countries, with the host country contributing, among others, to the Control System.

The IFMIF-DONES Control System is functionally divided into three systems: the Machine Protection System (MPS), the Safety Control System (SCS) and the Control, Data Access and Communication (CODAC) system. The MPS is designed to protect the facility itself, while the SCS is responsible for ensuring the safety of plant personnel and the environment. This contribution will deal with the CODAC system, which is essential for the normal operation of the plant. The Experimental Physics and Industrial Control System (EPICS) has been selected as the control framework for CODAC.

This contribution will present the various functions of CODAC, ranging from supervisory control to data and software management, as well as the EPICS features used to accomplish them. Additionally, potential areas for improvement in EPICS to enable full CODAC functionality will be highlighted.

**Primary author:** Dr GUTIÉRREZ, Manuel J. (IFMIF-DONES)

**Presenter:** Dr GUTIÉRREZ, Manuel J. (IFMIF-DONES)

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